SERVICE QUALITY, CUSTOMER SATISFACTION AND LOYALTY: MEASURING RELATIONSHIP AMONG THESE WITH REGARD TO THE BANKING SECTOR IN BANGLADESH.

DOCTOR OF PHILOSOPHY
IN MARKETING

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This thesis by Partha Prasad Chowdhury is accepted in its present form by the Department of Marketing as satisfying the thesis requirements for the degree of Doctor of Philosophy.

April, 2017

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Declaration

SERVICE QUALITY, CUSTOMER SATISFACTION AND LOYALTY: MEASURING RELATIONSHIP AMONG THESE WITH REGARD TO THE BANKING SECTOR IN BANGLADESH.

I would like to declare that the work presented in this thesis is original and has not been submitted to any University or Institutions for the award of any degree or diploma. I confirm that I have acknowledged all main sources of other works (e.g. books, academic articles, and other publications) that I used to prepare this thesis.

Partha Prasad Chowdhury

April, 2017

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Dedicated to my wife Mrs. Mitrani Chakraborty and my son Debodip for their sacrifice they had to incur during last few years for achieving my goal.

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Partha Prasad Chowdhury

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Executive Summary

This study focuses on measuring the relationship among service quality, customer satisfaction and loyalty in the context of the Banking Sector in Bangladesh. Despite the critical role of service quality to develop customer satisfaction which in turn develops customer loyalty towards the firm from which they buy, the matter is insufficiently addressed in the academic literature. Moreover though during last two decades, the importance of antecedents of loyalty which is a precursor of long-term relationship was studied mainly in the Western markets. Previous studies focused mainly on brand loyalty or goods loyalty and loyalty to service offerings or service firms has not been discussed that much. Little attention has been devoted to measure the relationship among customer satisfaction and different dimensions of loyalty. Despite growing importance of information technology for developing customer satisfaction few studies have considered this as a dimension of service quality. In view of this gap, this study investigates the relationship among service quality, customer satisfaction and loyalty in the banking sector in Bangladesh.

The objectives of the study are to examine the role of different dimensions of service quality in developing customer satisfaction; to examine the impact of customer satisfaction on different dimensions of loyalty; and to verify the hypothesised relationship between service quality and customer satisfaction and between customer satisfaction and loyalty in the context of Bangladesh market.

A good number of prior research studies on service quality, customer satisfaction, loyalty, service marketing and relationship marketing between the years 1960 to 2016 are reviewed with a view to prepare this study. Based on a comprehensive literature review six dimensions of service quality (tangibles; reliability; responsiveness; assurance, empathy, information technology), overall customer satisfaction and three dimensions of loyalty (behavioral loyalty; attitudinal loyalty; and cognitive loyalty) are considered to measure the relationships among these variables for this study. This conclusive research is based upon the empirical findings of a quantitative research where primary data is collected by surveying a structured questionnaire. Convenience type non-probability sampling technique is applied and

data are collected from account holders of different banks' branches of greater Dhaka city by using in-store intercept interview technique. A total of 469 valid responses are received following which hypotheses are tested and relationships among the variables have been examined in the banking sector in Bangladesh. Bivariate correlation analysis, multiple regression analysis, and structural equation modeling (SEM) by using analysis of moment structures (AMOS) have been used to examine causal relationship among variables and to assess measurement model validity.

The results of bivariate correlation analysis demonstrate that though the associations between all service quality dimensions and customer satisfaction are positively significant but the study reveals that information technology (IT) is the most important dimension of service quality and hence IT has emerged as a vital precursor of customer satisfaction. Out of 5 SERVQUAL dimensions, only reliability is strongly associated with customer satisfaction and the relationships between other dimensions of service quality and customer satisfaction are medium. The relationship between customer satisfaction and behavioral loyalty is strong whereas the relationships between customer satisfaction and attitudinal loyalty and between customer satisfaction and cognitive loyalty are not found strong.

The findings of the multiple regression analysis reveal that IT made the strongest unique contribution (beta coefficient +0.423) to explain the dependent variable customer satisfaction, when the overlapping effects of all other variables are strictly removed whereas the contributions of tangibles and responsiveness to explain customer satisfaction were not statistically significant.

Fundamental concept that service quality develops customer satisfaction and customer satisfaction develops loyalty is well supported in this study. The result of structural equation modeling by using analysis of moment structure (AMOS) illustrates that overall fit of the hypothesized model is good. Values of all concerned indices of AMOS analysis remained within the acceptable range.

The study has practical implications for marketers concerned with the Bangladesh market. The findings help improve their understanding about the effects of different dimensions of service quality on customer satisfaction which in turn develops loyalty specifically in the context of banking sector of Bangladesh. The study extends a

direction for new researchers and concludes with suggestions for further research in the context of Bangladesh or any other developing economy and suggests managers in the banking sector of Bangladesh to focus on developing all key service attributes as these play significant role in developing customer satisfaction which in turn develops loyalty. Specifically findings of the study highlights that managers in the banking sector of Bangladesh should apply advanced information technology to enhance customer satisfaction in order to develop loyalty in their relationship marketing strategy. Reliability dimension of service quality is also strongly significant factor to be considered by the marketer in the banking sector of Bangladesh to develop customer satisfaction and loyalty in order to gain sustainable competitive advantage.

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List of Acronyms and Abbreviations

ACSI	:	American Customer Satisfaction Index
AMOS	:	Analysis of Moment Structures
ANOVA	:	Analysis of Variance
ATM	:	Automated Teller Machine
BIBM	:	Bangladesh Institute of Bank Management
CFA	:	Confirmatory Factor Analysis
CSB	:	Customer Satisfaction Barometer
DFIs	:	Development Financial Institutions
EFA	:	Exploratory Factor Analysis
FCBs	:	Foreign Commercial Banks
FGI	:	Focused Group Interview
FIs	:	Financial Institutes
FY	:	Fiscal Year
GDP	:	Gross Domestic Product
HSBC	:	The Hongkong and Shanghai Banking Corporation
IT	:	Information Technology
LISREL	:	Linear Structural Relations
MRA	:	Multiple Regression Analysis
NCBS	:	National Commercial Banks
PCA	:	Principal Component Analysis
PCBs	:	Private Commercial Banks
ROA	:	Return on Assets
ROE	:	Return on Equity
SDBs	:	Specialized Development banks
SEM	:	Structural Equation Modeling
SERVQUAL	:	Service Quality
SERVPERF	:	Service Performance
SOCBs	:	State-Owned Commercial Banks.
USA	:	The United States of America

Chapter One

Introduction

Chapter One: Introduction

1.1 Introduction and Background

Relationship marketing has received huge attention by researchers both in business-to-business (B2B) and in business-to consumer (B2C) context (Dall'Olmo Riley and Chernatony, 2000) and is highly effective for understanding the needs and requirements of the market. Since the mid-1980s, there has been a paradigm shift in marketing from the transaction approach towards relationship orientation (Smyth and Fitch, 2009). Gronroos (1990; 1994) mentioned that relationship building is a cornerstone of marketing and the objective of relationship marketing is to "maintain and enhance relationships with customers, and other partners, at a profit, so that the objectives of the parties are met. This is achieved by a mutual exchange and fulfillment of promises." Consequences of relationship marketing are improvement in marketing productivity, achieving marketing effectiveness, customer involvement, minimization of negative image of marketing, achieving marketing efficiency etc (Sheth and Parvatiyar, 1995). Developing relationship with customers is the best way to make them loyal and that loyal customers are more profitable than non-loyal customers (Reichheld and Teal, 1996) as marketers not only need to incur less cost to retain an existing customer than to acquire a new customer but also need to incur less cost to maintain an existing customers than newly acquired customers (Reichheld, 1996). As service quality influences customer satisfaction (Bolton and Drew, 1991; Anderson and Sullivan, 1993) which in turn develops loyalty (Oliver, 1980) and hence superior service quality is one main antecedents of a firm's success (Parasuraman et al., 1988) and has become a significant differentiator and competitive weapon of a good number of market leaders in several product categories in different marketplaces (Berry et al., 1988) and is a key business performance and strategic driver (Lai and Cheng, 2005; cited by Mittal and Gera, 2012).

Banking sector is one of the major sectors in our country, which contributes significantly to the national economy and a source of employment generation. There are different categories (*see: table-3.4*) of banks in the banking sector of the country. These are state-owned commercial banks (SCBs), state-owned development finance institutions, private commercial banks, foreign commercial banks, etc. Private

commercial banks are grouped into three groups: 1st generation private commercial banks (1982 – 1988), 2nd generation private commercial banks (1992 – 1996), and 3rd generation private commercial banks (1998 – Present). Recently (in 2012), Bangladesh Bank issued the banking license to Non-Resident Bangladeshi's from all over the world to operate NRB Banking. The economy of Bangladesh is growing as the GDP growth rate was 6.5 percent and the contribution of banking sector to GDP was 3.4 percent and the growth rate of the sector was 8.8 percent during Fiscal Year 2015[P] (*see: table-3.3; table-3.5*). Banking system of Bangladesh is not developed. The nationalized banks used to provide poor service and customer care but recently the private banks are trying to follow the banking structure of the western economies (Wikipedia, 2016a).

There exists intense competition in the banking sector (Prabhakaran and Satya, 2003) and banking sector throughout the globe is going through significant regulatory, structural and technological changes. Overall deregulation in the banking sector followed by intense competition has raised the importance of finding the ways to differentiate a bank from its competitors. Customer satisfaction which is the outcome of service quality has become an important dimension for performance measurement of a bank as success of a bank depends on customer satisfaction but developing and managing customer satisfaction is a difficult task. In order to satisfy customers (accountholders) management needs to understand the customer needs and requirements effectively and should provide unique services (e.g. Saha et al., 2014; George and Kumar, 2014; Uddin and Khandakar, 2013; Rahman, 2005). Effective total quality management helps to improve competitiveness and achieving business excellence (Soltani et al., 2008). The characteristics of service products are heterogeneity, intangibility and simultaneous production and consumption and these have created problems of definition and measurement of service quality for service providers so it is necessary to understand the dimensions and service attributes properly. Business starts with customer and ends with customer and hence the customer is termed as the king (Prabhakaran and Satya, 2003). Firms generally focus on providing customer satisfaction to ensure customer retention (Voss et al., 2010). Developing and maintaining long-lasting relationship with the customers in the service businesses is very important and it is recognized in the marketing literature (Henning-Thurau et al., 2002) and in order to develop good relationship with the customers it is required to know about the impact of service quality on customer satisfaction and loyalty and about the service attributes that play significant role in a particular service industry of a marketplace.

1.2 Rationale of the Study

Primary focus of marketing is the exchange relationship (Jham and Khan, 2008) but O'malley and Tynan (1999) pointed out that discussions of consumer-organisational relationship are not clear in the literature. Today's economies are increasingly driven by service enterprises (Azad et al., 2012). The study of Mayer et al. (2009) highlights that 70 percent of today's economy is service based. Service sector contributed 53.6 percent of gross domestic product (GDP) of Bangladesh in FY 15 (Bangladesh Bank, 2016). As today's economy is more service based hence academics and marketers are willing to know how to design an organization to provide excellent customer service (Schneider and White, 2004; cited by Mayer et al., 2009). Like many other financial service industries, banking industry also facing a rapidly changing market, advanced technologies, economic uncertainties, severe competition and more demanding customers and the changing climate has created a set of unprecedented challenges (Lovelock, 2001). Due to frequent interaction of service executives with the existing and potential customers (account holders), the role of service attributes, the levels of service quality and customer satisfaction are very important in the banking industry (Chen, 2009).

Plenty of research have been done in the recent past in order to find out the relationship between service quality and customer satisfaction and it is recognised that providing good service quality is a prerequisite for customer satisfaction and a number of other desirable behavioural outcomes (e.g. Mayer et al., 2009; Sindhav et al., 2006; Mithas et al., 2005; Liang and Wang, 2004; Oliver 1997; Anderson et al., 2009; Fornel et al., 1996). In the academic research service quality was mainly measured by comparing expected service and perceived service (e.g. Berry *et al.,* 1985; Parasuraman *et al.,* 1985); quality attributes (e.g. Berry et al., 1990) but customers' wants vary depending on industry and their interpretation regarding service quality is different (Stevenson, 2005; Soltani et al., 2008). Despite on-going discussion on service quality and its dimensions, general agreement about uniform dimensions is missing in the literature (Uddin and Khandakar, 2013).

The study on customer satisfaction and loyalty suggested that there exists direct and positive relationship between customer satisfaction and loyalty (e.g. Mittal and Kamakura, 2001; Fornell 1992; Bolton and Lemon, 1999; Zeithaml et al., 1996; Fornell et al., 1996; Gustafsson et al., 2005; Bouliding et al., 1993; Bolton et al.,

2008; Anderson and Sullivan, 1993). But the study of Fornell (1992) suggested that the effect of customer satisfaction for repeat business and customer loyalty varies industry-wise. The relationship between satisfaction and loyalty is not same for all products and services and it varies within products/services and product/service categories (e.g. Agustin and Singh, 2005; Soltani et al., 2008; Tuu and Olsen, 2010). Though the relationships between satisfaction and purchase intention are assumed to be positive but vary between products, industries, and situations (Cronin et al., 2000; Fornell, 1992; Johnson et al., 2001).

The recent academic research on customer satisfaction was unable to explain the variation in repeat purchase (Chandrashekaran et al., 2007) and the relationship between customer satisfaction and customer retention (loyalty) depends on customers' characteristics (Mittal and Kamakura, 2001). Anderson and Swaminathan (2011) pointed out that the relationship between customer satisfaction and loyalty depends on the market context and the strength of the relationship varies depending on the structure and competitiveness of the industry.

Rahman (2005) suggested that in many service sectors in particular in the hospitality, insurance and financial sectors, loyal customers are regarded as the key to survival and success of a firm. He also added that loyalty, retention and profitability follow with customer satisfaction. Satisfaction is generally suggested to be key driver on consumer loyalty and behaviour but despite its strategic importance, empirical research that links satisfaction to repurchase behaviour has been lacking (Mittal and Kamakura, 2001) and few studies have investigated the consequences of satisfaction (e.g. Oliver and Swan, 1989; cited by Anderson Sullivan, 1993). Few empirical studies have tested the relationship between satisfaction and perceived or actual buying behaviour/loyalty (Bloemer and Ruyter, 1998). Zeithaml (1996; cited by Wong and Sohal, 2003) pointed out that operationalization of the construct of customer loyalty overlooks the full range of conceivable loyalty reactions that may follow the evaluation of the service hence this operationalization remained limited. Most loyalty-related research studies stems from the field of packaged consumer goods (Jacoby and Chestnut, 1978). Gremler and Brown (1996) pointed out that a theoretical framework, identifying factors that could lead to development of customer loyalty have not yet clearly identified by the practitioners and researchers and In literature on loyalty, priority has been given on product related or brand loyalty and loyalty to service organisations has remained underexposed (e.g. Gremler and Brown, 1996;

Bloemer and Ruyter, 1999). Moreover literature review reveals that a few studies have been conducted to examine the relationship between customer satisfaction and different dimensions of loyalty like behavioural loyalty, attitudinal loyalty and cognitive loyalty.

A majority of the studies were conducted mainly at the Western context. As discussed in the section 1.1 economy of Bangladesh is growing and the banking industry of Bangladesh is growing and may face more competition from the local or foreign banks in future. Hence the purpose of the study is to measure the relationship among service quality, customer satisfaction and loyalty with regard to the banking sector in Bangladesh.

1.3 Theoretical Framework

The theoretical framework is a fundamental part of research as it explains the research questions or hypotheses. It consists of a collection of theories and models from the literature which underpins a positivistic research study where model differs from theories in that a theory's role is explanation whereas a model's role is representation.

1.3.1 Services

Services are defined by the scholars in different ways in academic literature. Services covers an immense array of different and often very complex economic activities that consists of all the elements of the service performance , both tangible and intangible that help to create more value for buyers. (e.g. Lovelock et al., 2010, p-13, 67). Services are defined as deeds, efforts and performances and or combination of these and are of intangible in nature (e.g. Hoffman and Bateson, 2002). The business transactions that take place between a donor (service provider) and receiver (customer) with a view to produce a consequence that satisfies customer is described as service (Ramaswamy, 1996, p-3). Zeithaml et al. (2013, p-4) defined services as deeds, processes and performance usually intangible, but may have a tangible component and generally produced and consumed at the same time. Zeithaml et al. (2013, p-4) also highlights that service products have some common characteristics like-tangibility where services cannot be seen, felt, tasted or touched in the same manner that we can sense tangible

goods; heterogeneity where as both service providers and service subscribers are humans no two services will be precisely alike; simultaneous production and consumption where most services are sold first and then produced and consumed simultaneously; and perishability as services cannot be saved, stored, resold, or returned.

1.3.2 Service Quality

Service Quality is a critical element of customer perceptions (Zeithaml et al., 2013, p-4) which is the outcome of the comparison between customer expectations and customer perceptions. Service quality is defined by different ways in academic literature as it is referred as "suitable use" (Juran, 1974); "consistent with needs" (Crosby, 1979); extent to which a service meets customers' needs or expectations (Asubonteng et. al., 1996). Gronroos (1984) defined service quality as a perceived judgement resulting from an evaluation process where customers compare their expectations with the service they perceive to have received. The literature in the service marketing indicates that most of the studies measured service quality on the basis of customer's comparison between expected and perceived service (e.g. Berry et al., 1985; Parasuraman et al., 1988) and hence service quality has been referred as the outcome of the comparison between customer expectations and

Table-1.1: Service Quality Measure – School of Thoughts

<u>Disconfirmation approach</u>	<u>Performance based approach</u>
Disconfirmation paradigm of performance-minus-expectation. Parasuraman *et al.* (1985; 1988). Gronroos (1984) Service quality is measured on the basis of disconfirmation between consumer expectations and perceptions. Instrument: SERVQUAL	Performance based paradigm of perception only version service quality. Perceptions are a superior predictor of service quality. Cronin and Tailor (1994); Jain and Gupta (2004); Andronikidis and Bellou (2010) Instrument: SERVPERF

customer perceptions in the marketing literature. The literature review also suggests that customers evaluate the quality of a product or service on the basis of certain

important quality attributes (Berry et al., 1990; Deming, 1986; Chen, 2009). Literature review suggests that there are two key schools of thoughts for measuring service quality which are highlighted in the table-1.1.

Table-1.2: Key Attributes of Service Quality

Dimensions	Definition	Source
Tangibles	Physical facilities, equipment, and appearance of personnel.	Parsuraman et al. (1988)
Reliability	Ability to perform the promised service dependably and accurately.	Parsuraman et al. (1988)
Responsiveness	Willingness to help customers and provide prompt service.	Parsuraman et al. (1988)
Assurance	Knowledge and courtesy of employees and their ability to inspire trust and confidence.	Parsuraman et al. (1988)
Empathy	Caring, individualized attention the firm provides its customers.	Parsuraman et al. (1988)
Information Technology	Ability to apply information technology to enhance service quality.	Chen (2009)

Literature review highlights that different dimensions were considered in order to measure service quality. These are- reliability, responsiveness, competence, access, courtesy, communication, credibility, security, understanding, tangibles (Parasuraman *et al.,* 1985); tangibles, reliability, responsiveness, assurance, empathy (Parasuraman *et al.,* 1988; Bhat, 2005; Rahman, 2005; Islam and Ali, 2011; Afrin, 2012); technical quality, functional quality; corporate image (Gronroos, 1982); technical quality, functional quality (Gronroos, 1984); interpersonal attributes-attentiveness/helpfulness, care, friendliness, commitment and systematic attributes-integrity, reliability, availability, functionality, competence (Johnston, 1995); effectiveness and assurance, access, price, tangibles, service portfolio and reliability. (Bahia and Nantel, 2000); access to service, services offered, security, and reputation (Flavian *et al.*, 2004); tangibility, reliability, responsiveness, assurance, empathy, price (Joshua and Koshi, 2005); Aesthetic, availability, attentiveness, access, care, cleanliness, comfort, commitment, communication, competence, courtesy, friendliness, flexibility, functionality, integrity, reliability, responsiveness,

and security (Johnson,1997); tangibility, assurance, responsiveness, empathy, reliability, information technology (Chen, 2009); branch environment (technical facilities, interior decoration etc.), bank safety, guarantees, bank opening hours; request fulfillment time; bank reputation, service speed, service costs (Saha et. al. 2014); website attributes, reliability, responsiveness, fulfillment, efficiency, privacy, security (George and Kumar, 2014).

Based on their comprehensive researches in different service industries Parasuiraman et al (1985; 1988) developed a widely used research instrument called SERVQUAL which is equally acceptable in different industries including banking industry (Uddin and Khandakar, 2013). Most of the studies used five dimensions as suggested by Parasuraman *et al.* (1988) to measure service quality and hence more accepted in the literature (Prabhakaran and Satya, 2003). Hence, the common service dimensions tangibles, reliability, responsiveness, assurance, empathy and information technology are taken for this study. This study used five dimensions/attributes of SERVQUAL model to discuss the service quality which was developed by Parasuraman *et al.* in 1988. In addition to five dimensions of service quality of SERVQUAL model another dimension/attribute "Information Technology" is also used to measure service quality. This dimension has been taken from Chen (2009).

1.3.3 Customer Satisfaction

Expectancy-disconfirmation theory which was introduced by Lewin (1938) has been the base of key concept of customer satisfaction. Satisfaction is the outcome of an assessment process where customers evaluate products (goods/services) after use or consumption of the products with some prior experience or pre-purchase expectations (Kotler, 1991). Oliver (1980) identified satisfaction and dissatisfaction in terms of the disconfirmation of consumer's expectation and defined customer satisfaction as the feeling or attitude of a customer towards a product or service after its consumption or use and is generally defined as the full meeting of one's prior expectations and described satisfaction as pleasurable fulfilments (Oliver, 1997). Kotler and Keller (2006) defined customer satisfaction as the consumer's judgement that a product or service feature, or the product or service itself, provides a pleasurable level of consumption-related fulfilment. Though service quality and customer satisfaction are used interchangeably by some practitioners and academic

scholars in the marketing literature but service quality assessment focuses specifically on dimensions of service whereas customer satisfaction on the other hand is more inclusive, it is influenced by perceptions of service quality, product quality, and price as well as situational factors and personal factors (Zeithaml et al., 2013, p-4). Customers' evaluation of a product or service in terms of whether that product or service has met their needs and expectations is known as customer satisfaction which may reap several benefits for the firm as outcomes of this customer satisfaction are increased customer retention, positive word-of-mouth communications, and increased revenues and as satisfied customers are generally willing to pay more and stay with a firm that serves their needs and requirements accurately hence firms that have high customer satisfaction ratings can differentiate themselves from their competitors and can sustain during price competition (Zeithaml et al., 2013, p-4; Hoffman and Bateson, 2002, p-299). Jham and Khan (2008) defined satisfaction as overall feelings of pleasure or displeasure experienced by buyers during the process of getting services from the service provider whereas Sindhav et al. (2006) defined satisfaction as an overall assessment of the customer's experience with a product or service. The review of literature establishes that, customer satisfaction is a determining factor in ensuring customer loyalty and leads to improved customer retention (Day, 1994). Various factors that affect customer satisfaction are product/service (quality, value); competitive price; distribution (fast and smooth); promotion/information; people (attitude, friendliness, courteous, knowledge, helpful, empathy, assurance, reliable, responsiveness); process (fast and accuracy); physical evidence/infrastructure; etc. (Biswas et al., 2012).

1.3.4 Loyalty

Desire to continue patronizing a firm in the long-term basis by the customer, preferably on an exclusive basis, and recommending the products of that organization to friends, relatives or other associates is known as customer loyalty and it extends beyond behaviour and includes preference, liking, and future intentions (Lovelock et al., 2010). Oliver (1997) defined loyalty as '. . . a deeply held commitment to re-buy or repatronise a preferred product consistently in the future, despite situational influences and marketing efforts having the potential to cause switching behaviours'. Day (1969) highlights loyalty as favourable attitude towards a brand in addition to purchasing it repeatedly whereas Jarvis and Wilcox

(1977) described loyalty as a situation when repeat purchase behaviour is accompanied by a psychological bond.

Reichheld and Sasser (1990) highlights that loyalty is important to firm's profitability as it creates incremental profits by four ways. These are- profit from increased purchases as loyal customers buy more and buy more frequently; profits from reduced operating costs as loyal customers are old and experienced and hence need less information and assistance; profits from referrals of other customers as loyal customers spread positive word of mouth and bring new customer; and profit from price premium as loyal customers are willing to pay premium price. Among the several constructs of loyalty used in the literature following three dimensions as listed in table-1.3 have been used to measure loyalty in this study.

Table-1.3: Theoretical Framework –Verbal Model-Loyalty

Key Dimensions of Loyalty		
Dimensions	**Definition**	**Source**
Behavioral loyalty	Repeat purchases, share of wallet and word of mouth, recommendations.	Day, 1969
Attitudinal loyalty	Commitment, trust or emotional attachment.	Day, 1969
Cognitive loyalty	The product or service that is a customer's first choice among alternatives.	Dwyer et al., 1987

1.3.5 Relationship between Service Quality and Customer Satisfaction and between Customer Satisfaction and Loyalty

The literature review highlights that there exists strong relationship between service quality and customer satisfaction (e.g. Sureshchandar et al., 2002; Spreng and Mackoy, 1996). The study (e.g. Mayer et al., 2009; Lewin, 2009; Sindhav and Lusch 2008; Bolton et al., 2008; Gil et al., 2008; Sindhav et al., 2006; Liang and Wang, 2004; Oliver 1997; Zeithaml et al., 1996; Fornel et.al., 1996; Fornell et al., 1992; Cronin and Taylor, 1992; Zeithaml et al., 1990; Bitner, 1990) suggests that there exists strong relationship between service quality and customer satisfaction (see: 2.7). The study

(e.g. Zeithaml et. al., 2013, p-91; Anderson and Swaminathan, 2011; Tuu and Olsen, 2010; Lewin, 2009; Jham and Khan 2008; Eskildsen and Kristensen, 2008; Bolton et al., 2008; Olsen, 2007; Helegsen, 2006; Palmatier et al., 2006; Mithas et al., 2005; Gustafsson et al., 2005; Baumann et al., 2004; Mittal and Kamakura, 2001; Bolton and Lemon, 1999; Bolton, 1998; Bloemer and Ruyter, 1999; Bloemer et al., 1998; Doney and Canon, 1997; East, 1997; Zeithaml et al., 1996; Fornell et al.,1996; Anderson *et al.,* 1994; Anderson and Sullivan, 1993; Bouliding et al., 1993; Fornell, 1992; Anderson and Narus, 1990) suggests that customer satisfaction develops loyalty (see: 2.8).

