Chapter 4

RESEARCH METHODOLOGY

“You’d be amazed how much research you can get done when you have no life whatsoever.”
— Ernest Cline, Ready Player One
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4.1 Introduction

With the rapid development of information and communication technology, Internet and World Wide Web (WWW) has become an important tool in business, which has a major impact on business world. Internet has significantly revolutionized the travel industry in the last decade. In the early stage of internet market, online travel service companies had competed with traditional travel service companies by providing travel service at lower prices. With an increasing number of travel companies participating in the internet market, the initial price advantage in online travel service has nullified, and low price has become a minimum qualification to compete in the internet market (Sohn and Tadisina 2008). Therefore, travel companies operating in the internet market need to find something else to attract their customers to their online travel service. Oliveria et at (2002) state that electronic service (e-service) might be the key to long-term advantage in the digital times, and is becoming even more critical for companies to retain and attract customers in the digital age (Oliveria et al. 2002).

Though service is very important in the internet market, most online travel companies seem not to focus on their online service to customers. They do not recognize that the main competition among online travel companies relies mainly on their online service. Thus, online travel companies do not have the motivation to adopt some strategies to develop and improve their online travel service. Even if some companies realize the importance on online travel service to customers, they seems not to understand customer's perception of online travel service and how customers measure their online travel service quality.

Despite many studies conducted in terms of the traditional service quality, relatively few studies have been done in the Internet market, and even less on the online travel service quality. This study focuses on the analysis of e-service quality measures in the internet market with the empirical study on online travel service. The purpose of this study is to develop a scale to evaluate e-service quality, which
provides fresh insight into the dimensions of e-service quality. Internet-based travel companies mainly provide intangible service to customers. Thus in this study the meaning of e-service indicates any service activity over the Internet provided by internet-based travel companies, not tangible product-related services.

This chapter will present a detailed idea about the methodology followed in conducting this research. It will start with the objectives to be achieved in this study followed by the framework to conceptualize and operationalise those research objectives. It also highlights the sampling technique, data collection methods, questionnaire development and brief idea about data analysis tools. At the end of the chapter validity and reliability issues will be discussed to follow the quality standards of the research.

### 4.2 Objectives of the Study

Following are the broad objectives of the study:

- To study the trends of online travel in India.
- To explore Internet usage for information searching and product purchasing for online travel products.
- To identify the factors influencing purchasing intention for online travel products.
- To identify the critical travel website features influencing online travel purchase intentions.
- To measure the beliefs and attitude of consumers in India towards online travel.
- To identify the quality dimensions of online travel services from consumer point view.
- To suggest an appropriate model for an effective online travel marketing in Indian.
4.3 Conceptualization and Operationalization of Objectives and Development of Questionnaire

*Online travel services*

Travel services can, similar to other services, be conceptualized as a composite offer, consisting of core services and peripheral or auxiliary services (Gronroos, 1994; Gronroos *et al.*, 2000). In this view, the reason to be on the market is the core service (e.g. selling travel packages), while the auxiliary services are used to facilitate the use of the core service or to enhance the value of the offer. Whereas it is obvious to a traditional customer what the core service of a company is, this may not be the case in an online environment. What customers perceive as the core service will depend on their momentary needs and preferred way of using the Web. Pre-transaction services may comprise the core service of a travel website to leisure customers, who may prefer making the actual transaction in the travel agency, while the transaction services may constitute the core service for business customers. Building on Gronroos’ (1994) theory, and mindful of the idea of customerization (Wind & Rangaswamy, 2001), we propose a slightly adapted conceptualization of online services: The customer’s reason for using the website will be considered the core service, whether this is making a transaction, or using pre- or post-transaction services.

