

Chapter 3

PROMINENT E-SERVICE QUALITY DIMENSIONS FOR ONLINE SHOPPING

- 3.1 Respondent Profile
- 3.2 Mean Score of the e-SQ Dimensions
- 3.3 Importance of the e-SQ Dimensions across the Five Cities

As it has been stated in the Methodology Chapter, 43 (forty three) e-service quality (e-SQ) dimensions are extracted from the extant literature of quality in the electronic setting. The e-SQ dimensions formed the main body of the study questionnaire. The online shoppers were asked to assign importance to the dimensions in a scale of five (1: Of little importance, 2: Moderately important, 3: Important, 4: Very important and 5: Extremely important). This Chapter offers a discussion on the importance assigned by the shoppers to these dimensions.

3.1 Respondent Profile:

At the beginning, a general description of all the 864 samples surveyed during the study is being presented. It gives a demographic profile of the samples. It further shows a profile of various items people shop online, the frequency of shopping and its monetary value *etc.* The psychographic variables have not been discussed in this Chapter as they are being dealt with in the subsequent Chapters.

3.1.1 Place of Residence of the Respondents:

As already stated in Chapter 2, the samples of this survey are drawn from five cities representing five regions of India. It has been tried to have an equitable distribution of samples in the five cities. Table 3.1 shows the distribution of the samples in the five cities taken up for the study.

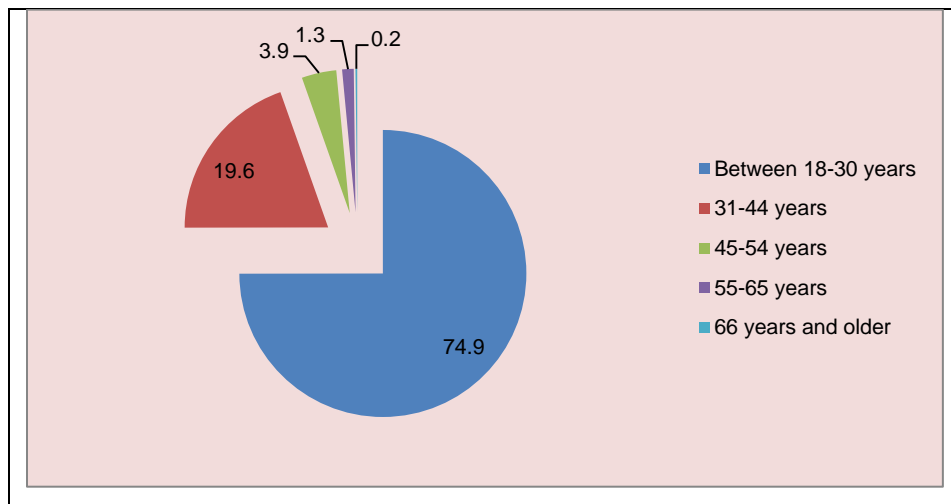
Table 3.1: Place of Residences of the Samples

Cities	Sample Size	Percentage
Bangalore	181	20.9
Delhi	175	20.3
Guwahati	199	23.0
Kolkata	148	17.1
Mumbai	161	18.6
TOTAL	864	100.0

3.1.2 Age:

A large proportion of the online shoppers in the respondent population are young in age. Three fourth (626 in number) of the samples fall below the age group of 30 years and almost 95% (790 in number) of the total samples are below the age of 44 years. The rest 5% are older than 45 years (Fig. 3.1). It is seen to be as per the trends shown in a PricewaterhouseCoopers India report, where 75% of online users in India are below the age of 34 years and at least 91% of them are below the age of 44 years (eCommerce in India) as on September 2013.

Fig 3.1: Age Profile of the Respondents



3.1.3 Monthly Family Income:

The online shoppers that form the respondent population of this study mostly belong to middle income family.

Only a few of the online shoppers (less than 10%) have a monthly family income less than Rs. 20,000 (Table 3.2). Almost half of the samples (around 46%) have a monthly family income that falls between Rs.