1.3.6 Theoretical Framework –Graphical Model

Proposed research model is as follows:
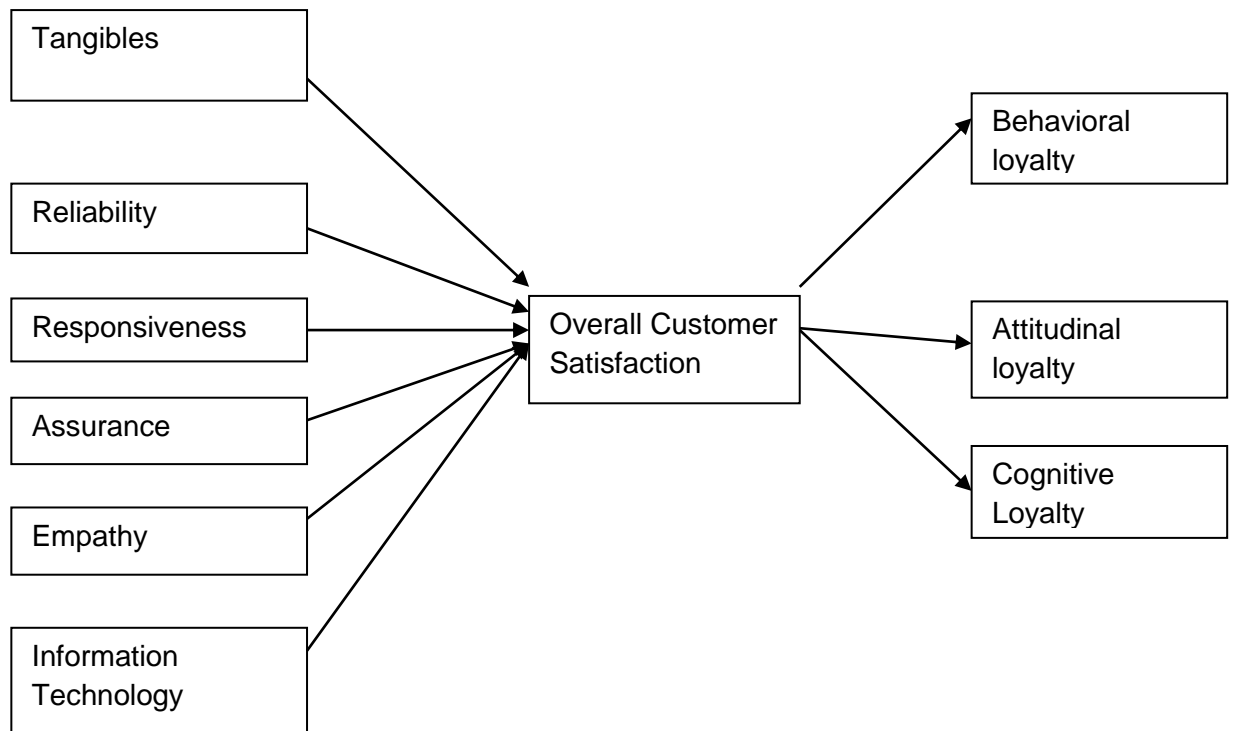
Figure 1.1: Graphical Model for the Relationship between Different Dimensions (attributes) of Service Quality, Overall Customer Satisfaction and Different Dimensions of Loyalty.

Figure-1.1 depicts the conceptual relation between key dimensions of service quality, overall customer satisfaction and different dimensions of loyalty.

1.3.7 Theoretical Framework –Mathematical Model

Product Moment Correlation/Pearson Correlation Coefficient

$$r = r_{xy} = \frac{\sum_{i=1}^{n}\left(x_i - \bar{x}\right)\left(y_i - \bar{y}\right)}{\sqrt{\sum_{i=1}^{n}\left(x_i - \bar{x}\right)^2}\sqrt{\sum_{i=1}^{n}\left(y_i - \bar{y}\right)^2}}$$

- $$\bar{x} = \frac{1}{n}\sum_{i=1}^{n}x_i$$ the sample mean); and analogously for $\bar{y}$

Regression Equation for the relationship between service quality and customer satisfaction,

$Y = \beta_0 + \beta_1\,TAN + \beta_2\,REL + \beta_3\,RES + \beta_4\,ASS + \beta_5\,EMPA + \beta_6\,IT + e$

Where,

TAN= Tangibles

REL= Reliability

RES= Responsiveness

ASS= Assurance

EMPA= Empathy

IT= Information technology

Y= dependent variable, Overall Customer Satisfaction

β_0 = Coefficient of slope (with no interpretation)

β_1 = Coefficient of Tangibles

β_2 = Coefficient of Reliability

β_3 = Coefficient of Responsiveness

β_4 = Coefficient of Assurance

β_5 = Coefficient of Empathy

β_6 = Coefficient of Information technology

e= an error term, normally distributed about a mean of zero,

Overall Customer Satisfaction = $\beta_0 + \beta_1$ (TAN) + β_2 (REL) + β_3 (RES) + β_4 (ASS) + β_5 (EMP) + β_6 (IT) + e

1.4 Objectives of the Study

Research objective is a statement which defines the specific information needed to solve the research problem. The purpose of this study is to examine the different conceptual relationships among service attributes, customer satisfaction and loyalty which might be effective for the practitioners in order to formulate strategies by leveraging these causal relationships with the help of proper understanding about the antecedents of customer loyalty. The aim of the study is to verify the role of service attributes as the determinants of customer satisfaction which in turn develops loyalty in the banking sector of Bangladesh. Developing and maintaining loyal customers might help a service provider (e.g. bank) to create sustainable competitive advantage. Due to non-availability of any prior academic research on this ground in the context of this marketplace, the purpose of the study is to identify the role of key service quality/attributes on developing customer satisfaction and to verify that whether customer satisfaction is a precursor of developing customer loyalty or not in the context of the banking sector of Bangladesh.

1.4.1 Broad Objective

The purpose of this study is to examine the different conceptual relationships among service quality, customer satisfaction and loyalty which might be effective for the practitioners in order to formulate strategies by leveraging these causal relationships with the help of proper understanding about the antecedents of customer loyalty.

1.4.2 Specific Objectives

The specific objectives of the research are as follows:

> ➢ To examine whether service quality has an impact on developing customer satisfaction.

> ➢ To evaluate whether customer satisfaction has an impact on developing customer loyalty.

1.5 Research Questions

Research questions are specific questions designed to provide answers to the research problem. Research questions are the questions that the research needs to address so that aims of the research can be achieved. Research questions should be logically linked to what researcher wants to show or explain. As they are the link or point of contact between the actual research plan and activity, and the broader research decisions and choices hence they are important in a research study. The research questions which are refined statements of the specific components of the problem specify the information the decision maker needs and best state the objective of the marketing research study. Hence the research questions of this study were as follows:

1. Is there any impact of service quality on customer satisfaction in the banking sector of Bangladesh?
2. Is there any impact of customer satisfaction on loyalty in the banking sector of Bangladesh?

1.6 Research Hypotheses

Hypotheses are statements which frame a research problem in terms of a likely research outcome, based on the literature in the field. It is a proposition that a researcher makes abut some characteristics of the population being investigated. A hypothesis which specifies possible answers to a research questions is a formal statement of an unproven proposition about a factor or phenomenon that of interest to the researcher and is formulated for empirical testing that may be judged as true or false.
.
Hypotheses are stated using two basic forms: the null hypothesis H_0, and alternative hypothesis H_a. The null hypothesis H_0 (Hypothesis of the status quo) is the hypothesis that is tested against its complement, the alternative hypothesis H_a (research hypothesis). The hypotheses of this study were formulated for empirically testing of the relationship between the variables (service quality, customer satisfaction, and loyalty) with respect to some case hence these are relationship hypotheses. The hypotheses of the study were as follows:

- To verify that service quality has impact on developing customer satisfaction.

    $H1_0$: Service quality is negatively related with customer satisfaction.

    $H1_a$: Service quality is positively related with customer satisfaction.

- To verify that customer satisfaction has impact on developing customer loyalty.

    $H2_0$: Customer satisfaction is negatively related with loyalty.

    $H2_a$: Customer satisfaction is positively related with loyalty.

Though as mentioned above generally null hypotheses are tested against alternative hypotheses but in this study in order to fulfil the objective of the study bivariate correlation and regression analysis are used to find out the relationship between service quality (different attributes/dimensions of service quality) and customer satisfaction and customer satisfaction and loyalty (different dimensions of service loyalty) hence two alternative hypotheses are tested.

1.7 Limitations of the Study

This study on "Service Quality, Customer Satisfaction and Loyalty: Measuring Relationship among these with regard to the Banking Sector in Bangladesh" had some limitations. First of all, this study was conducted only in Dhaka city and outskirt of Dhaka city which doesn't necessarily represent the country. The Banking sector of Bangladesh provides sampling frame of adequate size but the sampling frame was not standardized as it was not very accurate and was not easily accessible. Considering the expense and problems associated with the selection of a sample frame convenience type non-probability sampling technique was considered to select the respondents from the sampling frame. As data were collected from the accountholders of different commercial banks mainly by visiting different branches of both public and private banks which are located different parts of Dhaka city, high traffic of this city created severe problem for data collection. It was difficult to convince accountholders to take time to complete the questionnaire as target

respondents were not very responsive and hence it was required to move to more retail bank branches which was more time consuming. Hence these factors like lower response rate and high traffic contributed to create another limitation which was time constraint/limitation because it became difficult to complete the tasks within scheduled time. Funding of the research was another problem as no fund was granted by any body/educational institute to undertake this research study more specifically comprehensive data collection and hence it was required to use private fund to accomplish this research study. Finally as non probability sampling is used for this study as sample respondents of the study were chosen considering the convenience of the researchers and hence the findings of the study might not be generalized in other settings.

Chapter Two

Literature Review

Chapter Two: Literature Review

2.1 Introduction

Loyal customers are not only willing to pay price premium but also tend to be more tolerant of customer complaints and hence loyalty increases profits. The study of Reichheld and Schefter (2000) pointed out that a 5 % increase in customer loyalty can increase 30% additional profit and by retaining existing customers and acquiring loyalty, firms can increase their profitability as much as 125% (Reichheld, 1996). Customer satisfaction is an immediate precursor (e.g. Oliver 1997, 1999; Huber & Herrmann, 2001; Pont and McQuilken, 2004) and key success factor in developing loyal customers. In a customer centric organization all marketing activities are directed towards providing customer satisfaction (Kandampully and Suhartanto, 2000). Enhanced customer satisfaction could be achieved by providing superior service quality (Zeithaml et al., 1996; Parasuraman et al., 1988). This literature review is structured in order to establish the relationship between service quality, customer satisfaction and loyalty under the following sections as per the objectives of the study.

2.2 Services

Services are very difficult to define as it covers a wide array of several and often very complex activities (Lovelock and Wirtz, 2011). Services are a combination of deeds, processes, efforts and performances which may or may not produce final tangible outcome and do not result to any transfer of ownership and though pure services are intangible dominant but may have a tangible component (*see: figure-2.1*) and some services are high in experience attributes and some services are high in credence attributes (*see: figure-2.2*) where e*xperience* attributes can be distinguished only after purchase or during consumption and credence attributes are generally impossible to evaluate even after purchase or consumption. For example teaching is more tangible dominant services than advertising agencies (e.g. Zeithaml et al., 2013, p-4; Hoffman and Bateson, 2002). Gummesson (1987) pointed out that services can be bought and sold but cannot be dropped on foot.

Lovelock et al. (2010, p-16) highlighted the following characteristics of services:

- Most service products cannot be inventoried-because it involves actions or performances and these are transitory and perishable.

- Intangible elements usually dominate value creation as more than half of the value comes from intangible service elements.

- Services are often difficult to visualize and understand-service products are mainly intangible.
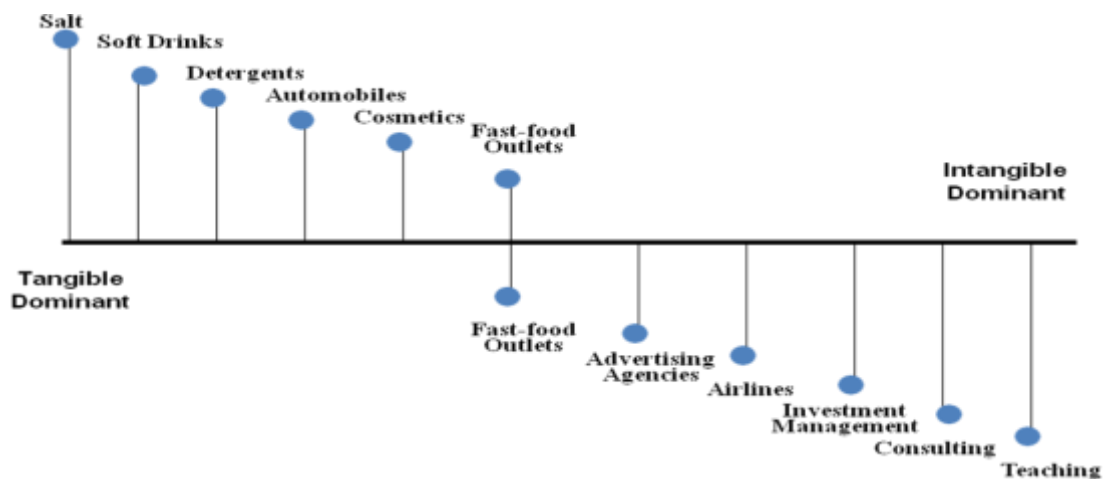
Figure-2.1: Tangibility Spectrum (source: Zeithaml et al., 2013, p-7)
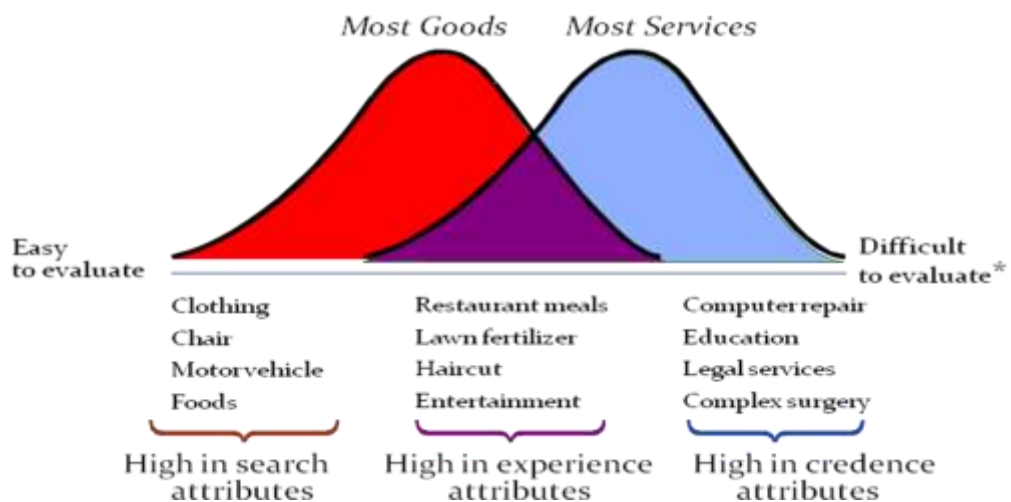
Figure-2.2: Continuum of Evaluation for Different Types of Products (source: Zeithaml et al., 2013, p-25)

- Customers may be involved in co-production as customers often function as partial employees e.g. hair salons, ATM.

- People may be part of the service experience- service personnel need to have good interpersonal skills and positive attitude along with technical skill and hence management needs to take special attention to select, train and motivate human resources to provide quality service to the customer.

- Operational inputs and outputs tend to vary more widely-execution of services often differs among employees, between the same employee and different customers and even from one time of day to another.

- The time factor often assumes great importance- as customers have become more time sensitive and is in a hurry, and sees wasted time as a cost to avoid.

- Distribution may take place through nonphysical channels-as service firms can use electronic channel, telephone, ATM, Internet.

2.3 Service Quality

Service has three unique features like intangibility, heterogeneity, and inseparability of production and consumption and because of this service quality is an abstract and elusive construct (Parasuraman et al., 1985). Quality can be defined from different ways. Garvin (1983) discusses five perspectives on quality. These are user-based approach; product based approach; manufacturing based approach; value-based approach; and transcendent-based approach. Different approaches are briefly explained as follows:

User-based approach: This approach starts with the promise that quality should be defined from the buyer's/user's perspective. Quality service is the service offerings that meets the customers' needs and wants to their entire satisfaction i.e., this approaches equate quality with maximum satisfaction and recognizes that different customers have different needs and hence providing customer satisfaction to all is difficult.

Product-based approach: This view is totally objective and sees quality as a precise and measurable variable. It suggests that service of a firm falls short of the quality standard only when a certain attribute or aspect of service is left out or distorted. It fails to account for differences in customers' needs, tastes and preferences.

Manufacturing-based approach: This is also known as operations-based approach and is supply-based and is concerned with engineering and manufacturing practices. It suggests that service quality depends on the efficiency and the operations involved in service delivery and design and emphasizes on cost effectiveness and productiveness instead of buyers' requirements.

Value-based approach: This approach defines quality in terms of value and price as it tries to consider the trade-off between performance and price to define quality as "affordable excellence."

Transcendent-based approach: This view suggests that customers learn to recognize only through the experience gained from repeated exposure and hence consistency in maintaining quality is highly important.

Before 1983, the definition of quality was defined primarily based on the concept of quality control with corresponding standards focused completely on achieving quality. The study (e.g. Crosby, 1979; Knights and McCabe, 1997) defined quality as achievable, measurable and profitable entity which can be installed if firm has commitment, understanding and employees are ready to do hard work. Quality is defined as 'fitness for use' i,e. 'meeting customer needs' (Juran and Gryna, 1988, cited by Knights and McCabe,1997); 'conformance to requirements' (Crosby and Taylor, 1983), Rather than giving more focus on customer needs and cultural issues, the study of Crosby and Taylor (1983) was focused on cost reduction through quality improvement.

Quality is one dimension on which satisfaction is based (Dick and Basu, 1994; Anderson and Fornell, 1994; Rust and Oliver, 1994). Parasuraman et al. (1988) classified quality into two types- mechanistic quality which involves an objective aspect or feature of a thing or event and humanistic quality which involves the subjective response of people to objects and is therefore a highly relativistic phenomenon that differs between judges whereas Gronroos (1990) proposed that service quality consists of two dimensions- technical quality which is the quality of

what is delivered; e.g, the effectiveness of a car repair and functional quality: it is the quality of how the service is delivered-the care and manners of the delivery persons.

The study (e.g. Sasser *et al,* 1978; Edvardsson, 1988; Brown *et al.,* 1991; Gronroos, 1990a and 1990b; Gummesson, 1991; Edvardsson and Thomasson, 1991; cited by Edvardsson and Mattsson, 1993) suggested that services are processes, often involving customers as co-producers and the customer is really part of the service production system (e.g. Edvardsson and Thomasson, 1991; Crosby *et al.,* 1988; cited by Edvardsson and Mattsson, 1993) and as the degree and style of the participation vary (e.g. Langeard *et al.,* 1981; Lehtinen and Lehtinen, 1991; cited by Edvardsson and Mattsson, 1993), the control of service quality is more difficult than that of goods (e.g. Gummesson, 1991; cited by Edvardsson and Mattsson, 1993]. are often intangible (Lovelock, 1983, 1988; Shostack, 1984, 1987); defined by few core attributes like customer involvement, relative intangibility, and simultaneous production and consumption (e.g. Bowen and Schneider, 1988; Mayer et al., 2009) service employees need to work together and coordinate activities in order to provide high-quality service (e.g. Gittell, 2000, 2002, 2005; Schneider, 2004; Skaggs and Huffman, 2003; cited by Mayer et al., 2009). It is often difficult for service provider to explain the actual content of the service and manage the 'evidence' due to the fact that services are often intangible (Berry, 1980; cited by Parasuraman et al., 1988; Zeithaml et al., 1996). Hence contextual cues, e.g. the physical environment and the appearance are the necessary factors for consumers to evaluate services before purchasing them (e.g. Bitner 1990). Gronroos (2000, p-46) defined service as ' A service is a process consisting of a series of more or less intangible activities that normally, but not necessarily always , take place in interactions between the customer and service employees and/or physical resources or goods and/or systems of the service provider, which are provided as solutions to customer problems.'

The academic research on measuring service quality was mainly focused on the customer's comparison between expected and perceived service (e.g. Lewis and Booms, 1983; Gronroos, 1990; Edvardsson and Mattsson, 1993; Berry *et al.,* 1985; Parasuraman *et al.,* 1985). Service quality is defined as a measure of how well the service level delivered matches customer expectations where delivering quality service means conforming to expectations on a consistent basis. (Lewis and Booms, 1983)**.** Service quality is the outcome of the comparison between customer expectations and customer perceptions. The study (e.g. Parasuraman et al., 1985, 1988; Zeithaml et al., 1990, 1996) pointed out that customer expectations which are

met or exceeded are assumed to determine the quality of the service. Service quality is a perceived judgment which is the outcome of an evaluation process where buyers compare their expectations with the service they perceive to have received (Gronroos, 1984, p-38); is the outcome of the comparison that customers make between their expectations about a service and their perception of the way the service has been performed (Gronroos, 1984; Parasuraman et al., 1985; 1988).

Table 2.1: Different Dimensions of Service Quality Used in Literature.

Author	Dimensions of Service Quality
Parasuraman *et al.* (1985)	Reliability, responsiveness, competence, access, courtesy, communication, credibility, security, understanding, tangibles.
Parasuraman *et al.* (1988)	Tangibles, reliability, responsiveness, assurance, empathy.
Gronroos (1984)	Technical quality, functional quality.
Johnston (1995)	Interpersonal attributes-attentiveness/helpfulness, care, friendliness, commitment. Systematic attributes-integrity, reliability, availability, functionality, competence.
Bahia and Nantel (2000)	Effectiveness and assurance, access, price, tangibles, service portfolio and reliability.
Flavian *et al.* (2004)	Access to service, services offered, security, and reputation.
Joshua and Koshi (2005)	Tangibles, reliability, responsiveness, assurance, empathy, price.
Bhat (2005); Rahman, 2005; Islam and Ali (2011); Afrin (2012).	Tangibles, reliability, responsiveness, assurance, empathy.
Chen(2009)	Tangibility, assurance, responsiveness, empathy, reliability, information technology.
Saha et al. (2014)	Branch environment (technical facilities, interior decoration etc.), bank safety, guarantees, bank opening hours; request fulfillment time; bank reputation, service speed, service costs.
George and Kumar (2014)	Website attributes, reliability, responsiveness, fulfillment, efficiency, privacy, security.

Berry et al. (1988) defined service quality is the gap between what the customers want and what they actually get or perceive they are getting and perceived quality is defined by them as the consumer's judgment about an entity's overall excellence or superiority. The study (e.g. Stevenson, 2005; Soltani et al., 2008) suggested that as customer's wants are often industry specific and their interpretation of service quality varies significantly. Hence it creates challenges for designing and managing service

quality as it is often difficult to translate customers' expectations into exact service specifications and the control of service quality is more difficult than that of goods (Gummesson, 1991; cited by Edvardsson and Mattsson, 1993). Fogli (2006, p.4) highlighted service quality is a cognitive judgement and defined service quality 'as a global judgement or attitude relating to particular service; the customer's overall impression of the relative inferiority or superiority of the organization and its services.'

Literature review suggests that customers perceive quality as a multi-dimensional concept. Service comprises of a complex bundle of explicit and implicit attributes (Gronroos 1984; Parasuraman, 1985). The study (e.g. Deming, 1986; cited by Chen, 2009) have pointed out that a customer evaluates the quality of a product or service on the basis of certain important quality attributes, where an attribute is defined as a descriptive feature of a product which is involved with its purchase or consumption (Keller, 1999). Service comprises of a complex bundle of explicit and implicit attributes (e.g. Berry et al., 1990).

Exploratory research of Parasuraman et al. (1985) revealed that the criteria used by consumers in assessing service quality fit 10 potentially overlapping dimensions (*see: table-2.2*). These dimensions were tangibles, reliability, responsiveness, communication, credibility, security, competence, courtesy, understanding/knowing the customer, and access but in their subsequent research in 1988 they noticed a high degree of correlations between several of these variables and consolidated them into five broad dimensions:

- ➢ Tangibles (Appearance of physical elements)
- ➢ Reliability (dependable, accurate performance)
- ➢ Responsiveness (Promptness and helpfulness)
- ➢ Assurance (competence, courtesy, credibility and security)
- ➢ Empathy(easy access, good communications, and customer understandings)

Different dimensions that customers use to evaluate service quality are highlighted in the following table (table-2.2):

Table-2.2: Generic Dimensions Used by Customers to Evaluate Service Quality (source: Zeithaml et al., 1990; Parasuraman *et al.,* 1985)

Dimension	Definition
Credibility	Trustworthiness, believability, honesty of the service provider.
Security	Freedom from danger, risk or doubt.
Access	Approachability and ease of contact.
Communication	Listening to customers and keeping them informed in language they can understand.
Understanding the customer	Making the effort to know customers and their needs.
Tangibles	Appearance of physical facilities, equipment, personnel, and communication materials.
Reliability	Ability to perform the promised service dependably and accurately.
Responsiveness	Willingness to help customers and provide prompt service.
Competence	Possession of the skills and knowledge required to perform the service.
Courtesy	Politeness, respect, consideration, and friendliness of contact personnel.

Tangibles: This dimension represents the service physically and compares customer expectations with the firm's performance regarding the firm's ability to manage its tangibles. Tangibles are defined as the appearance of physical facilities, equipment, and appearance of the firm's personnel. Customers particularly new ones evaluate service quality by the image or physical representation formed by all tangibles (Zeithaml et al., 2013, p-93-97; Hoffman and Bateson, 2002, p-334-338). The items related to tangibles perceptions are:

- ✓ XYZ has modern looking equipment.
- ✓ XYZ's physical facilities are visually appealing.
- ✓ XYZ's employees have a neat, professional appearance.
- ✓ Materials associated with the service are visually appealing.

Reliability: Delivering on promise. Reliability is defined as ability to perform the promised service dependably and accurately (Parasuraman et al., 1988). It reflects the consistency and dependability of a firm's performance. Reliability means that the company delivers on its promises about delivery; service provision problems

resolution; and finally pricing. Buyers want to do business with firms that keep their promises, particularly their promises about the core service attributes (Zeithaml et al., 2013, p-93-97; Hoffman and Bateson, 2002, p-334-338). The items related to reliability perceptions are:

- ✓ When XYZ promises to do something by a certain time, it does so.
- ✓ When customers have problems, XYZ shows a sincere interest in solving it.
- ✓ XYZ performs the service right the first time.
- ✓ XYZ provides its services at the time it promises to do so.
- ✓ XYZ insists on error-free records.

Responsiveness: Being willing to help. Responsiveness is defined as willingness to help customers and provide prompt service (Parasuraman et al., 1988) and it reflects a service firm's commitment to provide its services in a timely manner and emphasizes attentiveness and promptness in dealing with customer requests, questions, complaints, and problems. Responsiveness is communicated to customers by the length of time they have to wait for assistance, answers to questions, or attention to problems (Zeithaml et al., 2013, p-93-97; Hoffman and Bateson, 2002, p-334-338). The items related to responsiveness perceptions are:

- ✓ Employees of XYZ tell customers exactly when service will be performed.
- ✓ Employees of XYZ give prompt service to customers.
- ✓ Employees of XYZ are always willing to help customers.
- ✓ Employees of XYZ are never too busy to respond to customers' requests.

Assurance: Inspiring trust and confidence. It is defined as Knowledge and courtesy of employees and their ability to inspire trust and confidence (Parasuraman et al., 1988). This dimension addresses the competence of the firm, the courtesy firm extends, the security of its operation and hence this dimension is likely to be particularly important for services that the customer perceives as involving high risk, and about which they feel uncertain about their ability to evaluate outcomes (Zeithaml et al., 2013, p-93-97; Hoffman and Bateson, 2002, p-334-338). The items related to assurance perceptions are:

- ✓ The behavior of employees of XYZ instills confidence in customers.
- ✓ Customers feel safe in their transactions with XYZ.
- ✓ Employees of XYZ are consistently courteous.

- ✓ Employees of XYZ have the knowledge to answer customer questions.

Empathy: Treating customers as individuals. It is defined as caring indivualized attention the firm provides in customers (Parasuraman et al., 1988). It is the assessment of a firm's ability to put itself in its buyers' place. It denotes a deep emotional understanding of another's feelings or problems and the essence of empathy is through personalized or customized service, that customers are unique and special (Zeithaml et al., 2013, p-93-97; Hoffman and Bateson, 2002, p-334-338). The items related to empathy perceptions are:

- ✓ XYZ gives individual attention to customers.
- ✓ XYZ has employees who give you personal attention.
- ✓ XYZ has employees who understand the needs of their customers.
- ✓ XYZ has customer's best interest at heart.
- ✓ XYZ has operating hours convenient to all its customers.

These dimensions represent how consumers organise information about service quality in their minds and were found relevant for banking, insurance, appliances, repair & maintenance, securities, brokerage, long distance telephone service, auto-repair service, retail and other business services. To measure quality researchers used to use gap models (e.g. Parasuraman *et al.,* 1985; Gronroos, 1990) where gaps are normally defined as the difference between expected and experienced service levels and SERVQUAL instrument (Parasuraman *et al.,* 1988) is based on this assumption. The study points out that there are three kinds of assessment scales for measuring service quality: i) SERVQUAL by Parasuraman et al. (1988); ii) SERVPERF by Cronin and Taylor. (1992); and Non-difference by Brown et al. (1993). Though SERVQUAL instrument has some criticism as a good number of empirical studies have failed to confirm the five dimensions of service quality (Badri et al., 2005; Carmen, 1990; Mels et al., 1997; cited by Mittal and Gera, 2013 but literature review revealed that most of the authors used SERVQUAL instrument to measure service quality**.** In their 22 items SERVQUAL scale Parasuraman *et al.* (1985, 1988) introduced five dimensions tangibles, reliability, responsiveness, assurance and empathy. SERVQUAL is an appropriate tool for measuring service quality in the service industry (Prabhakaran and Satya, 2003).