Auxiliary services have been subdivided into facilitating and supporting services. Facilitating services are considered essential for making the service accessible (Gronroos *et al.*, 2000). In the case of an online travel agency, facilitating services would consist of search engines, reservation system and secure paying methods. Supporting services are considered non-essential: Instead, their purpose is to differentiate the service (Gronroos *et al.*, 2000). For online travel agencies, supporting services could be currency calculators, weather forecasts, information about health issues, general country information, chat-rooms, traveler storybooks,
or links to other websites. Although facilitating services are essential and cannot be excluded from the service package - and are thus common to all competing service offers -, they can be designed in a way that distinguishes the package of one company from that of another (Gronroos et al., 2000).

**Modeling and measuring service quality**

In a traditional service setting, customers are often thought to base their quality judgments mainly on evaluations of the physical aspects of the service provider on the one hand (Bitner, 1992), and their interactions with service employees on the other (Bitner, 1990; Bitner et al., 1990). In service quality research, the so-called service encounter (Solomon et al., 1985) is often identified with the service itself (Groth, 2001). Especially the quality and perceived value of human interaction between customer and service staff during the encounter (Bolton & Drew, 1992) are considered critical in determining future patronage behavior. Parasuraman et al. (1985; 1988) were the first to introduce a formal service quality model. The model was based on the disconfirmation paradigm, introduced to consumer behavior research by Oliver (1977). A combination of theoretical and empirical research resulted in the 22-item SERVQUAL scale (Parasuraman et al., 1985; Parasuraman et al., 1988), that has since become widely accepted and used: Service quality is measured along five fundamental quality dimensions: **tangibles** (appearance of physical facilities, equipment, personnel, and communication materials), **reliability** (the ability of the firm to perform the promised service dependably and accurately), **responsiveness** (willingness to help customers and provide prompt service), **assurance** (knowledge and courtesy of employees and their ability to convey trust and confidence), and **empathy** (the caring and individualized attention provided to the customer).

At the same time, the dimensionality of the SERVQUAL model has been brought into question (Brown et al., 2002; Caruana, 2000). The five-component factor structure is indeed confirmed in few if any of the research samples (Caruana, 2000; Cronin Jr. & Taylor, 1992). This lack of confirmation has been explained by
suggesting that the dimensionality is dependent on the type of service being offered (Babakus & Boller, 1992). To what extent the SERVQUAL-model can be used for online services is also under debate. Several authors have proposed the use of traditional service quality theory as a basis for further empirical research (Gronroos et al., 2000; Kaynama & Black, 2000; Zeithaml et al., 2000). Zeithaml et al. (2000) for example developed 11 SERVQUAL-related dimensions based on focus group research. According to Liljander et al. (2002) the original dimensions can be adapted, and some additional dimensions should be constructed. The conceptualization of online services as a Self Service Technology (SST), enabling customers to service themselves without the involvement of employees, can be helpful in adapting the original SERVQUAL dimensions (Dabholkar, 1996; Dabholkar, 2000; Dabholkar & Bagozzi, 2002; Meuter & Bitner, 1998; Meuter et al., 2001; Meuter et al., 2000). In many online service encounters, customers exclusively interact with technology and will only deal with employees when special help is needed. Furthermore, a visit to the provider’s premises is no longer necessary. The traditional service encounter is thus replaced by an interaction with technology and it can be expected that online service quality perceptions will be based on evaluations of this interaction. A key determinant of online service quality appears to be the user interface (Gronroos et al., 2000; Gronroos et al., 1999).

**The user interface**

Technology can enable and facilitate the exchange of information between customers and the service provider (Parasuraman & Grewal, 2000). In the case of online services, information technology is observable in the user interface (Gronroos et al., 2000; Gronroos et al., 1999). Therefore, an important quality dimension customers encounter when visiting a website is its functionality as an interface between themselves and the firm. Making a distinction between the process or technical and outcome or functional aspects of service quality (Gronroos, 1994; Gronroos et al., 2000; Parasuraman et al., 1985; Parasuraman et al., 1991) the role of the user interface and the relationships between the various components of the online service offer and customer responses can be visualized as depicted in Figure 4.1.
Figure 4.1: The role of the user interface in online services, adapted from Liljander et al., (2002).

