Chapter 2

METHODOLOGY

This chapter offers the overview of research methodology applied in this work. It presents the plan of research, the sources of data and information, the sampling plan, research instrument and analytical tools used in the study.
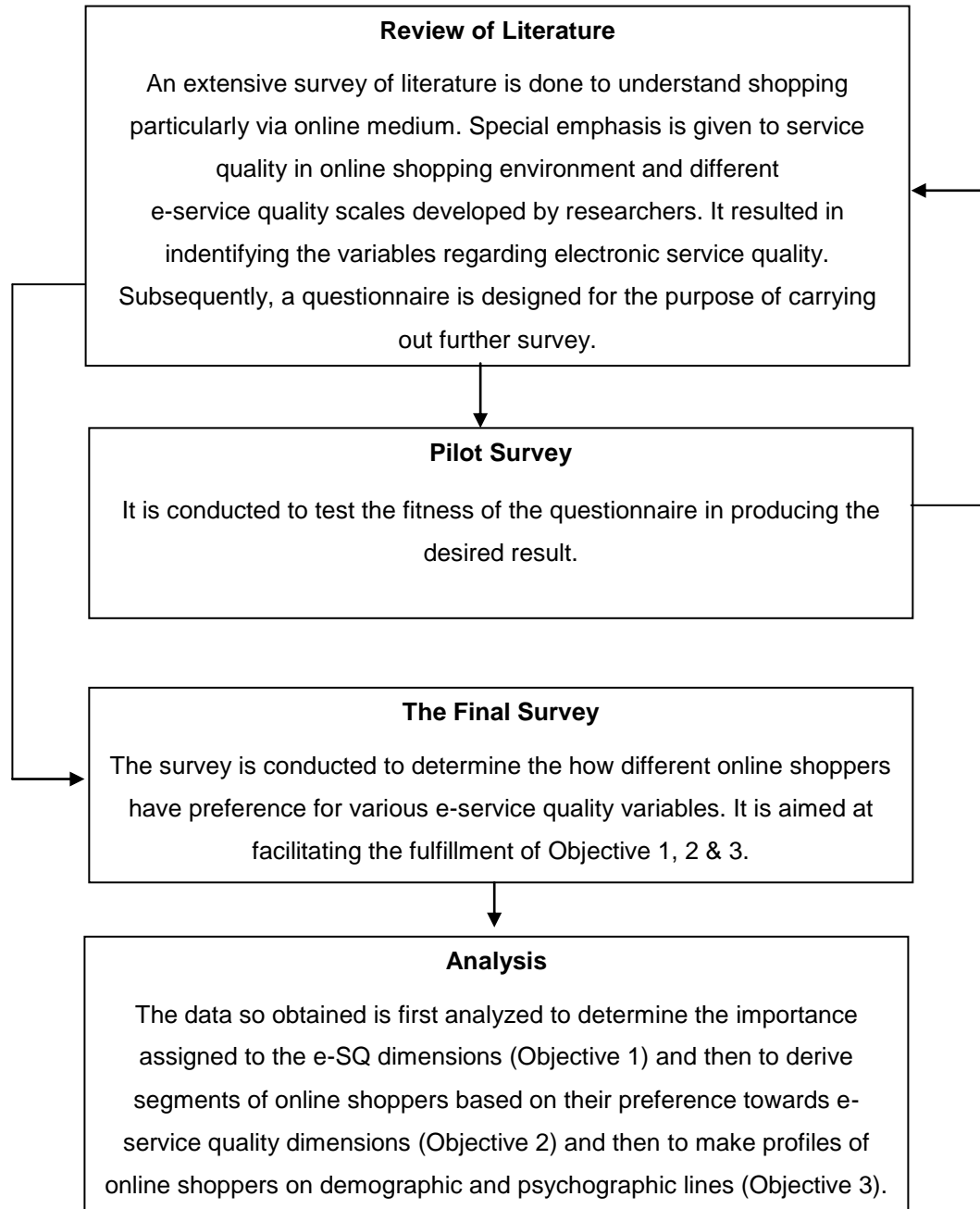
2.1 Research Plan:

Profiling online shoppers based on their preference towards electronic service quality (e-SQ) is the primary focus of this research work. In the light of the objectives mentioned in the previous chapter, a research plan has been drawn in order to achieve the objectives. A flow chart depicting the major steps in the research plan is shown in the figure 2.1.

The primary information need of the research is to identify the electronic service quality dimensions of online shopping. In order to do that, a detailed survey of literature is conducted to explore all such variables which have got a significant bearing on how online shoppers perceive e-SQ. Prior to that, literature search was done to throw light on shopping particularly from home via the online medium. The growth and prospects of online shopping in India is also explored into. The extant literature in the realm of e-SQ is searched thoroughly. Various scales developed by researchers to define e-SQ are analyzed and then the dimensions of quality postulated therein are delineated. The e-SQ variables are put in a pilot questionnaire and administered amongst online shoppers. The delineation of the final e-SQ dimensions through a feedback process after the pilot survey results in identifying the e-SQ dimensions for which the respondents shall attach preferences to. This will lead to the fulfillment of the first objective of this study.

Then a questionnaire is prepared for the final survey. The questionnaire is administered among Indian online shoppers to look for their preference for various e-

SQ dimensions. The data, thus obtained, is analyzed for segmenting and profiling them for fulfilling the 2nd and 3rd objectives.