The world is changing rapidly and information technology is driving these changes. Its uses has widened throughout different aspects of our life and various business

activities are managed electronically nowadays because of acceptance of information technology at workplace as well as home (Arya and Saxena, 2013). Moreover, with the availability of new technology and the Internet, the banking industry is increasingly finding innovative ways of operating in the financial services markets (Wu et. al., 2006). These include telephone banking, Internet banking, and automatic teller machines (Portela and Thanassoulis, 2007). Several innovative IT-based services such as ATMs, electronic fund transfer (ETF), anywhere-anytime banking, smart cards, internet banking etc are no more a new concept in the banking sector. The increasing use of such alternative banking channels is clearly changing the traditional understanding of banking activities (European Central Bank, 1999), and the emphasis in banking today is on the effective application of information technology to promote service quality and operational performance.

Information technology: It is defined as the ability to apply information technology to enhance service quality. The items related to information technology perceptions are:

- ✓ The ATMs of XYZ bank are technologically well equipped.
- ✓ There is an adequate number of ATMs in this XYZ bank.
- ✓ The computerized system in this XYZ bank functions properly.
- ✓ The Internet banking services of this XYZ bank are diverse.

Table-2.3: Key Attributes of Service Quality

Dimensions	Definition	Source
Tangibles	Physical facilities, equipment, and appearance of personnel.	Parasuraman et al. (1988)
Reliability	Ability to perform the promised service dependably and accurately.	Parasuraman et al. (1988)
Responsiveness	Willingness to help customers and provide prompt service.	Parasuraman et al. (1988)
Assurance	Knowledge and courtesy of employees and their ability to inspire trust and confidence.	Parasuraman et al. (1988)
Empathy	Caring, individualized attention the firm provides its customers.	Parasuraman et al. (1988)
Information Technology	Ability to apply information technology to enhance service quality.	Chen (2009)

Hence in addition to five dimensions of SERVQUAL another dimension, information technology is used to measure service quality (e.g. Chen, 2009). Hence, the five common service dimensions based on SERVQUAL instrument tangibles, reliability, responsiveness, assurance, empathy and in addition to five SERVQUAL dimensions information technology are taken for this study (*see: table-2.3*).

2.4 Customer Satisfaction

Satisfaction has been considered as a central concept in the marketing literature (Erevelles and Leavitt 1992) and has been defined and measured by different ways over the years (Oliver 1997; 1999). Though it seems that customer satisfaction is a straight forward concept but its definition evolves over time (Oliver, 1997). Oliver (1980) defined customer satisfaction as the feeling or attitude of a customer towards a product or service after its consumption or use and is generally defined as the full meeting of one's prior expectations. Despite several alternative definitions (*see: table-2.4*) exists, the most acceptable definition of customer satisfaction is that it is comparison of customer's expectations with perceptions regarding the actual service encounter. This comparison between customer's expectations with their perceptions is referred as expectancy disconfirmation model (Hunt, 1991). Customer satisfaction is the customer's evaluation of a product or service in terms of whether that product or service has met their needs and expectations. Failure to meet needs and expectations is assumed to result in dissatisfaction with the product or service. If the service drops below adequate service – the minimum level considered acceptable – customers will be frustrated and most likely dissatisfied with the company and if the service performance is above the zone of tolerance at the top end – where the performance exceeds desired service – customers will be very pleased and probably quite surprised as well (Zeithaml et al., 2013, p-59-60). Oliver (1997) defined customer satisfaction as the customer's fulfilment response and is a judgement that a product or service feature, or the product or service itself, provides a pleasurable level of consumption related fulfilment including levels of under- or over fulfilment.

Table-2.4: Alternative Definitions of Satisfaction

Types of Definition	Definition
Normative deficit	Compares actual outcomes to those that are culturally acceptable.
Equity	Compares gains in a social exchange-if the gains are in equal, the loser is dissatisfied.
Normative fairness	Expectations are based on what the customer believes he/she should receive-dissatisfaction occurs when the actual outcome is different from the standard expectation.
Procedural fairness	Satisfaction is a function of the consumer's belief that he/she was treated fairly.

Source: Hunt, 1991

Satisfaction is achieved when the needs and expectations of customers are met or exceeded. Marketing research on customer satisfaction can be broadly classified into two categories: one focuses on studying the customer satisfaction gaps while other focuses on the antecedents of customer satisfaction (Kotler and Armstrong, 2010) where the first category of customer satisfaction research is diagnostic in nature, aimed at discovering the service gaps that cause dissatisfaction to the customers with the use of wide range market survey methods (Ramamoorthy et al., 2012). The second category explores the antecedents and/or consequences of customer satisfaction with a view to manage antecedents in a way so that best consequences can be achieved (Anderson and Sullivan, 1993).

Satisfaction is defined by Kotler (1991) as a post purchase evaluation of product quality given pre purchase expectations. The collective outcome of perception, evaluation and psychological reactions to the consumption experience with a goods/service is known as customer satisfaction (Yi, 1990; cited by George and Kumer, 2014). Giese and Cote (2000; cited by Siddique, 2011) identified three components of satisfaction as follows:

i.   Customer satisfaction is one kind of response
ii.   The response emphases on a particular focus (product, consumption, experience, expectations etc)
iii.   The response occurs at a particular time (after choice, based on accumulated experience, after consumption)

Satisfaction is defined as the result of an evaluation process comparing the difference between the service the individuals expect and the actual service they perceive they have received (e.g. Johnson *et al*. 1993; Johnson and Fornell 1991). Hence it consists of four components: the specified, actual, evaluation and result components, with the later being the actual measure of satisfaction. Customer satisfaction is a cognitive or affective reaction which is emerged as a response to a single or prolonged set of service encounters (Rust and Oliver, 1994). Despite a long-lasting disagreement as to whether satisfaction – as a fundamentally motivational construct – is more cognitive or emotional the literature tends to consider satisfaction as an emotionally orientated construct (Westbrook 1987; Czepiel *et al*. 1974; cited by Huber and Herrmann, 2001).

Process definitions of satisfaction focused on the expectancy disconfirmation paradigm (Tse and Wilton 1988; Oliver and DeSarbo, 1988; Yi, 1990, 1991: cited by Bloemer and Ruyter, 1999; Johnson *et al*. 1993; Yi 1991; cited by Huber and Herrmann, 2001; Johnson and Fornell 1991). As per the concept of this paradigm, buyers form expectations of the specific product or service prior to purchase to which they compare the product or service performance. Consumption of that specific product generates a perceived quality level which is influenced by expectations. Expectations could be confirmed or disconfirmed by comparing expectations and perceptions. Expectations of customers are confirmed if customers' perceptions about the product or service are exactly equal to their expectations. If there is a discrepancy between customers' perceptions about the product or service and their expectations then expectations of customers are disconfirmed. There are two types of disconfirmation. If product performance exceeds prior expectations then it is positive disconfirmation and if performance is lower than expectations then it is negative disconfirmation. Both confirmation and positive disconfirmation lead to satisfaction, whereas negative disconfirmation brings dissatisfaction (Oliver 1980; Anderson and Sullivan, 1993). Process definitions provides fast evaluations of satisfaction with respect to brief service interactions (e.g. ticket buying) as well as evaluations from service experiences that involve consumption periods of considerable duration (e.g. a stay in the hospital). As a result satisfaction can be formed on the basis of a single service encounter or on the basis of a number of service experiences. It has been argued that this is a typical aspect of service satisfaction (Oliver 1996).

Oliver (1980) concluded that satisfaction is a function of some initial standard working in combination with some perceived discrepancy from the initial reference point whereas Bolton and Drew (1991) defined customer satisfaction or dissatisfaction as a 'function of the disconfirmation arising from discrepancies between prior expectations and actual performance.' In their American Customer Satisfaction Index (ACSI) model, Fornell et al. (1996), described customer satisfaction as a function of customer expectations, perceived quality, and perceived value.

Some authors have focused on outcome-type definitions of satisfaction. According to these definitions, satisfaction may be perceived as a state of fulfilment which is connected to reinforcement and arousal. Oliver (1989; cited by Bloemer and Ruyter, 1999) suggested several outcome-types in the satisfaction as-states framework. Taking level of reinforcement and degree of arousal into consideration, the following end-states of satisfaction have been advanced: 'satisfaction-as-contentment, 'satisfaction-as-pleasure', 'satisfaction-as-relief, 'satisfaction-as-novelty and 'satisfaction-as-surprise'. Satisfaction is thus perceived to be a post-consumption evaluation or 'a pleasurable level of consumption-related fulfilment' (Oliver, 1996, p. 13; cited by Bloemer and Ruyter, 1999). Hence particularly in a service context the service delivery can be designed in such a way that it exceeds expectations in terms of affective aspects as end-states (Rust and Oliver 1994).

Customer satisfaction has also been defined in terms of transaction specific experiences and cumulative experiences (Anderson et al., 1994). For a transaction-specific experience, customer satisfaction is defined as the post-choice evaluative judgement of a specific purchase occasion and for 'cumulative' experience, customer satisfaction is determined as a result of a customer's evaluation of his or her total purchase and consumption experience over time. Voss et al. (2010) defined customer satisfaction as a cumulative global evaluation based on experience with a firm over time. Johnson and Fornell (1991) defined customer satisfaction as a customer's overall evaluation of the performance of an offering to date.

Though earlier studies defined satisfaction as transaction-specific product episodes, recent studies argue for defining satisfaction as the customer's overall experiences to date—as cumulative satisfaction, like attitudes (Johnson et al., 2001; Olsen, 2002; Baumann et. al., 2004). It is defined as the accumulated experience of a customer's purchase and consumption experiences (Andreassen and Lindestad, 1998). As to the relationship between satisfaction and loyalty, conceptualizing satisfaction as the

outcome of one single transaction might be too restrictive. An important advantage of the cumulative satisfaction construct over a more transaction-specific view is that it is better able to predict subsequent behaviours and economic performance (Johnson et al., 2001). This study defines individual satisfaction as a consumer's personal overall evaluation of satisfaction and pleasure with a given product category—and as a cumulative rather than a transaction-specific construct.

Overall assessment of the customer's experience with a product or service is known as satisfaction (Sindhav et al., 2006). Oliver (1999) suggested satisfaction as 'sense that consumption provides outcomes against a standard of pleasure versus displeasure.' Hence satisfaction is related to a psychological attitude felt during the customer's consumption. In its relationship with customer loyalty, it affects positively the buying intention as well as the actual future behaviour (Bloemer and Lemmink, 1992; cited by Tariq and Moussaoul, 2009). Oliver (1981, p-27) defined satisfaction as a summary psychological state which is the outcome of when the emotion surroundings disconfirmed expectations is coupled with the customer's prior feelings about the consumption experience. Oliver (1997) defined overall customer satisfaction as a function of satisfaction with service attributes where the importance of each attribute is defined by the degree to which changes in attribute performance are accompanied by changes in overall satisfaction (Anderson and Mittal, 2000)

2.5 Loyalty

Loyalty is often interpreted as actual retention, which is a cornerstone of customer relationship management (Gustafsson et. al., 2005). The study has suggested that customer loyalty has been operationalised differently by the researchers. Day (1969) defined loyalty as favourable attitude towards a brand in addition to repeat purchase whereas Dick and Basu (1994) defined loyalty as a relationship between relative attitude towards an entity and repeat purchase behaviour.' Day (1969) introduced two dimensions of loyalty, behavioural and attitudinal. Whereas Behaviour part of loyalty consists of repeat purchases, share of wallet and word of mouth, recommendations and attitudinal part of loyalty consists of commitment, trust or emotional attachment. Attitudinal loyalty is referred to the emotional and psychological state of the buyer under which he/she repurchases or recommends the product (Reichheld, 1993; cited by Srivastava and Rai, 2014).

In order to explain and to measure loyalty from the context of above two dimensions, it is equated with the long-term choice probability for a brand (Jeuland, 1979); minimum differential needed for switching (Raju et al., 1990); behavioural response expressed over time by some decision-making unit with respect to one or more alternatives (Dick and Basu, 1994; Jacoby and Chestnut, 1978); brand recommendations (Boulding et al., 1993); word of mouth (Reinartz and Kumar, 2002); Brand commitment (e.g., Beatty and Kahle, 1988; Pritchard et al., 1999; Yi and Jeon, 2003; cited by Olsen, 2007); repurchase intentions (Anderson and Sullivan, 1993; Cronin and Taylor, 1992); willingness to pay a price premium (e.g. Fornell et al., 1996; Zeithaml et al., 1996); the share of the total purchases of a product a customer buys from a particular supplier within a particular period of time (Peppers and Rogers, 1995). Some authors have suggested that there is also a cognitive side to customer loyalty (Lee and Zeiss, 1980). Cognitive loyalty is defined as the product or service that first comes to mind when making a purchase decision (e.g. Dwyer et al., 1987); the product or service that is a customer's first choice among alternatives (e.g. Ostrowski et al., 1993).

The most widely acceptable definition of loyalty is "behavioural response expressed over time by some decision-making unit with respect to one or more alternatives" (Dick and Basu, 1994; Jacoby and Chestnut, 1978). Oliver (1997) defined loyalty as '. . . a deeply held commitment to re-buy or repatronise a preferred product consistently in the future, despite situational influences and marketing efforts having the potential to cause switching behaviours'. Loyalty is defined as composite or multidimensional construct combining different groupings of intentions, attitudes, and seller performance indicators and is influenced by both commitment and trust (Palmatier et al, 2006). Loyalty has been formally defined as repeated action over time (e.g. Bloemer and Ruyter, 1998; Gustafsson et al., 2005; Jacoby and Chestnut, 1978). Most studies measured loyalty as repurchase intentions. (Agustin and Singh, 2005; Anderson and Mittal, 2000; Johnson et al., 2006). A few studies measured loyalty as repurchase behavior or as a combination of intentional versus behavioral loyalty (Tuu and Olsen, 2010). Loyalty does not mean that the customer buys repeatedly from the same company (Reichheld, 2003), in some cases, a customer may not be purchasing as frequently because changed circumstances have reduced his or her requirements for the company's products and services. Going by this logic, repeat purchases or increased numbers of purchases may not be true indications of customer loyalty (Reinartz and Kumar (2002). But loyal customers generate positive word of mouth publicity by way of advocating a firm's offerings to friends, colleagues

and family members and put their own reputation at stake when they recommend a company and hence this act of recommendation is considered as an indicator of customer loyalty (Reichheld, 2003).

Oliver (1997) defined customer loyalty as a profound devotion to regularly repurchase of a favoured product or service. He also stated that the customer would maintain his behaviour despite strong marketing efforts from alternative companies. The competitors are then efficiently defeated. This explanation underscores the view that customer loyalty is a behaviour response to the environment. Furthermore, for Jacoby and Chestnut (1978), customer loyalty is a prejudiced psychological manner exhibited recurrently as a commitment response whilst Dick and Basu (1994) points out that it is an important attitude that favours good marketing relationships and a person's repeat patronage. As suggested by Oliver (1999) loyalty has four phases (*see: table-2.5)* with each successive stage is stronger than its previous phase. First and the weakest phase is cognitive loyalty which is based on factual information. This stage is based on brand belief only, and the brand attribute information available to the buyer indicates that one brand is preferable to its alternatives. Repurchase intentions of cognitive loyalists are logic-based and hence vulnerable to the persuasive appeals of the competitors. The second phase which is stronger than cognitive loyalty is affective loyalty. It is stronger as customer used a product for longer period of time and positive attitude and emotional attachment can be developed because of successful consumption experiences. This reflects the pleasure dimension of the satisfaction definition-pleasurable fulfilment. The third phase where repurchase becomes a behavioural intention is known as conative loyalty. It is the conative stage, as influenced by repeated episodes of positive affect toward the brand. Despite presence of deeply held motivation to repurchase, yet consumers remain somehow vulnerable and hence the fourth phase which refers to the action control process is known as action loyalty. In the action phase, the motivated intention in the previous loyalty state is transformed into readiness to act. Uncles et al. (2003; cited by Srivastava and Rai, 2014) pointed out that there are three popular conceptualizations of loyalty- i) it is an attitude that results in the relationship with the brand, ii) favourable behaviour and iii) buying moderated by individual characteristics, circumstances and/or the purchase situation.

Table-2.5: Loyalty Phases

Stage	Identifying Marker
Cognitive	Loyalty to information such as price, features, and so forth.
Affective	Loyalty to liking: 'I buy it because I like it.'
Conative	Loyalty to an intention: 'I am committed to buying it.'
Action	Loyalty to action inertia, coupled with the overcoming of obstacles.

Source: Oliver, 1999

Gremler and Brown (1996; cited by Caruana and Malta, 2002) defined loyalty in the context of service as the degree to which a customer displays repeat purchasing behaviour from a service provider, possesses positive attitudinal disposition toward the provider, and think carefully to buy only from this provider when a need for this service exists. Loyalty is a multidimensional concept in service provision (Wong et. al., 2014). Several authors tend to consider loyalty on a multidimensional basis, by adding an attitudinal (cognitive and/or affective components), motivational, or conative (intention or commitment to consume) component (e.g., Macintosh and Lockshin, 1997; Oliver, 1999) to a behavioural loyalty concept. Oliver (1997) suggests that the literature on loyalty lacks a unitary approach. The study suggested that there is no unique definition of loyalty as several authors have used different constructs to explain and to measure loyalty but the definitions used are mainly from three dimensional contexts, behavioural, attitudinal and cognitive. Hence three dimensions are used to measure loyalty in this study (*see: table-2.6*).

Table-2.6: Dimensions of Loyalty

Key Dimensions of Loyalty		
Dimensions	**Definition**	**Source**
Behavioral loyalty	Repeat purchases, share of wallet and word of mouth, recommendations.	Day, 1969,
Attitudinal loyalty	Commitment, trust or emotional attachment.	Day, 1969,
Cognitive loyalty	The product or service that is a customer's first choice among alternatives.	Dwyer et al., 1987

Table 2.7: Relevant Key Findings Regarding Service Quality, Customer Satisfaction and Loyalty in the Banking Sector-The Western Economy

Author	Relationship	Relevant Key Findings
Parasuraman et al. (1985)	Conceptual model for service quality Methodology: Focused group interviews Industry: retail banking, credit card, securities brokerage, product repair & maintenance. Method /sample size: 12 Focused group interviews (FGI), 8 in Southwest, 1 on the West Coast, one in the Midwest and two in the East of US. Limitations/comments: ➢ Original study. ➢ The study is based on focus group interviews.	Revealed 10 evaluative dimensions to measure service quality. These are reliability, responsiveness, competence, access, courtesy, communication, credibility, security, understanding, tangibles.
Parasuraman et al. (1988)	Measuring customer perceptions of service quality. 1st stage: Methodology: Quota sampling Industry: Appliance repair & maintenance, retail banking, long-distance telephone, securities brokerage, credit cards. Sample size: 200, South west, USA Statements/factors/issues used: 97 Method: Factor analysis. 2nd stage: Industry: Appliance repair & maintenance, retail banking, long-distance telephone, credit card company Sample size: 200 from each category, East, USA. Statements/factors/issues used:34 Method: Factor analysis. Limitations/comments: ➢ The respondents were selected from different categories and from two different zones of USA. ➢ Original study. ➢ Sample size is large.	Developed 22-item instrument (SERVQUAL) to measure customer perceptions of service quality.
Fornell (1992)	Customer expectations, perceived quality-perceived value, customer satisfaction. Customer satisfaction-customer complaints, customer loyalty.	Introduced annual customer satisfaction barometer. Both service quality and customer satisfaction are equally

	Industry: manufacturing (non-durables), manufacturing (durables), retail, monopolies (postal and telephone services), service providers (banks/insurance companies). Area: Sweden. Sampling: Judgmental sampling. Indicator: 15 Methods: Customer satisfaction Barometer (CSB).	important for firms. Importance of customer satisfaction varies industry to industry.
Anderson and Sullivan (1993)	Service quality-customer satisfaction-repurchase intention. Industry: airlines, banks, cars, charter travel, clothing retail, insurance, gas stations, mainframe computers, retail etc. Area: Sweden. Sample size: 22,300. Instrument: different conceptual framework. Statements/factors/issues used: 2 for service quality, quality given price and price given quality. Method: regression analysis. Limitations/comments: ➢ Methodology part specifically type of methodology used and number of issues/statements used for the study are not clear.	Satisfaction is positively influenced by perceived service quality. Repurchase intentions is positively influenced by customer satisfaction.
Fornell et al. (1996)	Customer expectations, perceived quality-perceived value, customer satisfaction. Customer satisfaction-customer complaints, customer loyalty. Industry: manufacturing (non-durables), manufacturing (durables), transportation/communication/utilities, retail, finance/insurance, public administration/government. Firms: 200. Sampling: probability sampling. Variables used: 15. Methods: Customer Satisfaction Barometer (CSB).	Developed the American Customer Satisfaction Index (ACSI) that represents a new type of customer-based measurement system for evaluating and enhancing the performance of firms. Customer satisfaction is more quality driven than value or price driven.
Baumann et al. (2005)	Service quality-customer satisfaction-loyalty. Instrument: five dimensions of SERVQUAL along with access, affective	Customer attitudes were found to be significantly associated with behavioural intentions,

	attitude towards the bank, meet expectations, fees and interest rate. Sample size: 1924. Area: Australia. Method: Factor analysis. Limitations/comments: ➢ Sample size is large.	but not with actual behaviour. This study indicates that intentions are only poorly correlated with actual behaviour.

Pont and McQuilken (2005)	Customer satisfaction-loyalty (across retirees, university students)
	Instrument: 5 dimensions of loyalty- loyalty, switch, pay more, external response, internal response.
	Items: 13 for loyalty.
	Industry: banking.
	Area: Australia.
	Sample size: 102.
	Sampling: Systematic sampling.
	Methods: Correlation, regression analysis.
	Limitations/comments:
	   ➢ Sample size is small.
	   ➢ The relationship between service quality and customer satisfaction was not measured.
		No significant difference between satisfaction levels of either groups but both loyalty and switch are high for retirees.
		Satisfaction was found to have a significant impact on loyalty, pay more and external response.

Table 2.8: Relevant Key Findings Regarding Service Quality, Customer Satisfaction and Loyalty in the Banking Sector (Developing Countries)

Author	Relationship	Relevant Key Findings
Prabhakaran and Satya (2003)	Service attributes-customer satisfaction Methodology: Convenience sampling. Sample size: 30. Bangalore, India Instrument: Five dimensions of SERVQUAL. Limitations/comments: ➢ Methodology is not very clearly explained. ➢ Sample size is very small. ➢ Coefficient of association between attributes was used to study the relationship between the attributes and its effects on the level of customer satisfaction.	All five dimensions of SERVQUAL affect service quality. Service quality affects customer satisfaction.
Liang and Wang (2004)	Product/non-product related attributes-benefits; benefits- customer satisfaction; customer satisfaction-trust/commitment-loyalty. Methodology: Simple random sampling. Sample size: 396, 431 and 216 from 3 different departments. Taiwan. Instrument: Different conceptual framework. Method: SEM (EFA, LISREL) Limitations/comments: ➢ Sample size is large. ➢ Data were collected from customers of one bank only.	Both product related and non-product related attributes are positively and significantly related with functional benefits and experiential benefits but less significantly related with symbolic benefits. Customer satisfaction positively affects trust or commitment which in turn develops behavioral loyalty.
Chen (2009)	Instrument: I-S (importance-satisfaction) model used 5 dimensions of SERVQUAL along with IT to measure service quality. Statement/factors/issues used:27 Industry: Banking. Area: Taiwan Sample size: 347 Method: performance-control matrix index.	Established performance evaluation model for service quality.

	Limitations/comments: ➢ Sample size is high. ➢ Introduced IT as a dimension of service quality.	
Bedi (2010)	Service quality-customer satisfaction and behavioral intentions. Instrument: SERVQUAL along with product availability and product convenience. Statements/factors/issues used: 31 modified. Method: Correlation analysis, regression analysis. Sample size: 603, public/private, Area: The Northern India. Limitations/comments: ➢ Methodology specifically sampling method used is not very clear. ➢ Sample size is large.	The association between customer satisfaction and propensity to recommend is strong. The findings on relationships are as follows: Empathy-customer satisfaction (r=0.658 for private and 0.655 for public). Assurance-customer satisfaction (r=0.774 for private and 0.733 for public). Reliability-customer satisfaction (r=0.848 for private and 0.891 for public). Responsiveness-customer satisfaction (r=0.873 for private and 0.934 for public). Tangibles-customer satisfaction(r=0.827 for private and 0.827for public). Product availability-customer satisfaction(r=0.831 for private and 0.826 for public). Product convenience-customer action(r=0.870 for private and 0.857 for public). Responsiveness (β =0.168 for private and 0.351for public); Product convenience (β =0.316 for private and 0.300 for public). Reliability (β =0.249 for private and 0.157 for

		public). Assurance (β =0.250 for private and 0.208 for public). Customer satisfaction-propensity to recommend (r= 0.714). Customer satisfaction-switching intention (r= -0.860).
Zafar et al. (2012).	Service quality-customer satisfaction –loyalty. Instrument: tangibility, reliability, competence and conflict handling. Statements/factors/issues used: 14 for service quality and other 7 for customer satisfaction and loyalty. Methodology: Convenience sampling. Sample size: 192 Area: Rawalpindi/Islamabad Lahore and Karachi of Pakistan. Method: AMOS Limitations/comments: ➢ Data were collected from four different cities but sample size is not large.	Service quality dimensions have significant positive relationship with customer satisfaction and customer satisfaction has positive association with loyalty. Tangibles-customer satisfaction (β=0.327 at p < 0.05). Reliability-customer satisfaction, CS (β=0.201 at p < 0.05). Competence-CS (β=0.278, p<0.05). Conflict handling-CS (β=0.153, at p<0.05). Customer satisfaction-loyalty (Beta 0.874, at p<0.05).
Lau et al. (2013)	Service quality-customer satisfaction –loyalty. Methodology: Convenience sampling. Sample size:119,HSBC, Hong Kong Instrument: SERVQUAL Statement/factors/issues used: 21 modified. Method: PCA, CFA, SEM Limitations/comments: ➢ The respondents were selected from one bank (HSBC) out of 172 banks in Hong Kong. ➢ Sample size is very small. ➢ As a measuring instrument	Tangibility, responsibility, reliability and assurance were more significant in contributing to customer satisfaction, while empathy was the least significant. The relationship between customer satisfaction and loyalty is highly significant. Tangibles-customer satisfaction (β=0.228 at p < 0.01). Empathy-customer satisfaction (β=0.157 at p

	though SERVQUAL was used but instead of 22 items 15 items were considered.	< 0.01). Reliability-customer satisfaction (β=0.229 at p < 0.01., Assurance-customer satisfaction (β=0.293 at p < 0.01). Responsiveness-customer satisfaction (β=0.234 at p < 0.01) Customer satisfaction-loyalty (Beta 0.606).
Hassan et al. (2013).	Among service quality, satisfaction and customer loyalty. Instrument: SERVQUAL Methodology: Convenience sampling Sample size:180, Multan, Pakistan Method: Correlation analysis, regression analysis. Limitations/comments: ➢ Methodology part is weak specifically number of issues/statements scales used for the study are not clearly mentioned. ➢ Sample size is not large.	Significant positive relationship between all attributes of service quality and customer satisfaction and between customer satisfaction and customer loyalty. Empathy (r=0.649), Reliability (r=0,637), Assurance (r=0.595), Responsiveness (r=0.471). Service quality-customer satisfaction (r=0.717) Customer satisfaction-loyalty (r= 0.666) all at sig< 0.01. Tangibles-Customer satisfaction (β=0.147, sig p< 0.065). Empathy-Customer satisfaction (β=0.286, sig< 0.000). Reliability-Customer satisfaction (β=0.215, sig< 0.011). Assurance-Customer satisfaction (β=0.227, sig<0.001). Responsiveness-Customer satisfaction (β=-0.010, sig<0.881). Customer satisfaction-loyalty (β 0.223, sig<0.001).
Mittal and Gera	Service quality-customer	Service quality affects

(2013)	satisfaction Customer satisfaction- purchase intention Customer satisfaction- recommendation intention Instrument: modified based on previous work. Statement/factors/issues used: 31 for service quality. Methodology: Combination of convenience and judgement sampling Industry: Banking industry Sample size: 188, Delhi, India Method: AMOS Limitations/comments: ➢ Sample size is not very large.	customer satisfaction. Service quality affects behavioral outcomes both directly and indirectly via satisfaction.