The technical functionality of the user interface determines how services are delivered to customers, and affects quality perceptions of the core, facilitating and supporting services (Liljander et al., 2002). Since the user interface substitutes for the physical service encounter, it also reflects the tangibles dimension of the SERVQUAL model (Kaynama & Black, 2000; Szymanski & Hise, 2000). The extent to which the website succeeds as an interface between customer and provider will likely depend on two broad characteristics: the design of the pages as they appear on screen, and the ease with which customers can navigate between pages inside the website. The structure of travel websites is highly complicated, because they must allow the customer to retrieve and select detailed information chunks from many different databases and combine them into the desired information. The complexity of the travel offer also makes it difficult to display all required information efficiently and effectively. It is therefore expected, that the quality of the user interface will play a major role in the case of Internet travel agencies. Propositions will now be formulated with respect to the role and importance of
each of the dimensions for the case of online travel agencies. Zeithaml et al. (2000) suggest measuring user interface quality in three dimensions, namely accessibility, navigation and aesthetics. We follow this approach in formulating three propositions relating to the user interface, which precede propositions with respect to the other four modified SERVQUAL dimensions.

**Navigation**

Navigation quality implies that the site contains functions helping customers find what they need without difficulty, utilizes a good search engine, and allows the customer to maneuver easily, logically and quickly back and forth through the pages (Liljander et al., 2002; Zeithaml et al., 2000). Customers could be offered different ways of searching. For travel sites, high quality navigation would mean that the customers could perform complex searches on e.g. type of transportation, country, date and price. We therefore expect:

**P1:** In the case of Internet travel agencies customer perceived quality of navigation between pages will be positively related to their overall quality perception.

**Design**

Design quality is referred to as 'site aesthetics' by Zeithaml et al. (2000), or e-scape (Van Riel et al., 2004; Viitanen et al., 2003). The way information is presented, in terms of color use, layout, number, relevance and quality of pictures, font size and style will affect the way customers respond to the service. It is thus expected that:

**P2:** In the case of Internet travel agencies perceived quality of the design of web pages, and the presentation of information will be positively related to their overall quality perception.
Accessibility

High levels of interface quality would imply easy access to the site itself, to company staff, and to the different services when needed (Zeithaml et al., 2000). Therefore we propose:

P3: In the case of Internet travel agencies, accessibility of the website, the services and the company will be positively related to overall quality perceptions.

Variety of Choices

Variety of choices referred to choices available to customer for their booking for airline ticket in different airline, availability of various hotels for booking and holiday packages. (Talha Harcar and Ugur Yucelt (2012) therefore we propose

P4: Internet travel agency provides variety of choices of airline ticket, hotels and holiday packages will be positively related to their overall quality perception.

Price Perception:

Several studies have shown that price perception is a complicated and critical issue which can stimulate the customers either negatively or positively (Erickson and Johanson, 1985). Furthermore, price-quality schema and prestige sensitivity have been recognized as positive perception of price on consumers” decision making. Lichtenstein et al. (1993) defined the price quality schema as the level of price cue that is related positively to the quality level of the product or service. Prestige sensitivity is stated as emotion or feeling of prominence and status that higher price signals to other people. Price is also one of the most important components that can affect consumers“ decision on e-transaction. Price perception is the process by which consumers translate prices into meaningful mental cognitions and this aspect had interested researchers for several decades (Lichtenstein et al., 1988,
When people want to purchase products or services through the internet or from any website, they may not be able to physically see or handle the product. Therefore, they are not sure that what is presented on the website is consistent with what will be delivered, in such a way, price perception plays an important role in determining both satisfaction and post-purchase and intention to return (Jarvenpaa and Todd, 1997). This is especially true for e-retailing because the product is not available for customers; so in such case the price fairness might be the dominant determinant of satisfaction and subsequent intention to return.