Table 3.2: Family Income of the Respondents

Monthly Family Income	Frequency	Percentage
Below Rs. 20,000	77	9.4
Rs. 20,001 to Rs. 50,000	378	46.0
Rs. 50,001 to Rs. 99,999	229	27.9
More than Rs. 1 lakh	138	16.8

20,001 to Rs. 50,000. On the other hand, 28% of the samples have a monthly family income which is higher than Rs. 50,000 but lower than Rs. 1 lakh. About 17% of the samples belong to affluent families having monthly income in excess of Rs. 1 lakh.

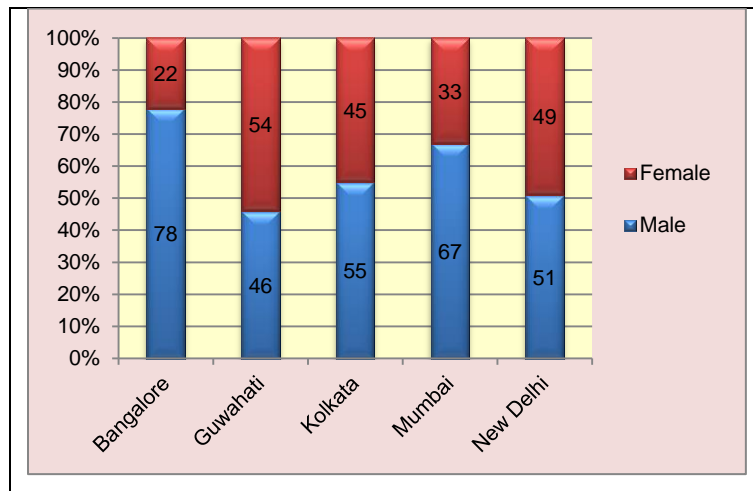
3.1.4 Gender:

The male-female ratio of the respondent population is almost 60:40, the exact percentage of males being

59.4% while the rest 40.6% are females. However, across the five cities male-female ratio varies (Fig 3.2) with high disparity seen in Bangalore (78:22)

followed by Mumbai (67:33). On the other hand, gender distribution is more equitable in case of samples drawn from Delhi (51:49) and Kolkata (55:45). From Guwahati, more females (54%) are being represented in the respondent population than males (46%).

Fig 3.2: Gender Profile of the Respondents



3.1.5 Education:

Majority of the online shoppers are at least a graduate (39% of the samples) or a post graduate (49%). A few of the shoppers are educated up to Class XII. About 6% of the samples are highly educated like having qualifications such as PhD, professional degrees like CA etc. (Table 3.3)

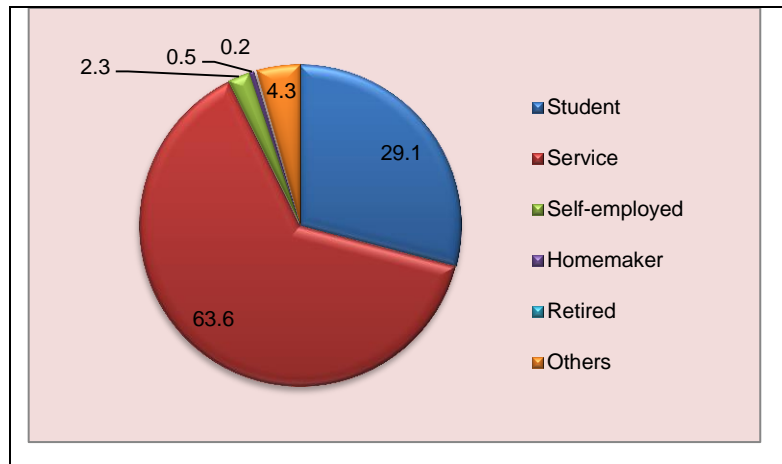
Table 3.3: Education Profile of the Respondents

Education	Frequency	Percentage
Upto Class XII	49	5.9
Graduate	324	39.0
Post graduate	404	48.7
Others	53	6.4

3.1.6 Occupation:

Service holders comprise a major chunk of the respondent population of this study. Almost two third of the samples are engaged in service be it in private or in public sectors as service holders. The next major share in the pie is occupied by students (around 29%) who are mostly into degree courses, professional

Fig 3.3: Occupation of the Respondents (figures in percentage)



courses, engineering courses *etc.* Self-employed people like businessmen and entrepreneurs comprise around 2% of the samples. A minute population of homemakers and retired persons are also among the samples of this study (Fig. 3.3).