Khan and Fasih (2014)	Service quality-customer satisfaction -loyalty
	Instrument: tangibles, reliability, assurance and empathy dimensions of SERVQUAL.
	Statement/factors/issues used: 16 for service quality and other 7 for customer satisfaction and loyalty.
	Methodology: Stratified random sampling and convenience sampling.
	Sample size: 225, conventional & Islamic banks of Lahore, Pakistan.
	Method: Correlation analysis, regression analysis.
	Limitations/comments:
	  ➢ Sample size is medium.
	  ➢ Overlooked one key dimension of SERVQUAL-responsiveness.
		Service quality dimensions have significant and positive association with customer satisfaction. Positive/significant relationship between customer satisfaction and loyalty exists. Empathy-customer satisfaction ($r=0.167$ at $p < 0.01$). Reliability-customer satisfaction ($r=0,187$ at $p < 0.01$). Assurance-customer satisfaction ($r=0.175$ at $p < 0.01$). Tangibles- customer satisfaction ($r=0.126$ at $p < 0.05$). Customer satisfaction-loyalty ($r=0.236$ at $p < 0.01$). Tangibles-customer satisfaction ($\beta=0.333$, $p < 0.210$). Empathy-customer satisfaction ($\beta=0.133$, $p < 0.012$), reliability-CS ($\beta=0.387$, $p < 0.079$).

		Assurance-customer satisfaction (β=0.193, p< 0.025).
Nautiyal, G (2014)	Service quality-customer satisfaction Instrument: SERVQUAL Statement/factors/issues used:22 for service quality Methodology:Convenience sampling, Sample size:225, Delhi Method: Regression analysis Limitations/comments: ➢ The relationship between customer satisfaction and loyalty was not measured. ➢ Sample size is medium.	Responsiveness, assurance and empathy had high positive impact on customer satisfaction. Empathy-customer satisfaction (r=0.570 sig< 0.01). Reliability-customer satisfaction (r=0,300, sig < 0.01). Assurance-customer satisfaction (r=0.596, sig < 0.01). Tangibles-customer satisfaction (r=0.320 at sig< 0.01). Responsiveness-customer satisfaction(r=0.440 sig< 0.01). Tangibles-customer satisfaction (β=0.024, p < 0.751). Empathy-customer satisfaction (β=0.274 at p < 0.01). Reliability-customer satisfaction (β=0.021 at p< 0.772). Assurance-customer satisfaction (β=0.291, p< 0.001). Responsiveness-customer satisfaction (β=0.149 at p < 0.040).
Sabir et al. (2014)	Service quality-customer satisfaction -loyalty Methodology: Simple random sampling. Sample size:72,Sahiwal, Arifwala, Okara, Pakpattan of Pakistan Instrument: SERVQUAL Statement/factors/issues used: 31 modified. Method: Correlation analysis, regression analysis.	Significant positive relationship between service quality-customer satisfaction and customer satisfaction and loyalty exists. Service quality-Customer satisfaction (r=0.570 sig< 0.000). Customer satisfaction and customer loyalty

		(r=0.658 sig< 0.000).
	Limitations/comments:	
	➤ Overlooked one key dimension of SERVQUAL-responsiveness.	
	➤ Sample size is very small.	
	➤ Data analysis and interpretation part is not properly developed.	
Köksal and Dema (2014)	Service satisfaction-customer loyalty; security-loyalty; relationship-loyalty; reliability-loyalty; staff-loyalty Instrument: Different conceptual framework. Statement/factors/issues used: 19 for 6 variables. Respondents:410, Albania Methodology: Convenience sampling. Method: CFA, EFA, AMOS Limitations/comments: ➤ Data were collected from 1 bank only. ➤ Sample size is large. ➤ Conceptual framework is not very strong.	Relationship and staff factors have a direct impact on customer loyalty.
George and Kumar (2014)	Service quality-customer satisfaction. Instrument: website attributes, reliability, responsiveness, fulfillment, efficiency, privacy, security to measure service quality. Items/statements: 20 Industry: Internet banking. Area: Kerala, India Sample size: 406 Method: EFA, CFA, regression analysis. Limitation/Comment: ➤ Sample size is large.	Privacy (β=-0.278, sig<0.000). Responsiveness (β=-0.260, sig<0.000). Fulfillment (β=-0.177, sig<0.000). Security (β=-0.181, sig<0.000). Reliability (β=-0.163, sig<0.000).
Osman *et al.* (2015)	Service quality-loyalty, customer satisfaction-loyalty and image-loyalty. Instrument: SERVQUAL for service quality. Statement/factors/issues used: 35 for service quality and other 10 for customer satisfaction, image and	Service quality, customer satisfaction and image have significant and positive influence on customer loyalty.

	loyalty. Methodology:Convenience sampling, Sample size: 512, Klang Valley, Malaysia Method: Structural Equation Modeling (SEM). Limitations/comments: ➤ Sample size is large. ➤ Used different conceptual model and relationship between service quality and customer satisfaction was not measured.	

Table 2.9: Relevant Key Findings Regarding Service Quality, Customer Satisfaction and Loyalty in the Banking Sector in Bangladesh

Author	Relationship	Relevant Key Findings
Masukujjaman and Afia (2010)	Quality of categorized service (general banking; credit banking and foreign banking services) and customer satisfaction. Methodology: Judgemental sampling Respondents:480, private Method: Correlation, ANOVA Limitations/comments: ➢ Sample size is large. ➢ Used different conceptual framework (customer satisfaction index, Singapore. ➢ Methodology part is weak specifically number of issues/statements scales used for the study is not clear.	Overall service quality in private commercial bank is moderate. Quality of perceived services in general banking is better than others.
Islam and Ali (2011)	Among service quality, satisfaction and customer loyalty. Instrument: Five dimensions of SERVQUAL and security, reputation, services offered, access as antecedents of customer satisfaction. Method: CFA, SEM Sample size: 222 both from private/ public banks. Limitations/comments: ➢ Literature review is not appropriate enough to support use of four additional variables (i.e., security, access to services, service offered and reputation) as antecedents of customer satisfaction. ➢ Data were collected from clients of both private and public banks but generalize conclusions had been drawn without any comparison.	Responsiveness, assurance, empathy; security and reputation have a strong impact on clients' satisfaction. Customer satisfaction and reputation both have strong influence on client's loyalty. Tangibles-customer satisfaction (r=0.873). Empathy- customer satisfaction (r=0.927). Reliability-customer satisfaction (r=0.835). Assurance-Customer satisfaction (r=0.758). Responsiveness- customer satisfaction (r=0.938). Security- customer satisfaction(r=0.873). Reputation-customer satisfaction(r=0.750). Services offered-

		customer satisfaction(r=0.831). Customer satisfaction-loyalty (r=0.921). Reliability (β= -.24, p< .196). Tangibles (β= .09, p< .268). Responsiveness (β= .682, p< .001); assurance (β= -.367, p< .027); empathy (β= .341, p< .022); and security (β= .30, p< .021); access (β= -.084, p< .349); service offered (β= .032, p< .690); reputation (β=.274, p< .018). Satisfaction-loyalty (β= .612, p< .001).
Siddiqi (2011)	Interrelationships between service quality, customer satisfaction, corporate image, customer value and customer loyalty. Respondents: 100 of public/private banks of Dhaka and Comilla. Method: SEM. AMOS Limitations/comments: ➢ Service quality attributes were not considered to measure service quality. ➢ Sample size is very small. ➢ Analysis and interpretation part is weak and not in line with the theoretical framework.	Service quality has significant positive relationship with customer satisfaction.
Nabi (2012)	Customers' expectations of service quality. Methodology: Convenience sampling Sample size: 98,Private, Dhaka Instrument: SERVQUAL Statement/factors/issues used:14 modified Limitations/comments:	Customers' expectations depend mainly on the tangibles, responsiveness and assurance dimensions of service quality.

	➤ The study tried to find out the service quality attributes that customers expect to evaluate or select a bank. ➤ Sample size is very small. ➤ As a measuring instrument though SERVQUAL was used but instead of 22 items 14 items were considered.	
Afrin (2012)	Overall service quality and service attributes. Instrument: SERVQUAL Respondents:100, Private, Dhaka Methodology:Convenience sampling, Method: Regression analysis Limitations/comments: ➤ Measured the relationship between service attributes and service quality. ➤ Sample size is very small.	Responsiveness followed by tangibles, reliability, assurance and empathy are the most important dimensions of service quality.
Rahman (2013)	Basic service, advanced service, cost and prestige- customer satisfaction and customer satisfaction-loyalty Instrument: Brayfield-Rothe (1951). 25 statements. Respondents: 100 clients of Jamuna bank Method: Correlations, multiple regressions. Limitations/comments: ➤ Used different variables to measure service quality but in literature review; these are not properly discussed/ mentioned. ➤ Data were collected from the clients of Jamuna bank only. ➤ Sample size is very small.	Positive/significant relationship between advanced service, cost & prestige and customer satisfaction exists. Positive/significant relationship between customer satisfaction and loyalty exists. Basic service-customer satisfaction (r=0.376, sig 0.01). Advanced service-customer satisfaction (r=0.586, sig 0.01). Cost and prestige-customer satisfaction (r=0.7000, sig 0.01). Customer satisfaction-customer loyalty (r=0.573, sig 0.01). Basic service-customer satisfaction (β=-.027, sig< .760) Advanced service-customer satisfaction (β=.268, sig< .008).

		Cost and prestige-customer satisfaction (β=.549, sig< .000). Customer satisfaction and customer loyalty (β=.573, sig< .000).
Fatima and Razzaque	Relationship between service quality, customer involvement and customer satisfaction. Respondents: 212, Private, Dhaka Method: SEM. AMOS Limitations/comments: ➢ Service quality attributes were not used to measure service quality. ➢ Objective was to find out the impact of perceived service quality on customer involvement and customer satisfaction.	Service quality has significant positive relationship with customer satisfaction.
Saha et. al. (2014)	Importance of service quality dimensions, and satisfaction level of customers of bank in each service dimension. Dimensions/attributes used: Branch environment (technical facilities, interior decoration etc.), bank safety, guarantees, bank opening hours; request fulfillment time; bank reputation, service speed, service costs Respondents: 51 (of private banks), Area: Rajshahi Methodology:Convenience sampling, Method: Factor analysis Limitations/comments: ➢ Used different variables to measure service quality but in literature review; these are not properly discussed/ mentioned. ➢ Sample size is very small.	All service quality dimensions are positively correlated with customer satisfaction but bank safety and guarantees are the dominant determinants of customer satisfaction. Bank safety, guarantees (r=.820, sig< .000). Service costs (r=.426, sig< .002). Service speed (r=.277, sig< .051). Branch environment (r=-.089, sig< .538). Bank opening hours (r=.053, sig< .715).
Karim and Chowdhury(2014)	Service quality –customer satisfaction. Instrument: SERVQUAL Methodology: Convenience sampling	Service quality has positive effect on customer satisfaction. Reliability (β= .149, sig<

	Respondents:110 (of private banks), Area: Chittagong
	Method: Regression analysis.
	Limitations/comments:
	  ➤ Sample size is very small.
	  ➤ Methodology part is weak specifically number of issues /statements and scales used for the study is not clear.
		.027).
		Tangibles (β= .358, sig< .000);
		Responsiveness (β= .382, sig< .000).
		Assurance (β= .284, sig< .000).
		Empathy (β= .329, sig< .000).

Table 2.10: Relevant Key Findings Regarding Service Quality, Customer Satisfaction and Loyalty-Other Industries

Author	Relationship	Relevant Key Findings
Seto'-Pamies (2012)	Service Quality-customer satisfaction –loyalty; Trust-loyalty Instrument: For service quality SERVQUAL. Statement/factors/issues used: 22 items for service quality, 3, 5 and 4 items for customer satisfaction, loyalty and trust respectively. Methodology: Convenience sampling Industry: Travel agency sector Sample size: 400 Area: North-East, Spain. Method: EFA, LISREL Limitations/comments: ➢ Sample size is large. ➢ Indicators of five dimensions service quality were grouped together into a single measurement. ➢ Trust has several dimensions but trust is considered to be one dimensional.	Service quality dimensions have significant and positive association with customer satisfaction. Positive, significant relationship between customer satisfaction and loyalty exists. The association between trust-loyalty is weak.
Lee et al. (2012)	High performance work system, employee reactions, service quality, satisfaction and customer loyalty. Instrument: different conceptual framework. Methodology: Random sampling Industry: Health-care Sample size: 196 pairs, employees & patients, private/public. Country: South Korea Method: SEM. Limitations/comments: ➢ Collected data from both employees and patients. ➢ Methodology part is weak specifically number of issues/statements scales used for the study are not clear. ➢ Sample size is not large.	The associations between service quality- customer satisfaction (0.715 at p=0.01) and customer satisfaction and loyalty (0.390 at p=0.01) are significantly positive.
Tu et al.	Service quality-customer satisfaction –	Service quality

(2011a)	loyalty.
	Methodology: Random sampling
	Industry: Chain restaurant
	Sample size:182
	Country: Taoban, Keelung, Taiwan
	Instrument: Used different measures.
	Statement/factors/issues used: 15 modified.
	Method: EFA, SEM
	Limitations/comments:
	   ➢ The respondents were selected from one chain restaurant only.
	   ➢ Sample size is medium.
	   ➢ Only 5 items from Parasaraman et al. (1988) were used to measure service quality.
		significantly affects customer satisfaction and customer satisfaction has impact on loyalty.

Tu et. al (2011b)	Relationship among service quality, customer perceived value, customer satisfaction and loyalty.
	Instrument: SERVQUAL,
	Statement/factors/issues used: 5 for service quality and 4 for other 3 variables each.
	Methodology: Random sampling.
	Industry: retail (computer, communication, consumer electronics)
	Sample size:199
	Area: Taipai, Taiwan
	Method: EFA, SEM.
	Limitations/comments:
	   ➢ Sample size is medium.
	   ➢ Only five items are used to measure service quality.
	   ➢ Data were collected from the customers in a public area outside the main entrance of a single store only.
		Service quality dimensions have significant and positive association with customer satisfaction.
		Positive, significant relationship between customer satisfaction and loyalty exists.

Tuu and Olsen (2010)	Transaction specific/cumulative customer satisfaction—intentional loyalty and behavioral loyalty. Instrument: different conceptual framework. Statement/factors/issues used: 22 for service quality. Methodology:Convenience sampling, Sample size: 225, Delhi	Cumulative satisfaction has a non-linear effect with an increasing return on intentional loyalty and has a decreasing return on behavioral loyalty.

	Method: Regression analysis. Limitations/comments: ➢ Sample size is medium.	
Wong and Sohal (2003)	Service quality-loyalty to employee, service quality-loyalty to company. Instrument: SERVQUAL for service quality but modified. Statements/factors/issues used: 29 for service quality, 10(=4+6) for loyalty. Sample size 1261 Area: Victoria, Australia Methods: Regression analysis. Industry: Retail, chain department store. Limitations/comments: ➢ Sample size is very large. ➢ Used different conceptual model, relationships between service quality and customer satisfaction and between customer satisfaction and loyalty were not measured.	Loyalty to employee is associated with assurance, empathy and tangibles. Loyalty to company is associated with reliability, assurance, empathy and tangibles.
Huber and Herrmann (2001)	Customer satisfaction-brand/dealer loyalty. Instrument: Different conceptual framework. Statement/factors/issues used: Not clear. Methodology: Not clearly mentioned. Industry: Automotive industry. Sample size: 615 Area: Germany Method: LISREL Limitations/comments: ➢ Sample size is large. ➢ Methodology part is weak specifically type of methodology used and number of issues/statements scales used for the study are not clear. ➢ Used different conceptual model and relationship between service quality and customer satisfaction were not measured.	Positive relationship between customer/ product satisfaction and brand loyalty exists.
Sivadas and	Service quality-customer satisfaction,	Service quality influences

| Baker-Prewitt (2000) | likelihood of recommendation, relative attitude.
Satisfaction-loyalty, relative attitude, repurchase intention, likelihood of recommendation.
Relative attitude-repurchase intentions, likelihood of recommendation, store loyalty.
Sampling method: Probability sampling.
Sample size: 542
Industry: Retail
Area: USA
Instrument: SERVQUAL for service quality.
Items: 22 items for service quality. (modified SERVQUAL) along with another 7 items.
Comment/limitations:
  ➢ Data collection by telephone interview. | satisfaction.
Service quality, satisfaction and relative attitude all influence the likelihood of recommendation. |

2.6 Major Findings of the Previous Studies

Relevant key findings from the previous studies regarding service quality, customer satisfaction and loyalty in the context of banking sector of developed economies (*see: table-2.7*) are as follows:

➢ Fornell (1992) used 15 measurement indicators to evaluate six latent constructs (e.g. Perceived quality, customer expectation, perceived value, overall customer satisfaction, customer complaints, and customer loyalty, later, Fornell et al. (1996) built a CSI model in which Perceived quality, customer expectation, perceived value comprise the antecedents of overall customer satisfaction which in turn develops customer loyalty and reduces customer complaints.

➢ The study of Parasuraman et al. (1985) revealed 10 dimensions that consumers use in order to form expectations about the perceptions of services in different service categories. In their later study in 1988 they identified that some of those dimensions are overlapping and hence consolidated them into five broad dimensions and introduced SERVQUAL instrument to measure service quality.

➢ Few studies have been conducted in the recent past to address on relationship among service quality, customer satisfaction and loyalty in the banking sector.

➢ Satisfaction is positively associated with service quality and there exists strong positive relationship between customer satisfaction and customer loyalty.

Relevant key findings from the previous studies regarding service quality, customer satisfaction and loyalty in the context of banking sector of developing economies (*see: table-2.8*) are as follows:

➢ Some studies addressed to the relationship between service quality and customer satisfaction only not on relationship among service quality, customer satisfaction and loyalty.

➢ Because of unavailability of a suitable sampling frame, most of the authors used convenience sampling for data collection.

- Most of the authors used correlation analysis and regression coefficient for data analysis. Few studies used structural Equation modelling (SEM) or AMOS (Analysis of Moment Structures) for data analysis.
- Most of the studies used SERVQUAL instrument to measure service quality and studies revealed that service quality i.e., five dimensions of SERVQUAL have impact on customer satisfaction but in terms of importance of the dimensions to develop customer satisfaction, different studies ranked them differently. The literature review pointed out that correlation coefficient between each dimension of service quality and customer satisfaction varies in the context of marketplaces.
- Overall, there exists significant positive relationship between service quality and customer satisfaction and between customer satisfaction and loyalty.

Relevant key findings from the previous studies regarding service quality, customer satisfaction and loyalty in the context of banking sector of Bangladesh (*see: table-2.9*) are as follows:

- Though a good number of studies have been conducted in this sector of Bangladesh marketplace but most of the studies addressed to the relationship between service quality and customer satisfaction only not on relationship among service quality, customer satisfaction and loyalty.
- Islam and Ali (2011) tried to examine the relationship among service quality, customer satisfaction and loyalty but the study used four additional variables as antecedents of customer satisfaction which are not properly explained.
- A good number of studies used SERVQUAL instrument to measure service quality and studies revealed that service quality i.e., five dimensions of SERVQUAL have impact on customer satisfaction but in terms of importance of the dimensions to develop customer satisfaction different studies ranked them differently (e.g. Nabi, 2012; Islam and Ali, 2011; Afrin, 2012; Karim and Chowdhury, 2014).
- Overall, customer satisfaction is positively related with customer satisfaction (e.g. Islam and Ali, 2011; Rahman, 2013)
- Taking overall size of the banking sector of Bangladesh no studies used a large sample moreover studies were based on data that were collected mainly from Dhaka city.

Relevant key findings from the previous studies regarding service quality, customer satisfaction and loyalty in the context of other industries in different countries (*see: table-2.10*) are as follows:

> ➢ Not a good number of studies have focused on examining the relationship between service quality customer satisfaction and loyalty.
> ➢ A good number of authors used SERVQUAL instrument to measure service quality but some authors used different conceptual frameworks as well.
> ➢ Service quality dimensions have significant positive association with customer satisfaction and customer satisfaction has positive association with loyalty in the context of different industries of different marketplaces.

2.7 Relationship between Service Quality and Customer Satisfaction

The study suggested that the relationship between service climate and customer perceptions of service quality and customer satisfaction is positive (Mayer et. al., 2009). Liang and Wang (2004) suggested that both product related attributes (e.g. safety & ease of process, interest rate of deposit, credit card and loan) and non-product related attributes (e.g. courteousness) are associated with functional, symbolic and experiential benefits which in turn are directly related with customer satisfaction. Customer satisfaction is a function of perceived quality (Mithas et. al., 2005); service attributes (Oliver 1997; Anderson et. al., 2009)

Overall assessment of buyer's experience is an indicator of customer satisfaction (Sindhav et al., 2006). Sindhav and Lusch (2008) pointed out that communication and co-ordination has important role on satisfaction. Customer satisfaction is more quality driven than value or price-driven and customer expectations, perceived quality, and perceived value comprise the antecedents of overall customer satisfaction (Fornel et al., 1996). When buyers are offered with the products that meet their needs, desires of buyers then they are in general believed to be satisfied (Helgesen, 2006).

Literature review suggested that (e.g. Zeithaml, et al., 1990; Cronin and Taylor, 1992) competitive advantage could be achieved with the help of effective measurement,

management and improvement of service quality which in turn results in customer satisfaction. Oliver (1997) mentioned that in a service context, overall customer satisfaction is a function of satisfaction with service attributes. Customer satisfaction is the outcome of the perceived quality (Fornell et al., 1992) superior service quality (Chen, 2009). The physical environment and the appearance of service staffs are important factors for customers to be considered when evaluating services (e.g. Bitner 1990). The study of Lewin (2009) suggested that there exists direct and positive effect of customer expectations on both pre-purchase perceptions of product/service quality and perceive value but the direct effect of customer expectation on customer satisfaction is negative. The relationships between product/service quality and perceived value, product/service quality and customer satisfaction are direct and positive. There exist direct and positive relationships between perceived value and customer satisfaction. Bolton et al. (2008) suggested that superior account management and service delivery (through people and technology) are necessary if a marketer intends to grow its relationships with customers by means of service contract upgrades. Gil et al., (2008) pointed out that perceptions regarding service encounter could generate both direct and mediated effects through perceived service value. Superior service quality develops customer satisfaction and loyalty with the goods or service, greater willingness to recommend others, reduction in complaints and improved customer retention (e.g. Zeithaml et al., 1996). Hence the hypothesis is as follows:

H1: There is a positive relationship between service quality and customer satisfaction.

2.8 Relationship between Customer Satisfaction and Loyalty

Jham and Khan (2008) pointed out that customer satisfaction is a major outcome of marketing activity whereby it serves as a link between the various stages of consumer buying behaviour. Future purchase intention, which is referred to the extent to which a firm intends to expand its current buying activities with a service provider in the near future (Doney and Canon, 1997), depends on customer satisfaction as the relationships between satisfaction and purchase intention are assumed to be positive (Olsen, 2007). In order to develop loyalty customer should have belief that service provider does not have any negative intentions and its

present and past experiences are believed to be a strong predictor of future intentions. If the customer's needs are satisfied, he would have the intention to repurchase again in the future (Kotler, 1977; Keith, 1960). Customers are willing to go for repeat purchase and try line extensions if they are satisfied with the service providers only (East, 1997). In order to repurchase, the goods or service quality should be at least at a minimum acceptance level otherwise customers do not go for repeat purchase as they want to gain something from the transaction and satisfied customers are more likely to repurchase (Eskildsen and Kristensen, 2008).

Satisfaction plays a central role in forming, explaining and predicting customer loyalty (Tuu and Olsen, 2010). Satisfaction appears to be a useful predictor of loyalty not only in general, but also in banking (Baumann et al., 2005). Bloemer et al. (1998) examined the relationship between service quality, customer satisfaction and loyalty in the banking sector and concluded that service quality has an indirect effect via satisfaction and satisfaction has a direct effect on loyalty. The central determining factor of customer loyalty is customer satisfaction (Oliver 1997; Mithas et al., 2005) and is generally regarded as an immediate antecedent to customer loyalty (Anderson and Sullivan, 1993). The outcomes of customer satisfaction are increased customer retention, positive word-of-mouth communications and increased revenues (Zeithaml et. al., 2013, p-91).

The literature on relationship marketing and service marketing has given a strong emphasis on developing loyalty through customer satisfaction. The customers who are satisfied with their service providers develop a trusted relationship with them which in turn develops loyalty (Anderson and Swaminathan, 2011). Customer satisfaction develops trust which in turn develops commitment (Anderson and Narus, 1990). Trust and commitment develops expectation of continuity, word of mouth and loyalty (Palmatier et al, 2006). The literature on customer satisfaction pointed out that customer satisfaction is directly and positively related with usage behaviour (Mittal and Kamakura, 2001; Fornell 1992; Bolton and Lemon, 1999); willingness to recommend others (Zeithaml et al., 1996); reduction in customer complaints (Zeithaml et al., 1996; Fornell 1992; Fornell et al.,1996); Customer retention (Zeithaml et al., 1996; Gustafsson et al., 2005); positive word of mouth and repurchase (Bouliding et al., 1993); economic performance (Bolton et al., 2008) and price and payment equity (Fornell et al., 1996; Bolton and Lemon, 1999) and reduce the likelihood of customer defection (Anderson and Sullivan, 1993). Loyal

customers are not necessarily satisfied customers, but satisfied customers tend to be loyal customers (Fornell, 1992) and more satisfied customer will be more loyal (Helegsen, 2006).

As the benefits of customer satisfaction increases in revenue, decreases in customer related transaction costs and reduction in price elasticity among repeat buyers (Fornell, 1992; Lewin, 2009) hence effect of customer satisfaction on firm's current and future performance is significant (Anderson *et al.,* 1994; Lewin, 2009). There exist direct and positive relationships between perceived value and customer satisfaction, and between customer satisfaction and loyalty (Lewin, 2009).

As satisfied customers have more knowledge about the services provided and hence customer satisfaction decreases transaction cost and therefore they have less demand for pre-sales and post-sales services. Satisfied customers evaluate the service offerings positively and spread positive word of mouth (Fornell, 1992). Bolton (1998) highlighted that there is a significant positive relationship between higher satisfaction levels and increase retention rates, stimulate consumption levels and it enable firms to charge a premium price for their services. Customer satisfaction has significant implications for the economic performance of the firms (Bolton et. al., 2004) as it has negative impact with customer complaints and a positive impact on customer loyalty and usage behaviour (Bolton, 1998; Fornell, 1992). Satisfaction develops trust which in turn develops loyalty (Anderson and Swaminathan, 2011). Helgesen (2006) suggested that customer satisfaction develops customer loyalty which in turn develops customer profitability.

Overall satisfaction is similar to overall evaluations of service quality in a service context. Boulding et al. (1993) suggested that in comparison with more episode-based or transaction-specific measures of performance, overall evaluations are more likely to influence the customer behaviours that help a firm, such as positive word of mouth and repurchase. Overall satisfaction has a strong positive effect on customer loyalty intentions across a wide range of product and service categories (Fornell 1992; Fornell et al. 1996) and hence satisfaction has been used to explain loyalty as behavioural intentions like the likelihood of repurchasing and recommending (Gustafsson et al., 2005; Mittal and Kamakura, 2001). The study suggested that the relationship between customer satisfaction and loyalty is direct and positive (e.g. Lewin, 2009; Helgesen, 2006; Yu et al., 2005; Bloemer and Ruyter, 1999; Fornell et al., 1996; Fornell, 1992). Hence the hypothesis is as follows:

H2: There is a positive relationship between customer satisfaction and loyalty.