Figure 2.1: Plan of Research

Review of Literature

An extensive survey of literature is done to understand shopping particularly via online medium. Special emphasis is given to service quality in online shopping environment and different e-service quality scales developed by researchers. It resulted in indentifying the variables regarding electronic service quality. Subsequently, a questionnaire is designed for the purpose of carrying out further survey.

Pilot Survey

It is conducted to test the fitness of the questionnaire in producing the desired result.

The Final Survey

The survey is conducted to determine the how different online shoppers have preference for various e-service quality variables. It is aimed at facilitating the fulfillment of Objective 1, 2 & 3.

Analysis

The data so obtained is first analyzed to determine the importance assigned to the e-SQ dimensions (Objective 1) and then to derive segments of online shoppers based on their preference towards e-service quality dimensions (Objective 2) and then to make profiles of online shoppers on demographic and psychographic lines (Objective 3).

2.2 Data Collection:

Initially data are collected from secondary sources. Bulk of the secondary data come from extant literature pertaining to the areas of shopping, shopping from home, online shopping, growth and prospects of online shopping in India and most importantly electronic service quality (e-SQ). Such information have been utilized to present an overview of shopping via the internet as well as the criticality assigned to service quality in the electronic context. The e-SQ scales developed by prominent authors and published in reputed journals have been reviewed and the dimensions have been extracted from them. Research reports of various industry bodies and survey organizations account for much of the inputs regarding facts and figures used in the study. These inputs have given legitimate direction towards the fulfillment of the objectives of this study. Literature regarding profiling and segmenting online shoppers is also reviewed. This has resulted in defining the gap in the research and the subsequent usefulness of this work.

Keeping in view the empirical nature of this study, it is the primary sources of data collected by the researcher himself which provide the backbone of its contribution. The primary data has been collected through a sample survey of online shoppers. The survey extracted responses from online shoppers regarding the preference they attach to various electronic service quality dimensions as well as their demographic, psychographic and other shopping related factors. The empirical data, thus generated, has been used for determining the importance of these e-SQ dimensions and to segment and profile the shoppers. Various aspects of the sampling plan and procedures have been explained in the following sections.

2.2.1 Study Population:

Online shoppers who reside in India form the population of this sample survey. The shopper may be any individual who has purchased online books, clothes,

tickets *etc*. A detailed discussion of element, sampling unit, extent and time are provided in the following paragraphs:

Element: The basic unit in the population from which information is drawn is the element of the population. In this study, the element is an individual who fulfills the following criteria:

i. The individual must be an urban online shopper. He/she must have shopped online at least once. Mere net-surfers and prospective shoppers are not considered for being the sample element.

ii. The individual, henceforth called the online shopper, must be residing within the territorial boundaries of India. Non Resident Indians are not covered in this study.

iii. The online shopper must be above eighteen years of age which gives him or her right to have unsupervised banking services to make financial transactions online in an individual capacity.

Sampling Unit: The sampling unit of the study is same as the element.

Extent: The survey is conducted within the territorial boundaries of India. Even though the large extent of Indian landmass and a billion plus population poses a huge challenge, taking pan India samples from urban centers is thought to be necessary because online shopping is relatively new in India and studies related to consumer aspects of online shopping in India is hard to find (as established in the research rationale).

Time: The survey is conducted within a six month period from October 2011 to March 2012. The chances of getting responses from an online shopper don't seem to have any relation to the survey season but then it is insisted upon since travelling to various climatic regions of the country is thought to be convenient during that season.

2.2.2 Sampling Procedure:

The present study, being a sample survey where a subgroup of the total population is to be selected for participation, employs a non-probabilistic sampling technique for selecting the samples. It is to be done since there is no sampling frame available. A sampling frame is representation of the elements of the target population like a telephone directory or an association directory listing the firms in an industry (Malhotra and Dash 337). Since, the population in this study consists of individuals who are online shoppers, a definite sampling frame cannot be found. Therefore, the study couldn't apply probabilistic sampling technique whereby each and every element of the population would have had equal and / or known chance of being selected.

The samples are finally drawn from the population using a mixture of judgment sampling and snowball sampling. Researcher's judgment is used to select five Indian cities based on the dual criteria of their number of internet users (which will increase the chance of getting the samples) and geographical location (that would render the study a pan India look). Once the cities / places are chosen, snowballing technique was used to select individual samples. The initial group of respondents are chosen at random or sometimes via acquaintances made through social networking sites. The initial respondents are asked to identify other online shoppers in their place of stay. It is, then, upon their referrals the subsequent samples are taken. Thus, barring the initial lead samples, the subsequent referrals are beyond the choice and control of the researcher. Hence, it gives a certain degree of randomness to the process.

2.2.3 Sample Size:

Statistical models are available for determination of the desired sample size of a study. However, such models are effective only when probabilistic sampling technique is employed. Therefore, other considerations are looked into for

determining the sample size for this study. Exploring the sample size in similar studies is done which is found to range between 100 to 3172.