3.1.7 Family Life Cycle Stage of the Respondent:

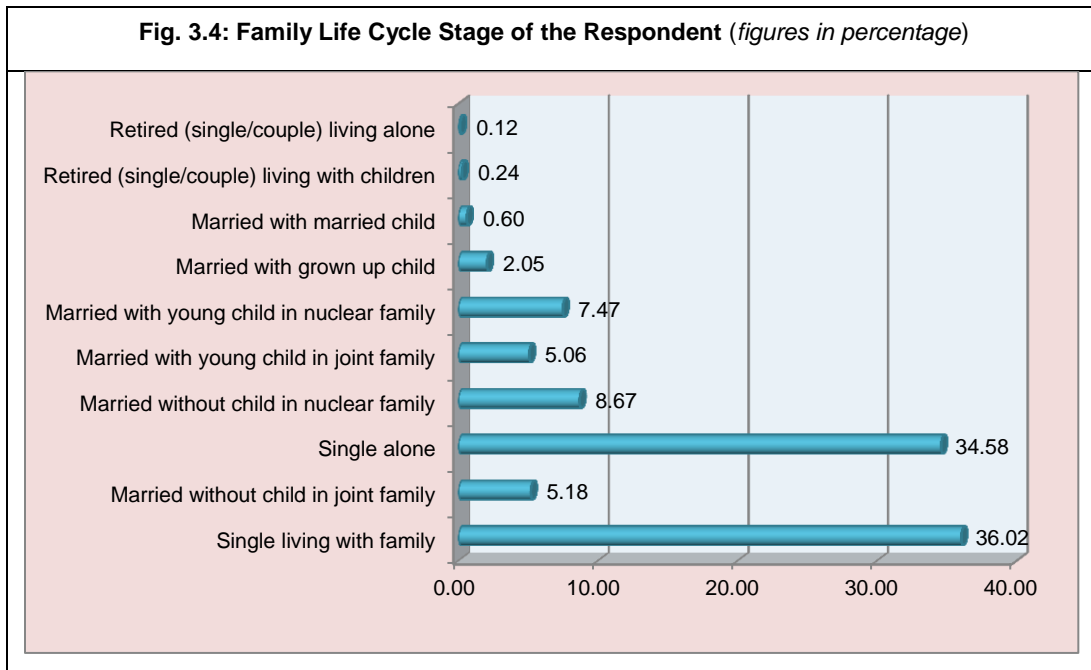
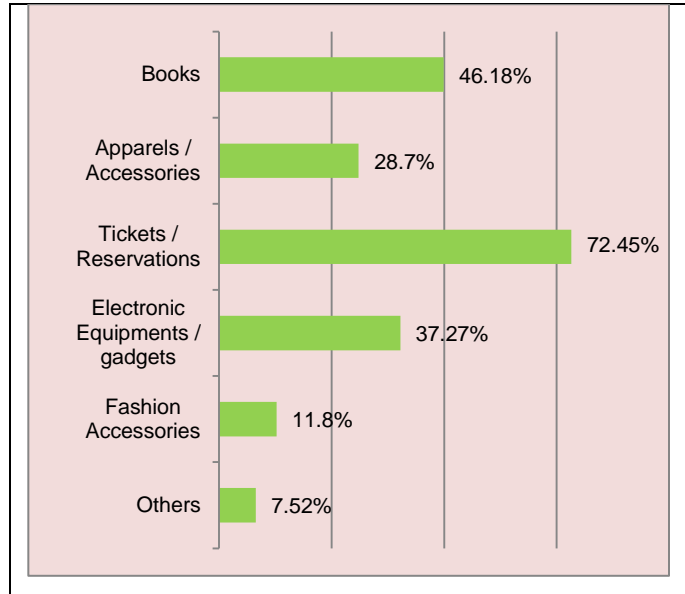


Fig 3.4 shows the different stages of the family life cycle that the samples belong to. More than 600 numbers of samples are unmarried with some staying with their family while others staying alone. This figure is in conformity with the age profile of the online shoppers that three fourth of them fall below the age of 30 years and hence chances of being unmarried is higher in comparison to other age groups. Around 140 numbers of samples are married and staying in nuclear families. A fraction above 10% of the samples belongs to married and staying in joint families. Other stages of the family life cycle are represented in the sample in very minute numbers.