2.9 Concluding Remarks on Literature Review

As services are generally defined by some core attributes and hence quality of the service is measured by the quality of the service attributes. The importance of developing loyal customers is growing as it is very much required for an organization to develop long-term relationship with the customer. Though the review suggests that most authors acknowledged high service quality develops superior customer satisfaction and hence loyalty but used different attributes of service quality and measured customer satisfaction differently. It is also seen that researchers used several dimensions of loyalty. Moreover the relationship between service quality, customer satisfaction and loyalty differed by country, industry, between products and services and as well as within products/services and product/service categories. Past studies pointed out that magnitude of the relationships varies as well. A few numbers of good studies in the context of this marketplace are available.

Previous studies have focused entirely on behavioural outcomes of loyalty and ignored others (e.g. Jacoby and Chesnut, 1978; Carauna & Malta, 2002) and various studies have found that service quality dimensions have positive on customer satisfaction and customer satisfaction has positive influence on loyalty but the level of influences vary from one study to other, subject to type of service concerned and the marketplace.

The economy of Bangladesh is growing and the banking sector is expanding. Despite this little or no comprehensive study has been made to verify the role of service quality on developing customer satisfaction which in turn develops loyalty in the context of Bangladesh market. Hence the purpose of this study is to address this gap in the literature by measuring relationship among service quality, customer satisfaction and loyalty with regard to the Banking Sector in Bangladesh.

Chapter Three

Banking and Banking Sector in Bangladesh

Chapter Three: Banking and Banking Sector in Bangladesh

3.1 Definition of a Bank

Bank is an establishment for the custody, loan, exchange, or issue of money, for the extension of credit, and for facilitating the transmission of funds. Rose and Hudgins pointed out that bank can be defined in terms of i) the economic functions it performs, ii) the services it offers to its customers, or iii) the legal basis for its existence. Banks are financial institutions that accept deposits and make loans i.e, banks transfer funds that they collect from savers to borrowers (financial intermediation) and in order to pay goods and services banks are the financial intermediaries that the average person interacts with most frequently (e.g. Rose and Hudgins, 2013, p-2; Mishkin, 1995, p-9-10; Mishkin and Eakins, 2011, p-8).

Mishkin (1995, p-9) highlighted three important functions of banks which are i) to provide a channel for linking people who want to save with those want to invest; ii) to play an important role in determining the money supply and in transmitting the effects of monetary policy to economy; and iii) it has been a source of the rapid innovation that is expanding the ways in which we can invest our savings. Banks are the most important sources of external funds used to finance businesses (Mishkin and Eakins, 2011, p-367) and as banks play significant role to channel funds to borrowers with productive investment opportunities, these depository institutions are important in ensuring that the financial system and the economy run smoothly and efficiently (Mishkin, 1995, p-251).

The study (e.g. Rose and Hudgins, 2013; Mishkin, 1995; Mishkin and Eakins, 2011) suggests that bank is an organization, usually a corporation, chartered by a state or federal government, which does most or all of the following: receives demand deposits and time deposits, honors instruments drawn on them, and pays interest on them; discounts notes, makes loans, and invests in securities; collects checks, drafts, and notes; certifies depositor's checks; and issues drafts and cashier's checks. It is an institution for receiving, lending, exchanging, and safeguarding money and, in some cases, issuing notes and transacting other financial business. Banks may also provide financial services, such as wealth management, currency exchange and safe deposit boxes. It is an organized institutional set-up of the financial system of a country through which surplus units transfer their fund to deficit units. The bulks of surplus fund as savings generated by the household sectors and get transferred to

the government and corporate sector as different forms of loans and advances. It bridges the gap between the savers and borrowers. Thus they play a crucial role in the process of economic growth. A financial institute which is licensed by a government and involved in providing financial services to customers while enriching its investors is known as bank. It collects deposits through different deposit mechanism and provides loans and advances among the clients/investors in order to earn profit. The level of government regulation of the banking industry varies widely, with countries such as Iceland, having relatively light regulation of the banking sector, and countries such as China having a wide variety regulations but no systematic process that can be followed typical of a communist system.

3.2 Types of Banks

The activities or operations of Banks depend on the types of the banking institution by nature. The different types of banks are mentioned and defined in the table-3.1. At the ultimate endpoint in the long-term evolution of financial-service delivery, customer will have continuous access to financial services via all channels (e.g. phone, TV, computer terminals or other electronic devices) from all the places as experts predict that someday all financial transactions will arise from the customer's own location, be it at home, in an automobile or airplane, at the office, or in a shopping mall any hour of the day or night (Rose and Hudgins, 2013, p-117).
.
Commercial bank: The study (Mishkin, 1995; Mishkin and Eakins, 2011) suggests that commercial banks raise funds from accountholders and then use these funds to make commercial, consumer and mortgage loans and to buy government securities and bonds. They usually collect funds primarily by issuing checkable deposits (deposits on which checks can be written), saving deposits (deposits that are payable on demand but do not allow their owner to write checks), and time deposits (deposits with fixed terms to maturity). Hence primary liabilities (sources of fund) of commercial banks are deposits and primary assets (uses of funds) are business and consumer loans, mortgages, government securities and bonds. Those are among the largest in the country are often referred to as money center banks. Commercial banks have some common feature of activities by nature and do businesses with some similar guided tools or products or lend money and perform as undertaker or guarantor

Table-3.1: The Many Different Kinds of Financial Service Firms Calling Themselves Banks

Type of Banks	Definition/Description
Commercial banks	Sell deposits and make loans to businesses, individuals and institutions.
Money center banks	Largest commercial banks based in leading financial centers.
Community banks	Smaller, locally focused commercial and savings banks.
Savings banks	Attract savings deposits and make loans to individuals and families.
Cooperative banks	Help farmers, ranchers, and consumers acquire goods and services.
Mortgage banks	Provide mortgage loans on new homes but do not sell deposits.
Investment banks	Underwrite issues of new securities on behalf of their corporate customers.
Merchant banks	Supply both debt and equity capital to businesses.
Industrial banks	State-chartered loan companies owned by other corporations that provide credit and receive deposits.
International banks	Commercial banks present in more than one country.
Wholesale banks	Larger commercial banks serving corporations and governments.
Retail banks	Smaller banks serving primarily households and small businesses.
Limited-purpose banks	Offer a narrow menu of services, such as credit card companies and subprime lenders.
Bankers' bank	Supply services (e.g. check clearing and security trading) to banks.
Minority banks	Focus primarily on customers belonging to minority groups.
National banks	Function under a federal charter through the controller of the Currency in the United States.
State banks	Function under charters issued by banking commissions in various states.
Insured banks	Maintain deposits backed by federal deposit insurance plans
Member banks	Belong to the Federal Reserve System.
Affiliated banks	Wholly or partially owned by a holding company.
Virtual banks	Offer their services only over the internet.
Fringe banks	Offer payday and title loans, cash checks, or operate as pawn shops and rent-to-own firms.
Universal banks	Offer virtually all financial services available in today's market.

Source: Rose and Hudgins, 2013, p-2

services, although they may name those products as their own way. Another common feature of commercial banks' operation is that they accept deposits in acceptance of interest and service charge.

3.3 Basic Banking

Banks make profit by an asset transformation process where banks sell liabilities with one set of characteristics (a particular combination of liquidity, risk, size, and return) and using the process to buy assets with a different set of characteristics.

Interest the bank pays to depositors	←	Bank keeps the difference	←	Interest rates the bank charges on loans
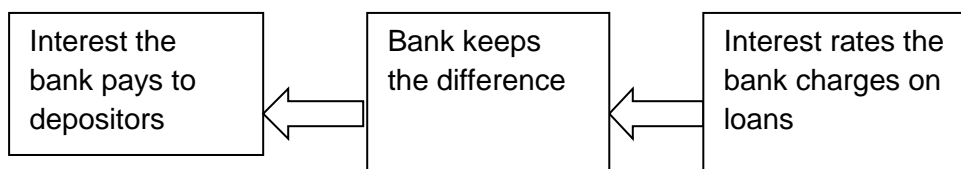
Figure-3.1: How Banks literally Make Money

(Based on literature on banking)

Operational process of banks can be highlighted as per following figure:

Sources of Income Interest+Discount+ commission/ brokerage+exchange earnings+service charges	▬	**Expenses** Deposit expenses/ Fund cost+Rent & other overhead cost + Employees benefits+ Tax	▬ ▬	**Profit/Loss** Gained
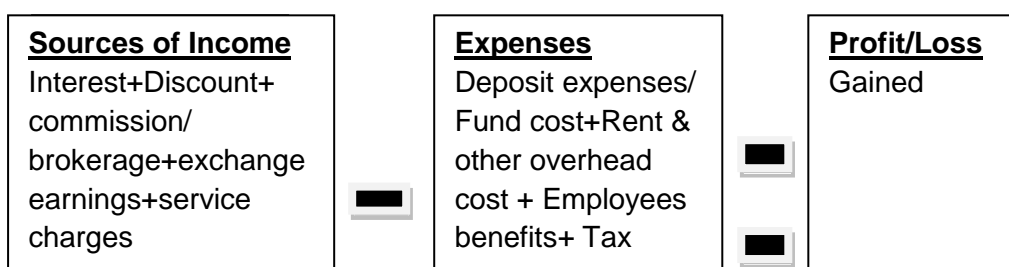
Figure-3.2: Operational Process of Banks

A bank is a profit seeking business firm, dealing in money and credit. It is a financial institution dealing in money in the sense that it accepts deposits of money from individuals and institutions to keep them in its custody for safety. So also, it deals in credit, i.e., it creates credit by making advance out of the funds received as deposits to needy people. A bank is, therefore like a reservoir into which flow the savings, the idle surplus money of households and from which loans are given on interest to businessmen and others who need them for investment or productive uses. Entrepreneurs try to obtain money from the banks as working capital and for long-term investment. They also welcome effective and forward-looking advice for investment. Banking sector thus owe a great to the deposit holders on the hand and the entrepreneurs on the other. Hence banks are expected to play the role of friend,

philosopher, and guide for the deposit holders and the investor/marketers. Banks *make money* on the interest they charge on loans because that interest is higher than the interest they pay on depositors' accounts. The interest rate that a bank charges its borrowers depends on both the number of people who want to borrow and the amount of *money* the bank has available to lend.

```
                Functions of Commercial Banks of Bangladesh

        Receiving Deposit                          Advancing Loans

   Current    Savings    Fixed        Marketing    Bank        Cash
   Account    Account    Deposit      Loans        Overdraft   Credit

                                   Short-    Long-    Medium-
                                   term      term     term
                                   Loans     Loans    Loans
```
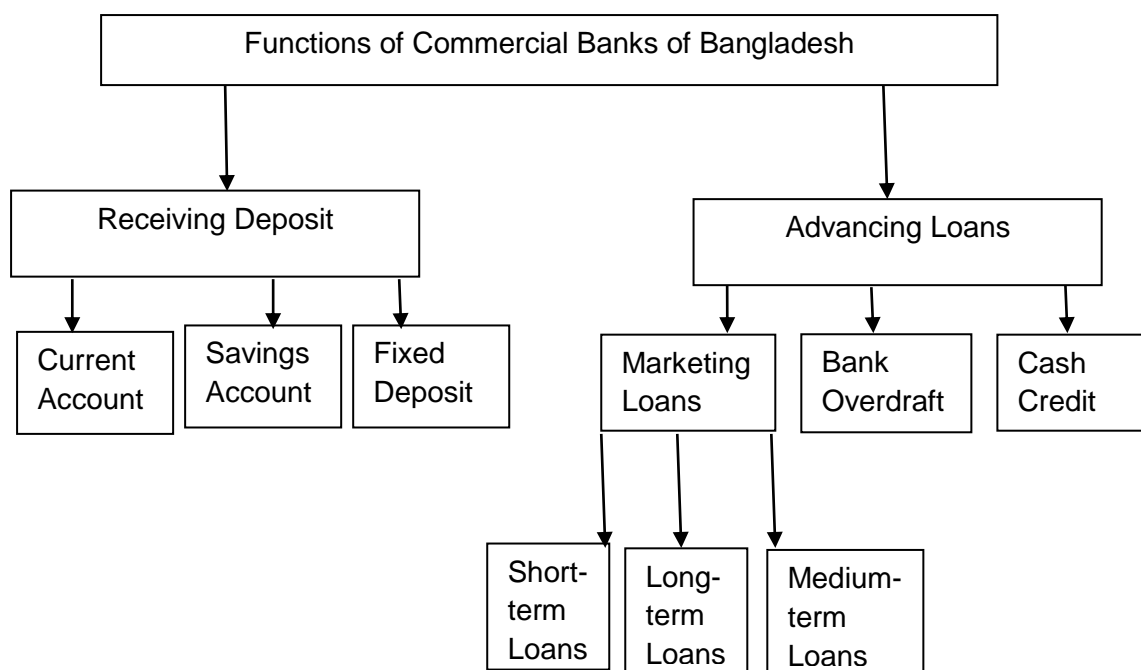
Figure-3.3: Basic Functions of Commercial Banks of Bangladesh
(Source: Ahamed, 2014)

Other than interest banks have many other sources of income like : Account Handling Charge/ Service Charge, Money Transfer Commission(DD/TT/MT Commission or On-line transfer Charge, Foreign Exchange Earning, Guarantee and L/C Commission, Charges for safety deposit boxes for items and documents.

3.4 History of Banks

The word "bank" is commonly regarded as derived from the Italian word banco, a bench - the Jews in Lombardy having benches in the market-place for the exchange of money and bills (Chest of books, 2016). The history of bank began around 2000 BC in Assyria and Babylonia of Greece which made grain loans to farmers and traders who carried goods between cities. Later, in ancient Greece and during the

Roman Empire, lenders based in temples made loans and started to accept deposits and change money. There is an archeological background of money lending in ancient China and India. The formation of institutional banking established in 14th century in Europe. The oldest bank still in existence is **B**anca **M**onte **D**i **P**aschi **D**i **S**iena in Italy which has been operating continuously since 1472. The development of banking spread from northern Italy throughout the Holy Roman Empire, and in the 15th and 16th century to northern Europe. This was followed by a number of important innovations that took place in Amsterdam during the Dutch Republic in the 17th century and in London in the 18th century. The banking system spread from northern Italy to entire Europe and then all over the world (Wikipedia, 2016c).

The modern commercial banking industry began in the United States when the Bank of North America was chartered in Philadelphia in 1782. Federal Reserve System was created to reappear general banking system and to promote an even safer banking system. Banking legislation in 1933 (Glass-Steagall Act) established Federal deposit Insurance Corporation(FDIC), which provided federal insurance on bank deposits to prevent depositor losses from bank failures (Mishkin and Eakins, 2011, p-450-51). As per Relbanks 2015 statistics on largest banks in the world by total assets, the largest bank in the world is Industrial and Commercial Bank of China with a total assets of US$ 3616.39 billions (*see: table-3.2*).

Table-3.2: Largest Banks in the World.

Rank	Bank Name	Total Assets (US$ billion)
1	Industrial and Commercial Bank of China	3616.39
2	China Construction Bank Corporation	2939.15
3	Agricultural Bank of China	2.816.60
4.	HSBC Holdings (UK)	2670.00
5.	Bank of China	2629.31
6	JP Morgan Chase & Co. (USA)	2449.60

Source: Wikipedia, 2016d

Bank of Hindostan which was established in 1770 was the first bank in the Indian Sub-continent. Later on, General bank of India was established in 1786. But both the

banks failed to survive and liquidated in 1829-32 and 1791 respectively. Later Bank of Calcutta, Bank of Bombay, and Bank of Madras merged together to form the Imperial Bank of India which became the State bank of India (SBI) in 1955 after India became independent and hence the largest bank, and the oldest still in existence, is S.B.I in this sub-continent (Wikipedia, 2016b)

Dacca Bank which was established in 1846 in Dhaka was the first modern bank in the then East Bengal. Bank of Bengal (Bank of Calcutta which was established in 1806 and renamed as Bank of Bengal in 1809) acquired Dacca Bank in 1862. During partition of Bengal in 1947, it had six branches which were located in Dhaka, Chittagong, Chandpur, Mymensingh, Rangpur, and Narayanganj (Wikipedia, 2016a)

During 1971, there were two branches of State Bank of Pakistan and seventeen large commercial banks in the banking sector of Bangladesh. Focus of all of their attention was mainly on urban areas. Immediate after liberation the then Government designated the Dhaka branch of the State Bank of Pakistan as the central bank and renamed it the Bangladesh Bank with retrospective effect from 16 December 1971. Central Bank is the government agency that oversees the banking system and is responsible for the conduct of monetary policy of the country (Mishkin, 1995, p-367). The Bangladesh bank was given responsibility for regulating currency, controlling credit and monetary policy, and administering exchange control and the official foreign exchange reserves. The entire banking system was initially nationalized and reorganized and different banks were renamed but foreign-owned banks were permitted to continue doing business in Bangladesh. As after liberation Bangladesh inherited an undiversified and undeveloped financial system which was overwhelmingly dominated by the commercial banks and hence in order to achieve the government's economic objectives since 1972 the commercial banks of Bangladesh used to operate under rigid government regulation via Central Bank (Choudhury, 2012). The controls included fixation of interest on deposit, and credit, directed lending to public enterprises and priority sector and directed expansion of bank branches. After the independence, banking industry in Bangladesh started its journey with 6 nationalized commercialized banks, 2 state-owned specialized banks and 3 foreign banks.

3.5 Economy of Bangladesh

Despite political instability at home and slower growth in both developed and emerging markets the economy of Bangladesh has achieved good economic growth during last two decades. Agricultural sector, manufacture, and service sectors registered 3%, 9.6% and 5.8% GDP growth rates (at constant price) in FY 15. Measure at current market price, GDP of Bangladesh in FY 2015 was estimated at Taka 8245.3 billion (at constant price base FY2006, *see: table-3.5*) and GDP growth rate was 6.5% during FY 2015.

Table-3.3: Sectoral GDP Growth

	FY 02	FY 03	FY 04	FY 05	FY 06	FY 07	FY 08	FY 09	FY 10	FY 11	FY 12	FY 13	FY 14	FY 15[P]
Agriculture	0	3.1	4.1	2.2	4.9	4.8	3.2	4.1	5.2	5.1	3	2.5	4.4	3
Industry	6.5	7.3	7.6	8.3	9.7	8.4	6.8	6.5	6.5	8.2	9.4	9.6	8.2	9.6
Service	5.4	5.4	5.7	6.4	6.4	6.9	6.5	6.5	6.5	6.2	6.6	5.5	5.6	5.8
GDP (at constant price)	4.3	5.3	6.3	6.0	6.6	6.4	6.2	5.7	6.1	6.7	6.5	6	6.1	6.5

Source: Bangladesh Bureau of Statistics, collected from Bangladesh Bank website, 2016.

P=Projected

3.6 Banking Sector in Bangladesh at a Glance

After independence of Bangladesh in 1971, twelve banking companies who were doing business in Bangladesh were nationalized by the Government of the People's Republic of Bangladesh under president's order No.26 of 1972 entitled "The Bangladesh Bank (Nationalizations) Order, 1972" on March 26, 1972 replacing banks owned by Pakistani and Bangladeshi owners, in the name as Sonali, Rupali, Agrani, Janata, Pubali and Uttara. The commercial banks dominate the banking sector of Bangladesh and Bangladesh Bank is the Central Bank of Bangladesh which is the chief regulatory authority in this sector. The primary function of the credit system throughout the 1970s was to finance trade and the public sector, which together absorbed 75 percent of total advances. The government's encouragement during the late 1970s and early 1980s of agricultural development and private industry brought changes in lending strategies. During the first decade of after liberation (1972-1982),

the government achieved success to increase the number of bank branches, deposits and credit in the rural areas and since 1982, government started to take restructuring measures in the form of denationalization of the banks. In the 1980's banking industry achieved significant expansion with the entrance of private banks. Second half of 1990s witnessed a significant improvement of the intensity and quality of banking system. During 1990s government started to give licenses to more new PCBs in order to bring more competition in the sector and to reduce the market share of NCBs. From 2001 onwards Bangladesh Bank took a number of steps for the growth of the banking sector in Bangladesh. These are: rationalization/merger of loss incurring branches of NCBs, formulation of large loan policy, single borrower exposure limit, loan rescheduling and loan write-off policy, large loan restructuring scheme, linking large loan with loan portfolio, steps for recovering default loans, enactment of new Money Loan Court Act-2003 and Money Laundering Prevention Act-2002. The share of deposits and assets of NCBs out of total industry deposits and assets were 46% and 41% respectively which were higher than the respective shares of PCBs. From 2004 onwards, the shares of PCBs exceeded those of NCBs and by June 2010, the share of deposits and assets out of total industry deposits and assets reached at 57% and 59.1 % respectively where as those of NCBs were 28.85% and 28.62% respectively (Choudhury, 2012).

The banking system of Bangladesh at present composed by Bangladesh Bank (central bank) and 97 other Banks and Non-Bank Financial Institutes as listed in table-3.4. The functions of Bangladesh Bank are- to formulate and implement monetary and credit policies, to regulate and supervise and monitor financial intermediaries like banks and non-bank financial institutions, currency issuance and circulation across the country, payment system management, holder and manager of Foreign exchange reserve of the country, bankers to the Government, to prevent money laundering, to implement Foreign exchange regulation Act, and preserve all credit information (Bangladesh Bank, 2016). Banks in Bangladesh are primarily of two types: scheduled banks which get license to operate under Bank Company Act, 1991 (Amended up to 2013) and non-scheduled banks which are established for special and definite objective and operate under the acts that are enacted for meeting up those objectives but cannot perform all functions of scheduled banks. The banking sector of Bangladesh consists of 57 scheduled banks (with new entrant ICICI Bank) and 4 non-scheduled banks. As per Bangladesh Bank Order, 1972 and Bank Company Act, 1991 these scheduled banks operate under tight control of Bangladesh Bank. Banks in Bangladesh are classified into following types:

Table-3.4: Banking/Financial Sector in Bangladesh

	Types of Banks/ Financial Institute	Number
01	Central Bank-Bangladesh Bank	01
02	State-owned Commercial Banks	06
03	State-owned Scheduled Specialized Banks	02
04	Non-scheduled Specialized Banks	04
05	Private Commercial Banks (General)	31
06	Private Islamic Commercial Banks	08
07	Foreign Commercial banks	10
08	Cooperative Banks	03
09	Micro-Finance Organizations (Semi-Formal)	01
	Total Number of Banks	**66**
10	Non-Banking Financial Institutions	32
	Total	**98**

Source: Bangladesh Bank, 2016

- ➢ State Owned Commercial Banks (SCBs): There are 6 SCBs which are fully or majorly owned by the Government of Bangladesh.
- ➢ Specialized Banks (SDBs): 2 specialized banks are now operating which were established for specific objectives like agricultural or industrial development. These banks are also fully or majorly owned by the Government of Bangladesh.
- ➢ Private Commercial Banks (PCBs): There are 39 private commercial banks which are majorly owned by the private entities. PCBs can be categorized into two groups: conventional PCBs and Islami Shariah based PCBs. Total 31 conventional PCBs are now operating in the sector which perform the banking functions in conventional fashion i.e. interest based operations where as total 8 Islami Shariah based PCBs execute banking activities according to Islami Shariah based principles i.e. Profit-Loss Sharing (PLS) mode.
- ➢ Foreign Commercial Banks (FCBs): 10 FCBs are operating in Bangladesh as the branches of the banks which are incorporated in abroad.

Financial sector also consists of 32 Non Bank Financial Institutions (FIs) which are regulated under Financial Institution Act, 1993 and controlled by Bangladesh

Bank. FIs cannot issue cheques, pay-orders or demand drafts; receive demand deposits; be involved in foreign exchange financing. They can conduct their business operations with diversified financing modes like syndicated financing, bridge financing, lease financing, securitization instruments, private placement of equity etc.

Name of the banks are mentioned as follows:

01.   State-owned Commercial Banks
1. Sonali Bank Limited
2. Janata Bank Limited
3. Agrani Bank Limited
4. Rupali Bank Limited
5. BASIC Bank Limited
6. Bangladesh Development Bank Limited

02.   State-owned Scheduled Specialized Banks
1. Rajshahi Krishi Unnoyon Bank (RKUB)
2. Bangladesh Krishi Bank Limited

03. Non-Scheduled Specialized Banks:
1. Karmasangsthan Bank
2. Probashi Kallyan Bank
3. Palli Sanchay Bank
4. Ansar-VDP Unnayan Bank

04. Private commercial banks
1. Southeast Bank Limited
2. Meghna Bank Limited
3. Bangladesh Commerce Bank Limited
4. Bank Asia Limited
5. AB Bank Limited
6. Dhaka Bank Limited
7. Dutch Bangla Bank Limited
8. Eastern Bank Limited
9. IFIC Bank Limited
10. Jamuna Bank Limited
11. Mercantile Bank Limited

12. Midland Bank Limited

13. Modhumoti Bank Limited

14. Mutual Trust Bank Limited

15. National Bank Limited

16. NCC Bank Limited

17. NRB Bank Limited

18. NRB Commercial Bank Limited

19. NRB Global Bank Limited

20. One Bank Limited

21. Prime Bank Limited

22. Pubali Bank Limited

23. South Bangla Agriculture and Commerce Bank Limited

24. BRAC Bank Limited

25. Standard Bank Limited

26. The City Bank Limited

27. The Farmer's Bank Limited

28. The Premier Bank Limited

29. Trust Bank Limited

30. United Commercial Bank Limited

31. Uttara Bank Limited

05. Private Islamic Commercial Banks:

1. Islami Bank Bangladesh Limited

2. Al-Arafah Islami Bank Limited

3. Export Import Bank of Bangladesh Limited

4. Social Islami Bank Limited

5. Shahjalal Islami Bank Limited

6. First Security Islami Bank Limited

7. Union Bank Limited

8. ICB Islamic Bank Limited

06. Foreign commercial banks

1. Bank Al-Falah

2. Citibank NA

3. Commercial Bank of Ceylon

4. Habib Bank Limited

5. HSBC (The Hong Kong and Shanghai Banking Corporation Ltd.)

6. National Bank of Pakistan

7. Standard Chartered Bank

8. State Bank of India
9. Woori Bank
10. ICICI Bank

07. Co-Operative Banks:
1. Bangladesh Samabaya Bank Ltd
2. The Dhaka Mercantile Co-operative Bank Ltd
3. Pragati Co-operative Land Development Bank Limited (Pragati Bank)

08. Micro-Finance Organizations (Semi-Formal):
1. Grameen Bank

09. Non-banking financial institutions
1. Investment Corporation of Bangladesh (ICB)
2. Uttara Finance and Investments Limited
3. United Finance
4. Union Capital Limited
5. UAE-Bangladesh Investment Company Limited
6. Saudi-Bangladesh Industrial & Agricultural Investment Company Limited (SABINCO)
7. Reliance Finance Limited
8. Prime Finance & Investment Limited
9. Premier Leasing & Finance Limited
10. Phoenix Finance and Investments Limited
11. People's Leasing and Financial Services Limited
12. National Housing Finance and Investments Limited
13. National Finance Limited
14. MIDAS Financing Limited
15. Lanka Bangla Finance Limited
16. Islamic Finance and Investment Limited
17. International Leasing and Financial Services Limited
18. Infrastructure Development Company Limited (IDCOL)
19. Industrial Promotion and Development Company of Bangladesh Limited (IPDC)
20. Industrial and Infrastructure Development Finance Company (IIDFC) Limited
21. IDLC Finance Limited
22. Hajj Finance Company Limited
23. GSP Finance Company (Bangladesh) Limited (GSPB)
24. First Lease Finance & Investment Limited
25. FAS Finance & Investment Limited

26. Fareast Finance & Investment Limited

27. Delta Brac Housing Finance Corporation Limited (DBH)

28. Bay Leasing & Investment Limited

29. Bangladesh Industrial Finance Company Limited (BIFC)

30. Bangladesh Finance & Investment Company Limited

31. Agrani SME Finance Company Limited

32. Meridian Finance and Investment Limited

3.7 Banking Systems Structure in Bangladesh

Table-3.5: Banking Industry Scanning

Year	GDP* (Billion Taka)	Sectorial Share (%)	Sectorial Growth rate (%)
FY2009.	5750.0	2.9	-0.037
FY2010	6071.0	2.9	6.3
FY2011	6463.4	3.0	10.4
FY2012	6884.9	3.2	14.8
FY2013	7299.0	3.3	9.1
FY2014	7741.4	3.3	7.3
FY2015^P	8245.3	3.4	8.8

*At constant price (base FY2006), P=Provisional,
Source: Bangladesh Bank Annual Report FY2014-2015.