The sample size in some related studies was found to be: 400 (Sin *et al.* 9), 1078 (Yang *et al.* 685), 3172 (Kau *et al.* 140), 1013 (Wolfinbarger and Gilly 183), 858 (Parasuraman *et al.* 7), 115 (Gupta and Gupta 120), 236 (Gera 212), 100 (Mittal *et al.* 11) and 280 (Ahmed and Sathish 391). Two other segmentation works had sample sizes of 536 (Gehrt *et al.* 742) and 360 (Hill *et al.* 347). The works of Kau *et al.* was sponsored and took respondents from three countries and hence, could afford a large sample size. The proposed work will take respondents from five cities in India only and the survey part will not be outsourced to any third party (as done in case of Parasuraman *et al.*). Therefore, in light of the circumstances, a sample size of 1000 (one thousand) is deemed to be appropriate for fulfillment of the objectives.

But at the end of the survey, 864 usable responses could be collected in view of a few non-responses and other factors hindering the successful completion of the survey like time and cost to the researcher.

2.2.4 Study Locations:

Given the pan India nature of this study and the constraints imposed by cost to the researcher, it is decided to select five urban locations keeping in view the twin characteristic of geographical location and the likelihood of finding an online shopper. A quasi-official division of the country on geographic locations has been into North, East, West,


Figure 2.2: Number of Samples from the Five Study Locations
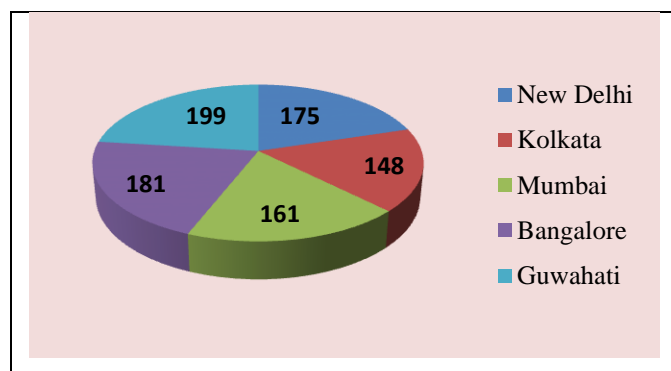
South and North-East. While the regions barring the North-East form the major

Indian landmass, North-East region is connected to the mainland via small corridor and has got its own share of issues and challenges (Panda). Therefore, the major city from each of the five regions is selected for the study (as shown in Figure 2.3).

Figure 2.3: Location Map of the Five Cities

★		Delhi
★		Kolkata
★		Mumbai
★		Bangalore
★		Guwahati
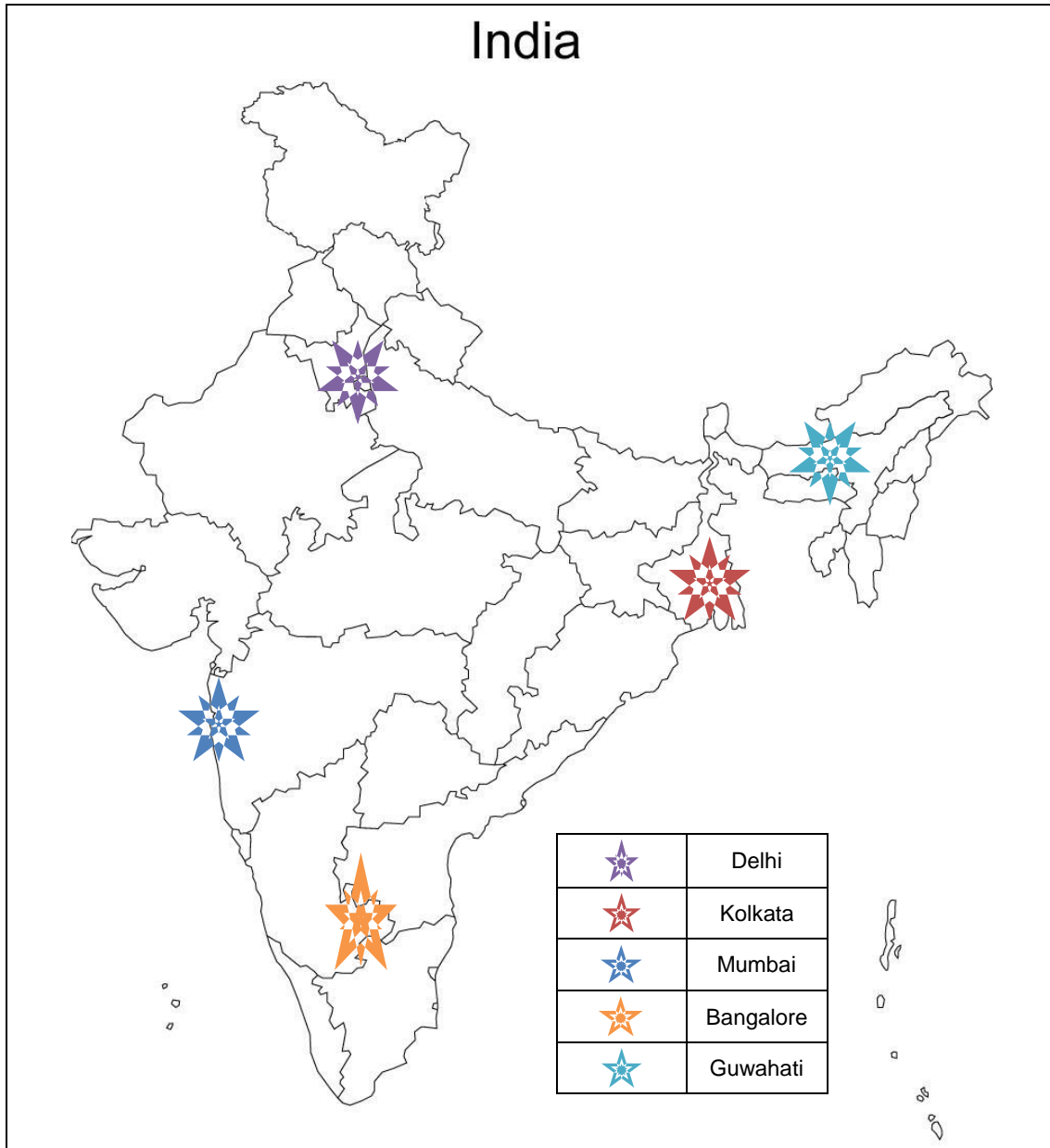
The top four Tier -1 metros of the country namely, New Delhi, Kolkata, Mumbai and Chennai fall on the North, East, West and South regions respectively. The first three metros were chosen directly but in case of South region, Bangalore (or Bangalooru) was selected as a study location as it is considered a bigger e-commerce hub than Chennai (eBay India Census 2011). Guwahati, the biggest city of North-East India represented the fifth city in this study. Thus, the selection of major cities is believed to enhance the chance of finding an urban sample who has actually shopped online. This, coupled with the geographical spread of the cities is believed to offer samples that can be termed as representative of urban India. The number of samples taken from each regions / cities is shown in the Figure 2.2. The number of samples to be taken from the five study locations was initially fixed at 200 (to make it a total of 1000). It has been tried to extract more or less equal number of responses from each one of the locations. However, by the end of data collection, valid samples from the cities ranged from 148 to 199 in number. The five cities are personally visited by the researcher to select the samples via snowballing technique. The samples thus selected are administered with the research instrument which is the questionnaire in this case, to solicit responses regarding electronic service quality.