3.1.8 Items Shopped Online:

The Indian online shopper is predominantly the one who shops for tickets / reservation online. Of all the 864 samples surveyed in the five Indian cities, the highest item or category shopped online has been tickets for travel and train reservations *etc.* followed by books at second place and electronic equipments / gadgets at third place (Fig 3.5). They are followed by apparel and fashion accessories items at the following two places. And lastly, other items shopped

Fig 3.5: What is Shopped Online?



online mainly include mobile recharges, Direct to Home (DTH) TV service recharges *etc.* From a percentage point of view, 626 of the sample online shoppers buy online tickets and reservations. Similarly, 399 samples buy books online whereas 322 of them are into online electronic equipment / gadgets buying. The last three categories consist of 248, 102 and 65 respondents respectively.

However, it is not to be mistaken in the above description, that an online shopper who shops for, say, books are not shopping in any other category. Even then, at the same time, there exist around 266 online shoppers (approximately 31% of the total samples) who have bought from only a single category of items online be it books or tickets or apparels.

Fig 3.6: Items Exclusively Shopped (Figures in percentage)

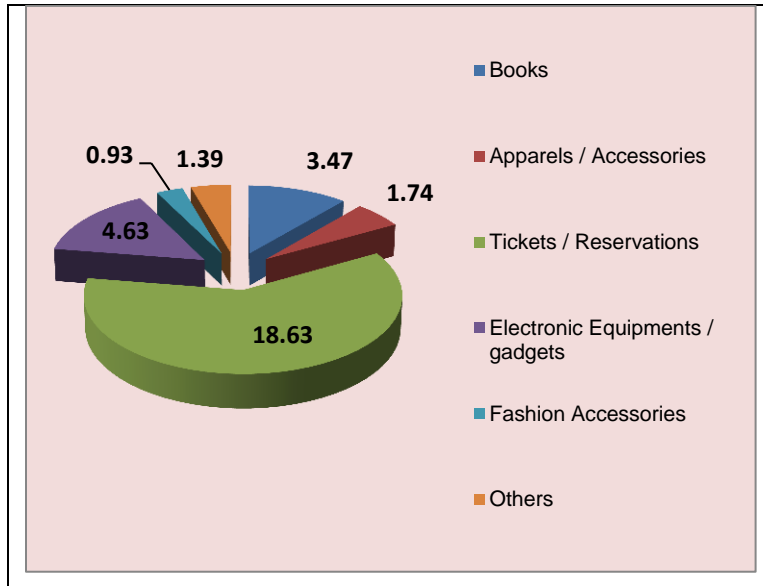


Figure 3.6 shows the percentage of shoppers who have shopped only in a single category online. Shoppers content in buying only in a single category are seen more in case of online tickets buyers (18.63%), while fashion buyers are the ones who are least content with shopping in a single category alone (only 0.93%).

3.1.9 Last Purchase Made Online:

Online shoppers were asked when they made their last online purchase. This was done to know how recently they shopped online. It is also aimed at giving the shopper an opportunity to recall their shopping experience. As more than three-fourth of the samples

Table 3.4: Last Online Purchase of Shoppers

Online Purchase Made	Percentage	Number
Within last 10 days	25.23	218
Within last month	54.75	473
Within last 6 months	74.54	644
Within last 1 year	75.69	654

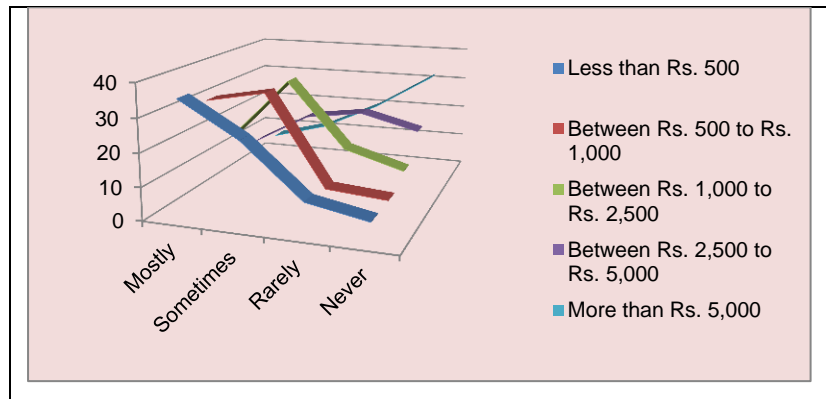
(total 655 in numbers) replied to this query and almost all of them (i.e. 654 online shoppers) shopped online within the period of last one year (Table 3.4). Of the total sample population, it is also seen that 25.23% have shopped online within the last ten