The banking sector of Bangladesh is expanding. Contribution of banking sector out of total gross domestic product (GDP) was 2.9 percent during FY 2009 while it went up to 3.4 percent within next six years with a steady growth rate.

At the end of June 2015, the share of total assets out of total industry assets of State-owned Commercial Banks (SCBs), State-owned Development Financial Institutions (DFIs), Private Commercial Banks and Foreign Commercial Banks (FCBs) were 28.4%, 2.9%, 63.3% and 5.4% whereas the share of deposits of State- owned Commercial Banks (SCBs), State-owned Development Financial Institutions (DFIs), Private Commercial Banks and Foreign Commercial Banks (FCBs) were 28.4%, 3.1%, 64.1% and 4.4%. Number of branches indicates the presence of type of banks in different places and higher number of branches indicates higher market share. In order to accelerate financial intermediation process, bank uses network of branches. Out of total 9040 branches, SCBs, DIFs, PCBs and FCBs had 3669, 1405, 3982 and 75 branches. (*see: table-3.6*).

Growth of total deposits indicates increase in sources of funds by banks. If a bank is capable to collect more deposits then it can provide more credit to the borrower and can earn more profit and hence deposit growth is a great determinant of growth of bank credit. Table-3.7 clearly indicates that total deposits in the banking sector increased significantly.

Table-3.6: Banking Systems Structure, June 2015

						Billion Taka
Types of Banks	Number of Banks	Number of Branches	Total Assets	Percent of Industry Assets	Deposits	Percent of Deposits
SCBs	6	3669	2755.7	28.4	2105.4	28.4
DFIs	2	1405	289.4	2.9	226.1	3.1
PCBs	39	3982	6130.5	63.3	4743.5	64.1
FCBs	9	75	518.2	5.4	331.5	4.4
Total	56	9040	9693.8	100	7406.5	100

Note: Banks prepare their balance sheet on calendar year basis and are obliged to submit their audited balance sheet at the end of every calendar year. That is why banks' performance related figures are stated in calendar year basis.
Source: Bangladesh Bank Annual Report FY2014-2015.

Table-3.7: Selected Statistics of Scheduled Banks

	Bank deposits (exclude inter-bank items)	Total Investment	Bank Credit (exclude inter-bank items and foreign bills)	Credit/deposit ratio
June 2008	2317.3	385.4	1926.2	0.8
June 2009	2786.8	480.8	2198.4	0.8
June 2010	3368.7	552.2	2720.6	0.8
June 2011	4104.8	754.3	3409.3	0.8
June 2012	4900.4	967.6	4056.6	0.8
June 2013	5279.7	1361.1	4372.0	0.8
June 2014	6625.7	1698.8	4882.2	0.7
June 2015	7463.4	1744.3	5533.4	0.7

Source: Bangladesh Bank Annual Report, FY 2014-15

Table-3.8: Total Manpower in the Banking Sector

Year	No. of Human Resources
1993	83,594
2000	89,346
2005	94,845
2010	121,932
2013	147,267
2015	154,904

Source: Bangladesh Bank Annual Report FY2014-2015

Banking sector of Bangladesh is creating more employment opportunities nowadays. Number of human resources employed in the banking sector has increased during last two decades. Table-3.8 reveals that total number of human resources worked in this sector was 83,594 in FY 1993 while it increased to 154,904 in FY 2015.

We have observed a rapid growth (*see: table-3.9*) of reserve money during last two decades. At the end of 1999 we had reserve money of 147.5 billions Taka whereas at the end of 2015 reserve money increased at a level of 1484.8 billions Taka. Central bank can utilize reserve money for more money supply and hence purchasing power increases at least for short run.

Table-3.9: Reserve Money Growth

			Billion Taka
Year	Reserve Money	Year	Reserve Money
1999	147.5	2008	475.6
2000	170.7	2009	627.5
2001	189.3	2010	741.4
2002	205.7	2011	897.3
2003	214.3	2012	978.0
2004	238.7	2013	1124.9
2005	274.1	2014	1298.8
2006	339.5	2015	1484.8
2007	394.2		

Source: Bangladesh Bank Annual Report FY2014-2015

Table-3.10: Foreign Exchange Reserve Growth

			Million taka
Year	**Total Reserve**	**Year**	**Total Reserve**
1998	80,266	2007	349,314
1999	73,650	2008	421,377
2000	81,466	2009	515,945
2001	73,891	2010	747,121
2002	90,858	2011	809,996
2003	141,753	2012	848,071
2004	163,241	2013	1196,896
2005	186,769	2014	1669,665
2006	242,914	2015	1946,601

Source: Bangladesh Bank Annual Report FY2014-2015

Table-3.10 shows the status of foreign exchange reserve. We have observed a rapid growth (see: table-3.10) of foreign exchange reserve during last two decades. At the end of 1999 banking sector had a foreign exchange reserve of 73,650 millions Taka only whereas at the end of 2015 foreign exchange reserve increased at a level of 1946, 601 millions Taka. Central bank can utilize this reserve to keep the value of our currency at a fixed rate and to maintain liquidity in case of an economic crisis.

3.8 Functions of Commercial Banks of Bangladesh

Commercial banks have to perform three different types of functions. Primary functions of commercial banks are acceptance deposits (e.g. current and savings deposit, fixed deposit, recurring/time deposit); advancing loans (e.g. over draft facilities, term loans discounting bill of exchange, credit to public sector); Creation of Credit (e.g. create money by accepting deposits and general loans); clearing checks (negotiate the inter-banks dealings to clear checks ad bills); financing foreign trade (e.g. letter of credit, export credit); remittance of fund (e.g. transfer of fund within and from abroad, perform as collecting agents) whereas secondary functions are agency services (e.g. collection and payment of credit instrument, purchase and sell of securities collection of dividend and shares, acts as correspondents, income tax consultancy, acts as trustee); general utility services (e.g. locker facility, traveler's cheque, credit cards). Other than these primary and secondary functions commercial banks perform in order to fulfill socio-economic objectives as well which is highlighted

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                    ┌─────────────────────┐
                    │  Commercial Banks   │
                    └─────────────────────┘
            ┌───────────────┼───────────────────┐
            ▼               ▼                   ▼
 ┌──────────────────┐ ┌──────────────────┐ ┌──────────────────────┐
 │ Primary Functions│ │Secondary Functions│ │Fulfillment of Socio- │
 │                  │ │                   │ │economic  Objectives  │
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 ┌──────────────────┐ ┌──────────────────┐ ┌──────────────────────┐
 │Acceptance of     │ │ Agency Services  │ │Collection of Utility │
 │Deposits          │ │                  │ │Bills, disbursement of│
 └──────────────────┘ └──────────────────┘ │pension benefits,     │
          │                    │            │disbursement o        │
          ▼                    ▼            │stipend,              │
 ┌──────────────────┐ ┌──────────────────┐ └──────────────────────┘
 │ Advancing Loans  │ │General Utility   │
 │                  │ │Services          │
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 │Creation of Credits│
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 │ Clearing Checks  │
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 │Financing Foreign │
 │Trade             │
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 │Remittance of Fund│
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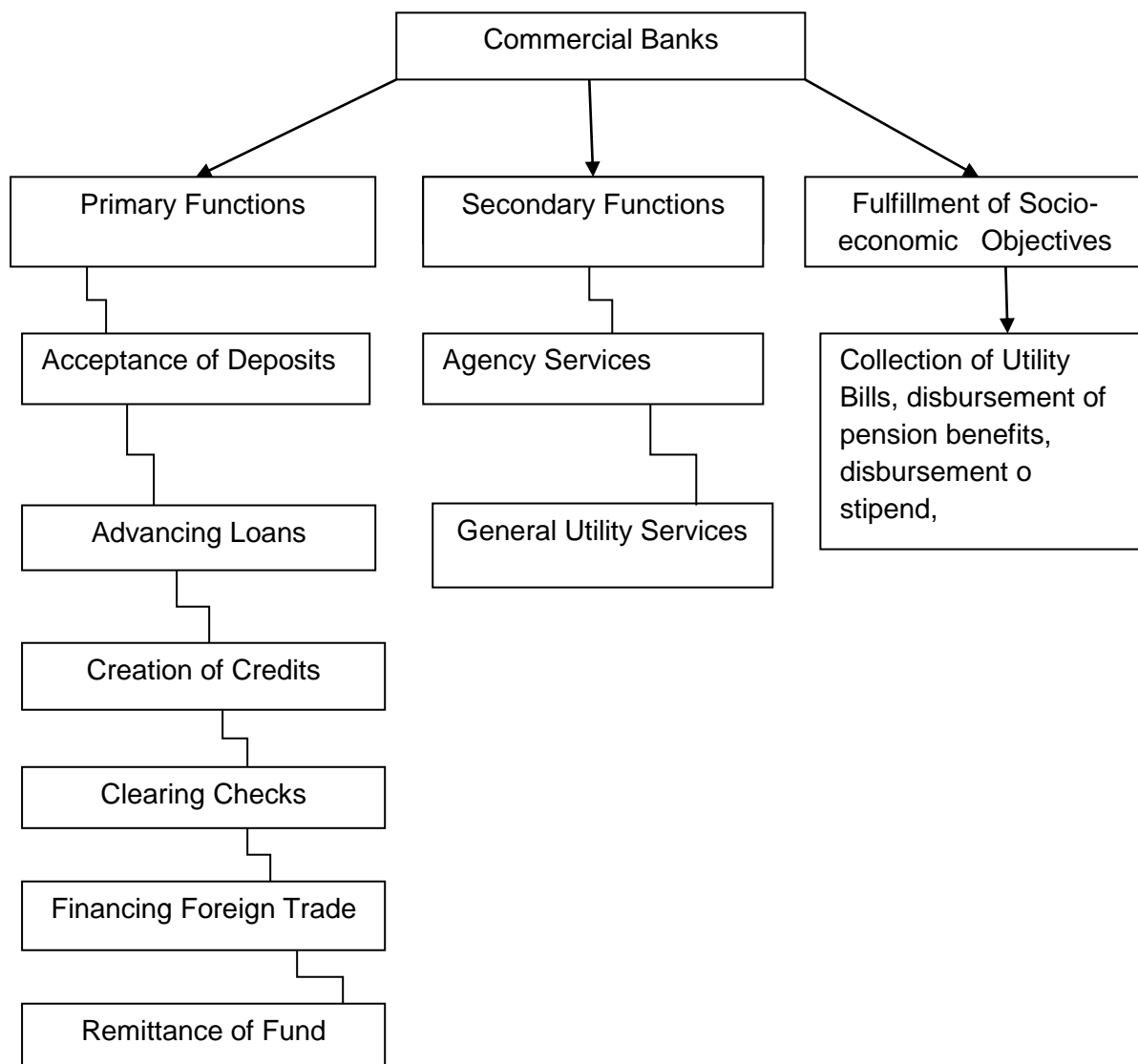
Figure-3.4: Functions of Commercial Banks of Bangladesh
(Based on the information available at annual reports and websites of Bangladesh
Bank and other commercial banks)

in the figure-3.4. The different types of service offerings that the banks offer in the
banking sector of our country are: lending of supplement working capital, fund
management, leasing business, debt factoring, project financing, advisory services,
debt administration, issuing and marketing of primary shares or securities
trusteeship, portfolio management, and underwriting of securities. Retail banking
provides a wide variety of service offerings to the target customers. These are-
savings accounts, certificates of deposit and guaranteed investment certificates,
mortgages, automobile financing, credit cards, lines of credit, home equity lines of
credit (HELOC), foreign currency and remittance services, stock brokerage (discount
and full-service), insurance, wealth management, private banking, working capital,
leases for manufacturing, transportation and information technology, commercial real

estate, trade finance, letters of credit, bill collection, and factoring, and employer services payroll and group retirement plans are typically offered by specialized affiliates of a bank.

3.9 Banking Sector Performance in Bangladesh

Return on Assets (ROA) is an indicator to measure profitability or the efficiency with which assets are being employed. It is measured by net income for a time period divided by total assets. Table-3.11 shows ROA by type of banks. Analysis of these indicators highlights that ROA of SCBs increased gradually up to 2011, but it dropped down to negative (-0.6%) at the end of 2014. For continuous operating losses ROA of DFIs has become progressively worse. PCBs had strong ROA from 2007 to 2010 but due to decrease in their net profit their ROA decreased from 2010 onwards. From a continuous strong position ROA of FCBs decreased to a small degree in 2013, increased in 2014 and decreased in 2015 once again. Overall it is seen that ROA has been decreased in the overall banking industry during last one decade.

Table-3.11: Profitability Ratio- Return on Assets (ROA) by type of Banks

									(Percent)
Bank types	2007	2008	2009	2010	2011	2012	2013	2014	2015 June
SCBs	0.0	0.7	1.0	1.1	1.3	-0.6	0.6	-0.6	-0.6
DFIs	-0.3	-0.6	0.4	0.2	0.1	0.1	-0.4	-0.7	-1.5
PCBs	1.3	1.4	1.6	2.1	1.6	0.9	1.0	1.0	0.9
FCBs	3.1	2.9	3.2	2.9	3.2	3.3	3.0	3.4	3.1
Total	0.9	1.2	1.4	1.8	1.5	0.6	0.9	0.6	0.5

Source: Bangladesh Bank Annual Report FY2014-2015

Return on Equity (ROE) which is important measure of profitability of a company is the net income divided equity. This ratio is often used as a measure of the return on funds invested in a business. Table-2.12 shows the ROE in different categories of banks. As BASIC bank incurred huge loss, ROE of SCBs dropped from 10.9% in 2013 to negative

Table-3.12: Profitability Ratio- Return on Equity (ROE) by type of Banks

									(Percent)
Bank types	2007	2008	2009	2010	2011	2012	2013	2014	2015 June
SCBs	0.0	22.5	26.2	18.4	19.7	-11.9	10.9	-13.3	-22.5
DFIs	-3.4	-6.9	-171.7	-3.2	-0.9	-1.1	-5.8	-6.6	-9.2
PCBs	16.7	16.4	21.0	20.9	15.7	10.2	9.8	10.3	9.7
FCBs	20.4	17.8	22.4	17.0	16.6	17.3	16.9	17.7	15.7
Total	13.8	15.6	21.7	21.0	17.0	8.2	11.0	8.1	6.6

Source: Bangladesh Bank Annual Report FY2014-2015

13.3% and further negative 22.5% in 2014 and 2015 respectively. ROE of DFIs dropped from negative 5.8% in 2013 to negative 6.6% and further negative 9.2% in 2014 and 2015 respectively whereas ROE of PCBs increased to 10.3% in 2014 from 9.8% in 2013. and decreased once again at 9.7% in 2015. Similarly ROE of FCBs increased to 17.7% in 2014 from 16.9% in 2013 and decreased once again at 15.7% in 2015. Taking all banks together into consideration it is seen that ROE has been decreased in the overall banking industry during last one decade.

ATM network which improves the quality of banking services has expanded during last 3 years. Table-3.13 shows that the number of ATM booth has increased from 4985 in 2012 to 6201 in 2014 which is 24.4%.

Table-3.13: Number of ATM Booth

Bank Categories	No. of ATM Booth			Change between 2013 and 2014
	2012	2013	2014	
SCBs	68	75	78	3
PCBs(Old)	4767	4969	5912	943
PCBs(New)	0	4	35	31
FCBs	150	154	176	22
All Banks (Without new PCBs)	4985	5198	6166	968
All Banks (Without new PCBs)	4985	5201	6201	999

Source: Bank Review 2015, BIBM

3.10 Concluding Remarks on Banking Sector in Bangladesh

Banking occupies one of the most important positions in the modern economic world as it is necessary for trade and industry. Banking sector in Bangladesh which consists of 66 banks and 32 non-banking financial institutions (*see: table-3.4*) has been growing since last few years (*see: table-3.5*). Sectoral share out of total GDP has also increased during recent past. The size of banking sector expanded in terms of number of banks, number of bank branches, total assets, total deposits, and manpower (*see: table-3.6; 3.7; 3.8*). Assessment of profitability and efficiency in terms of ROA and ROE reveals that both ROA and ROE of the banks have decreased during last two years and this decrease contributed mainly to performance of SCBs and DFIs (*see: table-3.11; 3.12*). The status of online banking throughout the county improved significantly over the last few years. Total number of ATM booths has increased substantially (*see: table-3.13*). Micro and small credit of the commercial banks increased significantly from less than 1 percent to 10 percent in between CY 2010 and CY 2014 (Bank Review 2015, BIBM).

Chapter Four

Methodology of the Study

Chapter Four: Methodology of the Study

4.1 Nature of Study

The type of research design is conclusive as the study tries to test the specific hypotheses and examine relationships. Purpose of the research is causal. Causal studies examine whether value of one variable causes or determines the value of another variable. This study aims to understand phenomena by discovering and measuring causal relations among variables like service quality, customer satisfaction and loyalty as per hypotheses developed in the context of banking sector of Bangladesh.

Table-4.1: Methodology–Nature of Study

Basis of Classification	Type of Research
Design of Research	Conclusive
Purpose of Research	Causal
Process of Research	Quantitative
Logic of Research	Deductive
Outcome of Research	Basic

In terms of the character of data and the process by which they are gathered the process of this research is quantitative in nature as the study involves collecting and analyzing numerical data and applying statistical tests. Logic of the research is deductive as in this study a conceptual and theoretical structure is developed and then tested by empirical observation. In terms of outcome of the research this is a pure or fundamental research as the study aims at expanding frontiers of knowledge and is being conducted mainly to improve our understanding to validate an existing theory i.e. to learn and to verify the concept of relationship among the variables. This study has little direct impact on strategic or tactical decisions.

4.2 Variables, Measurement and Scales

A key issue of research is the development of some form of measurement scale and the transformation of collected data on to the particular measurement scale. Numerical values have been assigned in a way so that the properties of the numbers

represents true picture of the stimuli being measured. Malhotra and Dash (2011, p-244) suggested that numbers allow statistical analysis of the data and facilitates communication and measurement rules and results. The scales used in this study are description type as unique labels are used to designate each value of the scale.

There are four basic types of numbers or scales. These are nominal, ordinal, interval and ratio. Conceptually the four scales represent a power progression, in terms of arithmetic and analytical operations (e.g. Kumar et al., 2001, pp-250). Though ordinal scales are used in order to measure/rank attitudes but numbers are used here to rank stimuli in such a way that numerically equal distances on the scale represent equal distances in the property measured. Hence the type of the scale was interval. The subject mentioned variables service quality, customer satisfaction and loyalty can not be precisely measured and hence these are abstract/latent variables. As the variables like service quality, customer satisfaction and loyalty are measured in terms by interval scale hence these are continuous variable.

Measurement involves either observations of actual behavior or some form of interviewing where the respondents, directly or indirectly are requested to indicate their views about stimuli under observation. The two main categories of scales are basic rating scales and attitude scales. For this study attitude scales are considered to measure account holders' attitudes towards different statements on service quality, satisfaction and loyalty. Attitudes are composed of many elements (Boyd, p-331) and hence multi-item scales are used to get summary measurement.

Table-4.2: Methodology –Variables, Measurement and Scales

Item	Description
Variables	Service quality, customer satisfaction and loyalty
Type of variables	Continuous
Type of measure	Account holders' attitudes towards service quality, customer satisfaction and loyalty.
Scale of measurement	Ordinal-interval
Scaling method	Attitude scales
Attitude scale used	Likert scale- 7 point

Measures of all constructs were developed based on the review of literature. 7-point Likert scale was used. Likert scale was used so that respondents can indicate their level of agreement or disagreement with a series of statements related to this

research study. Likert scale was considered as it is easy to devise/construct and administer, respondents need to consider one description only and there is no problem of finding opposite adjectives.

Measurement was valid as it measured what it was supposed to measure. Account holders' attitudes towards service quality, customer satisfaction and loyalty have been measured with the help of measurement and scales discussed above.

4.3 Questionnaire Development

A self-administered questionnaire is designed with simple structure in order to make it understandable to the respondents who are the clients of banking sector of Bangladesh and to enhance the response rate. Questions/statements are designed in a way so that respondents can clearly and accurately answer the questions and coding and transfer of replies to computer files for analysis is easier. Questions/statements though identical in structure, directed on respondents in order to examine the relationship among the variables to be measured. Statements were expressed in clear, unambiguous language which is readily understood by all respondents. Questionnaire has been designed in a way so that it provides meaningful data. Response format of the questionnaire was closed i.e., fully structured questions which required respondents to make a selection from a list of predetermined list of options were used (Hussey and Hussey, p-166).

There are 35 statements in the questionnaire; out of which statements 1-26 for service attributes, statement 27 for customer satisfaction, statements 28-35 for loyalty. Multi-item measure and seven points Likert-style rating scale anchored by 'Strongly disagree' (i.e., value 1) and 'Strongly agree' (i.e., value 7) have been chosen to operationalise all variables. The measurement approach used for each theoretical construct in this model is briefly discussed below:

Service Attributes: As discussed in the literature review six service attributes/dimensions have been chosen to measure service provider's service features. Four (4) items for tangibles; five (5) items for reliability; four (4) items for responsiveness; four items for assurance; five items for empathy; and four items for information technology have been chosen to capture customer's/client's (Account holder's) perceptions of service provider's (Bank) service attributes. The items were derived from Parsuraman et al. (1988) and Chen (2009).

Table-4.3: Methodology –Questionnaire Development

Variable/Dimension	No of Items	Source/authors
Tangibles (SQ)	4	Parsuraman et al. (1988)
Reliability (SQ)	5	Parsuraman et al. (1988)
Responsiveness (SQ)	4	Parsuraman et al. (1988)
Assurance (SQ)	4	Parsuraman et al. (1988)
Empathy (SQ)	5	Parsuraman et al. (1988)
IT (SQ)	4	Chen (2009)
Customer satisfaction	1	Baumann et al. (2005); Henning-Thurau et al. (2002); Bloemer and Ruyter (1999)
Behavioral Loyalty	Word of Mouth (2)	Baumann et al. (2005); Pont and McQuilken (2005); Wong et al. (2014); Bedi (2010)
	Purchase Intention(2)	Pont and McQuilken (2005)
Attitudinal Loyalty	Expectation of Continuity(1)	Wong et al. (2014)
	Long-term business interest(2)	Baumann et al. (2005)
Cognitive Loyalty	1	Pont and McQuilken (2005); Wong et al. (2014)
Total	**35**	

Satisfaction: As per literature review one item has been chosen to measure overall customer satisfaction with the service provider. The item is derived from Baumann et al. (2005) and Bloemer and Ruyter, 1999.

Loyalty: As mentioned before researchers used different dimensions for measuring loyalty but behavioural, attitudinal and cognitive dimensions are the three key dimensions which were used by the most researchers. Hence these three dimensions have been chosen. Four (4) items for behavioural loyalty (e.g. word-of-mouth, purchase intention); three (3) items for attitudinal loyalty (e.g. expectations of continuity, long-term business interest) and one (1) item for cognitive loyalty were derived from Baumann et al. (2005), Pont and McQuilken (2005), Fornell et al. (1996) and Palmatier et al. (2006).

4.4 Sampling Design and Procedures

I selected the banking industry because it is growing and more structured. Moreover it provides different types of service offerings and provides a sampling frame of adequate size.

4.4.1 Target population: The term population is used to describe the entirety of a group of elements in which researcher is interested. It includes all elements about which researcher wish to make some inferences. It involves specifying the characteristics of those subjects from which information is sought (e.g. Kumar et al., 2001, pp-302). Hence account (personal) holders of different (mainly commercial banks) of Dhaka city constitute populations.

Table-4.4: Methodology-Sampling Design and Procedure

Item	Description
Target Population	Account holders of different commercial banks of Dhaka city.
Sampling Frame	Adequate size, No accessibility
Sampling unit	Individual who maintains a bank account (savings/current/ loan) with any commercial bank of Dhaka city.
Study area	Dhaka & outskirt of Dhaka city
Sampling technique	Convenience type non-probability sampling
Sample Size	469 Roscoe (1975; cited by Lin and Chen, 2006), Clegg (1990; cited by Hussey and Hussey, 1997, p-149), Malhotra and Dash (2011, p-332)

4.4.2 Sampling Frame: The sampling frame usually consists of a list of population members which are used to obtain a sample. It is the list of elements from which the sample is actually drawn (e.g. Zikmund et al., 2013, p-388; Kumar et al., 2001, pp-303; McDaniel and Gates, 2006, pp-117). The Banking industry of Bangladesh provides sampling frame of adequate size but the sampling frame is not standardized as it is not very accurate and not easily accessible.

4.4.3 Sampling Unit: Zikmund et al. (2013, p-390) defined sampling unit as a single element or group of elements subject to selection in the sample. Sampling units of this study were individuals who maintain a bank account (savings/current/loan) with any commercial bank of greater Dhaka city.

4.4.4 Study Area: In order to collect responses the survey for this study has been conducted at different banks' branches in the Dhaka city and outskirt of Dhaka city.

4.4.5 Sampling Technique: The study sampled the selection of the units/respondents on a non-random way i.e., the probability of selecting population elements was unknown. The expense and problems associated with the selection of a sample frame are eliminated by using non-probability sampling. Convenience type non-probability sampling technique has been considered to select the respondents from the sampling frame. The procedure, as its name indicates, aims at contacting population units that are convenient. Convenience sampling has been used as this technique is considered to approach the most accessible members of the population of interest and relatively inexpensive and less time consuming (Wilson, 2011, p-205; Malhotra and Dash, p-335). The reason behind selecting this type of sampling was to obtain relatively large amount of responses quickly from a cooperative group of respondents. Hence the sampling units to be selected are accessible, convenient, easy to measure, cooperative, articulate, inexpensive and less time consuming (Kumar et al., 2001, pp-314). As per the requirement of the convenience sampling to identify biases which cause serious economic consequences questionnaire was pretested before field (formal) survey.

4.5 Sampling: Final and Initial Sample Size Determination

A sample is a subset, or proportion of the population carefully selected to represent the population. The determination of a sample size, i.e. the number of elements to be included in the study is a fundamental decision which enables the researcher to obtain results which are both precise and reliable and, by extension, can be used to make inferences from the sample to the population. It was required to select samples of sufficient size with a view to generalise conclusions. The larger the sample sizes the smaller the sampling error. Sampling variability decreases with increases in the sample size. Roscoe (1975; cited by Lin and Chen, 2006) suggested that appropriate sample size is 30-500 and to analyse data by SPSS, sample size should be at least ten times the number of variables. Clegg (1990; cited by Hussey and Hussey, 1997, p-149) pointed out that sample size depends on the expected variability within the samples and the results, the greater the expected variance, the larger the sample. Malhotra and Dash (2011, p-332) suggested that for conclusive research such as descriptive surveys, and to use sophisticated data analysis larger samples are necessary. Hence by taking all above factors into consideration a sample size of not

less than 500 was considered for this study. Primary data have been collected from 469 valid respondents. Hence the sample size of this study is 469.

4.6 Data Collection, Analysis and Reporting

This study required collection of information regarding respondents' (account holders) attitudes on the attributes of service quality they receive from their service provider, their satisfaction level and about their loyalty towards the service provider (bank).

Surveys can be designed to capture a wide variety of information on many diverse topics and subjects. Attitudes are often the subject of surveys. Surveys can also capture the respondent's overall assessment and the extent to which the object is rated as favourable or unfavourable.