2.3 Electronic Service Quality (e-SQ) Variables:

As has been mentioned in previous sections, the primary objective of this study is to determine the importance of the electronic service quality (e-SQ) dimensions of online shopping in the context of Indian online shoppers and then to profile them based on their preference towards various e-SQ dimensions. For this to materialize, different e-SQ scales developed by earlier researchers are studied and the quality variables delineated. A synthesis of various factors / dimensions that has a bearing on e-SQ is presented in the following portions of the chapter.

Information is an important e-SQ dimension highlighted by authors like Loiacono *et al.* (qtd. in Parasuraman *et al.* 3), Yoo and Donthu (35), Wolfinbarger

and Gilly (193), Yang *et al.* (691-92), Collier and Bienstock (268). The easiness of searching for the information and understanding of information along with its rich content can define superior service quality in an online setting. The reliability of the information is also an important attribute of quality. Similarly, ***time*** is another e-SQ dimension suggested by Loiacono *et al.* (qtd. in Parasuraman *et al.* 3), Yoo and Donthu (35), Yang *et al.* (691-92), Lee and Lin (161), Parasuraman *et al.* (6-7), Collier and Bienstock (268). The time to search for a product, to make a purchase *etc.* are the variables this dimension can be broken down into. Moreover, information should be available as and when one needs it i.e. timely information. These authors also propounded the ***simplicity of use*** as a dimension defining e-SQ. Simplicity of use can have variables like the ease of remembering the cyberspace address (URL) of the site, provision for maintaining wish-list of products, customer homepage, search history of products and shipment options like preferred courier. Such provisions may also fall under the dimension ***proper level of personalization*** as suggested by Stiakakis and Georgiadis (425) apart from the above authors. Authors like Yoo and Donthu (35), Yang *et al.* (691-92), Wolfinbarger and Gilly (193), Lee and Lin (161), Parasuraman *et al.* (6-7), Collier and Bienstock (268) put forward the ***delivery time of a product*** as well as ***choice of payment*** as important factors in increasing the usability of a shopping site. Collier and Bienstock (268) went on to say the provision for ***multiple delivery time options*** *(like 0-3 days, 4-7 days etc.)* as an e-SQ dimension.

Loiacono *et al.* (qtd. in Parasuraman *et al.* 3), Yoo and Donthu (35), Madu and Madu (250-53), Wolfinbarger and Gilly (193), Santos (238), Cristobal *et al.* (322-23), Stiakakis and Georgiadis (425-26) suggested ***site aesthetics*** as an important e-SQ dimension. Attractive look of the website, good assortment and arrangement of products, virtual demo of product features are different aspects of aesthetics of a shopping site. Yoo and Donthu (35), Wolfinbarger and Gilly (193), Lee and Lin (161), Collier and Bienstock (268) listed *fast and easy* ***transaction*** as an e-SQ dimension which relates to the functionalities of the shopping site. The speed of

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transaction, error-free transactions, number of links in the transaction process, the ease of navigation, ease of cancellation *etc*. forms the functional aspects of the site. Yang *et al.* (691-92), Parasuraman *et al.* (6-7), Collier and Bienstock (268) also suggested ***easy check-out*** and ***accurate transaction record*** as functional dimensions of e-SQ. The shopping site should also provide ***clear instructions*** (Yang *et al.* 691-92; Collier and Bienstock 268).

Safety and security are two of the most significant quality dimensions in an online shopping context. Several authors including Yoo and Donthu (35), Wolfinbarger and Gilly (193), Yang *et al.* (691-92), Lee and Lin (161), Parasuraman *et al.* (6-7), Collier and Bienstock (268), Stiakakis and Georgiadis (425-26) highlighted this in their works. Presence of security symbols and messages also add to the superior quality image of a site (Collier and Bienstock 268).