days (from the date of the interview) while more than half of them (54.75%) have done the same in the last one month.

3.1.10 Frequency and Monetary Value of a Single Purchase:

The Indian online shoppers surveyed in the samples of this study mostly shop within the price range of “less than Rs. 1,000” in a single purchase. This is shown in Fig. 3.7 where, the different colored lines exhibit the frequency of shopping for different monetary

Fig 3.7: Frequency and Monetary Value of a Single Purchase (figures in percentage)



values. There are occasional shoppers who shop up to a monetary value of Rs. 2,500 (Fig 3.7). Higher the monetary value of the purchase, lesser is the number of shoppers found among the samples. Majority of the respondents have either never shopped beyond Rs. 5,000 or chose not to mention that they shop for higher value.

3.2 Mean Score of the e-SQ Dimensions:

The online shoppers have given their responses in the five point scale regarding the importance they assign to a particular e-SQ variable. Therefore, higher the mean score of a particular variable, higher is the importance the respondents assign to it. Even though the mean score can take any value between 1 to 5, it is found that the spread of the means across the dimensions is from 2.93 to 4.18. This implies that the online shoppers give highest prominence (average 4.18) to ease of

cancellation as an e-SQ variable while the attractive look of the shopping site receives least prominence (average 2.93) amongst all the forty three e-SQ variables. The following set of tables (3.5 to 3.12) presents these dimensions arranged according to the importance attached to them by the respondent shoppers.

Sl. No.	e-SQ Dimensions	Score (Min 1, Max 5)
1	Ease of cancellation	4.18
2	Rectification of mistake	4.17
3	Correct refund	4.11
4	Accurate transaction record	4.09

Sl. No.	e-SQ Dimensions	Score (Min 1, Max 5)
1	Clear mention of delivery schedule	3.96
2	Many choices of payment	3.95
3	Product free from damage	3.93
4	CCP's ability to solve problems	3.92
5	Ease of understanding product info	3.92
6	Privacy	3.91
7	Presence of security symbols	3.90

The first two sets of tables (3.5 & 3.6) show 4 and 7 dimensions respectively. They are attached highest priority by the online shoppers. While Table 3.5 mostly contains items related to functionality dimensions of a site, Table 3.6 contains both reliability and responsiveness dimensions.

Sl. No.	e-SQ Dimensions	Score (Min 1, Max 5)
1	Ease of navigation	3.28
2	Artistic look of the site	3.26
3	Ease of remembering the site URL	3.24
4	Maintaining product wishlist	3.23
5	Minimum ads in the site	3.22
6	Easy check out	3.16

Sl. No.	e-SQ Dimensions	Score (Min 1, Max 5)
1	Maintaining free homepage	3.02
2	Attractive look of the shopping site	2.93

On the other end of the spectrum, the next two tables cite 6 & 2 dimensions respectively having the least prominence attached by the online shoppers. Table 3.7

contains usability and personalization dimensions while Table 3.8 contains personalization as well as aesthetic dimensions.

The medium rated e-SQ dimensions are mentioned in the following 4 tables (3.9 to 3.12). To make sure that the means are not different across the variables put in a particular group (Table), T-test is employed. The variables in a group, therefore, do not have any significant difference among the means.