A quantitative research seeks to count and measure objective data. The researcher typically gathers large data sets, or negotiates access to a large data set that has already been created. The application of statistically rigorous techniques of analysis to these data sets will be the heart of the analysis. Data can be collected in many ways and every method of data collection has its advantages and disadvantages. The study is empirical in nature. Primary data were collected in order to address the specific research objectives of this study. To have the ideas and views of the respondents i.e. to examine the relationships between service quality and customer satisfaction and between customer satisfaction and loyalty, sample survey method was used. Survey method was used for data collection as surveys are generally concerned with the administration of questionnaires to an appropriate sample of the population under investigation. Survey Method is recommended when a large amount of information is needed. Actual administration of survey which is known as interview is conducted by a structured questionnaire. Questionnaire method was used as it is versatile, quick, inexpensive and easy to control by the researcher /interviewers. The survey incorporated both door-to-door interviews and in-store intercept interviews. Some responses have been collected by conducting interviews in the respondents' homes or offices. Majority of the responses have been collected by using in-store intercept, where respondents are interviewed inside the retail banking branches of the different commercial banks of different areas of greater Dhaka city. Combination of door-to-door interview and in-store intercept interview techniques are considered to collect large amount of information as required by the study, to minimise the likelihood of no response and to obtain highly accurate

information because of account holders' decisions were fresh in mind. Though costliest and most time consuming form of data collection personal interview procedures are one of the effective way of enlisting cooperation.

Personal interview technique is applied as method of communication to administer the questionnaire on respondents in order to collect a large amount of information. The respondents were also assured of the confidentiality of the responses. Huge efforts were given to interact with the respondents/ account holders of commercial banks of greater Dhaka city in order to collect data during last two years. Respondents were taken from different branches of the different commercial banks of different areas of Dhaka city in a way that the study covers the most part of the Dhaka city. Respondents were given necessary explanation during the course of interview and encouraged them to answer accurately to increase validity of the information.

This conclusive-type research to measure causal relationship between variables like service quality, customer satisfaction and loyalty is conducted where primary data are collected by using survey method. Analytical technique has been used to examine causal relationship between variables and hence data have been analysed by using SPSS to measure basic correlations, among the variables as per the research objective. Both multiple regression and structural equation modelling by using analysis of moment structures (AMOS) were used to verify and conclude whether developed model is fit or not.

Table-4.5: Methodology-Data Collection, Preparation and Analysis

Item	Description
Data source	Primary
Research approach	Survey
Research Instrument	Structured Questionnaire (close-end)
Contact methods	Combination of door-to-door interview and in-store intercept interview techniques
Data Preparation (editing, coding, & data entry)	Completeness of questionnaires is checked. Structured questions and hence pre-coded Codes are transcribed onto a computer for statistical analysis.
Statistical methods	Correlation analysis, regression analysis, and structural equation modeling by using AMOS.

4.7 Data Preparation

Data preparation includes editing, coding, and data entry and is the activity that ensures the accuracy of the data and their conversion from raw form to reduced and classified forms that are more appropriate for analysis (e.g. Cooper and Shindler, p-490; Kumar et al., 2001, pp-356). The first step is to check for acceptable questionnaire. This is followed by editing, coding and transcribing the data. Questionnaires were checked in order to check all questionnaires for completeness and interviewing quality. Editing is the review of Questionnaires with the objective of increasing accuracy and precision. It is the process of ascertaining that questionnaires were filled out properly and completely. Questionnaires were edited to identify whether these carry interviewer error, omissions, ambiguity, inconsistencies and lack of cooperation or not.

Coding is the process of grouping and assigning numeric codes to the various responses to a question (e.g. Kumar et al., 2001, pp-357). A codebook was developed for coding the questionnaires. Coding was very simple because there were no open-ended questions and the questionnaire contains only structured questions and was precoded. It was mentioned earlier that multi-item measure and seven points Likert-style rating scale anchored by 'Strongly disagree' (i.e., value 1) and 'Strongly agree' (i.e., value 7) have been chosen to operationalise all variables. After the review of individual responses to all questions and assigning a numeric code too each response, codes were then transcribed onto a computer and hence converted to an electronic format for statistical analysis.

Chapter Five

Data Analysis and

Data Interpretation

Chapter Five: Data Analysis and Data Interpretation

5.1 Descriptive Statistics

Table-5.1: Descriptive Statistics

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
Tangibles-1 (Bank has up-to-date equipment.)	469	1	7	5.16	1.498	-1.045	.113	.474	.225
Tangibles-2 (Bank's physical facilities are visually appealing.)	469	1	7	5.27	1.289	-1.021	.113	1.112	.225
Tangibles-3 (Bank's employees are well dressed and appear neat.)	469	1	7	5.65	1.295	-1.322	.113	1.792	.225
Tangibles-4 (The appearance of the physical facilities of the bank is in keeping with the type of services provided)	469	1	7	5.17	1.243	-.971	.113	1.240	.225
Reliability-1 (When bank promises to do something by certain time, it does so.)	469	1	7	5.02	1.378	-.790	.113	.332	.225
Reliability-2 (When you have problems, bank is sympathetic and reassuring.)	469	1	7	4.80	1.497	-.665	.113	-.156	.225
Reliability-3 (Bank is dependable.)	469	1	7	5.25	1.389	-1.145	.113	1.240	.225
Reliability-4 (Bank provides its services at the time it promises to do so.)	469	1	7	5.06	1.331	-.815	.113	.512	.225
Reliability-5 (Bank keeps its records accurately.)	469	1	7	5.67	1.176	-1.142	.113	1.900	.225
Responsive-1 (Bank tells customers exactly when services will be performed.)	469	1	7	5.02	1.406	-.785	.113	.129	.225
Responsive-2 (You receive prompt service from the bank's employees.)	469	1	7	5.00	1.414	-.747	.113	.123	.225
Responsive-3 (Employees of the bank are always willing to help customers.)	469	1	7	5.09	1.423	-.912	.113	.618	.225
Responsive-4 (Employees of the bank are free enough to respond to customer requests promptly.)	469	1	7	4.77	1.532	-.697	.113	-.210	.225
Assurance-1 (You can trust employees of the bank.)	469	1	7	5.08	1.311	-.818	.113	.834	.225
Assurance-2 (You feel safe in your transactions with the bank's employees.)	469	1	7	5.42	1.225	-.998	.113	.948	.225
Assurance-3 (Employees of the bank are polite.)	469	1	7	5.24	1.252	-.840	.113	1.079	.225
Assurance-4 (Employees get adequate support from the bank to do their jobs well.)	469	1	7	5.12	1.340	-.842	.113	.426	.225
Empathy-1 (Bank gives you individual attention.)	469	1	7	4.53	1.530	-.502	.113	-.328	.225
Empathy-2 (Employees of the bank give you personal attention.)	469	1	7	4.54	1.661	-.611	.113	-.426	.225
Empathy-3 (Employees of the bank know what your needs are.)	469	1	7	4.54	1.474	-.347	.113	-.489	.225
Empathy-4 (Bank has your best interests at heart.)	469	1	7	4.52	1.559	-.497	.113	-.289	.225
Empathy-5 (Bank has operating hours convenient to all their customers.)	469	1	7	4.75	1.545	-.656	.113	-.250	.225

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness	Std. Error	Kurtosis	Std. Error
Information Technology-1 (The ATMs of the bank are technologically well equipped.)	469	1	7	4.74	1.732	-.728	.113	-.584	.225
Information Technology-2 (There is an adequate number of ATMs in this bank.)	469	1	7	4.15	1.821	-.165	.113	-1.226	.225
Information Technology-3 (The computerized systems in the bank function properly.)	469	1	7	4.94	1.483	-.962	.113	.283	.225
Information Technology-4 (The internet banking services of this bank are diverse.)	469	1	7	4.91	1.417	-.800	.113	.154	.225
Overall Customer Satisfaction (Overall, you are very satisfied with the bank.)	469	1	7	5.15	1.245	-1.415	.113	2.131	.225
Behavioral Loyalty-Word-of-Mouth-1 (If other people inquired about your bank then you would recommend it.)	469	1	7	5.18	1.259	-1.220	.113	1.785	.225
Behavioral Loyalty-Word-of-Mouth-2 (You are happy to voluntarily recommend your bank to others.)	469	1	7	5.07	1.246	-1.090	.113	1.586	.225
Behavioral Loyalty-Purchase Intention-1 (You are intended to deal with your bank)	469	1	7	5.06	1.196	-.811	.113	1.045	.225
Behavioral Loyalty-Purchase Intention-2 (You will do more transactions/dealings/business with the bank in the next few years.)	469	1	7	5.16	1.170	-1.029	.113	1.718	.225
Attitudinal Loyalty-Expectation of Continuity-1 (The chances of your terminating this relationship with your bank in recent future are low)	469	1	7	4.74	1.383	-.807	.113	.566	.225
Attitudinal Loyalty-Expectation of Continuity-2 (You will stay with your bank even if competitors offer lower charges and/or better interest rates)	469	1	7	4.24	1.836	-.320	.113	-1.028	.225
Attitudinal Loyalty-Long-term Business Interest-3 (If you see an attractive offer in another bank branch, you will not leave your bank in five years time, you expect that you will still be doing most banking with your current bank.)	469	1	7	4.18	1.784	-.338	.113	-.983	.225
Cognitive Loyalty-1 (You consider your bank as your first choice to buy/receive financial services.)	469	1	7	5.11	1.338	-1.120	.113	1.503	.225
Valid N (listwise)	469								

Std. deviations for the scales range from 1.170 to 1.836 indicating a substantial amount of variance in the responses. The skewness values indicating that scores do not fall in a nice, normally distributed curve where most scales are negatively skewed which indicated that clustering of scales at high end/right hand side. Kurtosis values of most of the scales are positive indicate that the distribution is rather peaked (clustered in the centre) with thin long tail. Kurtosis values of some scales are negative and hence distributions of some scales are relatively flat.

5.2 Checking the Reliability of the Scales of different dimensions of Service Quality and Loyalty

Table-5.2: Reliability (Scales on Service Quality- Tangibles)

a. Case Processing Summary

		N	%
Cases	Valid	469	100.0
	Excluded[a]	0	.0
	Total	469	100.0

a. Listwise deletion based on all variables in the procedure.

b. Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.842	.842	4

c. Item Statistics

	Mean	Std. Deviation	N
Tangibles-1 (Bank has up-to-date equipment.)	5.16	1.498	469
Tangibles-2 (Bank's physical facilities are visually appealing.)	5.27	1.289	469
Tangibles-3 (Bank's employees are well dressed and appear neat.)	5.65	1.295	469
Tangibles-4 (The appearance of the physical facilities of the bank is in keeping with the type of services provided)	5.17	1.243	469

d. Inter-Item Correlation Matrix

	Tangibles-1	Tangibles-2	Tangibles-3	Tangibles-4
Tangibles-1	1.000	.596	.524	.480
Tangibles-2	.596	1.000	.537	.505
Tangibles-3	.524	.537	1.000	.435
Tangibles-4	.480	.505	.435	1.000

e. Summary Item Statistics

	Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	N of Items
Inter-Item Correlations	.513	.435	.596	.161	1.371	.003	4

f. Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Tangibles-1	16.09	9.699	.656	.439	.744
Tangibles-2	15.98	10.690	.678	.461	.733
Tangibles-3	15.60	11.163	.604	.369	.767
Tangibles-4	16.07	11.715	.565	.322	.785

g. Scale Statistics

Mean	Variance	Std. Deviation	N of Items
21.25	18.068	4.251	4

If we check Inter-Item Correlation matrix (*see: Table 5.2d,*), all values are positive, indicating that the items are measuring the same underlying characteristics,

Four items were used to measure tangible dimension of service quality. In order to check whether all measuring the same construct or not we checked the reliability of the scale. The Cronbach's alpha coefficient was used as an indicator of internal consistency. Ideally the value of Cronbach's alpha coefficient should be greater than 0.7 to be acceptable (Pallant, 2007, p-98). Cronbach's alpha value of 0.842 (*see: Table 5.2b,*) verified the strong internal consistency in the scales and hence we reported the mean inter-item correlation for the items.

The corrected Item-Total Correlation values shown in the Item-Total Statistics (*see: Table 5.2f*) gives us an indication of the degree to which each item correlates with the total score. Low values (less than 0.3) indicates that the item is measuring something different from the scale as a whole (Pallant, 2007, p-98). All Corrected Item-Total Correlation values (0.656, 0.678, 0.604, 0.565) are more than 0.3 hence items are not measuring something different from the scale as a whole.

In the column headed Alpha if Item Deleted in the Item-Total Statistics (*see: Table 5.2f*), the impact of removing each item is given. If the values in this column are higher than the final alpha value we may want to consider removing this item from the scale. The values for all the items of tangibles in the column headed Alpha if Item Deleted (0.744, 0.733, 0.767, and 0.785) are smaller than final alpha value (0.842).Hence deletion of item is not required.

Table-5.3: Reliability (Scales on Service Quality- Reliability)

a. Case Processing Summary

		N	%
Cases	Valid	469	100.0
	Excluded[a]	0	.0
	Total	469	100.0

a. Listwise deletion based on all variables in the procedure.

b. Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.752	**.753**	**5**

c. Item Statistics

	Mean	Std. Deviation	N
Reliability-1 (When bank promises to do something by certain time, it does so.)	5.02	1.378	469
Reliability-2 (When you have problems, bank is sympathetic and reassuring.)	4.80	1.497	469
Reliability-3 (Bank is dependable.)	5.25	1.389	469
Reliability-4 (Bank provides its services at the time it promises to do so.)	5.06	1.331	469
Reliability-5 (Bank keeps its records accurately.)	5.67	1.176	469

d. Inter-Item Correlation Matrix

	Reliability-1	Reliability-2	Reliability-3	Reliability-4	Reliability-5
Reliability-1	1.000	.482	.290	.504	.440
Reliability-2	.482	1.000	.309	.465	.269
Reliability-3	.290	.309	1.000	.348	.307
Reliability-4	.504	.465	.348	1.000	.372
Reliability-5	.440	.269	.307	.372	1.000

e. Summary Item Statistics

	Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	N of Items
Inter-Item Correlations	.379	.269	.504	.234	1.871	.007	5

f. Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Reliability-1	20.77	14.868	.600	.391	.676
Reliability-2	21.00	14.827	.527	.312	.705
Reliability-3	20.55	16.522	.415	.180	.745
Reliability-4	20.74	15.214	.593	.359	.680
Reliability-5	20.12	17.215	.466	.246	.726

g. Scale Statistics

Mean	Variance	Std. Deviation	N of Items
25.80	23.141	4.810	5

If we check Inter-Item Correlation matrix (*see: Table 5.3d,*), all values are positive, indicating that the items are measuring the same underlying characteristics,

Five items were used to measure reliability dimension of service quality. In order to check whether all measuring the same construct or not we checked the reliability of the scale. The Cronbach's alpha coefficient was used as an indicator of internal consistency. Ideally the value of Cronbach's alpha coefficient should be greater than 0.7 to be acceptable (Pallant, 2007, p-98). Cronbach's alpha value of 0.753 (*see: Table 5.3b,*) verified the strong internal consistency in the scales and hence we reported the mean inter-item correlation for the items.

The corrected Item-Total Correlation values shown in the Item-Total Statistics (*see: Table 5.3f*) gives us an indication of the degree to which each item correlates with the total score. Low values (less than 0.3) indicates that the item is measuring something different from the scale as a whole (Pallant, 2007, p-98). All Corrected Item-Total Correlation values (0.600, 0.527, 0.415, 0.593, 0.466) are greater than 0.3 hence items are not measuring something different from the scale as a whole.

In the column headed Alpha if Item Deleted in the Item-Total Statistics (*see: Table 5.3f*), the impact of removing each item is given. If the values in this column are higher than the final alpha value we may want to consider removing this item from the scale. The values for all the items of reliability in the column headed Alpha if Item Deleted (0.676, 0.705, 0.745, 0.680, and 0.726) are smaller than final alpha value (0.753). Hence deletion of item is not required.

Table-5.4: Reliability (Scales on Service Quality- Responsiveness)

a.   Case Processing Summary

		N	%
Cases	Valid	469	100.0
	Excluded[a]	0	.0
	Total	469	100.0

a. Listwise deletion based on all variables in the procedure.

b.   Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.823	.824	4

c.   Item Statistics

	Mean	Std. Deviation	N
Responsive-1 (Bank tells customers exactly when services will be performed.)	5.02	1.406	469
Responsive-2 (You receive prompt service from the bank's employees.)	5.00	1.414	469
Responsive-3 (Employees of the bank are always willing to help customers.)	5.09	1.423	469
Responsive-4 (Employees of the bank are free enough to respond to customer requests promptly.)	4.77	1.532	469

d.   Inter-Item Correlation Matrix

	Responsive-1	Responsive-2	Responsive-3	Responsive-4
Responsive-1	1.000	.566	.487	.443
Responsive-2	.566	1.000	.630	.553
Responsive-3	.487	.630	1.000	.560
Responsive-4	.443	.553	.560	1.000

e. Summary Item Statistics

	Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	N of Items
Inter-Item Correlations	.540	.443	.630	.187	1.422	.004	4

f. Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Responsive-1	14.87	13.743	**.586**	.360	**.805**
Responsive-2	14.89	12.643	**.714**	.516	**.747**
Responsive-3	14.79	12.878	**.678**	.473	**.764**
Responsive-4	15.11	12.737	**.617**	.391	**.793**

g. Scale Statistics

Mean	Variance	Std. Deviation	N of Items
19.89	21.827	4.672	4

If we check Inter-Item Correlation matrix (*see: Table 5.4d,*), all values are positive, indicating that the items are measuring the same underlying characteristics,

Four items were used to measure responsiveness dimension of service quality. In order to check whether all measuring the same construct or not we checked the reliability of the scale. The Cronbach's alpha coefficient was used as an indicator of internal consistency. Ideally the value of Cronbach's alpha coefficient should be greater than 0.7 to be acceptable (Pallant, 2007, p-98). Cronbach's alpha value of 0.824 (*see: Table 5.4b,*) verified the strong internal consistency in the scales and hence we reported the mean inter-item correlation for the items.

The corrected Item-Total Correlation values shown in the Item-Total Statistics (*see: Table 5.4f*) gives us an indication of the degree to which each item correlates with the total score. Low values (less than 0.3) indicates that the item is measuring something different from the scale as a whole (Pallant, 2007, p-98). All Corrected Item-Total Correlation values (0.586, 0.714, 0.678, 0.617) are greater than 0.3 hence items are not measuring something different from the scale as a whole.

In the column headed Alpha if Item Deleted in the Item-Total Statistics (*see: Table 5.4f*), the impact of removing each item is given. If the values in this column are higher than the final alpha value we may want to consider removing this item from the scale. The values for all the items of responsiveness in the column headed Alpha if Item Deleted (0.805, 0.747, 0.764, and 0.793) are smaller than final alpha value (0.824). Hence deletion of item is not required.

Table-5.5: Reliability (Scales on Service Quality- Assurance)

a. Case Processing Summary

		N	%
Cases	Valid	469	100.0
	Excluded[a]	0	.0
	Total	469	100.0

a. Listwise deletion based on all variables in the procedure.

b. Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.737	.738	4

c. Item Statistics

	Mean	Std. Deviation	N
Assurance-1 (You can trust employees of the bank.)	5.08	1.311	469
Assurance-2 (You feel safe in your transactions with the bank's employees.)	5.42	1.225	469
Assurance-3 (Employees of the bank are polite.)	5.24	1.252	469
Assurance-4 (Employees get adequate support from the bank to do their jobs well.)	5.12	1.340	469

d. Inter-Item Correlation Matrix

	Assurance-1	Assurance-2	Assurance-3	Assurance-4
Assurance-1	1.000	.517	.342	.377
Assurance-2	.517	1.000	.376	.402
Assurance-3	.342	.376	1.000	.462
Assurance-4	.377	.402	.462	1.000

e. Summary Item Statistics

	Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	N of Items
Inter-Item Correlations	.413	.342	.517	.175	1.512	.004	4

f. Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Assurance-1	15.78	8.888	.526	.312	.679
Assurance-2	15.44	9.085	.560	.336	.661
Assurance-3	15.62	9.325	.501	.267	.693
Assurance-4	15.74	8.727	.530	.293	.677

g. Scale Statistics

Mean	Variance	Std. Deviation	N of Items
20.86	14.721	3.837	4

If we check Inter-Item Correlation matrix (*see: Table 5.5d,*), all values are positive, indicating that the items are measuring the same underlying characteristics,

Four items were used to measure assurance dimension of service quality. In order to check whether all measuring the same construct or not we checked the reliability of the scale. The Cronbach's alpha coefficient was used as an indicator of internal consistency. Ideally the value of Cronbach's alpha coefficient should be greater than 0.7 to be acceptable (Pallant, 2007, p-98). Cronbach's alpha value of 0.738 (*see: Table 5.5b,*) verified the strong internal consistency in the scales and hence we reported the mean inter-item correlation for the items.

The corrected Item-Total Correlation values shown in the Item-Total Statistics (*see: Table 5.5f*) gives us an indication of the degree to which each item correlates with the total score. Low values (less than 0.3) indicates that the item is measuring something different from the scale as a whole (Pallant, 2007, p-98). All Corrected Item-Total Correlation values (0.526, 0.560, 0.501, 0.530) are greater than 0.3 hence items are not measuring something different from the scale as a whole.

In the column headed Alpha if Item Deleted in the Item-Total Statistics (*see: Table 5.5f*), the impact of removing each item is given. If the values in this column are higher than the final alpha value we may want to consider removing this item from the scale. The values for all the items of assurance in the column headed Alpha if Item Deleted (0.679, 0.661, 0.693, and 0.677) are smaller than final alpha value (0.738). Hence deletion of item is not required.

Table-5.6: Reliability (Scales on Service Quality- Empathy)

a. Case Processing Summary

		N	%
Cases	Valid	469	100.0
	Excluded[a]	0	.0
	Total	469	100.0

a. Listwise deletion based on all variables in the procedure.

b. Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.829	.830	5

c. Item Statistics

	Mean	Std. Deviation	N
Empathy-1 (Bank gives you individual attention.)	4.53	1.530	469
Empathy-2 (Employees of the bank give you personal attention.)	4.54	1.661	469
Empathy-3 (Employees of the bank know what your needs are.)	4.54	1.474	469
Empathy-4 (Bank has your best interests at heart.)	4.52	1.559	469
Empathy-5 (Bank has operating hours convenient to all their customers.)	4.75	1.545	469

d. Inter-Item Correlation Matrix

	Empathy-1	Empathy-2	Empathy-3	Empathy-4	Empathy-5
Empathy-1	1.000	.670	.565	.467	.370
Empathy-2	.670	1.000	.539	.562	.353
Empathy-3	.565	.539	1.000	.549	.396
Empathy-4	.467	.562	.549	1.000	.461
Empathy-5	.370	.353	.396	.461	1.000

e. Summary Item Statistics

	Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	N of Items
Inter-Item Correlations	.493	.353	.670	.317	1.897	.010	5

f. Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Empathy-1	18.34	23.653	.667	.515	.784
Empathy-2	18.33	22.397	.685	.537	.778
Empathy-3	18.33	24.240	.655	.442	.788
Empathy-4	18.35	23.608	.652	.446	.788
Empathy-5	18.12	25.950	.482	.255	.835

g. Scale Statistics

Mean	Variance	Std. Deviation	N of Items
22.87	35.921	5.993	5

If we check Inter-Item Correlation matrix (*see: Table 5.6d*), all values are positive, indicating that the items are measuring the same underlying characteristics,

Five items were used to measure empathy dimension of service quality. In order to check whether all measuring the same construct or not we checked the reliability of the scale. The Cronbach's alpha coefficient was used as an indicator of internal consistency. Ideally the value of Cronbach's alpha coefficient should be greater than 0.7 to be acceptable (Pallant, 2007, p-98). Cronbach's alpha value of 0.830 (*see: Table 5.6b*) verified the strong internal consistency in the scales and hence we reported the mean inter-item correlation for the items.

The corrected Item-Total Correlation values shown in the Item-Total Statistics (*see: Table 5.6f*) gives us an indication of the degree to which each item correlates with the total score. Low values (less than 0.3) indicates that the item is measuring something different from the scale as a whole (Pallant, 2007, p-98). All corrected Item-Total Correlation values (0.667, 0.685, 0.655, 0.652, 0.482) are greater than 0.3 hence items are not measuring something different from the scale as a whole.

In the column headed Alpha if Item Deleted in the Item-Total Statistics (*see: Table 5.6f*), the impact of removing each item is given. If the values in this column are

higher than the final alpha value we may want to consider removing this item from the scale. The values for three items of empathy in the column headed Alpha if Item Deleted (0.784, 0.778, and 0.788) are smaller than final alpha value (0.830). Hence deletion of item is not required. The value of empathy 4th item (0.835) is greater than final alpha value (0.830). But it is close to the alpha value and for established, well-validated scales; we need to consider doing this only if alpha value is low (less than 0.7). Hence deletion of item is not required (see: Pallant, 2007, p-98).

Table-5.7: Reliability (Scales on Service Quality- IT)

a. Case Processing Summary

		N	%
Cases	Valid	469	100.0
	Excluded[a]	0	.0
	Total	469	100.0

a. Listwise deletion based on all variables in the procedure.

b. Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.773	.782	4

c. Item Statistics

	Mean	Std. Deviation	N
Information Technology-1 (The ATMs of the bank are technologically well equipped.)	4.74	1.732	469
Information Technology-2 (There is an adequate number of ATMs in this bank.)	4.15	1.821	469
Information Technology-3 (The computerized systems in the bank function properly.)	4.94	1.483	469
Information Technology-4 (The internet banking services of this bank are diverse.)	4.91	1.417	469

d. Inter-Item Correlation Matrix

	Information Technology-1	Information Technology-2	Information Technology-3	Information Technology-4
Information Technology-1	1.000	.409	.551	.421
Information Technology-2	.409	1.000	.499	.338
Information Technology-3	.551	.499	1.000	.621
Information Technology-4	.421	.338	.621	1.000

e. Summary Item Statistics

	Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	N of Items
Inter-Item Correlations	.473	.338	.621	.283	1.836	.010	4

f. Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Information Technology-1	14.00	14.575	**.565**	.336	**.726**
Information Technology-2	14.59	14.713	**.503**	.275	**.765**
Information Technology-3	13.80	14.714	**.715**	.535	**.652**
Information Technology-4	13.83	16.618	**.556**	.394	**.732**

g. Scale Statistics

Mean	Variance	Std. Deviation	N of Items
18.74	25.049	5.005	4

If we check Inter-Item Correlation matrix (*see: Table 5.7d*), all values are positive, indicating that the items are measuring the same underlying characteristics,

Four items were used to measure information technology (IT) dimension of service quality. In order to check whether all measuring the same construct or not we checked the reliability of the scale. The Cronbach's alpha coefficient was used as an indicator of internal consistency. Ideally the value of Cronbach's alpha coefficient should be greater than 0.7 to be acceptable (Pallant, 2007, p-98). Cronbach's alpha value of 0.782 (*see: Table 5.7b*) verified the strong internal consistency in the scales and hence we reported the mean inter-item correlation for the items.

The corrected Item-Total Correlation values shown in the Item-Total Statistics (*see: Table 5.7f*) gives us an indication of the degree to which each item correlates with the total score. Low values (less than 0.3) indicates that the item is measuring something different from the scale as a whole (Pallant, 2007, p-98). All corrected Item-Total Correlation values (0.565, 0.503, 0.715, 0.556) are greater than 0.3 hence items are not measuring something different from the scale as a whole.

In the column headed Alpha if Item Deleted in the Item-Total Statistics (*see: Table 5.7f*), the impact of removing each item is given. If the values in this column are higher than the final alpha value we may want to consider removing this item from the scale. The values for all the items of information technology in the column headed Alpha if Item Deleted (0.726, 0.765, 0.652, and 0.732) are smaller than final alpha value (0.782). Hence deletion of item is not required.