**P5: In the case of Internet travel agencies, price-quality schema as the level of price cues will be positively related to their overall quality perception.**

**Reliability**

Having covered the tangibles dimension of SERVQUAL in the design aspect of the user interface, the next dimension to be discussed and modified for online services is reliability. Similar to the case of offline services, customers expect search engines, payment facilities, etc. to function reliably, and the information presented on the website to be dependable. Two aspects of website reliability can be distinguished. The process aspect of reliability perceptions will be driven by the correct technical functioning of the site, or the technical aspects of the user interface, while the outcome aspect is defined by the accuracy of service promises, billing, and product information (Zeithaml et al., 2000). Online travel agencies are e.g. required to reserve and offer the right number of seats in an airplane, offer the packages at the advertised prices, and reserve the correct type of hotel room for the number of nights requested by the customer. It can therefore be expected, that:

**P6: In the case of Internet travel agencies, customer perceived reliability of the online services will be positively related to overall quality perceptions.**

**Perceived Risk:**

It is a known fact that risk can be real and as long as it is real it will affect consumers’ purchasing behavior (Michelle Kovacs, et al., 2011). The term risk
Aversion is defined as “the extent to which people are afraid because of or feel threatened by an ambiguous situation, and have created beliefs and institutions that try to avoid these” (Hofstede and Bond, 1984). The term perceived risk means the individual’s subjective belief about some potentially negative consequences from his/her decision (Caral-Mafe et al., 2009). In particular, psychological risk and performance risk are predominant perceived risks, whereas, social risk and time loss risk are not as strong as others (Araloral-Mafe et al., 2009). Since the 1960s, the assumption of perceived risk has been used to explain consumers’ behavior (Taylor, 1974). Perceived risk is associated not only with what is acquired but also with how or where it is acquired (Hisrich et al., 1972).

A consumer perceived risk is an important obstacle for those who want to have online transaction. Perceived risk has already been identified as a consumer’s belief about the potential uncertain negative outcomes for the transaction. Since the concept of perceived risk appeared in marketing literature, many types of risks have been identified. For example, Jacoby and Kaplan identified seven types of risk vis-à-vis financial, performance, physical, psychological, social, time and opportunity cost risks (Dan J.Kim, 2008). Financial risk is defined as loss of money to a customer during transaction involving money (Horton, 1976). Product performance risk is defined as the loss incurred when a brand or product does not perform as expected (Horton, 1976). It had been stated earlier that perceived risk is one of the critical issues, which can affect consumers’ buying behavior, subsequently; many companies use their brands to reduce it.

**P7: In the case of Internet travel agencies customer perceived risk of the online services will be positively related to overall quality perceptions.**

**Responsiveness**

The quality of support customers receive when faced with questions or running into problems, and the speed with which this support is provided, largely determine customer evaluation of after sales support. Customer support is also appreciated during the pre-transaction stage, particularly for online services: The
online customer is relatively powerless in enforcing help, having to rely on the willingness of the firm to provide support. The faster and more accurately the company responds to requests, the better the service will be evaluated. We therefore expect:

**P8: In the case of Internet travel agencies a positive relationship will exist between perceived responsiveness and overall quality.**

**Customization**

It has been argued that the ability to customize is one of the key benefits of applying technology to the delivery process of services. As a result, customers expect online services to respond to their individual needs (Bitner *et al.*, 2000). Customization is strongly related to the *empathy* dimension in SERVQUAL, as the online firm shows its appreciation of the customer’s unique needs and preferences by making the site adaptable. Companies can also track customers’ movements and decisions through interactions with the visited web sites and then use this database of client data for customization (Kaynama & Black, 2000). Customization can easily involve privacy issues: To what extent customers will tolerate prying behavior of online providers remains to be seen. It can be expected, that:

**P9: In the case of Internet travel agencies a positive relationship will exist between perceived customization and overall quality perceptions.**

**Privacy**

Privacy refers to the degree to which the website is safe and customer information is protected. This dimension holds an important position in e-service. Customers perceive significant risks in the virtual environment of e-service stemming from the possibility of improper use of their financial data and personal data.