Table 3.9: Medium Rated Dimensions (Range of Mean: 3.87-3.85)	
1	Clear return policy
2	Compensation for mistakes
3	In-transit damage insurance
4	Sincere interest in problem solving
5	Availability of items in inventory
6	Tracking the shipments

Table 3.10: Medium Rated Dimensions (Range of Mean: 3.81-3.73)	
1	Immediate response to query
2	Follow up confirmation
3	Ease of communication with CCP
4	Presence of reputed brands
5	Warranty

Online shoppers' preferences for empathy and reliability dimensions can be seen in Table 3.9 while Table 3.10 contains mostly responsiveness e-SQ dimensions.

Table 3.11: Medium Rated Dimensions (Range of Mean: 3.69-3.62)	
1	Response to emergency order
2	Error free transaction
3	Admission of mistake
4	Virtual Demo of products
5	Less transaction links
6	Clarity of instructions

Table 3.12: Medium Rated Dimensions (Range of Mean: 3.59-3.47)	
1	Delivery in ordered quantity
2	Safety and Security
3	Searching for previous dealings
4	Correct representation of the product
5	Delivery in promised time
6	Correctness of the information
7	Speed of transaction

The next sets of dimensions which have received medium rating are in Table 3.11, with a mix of different types of variables like responsiveness, functionality, usability, empathy *etc.* Similar is the trend in Table 3.12, where safety and security concerns also find place.

Overall, the Tables 3.5 to 3.12 exhibit a varied picture of the e-SQ dimensions which the online shoppers express preferences for. It can further be deduced that, functional attributes of the shopping site like provision for rectifying a mistake done, ease of cancellation of an order are the most emphasized e-SQ dimensions for the Indian online shoppers. On the other hand, aesthetic features like attractive look of the shopping site is the least sought e-SQ dimension. Similarly, lower prominence is also attached to personalization features like maintaining free homepage, product wishlist *etc.* It is pertinent to note here that safety and security as well as privacy concerns of the online shoppers are not the ones bearing greatest importance. Rather, some functional attributes of the shopping experience are the most admired e-SQ dimensions in online shopping scene of India. This might be due to the fact that shopping via internet is quite a new phenomenon for Indian shoppers and hence, their apprehensions regarding success of online transactions are more profound.

Further, when another measure of central tendency, i.e. Median is calculated, two e-SQ dimensions *viz.*, *Ease of cancellation* and *Rectification of mistake* display the highest score of 5, which also figure among the Highest Rated Dimensions as shown in Table 3.5. Likewise, all the items figured in Low (Table 3.7) and Lowest (Table 3.8) Rated Dimensions display median score of 3. The rest of the items (31 in number) have the median score of 4. This vindicates and validates the analysis based on arithmetic mean.

3.3 Importance of the e-SQ Dimensions across the Five Cities:

As the respondents of this study were drawn from five different cities selected from different geographic and cultural zones of the country, it is decided to explore if there is diversity across them so far as importance attached to the e-SQ dimensions are concerned. Do the varied backgrounds of the online shoppers have a bearing on how they assert quality in online shopping? Or, is it the same irrespective of the place

of residence of the shopper? Therefore, the following hypothesis is formulated to answer this question.

H₀: The average preferences for various e-SQ dimensions do not vary across the place of residence of the shopper.

For addressing this, an analysis of variance (ANOVA) tests are conducted to check whether there exists any difference in the means of the responses for various e-SQ dimensions across the five cities. Different F statistics and respective *p*-values suggest that the means are significantly different (at $\alpha= 0.05$) for as many as 31 e-SQ dimensions across the five cities. Further, Post Hoc multiple comparison analysis is performed to test if the pair wise significant difference exists between a pair of groups (cities, here). The result is being reproduced in the following tables. They are being arranged in sync with the Tables 3.5 to 3.12 showing preferences in descending order.

Table 3.13: Mean of Importance across Cities for Highest Rated e-SQ Dimensions

(Overall Range 4.18 to 4.09)

e-SQ Dimensions	Bangalore	Delhi	Guwahati	Kolkata	Mumbai	ANOVA p-value
Ease of cancellation	4.45	4.15	4.26	3.85	4.09	0.000
Rectification of mistake	4.40	4.06	4.26	3.91	4.16	0.001
Correct refund	4.23	3.99	4.21	3.85	4.23	0.000
Accurate transaction record	4.33	4.07	4.16	3.83	4.01	0.001

It is evident from the One-Way ANOVA results that shoppers show diversity in their prominence to the e-SQ dimensions. As for the functionality features of the shopping site like maintaining accurate transaction record, rectifying mistakes done, ease of cancellation *etc.*, the shoppers in Bangalore and Guwahati attach higher prominence as an e-SQ dimension than those of in Kolkata. Inferences from Bonferroni test also imply that the shoppers in Bangalore, Guwahati and Mumbai attach similar prominence (which is significantly more than the buyers from Kolkata) for the e-SQ variable of getting correct refund for their returned product.