Reliability in an online context is perhaps the most important quality dimension which is well appreciated by Yoo and Donthu (35), Madu and Madu (250-53), Yang *et al.* (691-92), Wolfinbarger and Gilly (193), Lee and Lin (161), Parasuraman *et al.* (6-7), Collier and Bienstock (268) and Shachaf *et al.* (11-15). Reliability in safe and timely delivery of products, accurate representation of the product, presence of reputed brand names, product with guarantees or warrantees, presence of reputed couriers *etc*. are different variables within this dimension of e-SQ. Collier and Bienstock (268) further suggested that the availability of advertised item in the inventory makes customers rely more on a shopping site than others. Yang *et al.* (691-92) highlighted the importance of ***internal and external collaboration*** as electronic service quality dimensions.

Wolfinbarger and Gilly (193), Yang *et al.* (691-92), Lee and Lin (161), Parasuraman *et al.* (6-7), Collier and Bienstock (268), Cristobal *et al.* (322-23) advanced the ***willingness to respond to customer needs*** as an e-SQ dimension that leads to better responsiveness image of a shopping site. They further (along with

Loiacono *et al.* as qtd. in Parasuraman *et al.* 3 and Stiakakis and Georgiadis 425-26) suggested ***prompt handling of enquiries*** as an e-SQ dimension. ***Sincere interest in problem solving*** (Wolfinbarger and Gilly 193, Collier and Bienstock 268), ***compensation for mistakes made by the site*** (Parasuraman *et al.* 6-7, Collier and Bienstock 268), ***good return policy*** (Yoo and Donthu 35, Parasuraman *et al.* 6-7), ***correct refund of returned product*** (Yang *et al.* 691-92, Collier and Bienstock 268) are certain other dimensions defining service quality in the electronic context.

The above mentioned e-SQ dimensions, taken from various studies in the area, are believed to define comprehensively the quality aspects in an electronic setting. They are delineated into 43 (forty three) variables and then put into the questionnaire. The e-SQ variables are mentioned in the following table.

Table 2.1: e-SQ Variables Adapted for the Study

Sl. No.	Variables Adapted	Description	Source
1	*Attractive look of the shopping site*	The overall look of the shopping site which attracts the prospective shoppers.	Loiacono *et al.* (qtd. in Parasuraman *et al.* 3), Yoo and Donthu (35), Madu and Madu (250-53), Wolfinbarger and Gilly (193), Santos (238), Cristobal *et al.* (322-23), Stiakakis and Georgiadis (425-26)
2	*Artistic look of the site*	Products / links are arranged in a manner which looks beautiful and appealing to the eyes.	Loiacono *et al.* (qtd. in Parasuraman *et al.* 3), Yoo and Donthu (35), Madu and Madu (250-53), Wolfinbarger and Gilly (193), Santos (238), Cristobal *et al.* (322-23), Stiakakis and Georgiadis (425-26)
3	*Minimum ads in the site*	Presence of minimum advertisements or banners of associated products or other products in the site.	Loiacono *et al.* (qtd. in Parasuraman *et al.* 3), Yoo and Donthu (35), Madu and Madu (250-53), Wolfinbarger and Gilly (193), Santos (238), Cristobal *et al.* (322-23), Stiakakis and Georgiadis (425-26)
4	*Virtual demo of products*	Virtual demonstration of product features including virtual tour of the product / service which delivers an amount of tangibility online.	Loiacono *et al.* (qtd. in Parasuraman *et al.* 3), Yoo and Donthu (35), Madu and Madu (250-53), Wolfinbarger and Gilly (193), Santos (238), Cristobal *et al.* (322-23), Stiakakis and Georgiadis (425-26)

Sl. No.	Variables Adapted	Description	Source
5	*Less transaction links*	Presence of lesser number of steps for making a complete transaction while purchasing online.	Yoo and Donthu (35), Wolfinbarger and Gilly (193), Lee and Lin (161), Collier and Bienstock (268)
6	*Accurate transaction record*	Availability of provision for maintaining accurate record of transaction or billing within the shopping site for each purchase.	Yang *et al.* (691-92), Parasuraman *et al.* (6-7), Collier and Bienstock (268)
7	*Rectification of mistake*	Provision to rectify when a mistake is made on the part of the customer or the seller in the process of placing the order, delivery of products *etc.*	Yoo and Donthu (35), Wolfinbarger and Gilly (193), Lee and Lin (161), Collier and Bienstock (268)
8	*Ease of cancellation*	Presence of simple mechanism to cancel a step wrongly committed in the purchasing process, including the provision for cancelling an order made.	Yoo and Donthu (35), Wolfinbarger and Gilly (193), Lee and Lin (161), Collier and Bienstock (268)
9	*Presence of security symbols*	Presence of security symbols and messages in the shopping site which gives the shopper a sense of security.	Collier and Bienstock (268)
10	*Availability of items in inventory*	Presence of proper information regarding the availability of the displayed products in their inventory.	Collier and Bienstock (268)
11	*Presence of reputed brands*	Presence of more number of reputed, known and trusted brands in order to offer more choices to the customers.	Yoo and Donthu (35), Madu and Madu (250-53), Yang *et al.* (691-92), Wolfinbarger and Gilly (193), Lee and Lin (161), Parasuraman *et al.* (6-7), Collier and Bienstock (268), Shachaf *et al.* (11-15)
12	*Response to emergency order*	Availability of mechanism to tackle emergency order or cater to the needs of the customers according to their needs with the help of faster delivery system.	Wolfinbarger and Gilly (193), Yang *et al.* (691-92), Lee and Lin (161), Parasuraman *et al.* (6-7), Collier and Bienstock (268), Cristobal *et al.* (322-23)