**P10: In the case of Internet travel agencies a positive relationship will exist between privacy and overall quality perceptions.**
Experience

Experience is related to customers' previous e-service usage behaviour. Online experience is customers' total impression about the online company resulting from customers' exposure to a combination of virtual marketing tools. Customers' online experience embraces elements like searching, browsing, finding, selecting, comparing and evaluating information as well as interacting and transacting with the online company (Constantinides 2004). Customers' online experience can influence their future purchasing intentions, their attitude toward e-service and their satisfaction.

P11: In the case of Internet travel agencies a positive relationship will exist between experience and overall quality perceptions.

Trust

In the context of the Internet, trust toward online companies is often regarded as a key factor of e-commerce growth, of online success and competitiveness (Gounaris et al. 2005). Trust in e-service is related to the buying and payment process, the reliability of the website, privacy and securities issues, order fulfilment, service delivery, after sales service and the reputation of the company. Customers' trust to online companies is critical for online companies' success. Accordingly, it is hypothesized that:

P12: In the case of Internet travel agencies a positive relationship will exist between trust and overall quality perceptions.

Assurance

In the SERVQUAL model an important dimension is assurance, or the degree to which the service staff and facilities instigate trust in the customer. Online customers generally cannot scrutinize the employees, or the physical facilities of the firm they are dealing with (Reichheld & Schefter, 2000), so trust must be
established in other ways. The security and privacy-dimension used by Zeithaml et al. (2000), which "involves the degree to which the customer believes the site is safe from intrusion and personal information is protected" (Zeithaml et al., 2000: p. 16) will be included in the assurance dimension. Trust is often referred to as the most important online service quality dimension (Papadopoulou et al., 2001; Petersen, 2001; Roy et al., 2001; Urban et al., 2000). It is expected, that:

**P13: In the case of Internet travel agencies customer perceived assurance of the online services will be positively related to overall quality perceptions.**

### 4.4 Research Framework of Study:

**Conceptual framework**

Figure 1 shows the theoretical framework of this study. It can be seen that the dependent variable is the consumers' perception on online-travel booking. Whereas, the independent variables could be divided to Navigation, Design Accessibility, Customisation, Reliability, Perceived Risk, Variety of Choice, Price Perception, Responsiveness, Privacy, Experience, Trust and Service Quality. These are the factors that could influence consumers' perception on online travel booking which are further divided into Website Quality, Trustworthiness and Price and finally into Service Quality.
Further The Three Respective factors determine the Perceived Ease of use and Perceived usefulness. While perceived usefulness is related to the utility value emerging from the system usage and it can be defined as the degree to which a person believes that using a certain technology will enhance his/her performance (Kim et al. 2008; Lee et al. 2005), perceived ease of use represents the degree to which a person believes that using the particular technology will require no effort (Kim et al. 2008). Both these variables affect the attitude and the subsequent behavioural intention (Kim et al. 2009). Attitude represents user’s assessment toward the technology, whereas the behavioural intention represents the degree to which the user is willing to perform certain behaviour or readiness to buy the product online.
4.5 Research Methodology

4.5.1 Research Design

The present research is descriptive and diagnostic in nature as it describes what is happening, why is it happening and possible solution for it via understanding and analyzing attitude of consumers various aspects of online travel agencies.

4.5.2 Sample Design: The sample design of the present study comprises the following elements:

- **Universe:** Travel Agencies
- **Sampling Element:** Consumer Perception
- **Sampling Unit:** Online Travel Services User Consumer
- **Area of the study:** India

4.5.3 Nature and Sources of Data: The present study has employed both the types of data primary and secondary according to the requirement of the present study. The primary data has been collected by conducting a survey through structured questionnaires for consumers of online travel services, to know their views on various dimensions of online travel services. To analyze the trends of online travel secondary data has been collected from the websites, journal and reports.