Table 3.14: Mean of Importance across Cities for High Rated e-SQ Dimensions

(Overall Range 3.96 to 3.90)

e-SQ Dimensions	Bangalore	Delhi	Guwahati	Kolkata	Mumbai	ANOVA p-value
Clear mention of delivery schedule	4.11	3.84	4.14	3.80	3.84	0.000
Many choices of payment	4.17	3.91	3.96	3.73	3.92	0.001
Product free from damage	4.04	3.98	4.03	3.74	3.79	0.001
CCP's ability to solve problems	3.92	3.85	4.13	3.73	3.90	0.004
Privacy	4.08	4.00	3.60	3.84	4.04	0.001
Presence of security symbols	4.09	3.68	4.07	3.87	3.74	0.001

Online shoppers in Bangalore offer more weightage towards many payment choices. While those in Guwahati want that the Customer Contact Persons (CCPs) should be able to solve any customer problem. The privacy of the shoppers' information seems to find a lesser footing in case of shoppers in Guwahati than those of Bangalore and Mumbai. Online shoppers in Bangalore, Delhi and Mumbai express similarly high concern for privacy. Significant differences in the mean of the responses can also be observed among the shoppers of Bangalore and Mumbai with respect to reliability features like presence of security symbols.

Table 3.15: Mean of Importance across Cities for Medium Rated e-SQ Dimensions

(Overall Range 3.87 to 3.85)

e-SQ Dimensions	Bangalore	Delhi	Guwahati	Kolkata	Mumbai	ANOVA p-value
Clear return policy	4.04	3.90	3.88	3.69	3.77	0.020
Compensation for mistakes	4.13	3.76	3.93	3.57	3.84	0.000
In-transit damage insurance	4.06	3.78	4.12	3.64	3.58	0.000
Availability of items in inventory	4.02	3.78	4.03	3.82	3.54	0.000
Tracking the shipments	3.97	3.89	3.68	3.94	3.79	0.032

Online shoppers in Bangalore, once again, are seen to be asserting more weight in having clear return policy and getting compensation for the mistakes done by the site as e-SQ dimensions than the shoppers in Kolkata. Assertions for the above dimensions are similar for Delhi and Guwahati on the higher side while Kolkata and Mumbai on the lower side. Respondents in Kolkata seem to be more anxious in tracking the shipment of products once an online purchase is made. However, it fails to show any pair wise differences with other cities in post hoc analysis. Hence, the differences across this variable cannot be treated as statistically significant (at $\alpha=0.05$).

Table 3.16: Mean of Importance across Cities for Medium Rated e-SQ Dimensions

(Overall Range 3.81 to 3.73)

e-SQ Dimensions	Bangalore	Delhi	Guwahati	Kolkata	Mumbai	ANOVA p-value
Follow up confirmation	3.77	3.67	3.96	3.66	3.84	0.018
Presence of reputed brands	3.80	3.76	3.93	3.77	3.45	0.000
Warranty	3.78	3.83	3.72	3.35	3.95	0.000

Shoppers in Guwahati express higher prominence for getting follow up confirmation from the shopping site than those in Delhi. Also with regard to the presence of reputed brands, Guwahatians attach higher priority than those in Mumbai. Moderate but similar priority is set by the online shoppers in Bangalore, Delhi and Kolkata. On the contrary, Mumbaikars vouch for warranty more than those in Kolkata. Rest three cities assign moderate priority for having warranty of the products.

Significant differences can also be observed in the assertions of responding to emergency orders by the shopping site ($p=0.00$) in case of shoppers from Bangalore and Mumbai. Shoppers in Kolkata attach less priority to having error free transaction ($p=0.00$) than those in Mumbai and Bangalore.

