Chapter: 3

Research Methodology
3.1 – Research Problem

It has been shown through studies that it costs six times more to acquire a new customer than to retain an existing one (Rosenberg and Czepiel, 1984). Like all organizations operating in stiff competition, banks also find it difficult to acquire new customers. Therefore, Rosenberg and Czepiel’s (1984) research is significant even for the banks. Here, SSTs and the quality of service delivered by SSTs become the difference between a retained customer and a customer lost to competition. In the literature review we have established that SSTs help the banks in improving service quality levels and stimulating favourable consumer behaviour (Al-Ashban and Burney, 2001; Mols, 1998). This happens because superior service quality leads to customer loyalty and this further leads to favourable consumer behaviour (Rust et al., 1995; Zeithaml and Bitner, 2000; Zeithaml et al., 1996).

However, we cannot deny that there could be factors other than service quality that significantly impact consumer behaviour toward SSTs. This study aims at identifying factors that significantly explain the variance in consumer behaviour toward SSTs.

3.2 – Research Hypothesis

H₀: The Correlation Matrix of the variables is an identity matrix and is insignificant.

H₁: There are Factors that can be identified as bearing significant impact on the consumer behaviour toward SSTs.

H₂: The impact of extracted factors is so significant and observable that it can be measured.

H₃: There are a few extracted Factors whose observed impact on the variation of the consumer behaviour is more than the other extracted factors.
3.3 – Research Objectives

1. To identify the factors influencing consumer behaviour toward SSTs.
2. To identify the impact of these factors on the consumer behaviour in terms of their favorability and magnitude.
3. To analyze which factors have significant influence on the consumer behaviour toward SSTs.
4. To recommend banks on the actions they can take to improve consumer behaviour toward SSTs in terms of targeting and positioning.

3.4 – Research Questions

1. Which are the exogenous variables that earlier researchers have identified as being significant in assessing the consumer behaviour toward SSTs?
2. How can these exogenous variables be reduced to a few endogenous variables which can be directly observed and fine-tuned to elicit variation in consumer behaviour?
3. What is the correlation between the exogenous variables and the endogenous variables?
4. Which endogenous variables are the most significant in explaining the variation in consumer behaviour toward SSTs?
5. What can the banks do to improve the consumer behaviour toward their SSTs?

3.5 – What is Research?

Research is something that people undertake in order to find out things in a systematic way, thereby increasing their knowledge (Saunders et al., 2011).

3.6 – Research Methodology

The theory of how research should be undertaken is called research methodology. For this project we have gone through extant research work undertaken by Dabholkar
(1996), Curran and Meuter (2005), Parsuraman (2000), and Berger (2009) and used similar and in some cases the same methodology to arrive at the output. Since we are working with research objectives pertaining to identifying factors that influence consumer behaviour toward Self-service Technologies, the type of research that we have undertaken is Exploratory Research. We have explored factors that impact consumer behaviour toward SSTs and assessed the magnitude of their impact. However, we have not undertaken the designing of a framework or a model to describe how the affect is manifested by the factors.

The Research Approach is Deductive as we are working with hypothesis testing. We have not undertaken the task of developing a theory based on the findings, and since this is only a basic research, we shall not enter the realm of Inductive Research. Research strategy is survey research since we have developed a questionnaire and we have administered it on a stratified sample population of 437 respondents.

Berger (2009) and Parsuraman (2000) have extracted endogenous variables and their latent exogenous variables from extensive review of literature. In the same vein, variables for this research have also been identified through the review of literature. Dabholkar (1996) has used a seven point scale to elicit responses from the respondents. Similarly for this project we have also used a seven point scale to rate the variables with 1 being least important or significant and 7 being most important or significant rating for a given variable.

3.7 – Sampling Technique

We have chosen stratified sampling method for this research, and created 8 strata (Table 3.1) based on age and gender.
3.7.1 – Sample Size

The total sample population planned for the research was 400 (Table 3.1), however the number of samples who responded to our research instrument were 437.

3.8 – Research Method

Tools and techniques used to obtain and analyze data are called research method.

The tool used for data collection is a questionnaire (Appendix – II). The questionnaire consists of 30 questions. Each question representing one variable identified through the review of literature.

The questionnaire was administered on a stratified sample size of 400. However, due to excess response in a few strata, the total responses remained at 437.

The responses were recorded in a Microsoft Excel Sheet.

3.8.1 – Quantitative Techniques

Berger (2009), Curran and Meuter (2005), Parsuraman (2000) and Dabholkar (1996) have all used Exploratory Factor Analysis (EFA) followed by Confirmatory Factor Analysis (CFA) to derive an output from their research. Exploratory Factor Analysis is used to explore factors and for data reduction, so that many variables can be condensed under a few larger endogenous variables. Confirmatory Factor Analysis on the other hand is used for Structured Equation Modelling (SEM), and utilizes the statistical software package called AMOS for its output. However, since we have not undertaken the research to provide a framework or a model we have restricted our
choice of statistical tool to Exploratory Factor Analysis. For the analysis purpose we have used the statistical package IBM SPSS 20.

3.8.2 – Data Collection

We began with a set of 8 endogenous variables and 30 exogenous variables identified through the review of literature (Berger, 2009; Bobbitt & Dabholkar, 2001; Curran & Meuter 2005; Dabholkar, 1996; Kolodinsky et al., 2004; Parasuraman 2000; Liljander et al., 2006). Each exogenous variable has been translated into one question in the questionnaire (Appendix – II). Therefore, the questionnaire has a total of 30 questions. We have used a ratio scale to record responses ranging from 1 (least significance) to 7 (highest significance) for each question.

We have chosen stratified sampling method for this research, and created 8 strata based on age and gender (Table: 3.1). The total sample population planned for the research was 400, however the number of samples who responded to our research instrument were 437.

The responses collected through the questionnaire administration were further recorded in a Microsoft-Excel-sheet (Appendix – III, Table 1).