4.5.4 Questionnaire Design: In order to collect the primary data from the target population following structured questionnaires have been constructed:

**Consumers Questionnaire:** - In the light of need of research objectives questionnaires have been structured for consumers in three parts:

**To Measure Attitude:** - It is divided into three sections:
Section I: It collects the demographic information about respondents’ age, gender, marital status, education, occupation and income.

Section II: It is devoted to measure the travel behavior of consumer and its experience about booking towards air ticket, hotel booking and holiday packages and awareness towards various online travel portals.

Section III: It contains consumer perception towards online travel agencies service agencies. It contains 13 aspects of website and customer care quality, which includes navigation of website, design of website, accessibility of website, variety of choices, price perception, reliability, perceived risk, responsiveness, customization, privacy, experience and trust on a five point scale.

4.5.5 Data Collection

4.5.5.1 Procedure to collect data from Consumers:

To Measure Attitude: Web survey method is used to collect the primary data from the target population. To approach the target population a text link of the questionnaire with the online travel portal booking confirmation mail; is taken from its portal. It gives an opportunity to users who have booked their air ticket or hotel booking or holiday packages through internet to participate in the survey by clicking on the text link. It's a non random convenience sampling. The target population of this survey is defined as:

Target population: Travelers who are booking online air ticket or hotel booking or holiday packages.

Time: 7th January to 27th February, 2014.

Sampling: Online sampling (Non random).

753 users filled the questionnaire out of which 23 were incomplete and excluded from the analysis. This yields a response rate of 96.9%. It implies that final sample size for this survey is equal to 730.
To Measure Online Travel Agencies Service Quality: - The questionnaire is distributed to the respondents who have participated in the previous web survey measuring perception, belief and attitude of consumers. The questionnaire is sent by e-mail to the target population during the month of March and April 2014. Totally 730 questionnaires were mailed to potential respondents, and 452 of the 753 individuals replied at a response rate of 60.02 percent. Among 452 questionnaires, 8 incomplete questionnaires were removed from the further analysis. The remaining 444 responses formed the basis of the present study.

4.5.6 Statistical Analysis Techniques

To make this research more scientific and systematic, the researcher will use Master Sheet, formation of One Way Tables, Cross Tables, Chi-square Test, Correlations, ANOVA and Factor Analysis Test will be used to find out the factors contributing to the preferences for a particular brand of Car. The output of the analysis of data will be present in tables, figures and charts for the better understanding and presentation of findings. Data Analysis will be as done with the help of SPSS package in computer. Variables and their relationship were analyzed through Cross Tables.

4.5.6.1 Factor Analysis
Factor analysis is a class of procedures primarily used for data reduction and summarization (Malhotra, 2008). In the present study Principal component Analysis with Varimax rotation will be performed via SPSS 16 version to identify various dimension of service quality.

4.5.6.2 One way ANOVA
The Analysis of variance technique is used when the independent variables are of nominal scale (categorical) and the dependent variable is metric (continuous), or at least interval scaled. In the present study One-way ANOVA is performed to examine
the significant difference among three categories of intention to use online marketing of Indian Railways.

4.5.6.3 **Convergent Validity**: The convergent validity of the measurement model of the construct will be assessed by examining the score of standardized regression coefficients between construct and its indicator. At a minimum, all factor loadings should be statistically significant and higher than 0.5 (Malhotra 2009). High loadings ensure that all indicators are measuring the same construct.

4.5.6.4 **Construct Reliability**: To assess the internal consistency of the construct cronbach's alpha values will be calculated. The proposed threshold value for confirmative research: Cronbach alpha > 0.700. Values must not be lower than .600 (Cronbach 1951).
REFERENCES