Online shoppers in Mumbai desire to have provision for searching history of previous dealings the least among the cities ($p=0.00$) while those in Guwahati realizes that the product may not be delivered at the promised time ($p=0.009$) and the speed of transaction may be slower ($p=0.04$). Also, Guwahati seems to express highest concern for reliability in delivery of the product.

Table 3.17: Mean of Importance across Cities for Low Rated e-SQ Dimensions
(Overall Range 3.28 to 3.16)

e-SQ Dimensions	Bangalore	Delhi	Guwahati	Kolkata	Mumbai	ANOVA p-value
Artistic look of the site	3.15	3.14	3.32	3.59	3.13	0.000
Ease of remembering the site URL	3.46	3.13	3.42	3.17	2.97	0.000
Maintaining product wishlist	3.38	3.12	3.34	3.23	3.06	0.036
Minimum ads in the site	3.46	3.21	3.10	3.26	3.08	0.014

Shoppers in Mumbai are less concerned about having minimum ads and banners in the site, maintaining product wishlist as well as the ease of remembering the site URL. The artistic way of arranging the products and links in the site is most admired by shoppers in Kolkata while it is not so for those in Bangalore, Delhi and Mumbai.

Table 3.18: Mean of Importance across Cities for Lowest Rated e-SQ Dimensions
(Overall Range 3.02 to 2.93)

e-SQ Dimensions	Bangalore	Delhi	Guwahati	Kolkata	Mumbai	ANOVA p-value
Maintaining free homepage	2.88	3.02	3.02	3.33	2.91	0.009
Attractive look of the shopping site	2.89	2.96	2.90	3.23	2.68	0.000

It emerges from the tables 3.17 & 3.18 that shoppers in Kolkata are votaries of aesthetic qualities of the shopping site (like its attractiveness) compared to those of Bangalore and Mumbai. At the same time, these shoppers like to have their free shopping homepages. Shoppers in Delhi and Guwahati show moderate priority for the look of the site.

Overall, within the individual cities, highest and the lowest preferences for e-SQ dimensions also vary. The shoppers in Bangalore assert highest importance to ease of cancellation of orders and lowest to personalization features like maintaining free homepage. Shoppers in Delhi and Guwahati give higher prominence to functionality aspects of the site and very low prominence to aesthetic features. Shoppers in Kolkata assign more importance to the provision for tracking the shipment once the product is bought than to the ease of remembering the shopping site URL. Mumbaikars like the Delhi and Guwahati shoppers attach least prominence to aesthetics while vouching for correct refund of the returned product as an important e-SQ dimension.

On the other hand, the mean score of 12 e-SQ dimensions do not show any significant difference across the cities. Hence, they may be treated with similar importance while devising marketing strategies irrespective of geographical locations. Table 3.19 shows the dimensions with common importance across the cities.

Table 3.19: Similarly Rated e-SQ Dimensions across the Cities (Overall Range 3.92 to 3.16)

Sl. No.	e-SQ Dimensions	Overall Mean Score
1	Ease of understanding product info	3.92
2	Sincere interest in problem solving	3.85
3	Immediate response to query	3.81
4	Ease of communication with CCP	3.76
5	Admission of mistake	3.68
6	Virtual demo of products	3.65
7	Less transaction links	3.65
8	Clarity of instructions	3.62
9	Safety and security	3.56
10	Correctness of the information	3.49
11	Ease of navigation	3.28
12	Easy check out	3.16

As evident from the above table, a few e-SQ dimensions, mean score of which are similar across the cities, feature amongst those which have been highly rated (e.g. Ease of understanding product info) as well as lowly rated (e.g. Easy check out).

Thus, this Chapter presented a profile of the respondents of the study and revealed how certain e-SQ dimensions are highly sought after by the online shoppers while some others are not.

The 43 numbers of variables as observed in this Chapter seem to define e-service quality. However, there might exist fewer numbers of unobserved variables amongst them which can reflect the variations in the data set. Thus the technique of factor analysis is used in the next Chapter to unearth the unobserved variables, called factors, of e-SQ. Further, the respondents i.e. the online shoppers are segmented into different clusters as per their attachment towards various factors of e-Service Quality. This part of the analysis is presented in the following Chapter.

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