Sl. No.	Variables Adapted	Description	Source
13	*In-transit damage insurance*	Insurance cover should be available to goods or merchandise shipped by the seller which gets damaged in transit. There should be options available to the buyers to return the goods which are received in damaged condition.	Yang *et al.* (691-92)
14	*Immediate response to query*	Response to query made by the customer regarding delay in delivery time, wrong items delivered *etc.* should be quick and effective.	Wolfinbarger and Gilly (193), Yang *et al.* (691-92), Lee and Lin (161), Parasuraman *et al.* (6-7), Collier and Bienstock (268), Cristobal *et al.* (322-23)
15	*Tracking the shipments*	Availability of mechanism to track the order right after the customer places the order. Tracking system should be regularly updated and should carry accurate information regarding when and from where the items are being shipped *etc.*	Loiacono *et al.* (qtd. in Parasuraman *et al.* 3), Yoo and Donthu (35), Yang *et al.* (691-92), Lee and Lin (161), Parasuraman *et al.* (6-7), Collier and Bienstock (268).
16	*Many choices of payment*	Availability of various modes of payment like Credit Card, Net Banking, Debit Card, Cash on Delivery *etc.*	Yoo and Donthu (35), Yang *et al.* (691-92), Wolfinbarger and Gilly (193), Lee and Lin (161), Parasuraman *et al.* (6-7), Collier and Bienstock (268)
17	*Clear return policy*	Return policy of the online retailer should be easy to understand underlying the conditions on when, how and which items can be returned *etc.* The return policy should be easily found in the sites.	Yoo and Donthu (35) and Parasuraman *et al.* (6-7)
18	*Compensation for mistakes*	Any mistakes on the part of the online marketer in terms of delivery of wrong items, delay in delivery etc. should provide the customers with compensation in cash or kind, depending on the nature of mistake.	Parasuraman *et al.* (6-7) and Collier and Bienstock (268)
19	*Correct refund*	It means getting the correct refund for the returned product. The website must carry information on the mode of refund, time frame within which refund has to be made.	Yang *et al.* (691-692) and Collier and Bienstock (268)

Sl. No.	Variables Adapted	Description	Source
20	*Follow up confirmation*	It essentially means the follow up confirmation through mails or messages by the shopping site after an order has been placed by the buyer.	Wolfinbarger and Gilly (193), Yang *et al.* (691-92), Lee and Lin (161), Parasuraman *et al.* (6-7), Collier and Bienstock (268), Cristobal *et al.* (322-23)
21	*Sincere interest in problem solving*	It means the sincere interest showed by the online retailer in solving problems faced by the buyer.	Wolfinbarger and Gilly (193) and Collier and Bienstock (268)
22	*Ease of communication with CCP*	It means the Customer Contact Persons (CCP) can be contacted easily in case the customer has any query to make or faces any problem.	Wolfinbarger and Gilly (193), Yang *et al.* (691-92), Lee and Lin (161), Parasuraman *et al.* (6-7), Collier and Bienstock (268), Cristobal *et al.* (322-23)
23	*Admission of mistake*	The admission of mistake by the online retailer in case it has made any.	Wolfinbarger and Gilly (193), Yang *et al.* (691-92), Lee and Lin (161), Parasuraman *et al.* (6-7), Collier and Bienstock (268), Cristobal *et al.* (322-23)
24	*CCP's ability to solve problems*	The ability of Customer Contact Persons to resolve any problem faced by the customer while doing online shopping.	Wolfinbarger and Gilly (193), Yang *et al.* (691-92), Lee and Lin (161), Parasuraman *et al.* (6-7), Collier and Bienstock (268), Cristobal *et al.* (322-23)
25	*Correctness of the info*	It means the importance of the accuracy of information related to the displayed products in the shopping site.	Loiacono *et al.* (qtd. in Parasuraman *et al.* 3), Yoo and Donthu (35), Wolfinbarger and Gilly (193), Yang *et al.* (691-92), Collier and Bienstock (268)
26	*Correct representation of the product*	The correct representation of the product in the site in terms of its features like colour, size, material *etc.*	Yoo and Donthu (35), Madu and Madu (250-53), Yang *et al.* (691-92), Wolfinbarger and Gilly (193), Lee and Lin (161), Parasuraman et al. (6-7), Collier and Bienstock (268), Shachaf *et al.* (11-15)
27	*Warranty*	It refers to the guarantee / warranty offered by the shopping site to the products up for display.	Yoo and Donthu (35), Madu and Madu (250-253), Yang *et al.* (691-92), Wolfinbarger and Gilly (193), Lee and Lin (161), Parasuraman *et al.* (6-7), Collier and Bienstock (268), Shachaf et al. (11-15)

Sl. No.	Variables Adapted	Description	Source
28	*Delivery in ordered quantity*	It means if the number of items delivered by the site match the exact number of items ordered by the customers.	Yoo and Donthu (35), Madu and Madu (250-53), Yang *et al.* (691-92), Wolfinbarger and Gilly (193), Lee and Lin (161), Parasuraman *et al.* (6-7), Collier and Bienstock (268), Shachaf *et al.* (11-15)
29	*Delivery in promised time*	It means if the items are delivered within the time frame which the site promises at the time of purchasing.	Yoo and Donthu (35), Madu and Madu (250-53), Yang *et al.* (691-92), Wolfinbarger and Gilly (193), Lee and Lin (161), Parasuraman *et al.* (6-7), Collier and Bienstock (268), Shachaf *et al.* (11-15)
30	*Product free from damage*	It means if the products delivered to the customer by the shopping site are free from any damage or mutilation of sealed pack *etc.*	Yoo and Donthu (35), Madu and Madu (250-53), Yang *et al.* (691-92), Wolfinbarger and Gilly (193), Lee and Lin (161), Parasuraman *et al.* (6-7), Collier and Bienstock (268), Shachaf *et al.* (11-15)
31	*Ease of understanding product info*	It means if the information relating to the products displayed in the sites are easy to understand in terms of language, technicalities *etc.*	Loiacono *et al.* (qtd. in Parasuraman *et al.* 3), Yoo and Donthu (35), Wolfinbarger and Gilly (193), Yang *et al.* (691-92), Collier and Bienstock (268)
32	*Clear mention of delivery time schedule*	It means if delivery time schedule to the addresses mentioned by the customers are clearly shown in the site.	Yoo and Donthu (35), Yang *et al.* (691-92), Wolfinbarger and Gilly (193), Lee and Lin (161), Parasuraman *et al.* (6-7), Collier and Bienstock (268)
33	*Ease of remembering the site URL*	It means if the address of websites can be easily remembered.	Loiacono *et al.* (qtd. in Parasuraman *et al.* 3), Yoo and Donthu (35), Wolfinbarger and Gilly (193), Yang *et al.* (691-92), Collier and Bienstock (268)
34	*Maintaining product wishlist*	It means availability of provision within the shopping site to arrange the shopper's desired products in a wishlist.	Loiacono *et al.* (qtd. in Parasuraman *et al.* 3), Yoo and Donthu (35), Wolfinbarger and Gilly (193), Yang *et al.* (691-92), Collier and Bienstock (268)
35	*Maintaining free homepage*	It refers to the provision for maintaining a shoppers' homepage in the shopping sites free of cost.	Loiacono *et al.* (qtd. in Parasuraman *et al.* 3), Yoo and Donthu (35), Wolfinbarger and Gilly (193), Yang *et al.* (691-92), Collier and Bienstock (268)

Sl. No.	Variables Adapted	Description	Source
36	*Searching history of previous dealings*	Provision to view previous order history of the customers in the site.	Loiacono *et al.* (qtd. in Parasuraman *et al.* 3), Yoo and Donthu (35), Wolfinbarger and Gilly (193), Yang *et al.* (691-92), Collier and Bienstock (268)
37	*Speed of transaction*	It refers to the time required in the transaction after a purchase decision has been made by the customer in the shopping site.	Yoo and Donthu (35), Wolfinbarger and Gilly (193), Lee and Lin (161), Collier and Bienstock (268)
38	*Error free transaction*	It means if the transaction are free from errors i.e. completion of transaction in one go *etc.*	Yoo and Donthu (35), Wolfinbarger and Gilly (193), Lee and Lin (161), Collier and Bienstock (268)
39	*Ease of navigation*	It refers to the ease in following the steps while navigating through the links in the site.	Yoo and Donthu (35), Wolfinbarger and Gilly (193), Lee and Lin (161), Collier and Bienstock (268)
40	*Clarity of instructions*	It refers to the clarity of instructions provided in the site in various steps while doing online shopping.	Yang *et al.* (691-92), Collier and Bienstock (268).
41	*Easy check out*	The ease with which a shopper can check out of the shopping site either after making a purchase or deciding to abort the process midway.	Yang *et al.* (691-92), Parasuraman et al. (6-7), Collier and Bienstock (268)
42	*Safety and security*	It refers to the safety and security features of the site.	Yoo and Donthu (35), Wolfinbarger and Gilly (193), Yang *et al.* (691-92), Lee and Lin (161), Parasuraman *et al.* (6-7), Collier and Bienstock (268), Stiakakis and Georgiadis (425-26)
43	*Privacy*	It refers to the tangible or intangible assurances of a shopping site that the privacy of the shopper will not be parted with.	Yoo and Donthu (35), Wolfinbarger and Gilly (193), Yang *et al.* (691-92), Lee and Lin (161), Parasuraman *et al.* (6-7), Collier and Bienstock (268), Stiakakis and Georgiadis (425-26)

Apart from these e-SQ dimensions, the questionnaire contains demographic and psychographic variables as discussed later.

2.4 Demographic and Psychographic Variables:

The study employs a host of demographic and psychographic characteristics to profile the online shoppers. While the demographic variables are discussed in the later part of this section, the psychographic and attitudinal dimensions of the online shoppers were adopted from a similar study done in Hong Kong by Sin and Tse (7-29) in 2003. They are listed below:

i. The time-consciousness of the online shopper.

ii. The self-confidence level of the online shopper.

iii. Novelty-seeking behavior (willingness to try out new things).

iv. Technology savvy nature of the online shopper.

v. Seeking comfort while shopping.

vi. Sense of accomplishment in shopping online.

vii. Excitement in shopping online.

The demographic variables used in the study are listed below:

i. Age: The age of the respondent is divided into five classes – '18 to 30 years', '31 to 44 years', '45 to 54 years', '55 to 65 years' and '66 years and older'. The division into five classes is in accordance with a Forrester Research study (Online Shopping by Age Group). The respondents are asked to respond to the particular age category they belong to.

ii. Gender: It is used to classify the respondents according to their gender. This is intended to see if shopping characteristics differs in shopping online and if the preference for quality dimensions varies across gender.

iii. Education: Respondents are asked to mark their responses into any particular category of education level that they belong to. The divisions are – 'Up to Class XII', 'Graduate', 'Post-graduate' and 'Others'. This division is in sync with the age groups. An online shopper who transacts online is expected to be educated and in India, generally it takes up to 18 years to cross Class XII level. Respondents with higher education and other professional degrees are asked to respond as 'Others'.

iv. Occupation: The respondent's occupation is divided into six classes – 'Student', 'Service', 'Self-Employed', 'Homemaker', 'Retired and Others' so as to account for all the spectrum of online shoppers corresponding to their age group.

v. Monthly family income: The monthly family income is divided into four classes – 'Below Rs. 20,000', 'Between Rs. 20,001 to Rs. 50,000', 'Between Rs. 50,001 to Rs. 99,999' and 'More than Rs. 1 lakh'.

vi. Family life cycle stage: The family life cycle stage that the individual respondent belongs to is adapted from Indians.net (Urban Consumer Spectrum) and has the following stages: 'Single living with family', 'Married without child in joint family', 'Single alone', 'Married without child in nuclear family', 'Married with young child in joint family', 'Married with young child in nuclear family', 'Married with grown up child', 'Married with married child', 'Retired (single/couple) living with children' and 'Retired (single/couple) living alone'.

2.5 Questionnaire:

The research instrument used for the sample survey is a personally administered questionnaire. The questionnaire starts with a request for cooperation where a brief purpose of the work is given while soliciting the response from the online shopper. It is also assured to the prospective respondent that the nature of the work is purely academic. The questionnaire carries questions under 18 (eighteen) heads from A to R, most of them being singular while E, F, G, H, I, J and K contain sub-questions.

The first four questions i.e. A, B, C and D relate to the items shopped online by the respondent, the website / shopping site wherefrom it is shopped, how recently it was shopped and a grid representing the monetary value of the shopping amount with the frequency of shopping. The items shopped online are distributed into six classes namely Books, Apparels / Accessories, Tickets / Reservations, Electronic equipments / Gadgets, Fashion accessories and Others. This division is in accordance with the online shopping basket discussed in Chapter 1. The grid of monetary value of shopping along with frequency of shopping solicits responses in the form of shopping done mostly, sometimes, rarely and never.

Question E relates to the seven prominent psychographic and attitudinal characteristics of online shoppers. Respondents are required to mark their responses to all seven sub-questions in a Likert type scale format with Strongly agree, Agree, Don't know, Disagree and Strongly disagree.

The questions from F to K carry the most important e-SQ variables amounting to 43 in number. The responses are solicited in an interval scale format starting from '*Of little importance*' to '*Extremely important*'. Care is being taken to break the monotony of the respondent while marking the responses. To do so, words have been

sometimes substituted with numbers (e.g. 1 for Of little importance and 5 for Extremely important).

The last part of the questionnaire from L to R contains questions regarding the demographic characteristics of the respondents.

The questionnaire carries most of the questions in close-ended format. Of the total 65 (sixty five) responses sought, only 3 (three) are open-ended in nature. The open ended questions included the place of residence, name and the mail id of the respondents. Again, wherever possible, higher scales of measurement like interval scale is being used so that analytical tools

Fig 2.4 No. of Questions in Different Scales
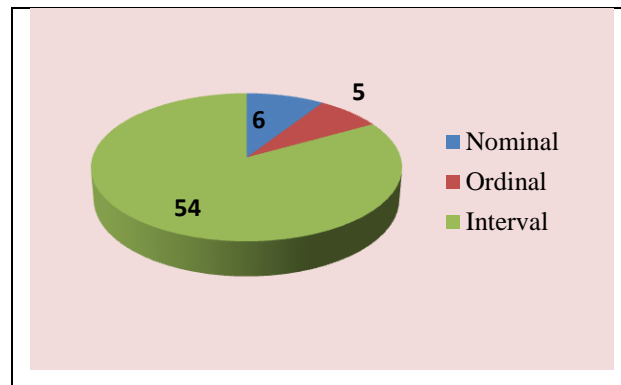
like factor analysis and clustering can be used. Altogether 54 questions are designed in interval scale followed by 6 in nominal and 5 in ordinal scales in the questionnaire.

The *Cronbach's alpha* value of 0.930 was found for the items of e-SQ in the questionnaire. As all the 43 items were derived from previous studies (refer Table 2.1), they are expected to represent all the facets of e-SQ. Thus, reliability and content validity of the questionnaire is established.

2.6 Pilot Survey:

The questionnaire thus made was administered in a pilot survey taking 50 respondents in Guwahati. Upon its result, few modifications were made in the questionnaire regarding the duplicity / similarity between few e-SQ dimensions. Modifications in wordings and placement of the questions were also done to break the monotony of the respondent.

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