Table-5.8: Reliability (Scales on Behavioral loyalty)

a. Case Processing Summary

		N	%
Cases	Valid	469	100.0
	Excluded[a]	0	.0
	Total	469	100.0

a. Listwise deletion based on all variables in the procedure.

b. Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.842	.842	4

c. Item Statistics

	Mean	Std. Deviation	N
Loyalty Behavioral -Word-of-Mouth-1 (If other people inquired about your bank then you would recommend it.)	5.18	1.259	469
Loyalty Behavioral -Word-of-Mouth-2 (You are happy to voluntarily recommend your bank to others.)	5.07	1.246	469
Loyalty Behavioral -Purchase Intention-1 (You are intended to deal with your bank)	5.06	1.196	469
Loyalty Behavioral -Purchase Intention-2 (You will do more transactions/dealings/business with the bank in the next few years.)	5.16	1.170	469

d. Inter-Item Correlation Matrix

	Loyalty Behavioral-Word-of-Mouth-1	Loyalty Behavioral-Word-of-Mouth-2	Loyalty Behavioral-Purchase Intention-1	Loyalty Behavioral-Purchase Intention-2
Loyalty Behavioral -Word-of-Mouth-1	1.000	.653	.552	.474
Loyalty Behavioral -Word-of-Mouth-2	.653	1.000	.581	.507
Loyalty Behavioral -Purchase Intention-1	.552	.581	1.000	.665
Loyalty Behavioral -Purchase Intention-2	.474	.507	.665	1.000

e. Summary Item Statistics

	Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	N of Items
Inter-Item Correlations	.572	.474	.665	.191	1.404	.005	4

f. Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Loyalty Behavioral -Word-of-Mouth-1	15.28	9.426	.661	.475	.807
Loyalty Behavioral -Word-of-Mouth-2	15.39	9.308	.692	.505	.793
Loyalty Behavioral -Purchase Intention-1	15.40	9.433	.716	.541	.783
Loyalty Behavioral -Purchase Intention-2	15.30	10.014	.640	.468	.815

g. Scale Statistics

Mean	Variance	Std. Deviation	N of Items
20.46	16.121	4.015	4

If we check Inter-Item Correlation matrix (*see: Table 5.8d*), all values are positive, indicating that the items are measuring the same underlying characteristics,

Four items were used to measure Behavioral Loyalty dimension of service quality. In order to check whether all measuring the same construct or not we checked the reliability of the scale. The Cronbach's alpha coefficient was used as an indicator of internal consistency. Ideally the value of Cronbach's alpha coefficient should be greater than 0.7 to be acceptable (Pallant, 2007, p-98). Cronbach's alpha value of 0.842 (*see: Table 5.8b*) verified the strong internal consistency in the scales and hence we reported the mean inter-item correlation for the items.

The corrected Item-Total Correlation values shown in the Item-Total Statistics (*see: Table 5.8f*) gives us an indication of the degree to which each item correlates with the total score. Low values (less than 0.3) indicates that the item is measuring something different from the scale as a whole (Pallant, 2007, p-98). All corrected Item-Total Correlation values (0.661, 0.692, 0.716, 0.640) are greater than 0.3 hence items are not measuring something different from the scale as a whole.

In the column headed Alpha if Item Deleted in the Item-Total Statistics (*see: Table 5.8f*), the impact of removing each item is given. If the values in this column are higher than the final alpha value we may want to consider removing this item from the scale. The values for all the items of Behavioral Loyalty in the column headed Alpha if Item Deleted (0.807, 0.793, 0.783, and 0.815) are smaller than final alpha value (0.842). Hence deletion of item is not required.

Table-5.9: Reliability (Scales on Attitudinal loyalty)

a. Case Processing Summary

		N	%
Cases	Valid	469	100.0
	Excluded[a]	0	.0
	Total	469	100.0

a. Listwise deletion based on all variables in the procedure.

b. Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.751	**.744**	3

c. Item Statistics

	Mean	Std. Deviation	N
Attitudinal Loyalty-Expectation of Continuity-1 (The chances of your terminating this relationship with your bank in recent future are low)	4.74	1.383	469
Attitudinal Loyalty-Expectation of Continuity-2 (You will stay with your bank even if competitors offer lower charges and/or better interest rates)	4.24	1.836	469
Attitudinal Loyalty-Long-term Business Interest-3 (If you see an attractive offer in another bank branch, you will not leave your bank in five years time, you expect that you will still be doing most banking with your current bank.)	4.18	1.784	469

d. Inter-Item Correlation Matrix

	Attitudinal Loyalty-Expectation of Continuity-1	Attitudinal Loyalty-Expectation of Continuity-2	Attitudinal Loyalty-Long-term Business Interest-3
Attitudinal Loyalty-Expectation of Continuity-1	1.000	.389	.372
Attitudinal Loyalty-Expectation of Continuity-2	.389	1.000	.714
Attitudinal Loyalty-Long-term Business Interest-3	.372	.714	1.000

e. Summary Item Statistics

	Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	N of Items
Inter-Item Correlations	.492	.372	.714	.342	1.921	.030	3

f. Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Attitudinal Loyalty-Expectation of Continuity-1	8.42	11.232	.411	.169	.833
Attitudinal Loyalty-Expectation of Continuity-2	8.91	6.929	.688	.527	.529
Attitudinal Loyalty-Long-term Business Interest-3	8.98	7.260	.677	.520	.544

g. Scale Statistics

Mean	Variance	Std. Deviation	N of Items
13.16	16.954	4.117	3

If we check Inter-Item Correlation matrix (*see: Table 5.9d*), all values are positive, indicating that the items are measuring the same underlying characteristics,

Three items were used to measure Attitudinal Loyalty dimension of service quality. In order to check whether all measuring the same construct or not we checked the reliability of the scale. The Cronbach's alpha coefficient was used as an indicator of internal consistency. Ideally the value of Cronbach's alpha coefficient should be greater than 0.7 to be acceptable (Pallant, 2007, p-98). Cronbach's alpha value of

0.744 (*see: Table 5.9b*) verified the strong internal consistency in the scales and hence we reported the mean inter-item correlation for the items.

The corrected Item-Total Correlation values shown in the Item-Total Statistics (*see: Table 5.9f*) gives us an indication of the degree to which each item correlates with the total score. Low values (less than 0.3) indicates that the item is measuring something different from the scale as a whole (Pallant, 2007, p-98). All corrected Item-Total Correlation values (0.411, 0.688, 0.677) are greater than 0.3 hence items are not measuring something different from the scale as a whole.

In the column headed Alpha if Item Deleted in the Item-Total Statistics (*see: Table 5.9f*), the impact of removing each item is given. If the values in this column are higher than the final alpha value we may want to consider removing this item from the scale. The values for two items of Attitudinal Loyalty in the column headed Alpha if Item Deleted (0.529, 0. 544) are smaller than final alpha value (0.842). The value of Attitudinal Loyalty 1st item, 0.833) is greater than final alpha value (0.744). But as for established, well-validated scales; we need to consider doing this only if alpha value is low (<0.7). Hence deletion of item is not required (see: Pallant, 2007, p-98).

5.3 Computing New Variables of Service Quality Dimensions

Based on the findings from the above (i.e. checking the reliability of the scales) section new variables are inserted to represent overall measure of service quality-tangibles, service quality-reliability, service quality-responsiveness, service quality-assurance, service quality-empathy and service quality-information technology with the help of transforming variables technique used in SPSS.

Table-5.10: Descriptive Statistics of variables used in Bivariate Correlation (Service Quality Attributes and Customer Satisfaction)

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
Tangibles	469	1.00	7.00	5.3124	**1.06266**	**-1.093**	.113	**1.345**	.225
Reliability	469	1.20	7.00	5.1595	**.96209**	**-.845**	.113	**1.021**	.225
Responsiveness	469	1.00	7.00	4.9717	**1.16798**	**-.750**	.113	**.368**	.225
Assurance	469	1.50	7.00	5.2159	**.95919**	**-.672**	.113	**.948**	.225
Empathy	469	1.00	7.00	4.5740	**1.19868**	**-.492**	.113	**-.039**	.225
IT	469	1.00	7.00	4.6844	**1.25121**	**-.689**	.113	**-.084**	.225
Overall Customer Satisfaction	469	1	7	5.15	**1.245**	**-1.415**	.113	**2.131**	.225
Valid N (listwise)	469								

Std. deviations for the scales range from 0.95919 to 1.25121 indicating a substantial amount of variance in the responses. The skewness values indicating that scores do not fall in a nice, normally distributed curve where most scales are negatively skewed which indicated that clustering of scales at high end/right hand side. Kurtosis values of most of the scales are positive indicate that the distribution is rather peaked (clustered in the centre) with thin long tail. Kurtosis values of some scales are negative and hence distributions of some scales are relatively flat.

5.4 Correlation between Service Quality and Customer Satisfaction

Table-5.11: Correlation between Service Quality and Customer Satisfaction

Correlations

		Tangibles	Reliability	Responsiveness	Assurance	Empathy	IT	Overall Customer Satisfaction
Tangibles	Pearson Correlation	1	.641**	.501**	.450**	.357**	.424**	**.345****
	Sig. (2-tailed)		.000	.000	.000	.000	.000	.000
	N	469	469	469	469	469	469	**469**
Reliability	Pearson Correlation	.641**	1	.649**	.581**	.489**	.516**	**.500****
	Sig. (2-tailed)	.000		.000	.000	.000	.000	**.000**
	N	469	469	469	469	469	469	**469**
Responsiveness	Pearson Correlation	.501**	.649**	1	.587**	.635**	.532**	**.480****
	Sig. (2-tailed)	.000	.000		.000	.000	.000	**.000**
	N	469	469	469	469	469	469	**469**
Assurance	Pearson Correlation	.450**	.581**	.587**	1	.500**	.453**	**.446****
	Sig. (2-tailed)	.000	.000	.000		.000	.000	**.000**
	N	469	469	469	469	469	469	**469**
Empathy	Pearson Correlation	.357**	.489**	.635**	.500**	1	.561**	**.492****
	Sig. (2-tailed)	.000	.000	.000	.000		.000	**.000**
	N	469	469	469	469	469	469	**469**
IT	Pearson Correlation	.424**	.516**	.532**	.453**	.561**	1	**.621****
	Sig. (2-tailed)	.000	.000	.000	.000	.000		**.000**
	N	469	469	469	469	469	469	**469**
Overall Customer Satisfaction	Pearson Correlation	.345**	.500**	.480**	.446**	.492**	.621**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	
	N	469	469	469	469	469	469	469

**. Correlation is significant at the 0.01 level (2-tailed).

The direction of the relationships between variables i.e., the different dimensions of service quality and customer satisfaction as per the hypotheses developed were tested with the help of bivariate correlation method, where the value of Pearson's r

were considered to assess the strength of the relationship between variables and significance level (sig value) were taken into consideration to measure the level of statistical significance/confidence level. Findings of the correlation analysis have been discussed in the following chapter.

5.5 Computing New Variables of Loyalty Dimensions

Based on the findings from the above (i.e. checking the reliability of the scales) section new variables are inserted to represent overall behavioural loyalty and overall attitudinal loyalty with the help of transforming variables technique used in SPSS.

Table-5.12: Descriptive Statistics of Variables used in Bivariate Correlation (Customer Satisfaction and Loyalty)

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
Overall Customer Satisfaction	469	1	7	5.15	**1.245**	**-1.415**	.113	**2.131**	.225
Behavioral Loyalty	469	1.00	7.00	5.1151	**1.00377**	**-1.241**	.113	**2.791**	.225
Attitudinal Loyalty	469	1.00	7.33	4.3859	**1.37250**	**-.366**	.113	**-.588**	.225
Cognitive Loyalty	469	1	7	5.11	**1.338**	**-1.120**	.113	**1.503**	.225
Valid N (listwise)	469								

Std. deviations for the scales range from 1.00377 to 1.37250 indicating a substantial amount of variance in the responses. The skewness values indicating that scores do not fall in a nice, normally distributed curve where most scales are negatively skewed which indicated that clustering of scales at high end/right hand side. Kurtosis values of most of the scales are positive indicate that the distribution is rather peaked (clustered in the centre) with thin long tail. Kurtosis value of one scale is negative and hence a distribution of one scale is relatively flat.

5.6 Correlation between Customer Satisfaction and Loyalty

The direction of the relationship between variables i.e., the different dimensions of loyalty and customer satisfaction as per the hypotheses developed were tested with the help of bivariate correlation method, where the value of Pearson's r were

considered to assess the strength of the relationship between variables and sig values were taken into consideration to measure the level of statistical significance. Findings of the correlation analysis have been discussed in the following chapter.

Table-5.13: Correlation between Customer Satisfaction and Loyalty

Correlations

		Customer Satisfaction	Behavioral Loyalty	Attitudinal Loyalty	Cognitive Loyalty
Customer Satisfaction	Pearson Correlation	1	**.657****	**.308****	**.485****
	Sig. (2-tailed)		**.000**	**.000**	**.000**
	N	469	**469**	**469**	**469**
Behavioral Loyalty	Pearson Correlation	.657**	1	.493*	.629**
	Sig. (2-tailed)	.000		.000	.000
	N	469	469	469	469
Attitudinal Loyalty	Pearson Correlation	.308**	.493*	1	.436**
	Sig. (2-tailed)	.000	.000		.000
	N	469	469	469	469
Cognitive Loyalty	Pearson Correlation	.485**	.629*	.436*	1
	Sig. (2-tailed)	.000	.000	.000	
	N	469	469	469	469

**. Correlation is significant at the 0.01 level (2-tailed).

5.7 Output from Multiple Regression Analysis

Table-5.14: Descriptive Statistics of Variables (MRA)

Descriptive Statistics

	Mean	Std. Deviation	N
Customer Satisfaction	5.15	1.245	469
Tangibles	5.3124	1.06266	469
Reliability	5.1595	.96209	469
Responsiveness	4.9717	1.16798	469
Assurance	5.2159	.95919	469
Empathy	4.5740	1.19868	469
IT	4.6844	1.25121	469

Table-5.15: Correlation between Service Quality and Customer Satisfaction (MRA)
Correlation

		Overall Customer Satisfaction	Tangibles	Reliability	Responsiveness	Assurance	Empathy	IT
Pearson Correlation	Overall Customer Satisfaction	1.000	**.345**	**.500**	**.480**	**.446**	**.492**	**.621**
	Tangibles	.345	1.000	.641	.501	.450	.357	.424
	Reliability	.500	.641	1.000	.649	.581	.489	.516
	Responsiveness	.480	.501	.649	1.000	.587	.635	.532
	Assurance	.446	.450	.581	.587	1.000	.500	.453
	Empathy	.492	.357	.489	.635	.500	1.000	.561
	IT	.621	.424	.516	.532	.453	.561	1.000
Sig. (1-tailed)	Overall Customer Satisfaction	.	.000	.000	.000	.000	.000	.000
	Tangibles	.000	.	.000	.000	.000	.000	.000
	Reliability	.000	.000	.	.000	.000	.000	.000
	Responsiveness	.000	.000	.000	.	.000	.000	.000
	Assurance	.000	.000	.000	.000	.	.000	.000
	Empathy	.000	.000	.000	.000	.000	.	.000
	IT	.000	.000	.000	.000	.000	.000	.
N	Overall Customer Satisfaction	469	469	469	469	469	469	469
	Tangibles	469	469	469	469	469	469	469
	Reliability	469	469	469	469	469	469	469
	Responsiveness	469	469	469	469	469	469	469
	Assurance	469	469	469	469	469	469	469
	Empathy	469	469	469	469	469	469	469
	IT	469	469	469	469	469	469	469

Table-5.16: Variables Entered/Removed

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	IT, Tangibles, Assurance, Empathy, Responsiveness, Reliability[b]	.	Enter

a. Dependent Variable: Overall Customer Satisfaction
(Overall, you are very satisfied with the bank.)
b. All requested variables entered.

Table-5.17: Model Summary

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.671[a]	**.450**	.443	.929

a. Predictors: (Constant), IT, Tangibles, Assurance, Empathy, Responsiveness, Reliability
b. Dependent Variable: Overall Customer Satisfaction (Overall, you are very satisfied with the bank.)

Table-5.18: ANOVA

ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	326.584	6	54.431	63.126	**.000[b]**
	Residual	398.362	462	.862		
	Total	724.947	468			

a. Dependent Variable: Overall Customer Satisfaction (Overall, you are very satisfied with the bank.)

b. Predictors: (Constant), IT, Tangibles, Assurance, Empathy, Responsiveness, Reliability

Table-5.19: Coefficients

Coefficients[a]

Model	Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	T	Sig.	95.0% Confidence Interval for B Lower Bound	95.0% Confidence Interval for B Upper Bound	Correlations Zero-order	Correlations Partial	Correlations Part	Collinearity Statistics Tolerance	Collinearity Statistics VIF
1 (Constant)	.924	.275		3.355	.001	.383	1.465					
Tangibles	-.059	.054	-.050	-1.092	.275	-.164	.047	.345	-.051	-.038	**.567**	**1.765**
Reliability	.232	.070	.179	3.314	.001	.094	.369	.500	.152	.114	**.407**	**2.457**
Responsiveness	.038	.057	.035	.658	.511	-.075	.150	.480	.031	.023	**.413**	**2.420**
Assurance	.123	.060	.094	2.053	.041	.005	.240	.446	.095	.071	**.562**	**1.778**
Empathy	.120	.050	.115	2.402	.017	.022	.218	.492	.111	.083	**.515**	**1.941**
IT	.421	.045	.423	9.401	.000	.333	.509	.621	.401	.324	**.588**	**1.702**

a. Dependent Variable: Overall Customer Satisfaction (Overall, you are very satisfied with the bank.)

Table-5.20: Collinearity Diagnostics

CollinearityDiagnostics[a]

Model	Dimension	Eigen value	Condition Index	Variance Proportions						
				(Constant)	Tangibles	Reliability	Responsiveness	Assurance	Empathy	IT
1	1	6.858	1.000	.00	.00	.00	.00	.00	.00	.00
	2	.045	12.327	.10	.07	.01	.01	.01	.23	.22
	3	.031	14.863	.00	.02	.00	.07	.01	.27	.74
	4	.023	17.269	.42	.13	.04	.27	.03	.10	.01
	5	.018	19.299	.00	.43	.00	.20	.26	.36	.03
	6	.014	22.201	.48	.04	.00	.33	.62	.03	.00
	7	.011	25.255	.00	.31	.94	.11	.07	.01	.01

a. Dependent Variable: Overall Customer Satisfaction (Overall, you are very satisfied with the bank.)

Table-5.21: Casewise Diagnostics

CasewiseDiagnostics[a]

Case Number	Std. Residual	Overall Customer Satisfaction	Predicted Value	Residual
4	-3.746	1	4.48	-3.478
157	-3.875	1	4.60	-3.599
213	-3.061	1	3.84	-2.843
273	-3.476	1	4.23	-3.228

a. Dependent Variable: Overall Customer Satisfaction

Table-5.22: Residual Statistics

Residuals Statistics[a]

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	2.32	7.04	5.15	.835	469
Std. Predicted Value	-3.394	2.259	.000	1.000	469
Standard Error of Predicted Value	.050	.256	.106	.039	469
Adjusted Predicted Value	2.37	7.04	5.15	.833	469
Residual	-3.599	2.435	.000	.923	469
Std. Residual	-3.875	2.623	.000	.994	469
Stud. Residual	-3.886	2.671	.000	1.005	469
Deleted Residual	-3.618	2.526	-.001	.943	469
Stud. Deleted Residual	-3.947	2.689	-.001	1.008	469
Mahal. Distance	.356	**34.488**	5.987	5.666	469
Cook's Distance	.000	**.087**	.003	.009	469
Centered Leverage Value	.001	.074	.013	.012	469

a. Dependent Variable: Overall Customer Satisfaction (Overall, you are very satisfied with the

bank.)

Normal P-P Plot of Regression Standardized Residual

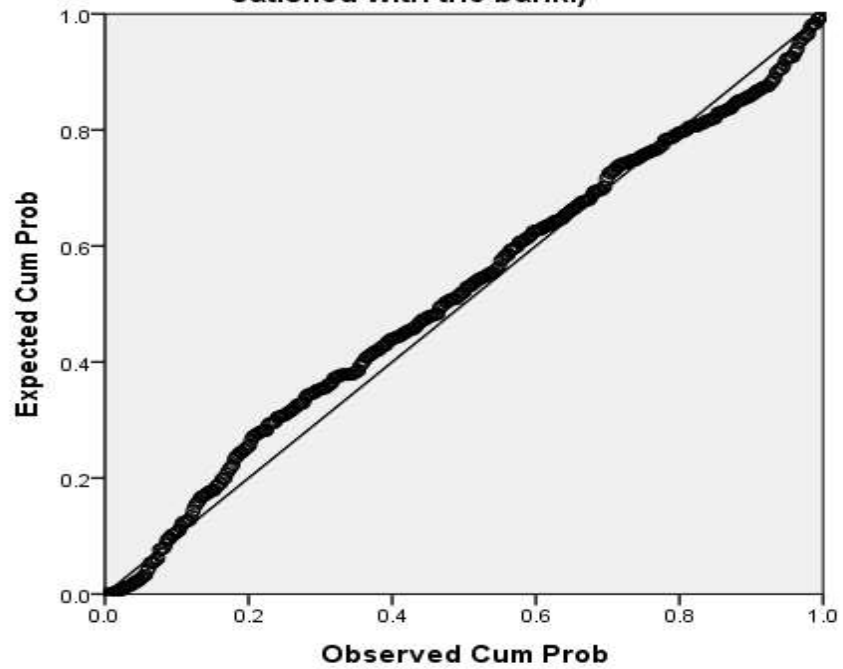**Dependent Variable: Overall Customer Satisfaction (Overall, you are very satisfied with the bank.)**

Figure-5.1: Normal P-P Plot of Regression Standardized Residual

Scatterplot

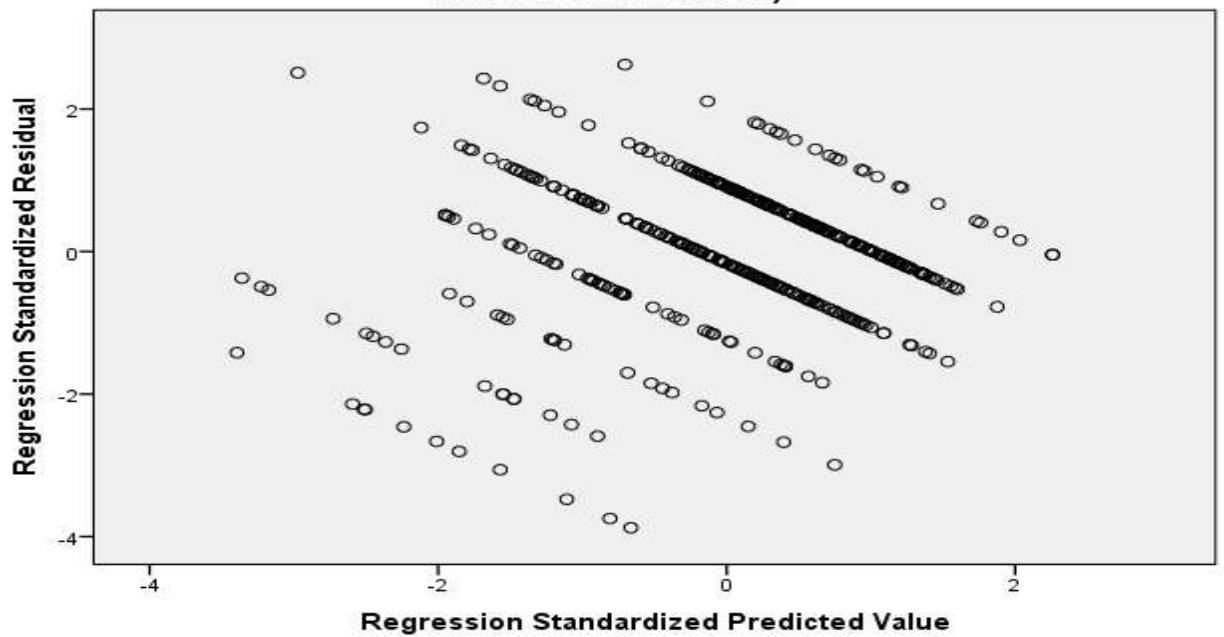**Dependent Variable: Overall Customer Satisfaction (Overall, you are very satisfied with the bank.)**

Figure-5.2: Scatterplot

5. 8 Interpretation of Output from Standard Multiple Regression

Step-1: Checking the Assumption

1 <u>Correlations and & multicollinearity:</u> The correlations between the variables in the model are provided in the table labeled correlations (see table-5.15). To check whether Independent variables show at least some relationship with dependent variables (above 0.3 preferably) or not, in this case all the independent variables correlated substantially with dependent variables. Correlations between overall tangibles and customer satisfaction is 0.345; between overall reliability and customer satisfaction is 0.5; between overall responsiveness and customer satisfaction is 0.480; between overall assurance and customer satisfaction is 0.446; between overall empathy and customer satisfaction is 0.492; and between Overall IT and customer satisfaction is 0.621. In this study correlations between independent variables are not too high (i.e., less than 0.7); therefore all variables are retained.

SPSS also performed collinearity diagnostics on the variables as part of the multiple regression procedure. The results are presented in the table labeled coefficients. The VIF (variance inflation factor) and tolerance level are considered here. Tolerance is an indicator of how much of the variability of the specified independent is not explained by other independent variables. If this value is very small (less than 0.10), it indicates that the multiple correlations with other variables is high, suggesting the possibility of multicollinearity. The VIF value is just the inverse of the tolerance value. VIF value above 10 indicates multicollineariy. In this study tolerance values are above 0.10 and VIF values are less than 10 (see: table 5.19). Hence no multicollinearity exists.

2. <u>Outliers, normality, linearity</u>

One of the ways these assumptions can be checked is by inspecting the normal probability plot (P-P) of the regression standardized residuals and the scatterplot. In the normal P-P plot (*see: fig-5.1*) points lied in a reasonably straight diagonal line from left to top right. It suggests no major deviations from normality.

In the scatterplot of standardized residuals (*see: fig-5.2*) residuals are roughly rectangularly distributed with most of the scores concentrated in the centre. It suggested not much violation of assumptions.

Outliers can be checked by inspecting the Mahalalanobis distances that are produced by the multiple regression programs. To identify which case are outliers,

we need to determine critical chi square value, using the number of independent variables as the degree of freedom. Critical chi-square value for evaluating Mahalalanobis distance is 22.46 if number of independent variable is 6 (Pallant, p-157). Residual statistics table (*see table-5.22*) maximum value in this data file is 34.488 (*see: table-5.22*) which exceeds the critical value. To find out which case has this value Casewise diagnostics table is used. This presents information about cases that have standardized residual values above 3.0 or below -3.0. In a normally distributed sample, we would expect only 1% of cases to fall outside this range. In the sample of this study only 4 cases (*see: table-5.21*) out of 469 cases fall outside this range.

To check whether these four strange cases have any undue influence on the results for this model as a whole the value of Cook's Distance is checked. According to Tabachnick and Fidell (2007; cited by Pallant, 2007 p-158) cases with values larger than 1 are a potential problem. In this study, the maximum value of Cook's Distance is 0.87 (*see: table-5.22*) which is lower than 1 suggesting no major problems.

Step-2: Evaluating the Model

R-Square value measures how much of the variance in the dependent variable is explained by the model. Model Summary table (see: table-5.17) indicates that the value of R-Square is 0.45 (*see: table-5.17*). Expressed as a percentage (multiply by 100, by shifting the decimal point two places to the right), this means that this model explained 45% of variance in customer satisfaction. This model in this study reached statistical significance (Sig. = 0.000; this really means p< 0.005; *see: table-5.18*)

Step-3: Evaluating each of the Independent variables

To know which of the variables included in the model contributed to the prediction of the dependent variable beta values under Standardized Coefficients are considered. Standardized means that these values for each of the different variables have been converted to the same scale so that they can be compared. In this case, we were interested in comparing the contribution of each independent variable; therefore beta values are used. In this case, the largest beta coefficient +0.423, which is IT. This means that IT made the strongest unique contribution to explain the dependent variable customer satisfaction, when the variance explained by all other variables in the model is controlled for. The Beta value for reliability is +0.179, indicating this variable made second largest contribution to explain dependent variable which is followed by Empathy (Beta +0.115); Assurance (Beta +0.94); Tangibles (Beta -

0.050); and Responsiveness (Beta +0.035). Sig values indicate that IT (Sig. =0.000), Reliability (Sig. =0.001), Empathy (Sig. =0.017), and Assurance (Sig. =0.041) are making statistically significant unique contribution in the equation but Sig values of Tangibles (Sig. =0.275), and Responsiveness (Sig. =-0.511) indicate that contribution of these two independent variables to explain dependent variable is not statistically significant (*see: table-5.19*).

In order to know how much of the total variance in the dependent variable is uniquely explained by that independent variable Part Correlations coefficients are checked. If we square this value, then we get the indication of the contribution to the total R square. In other words, it tells how much of the total variance in the dependent variable is uniquely explained by that variable and how much R square would drop if it was not included in the model.
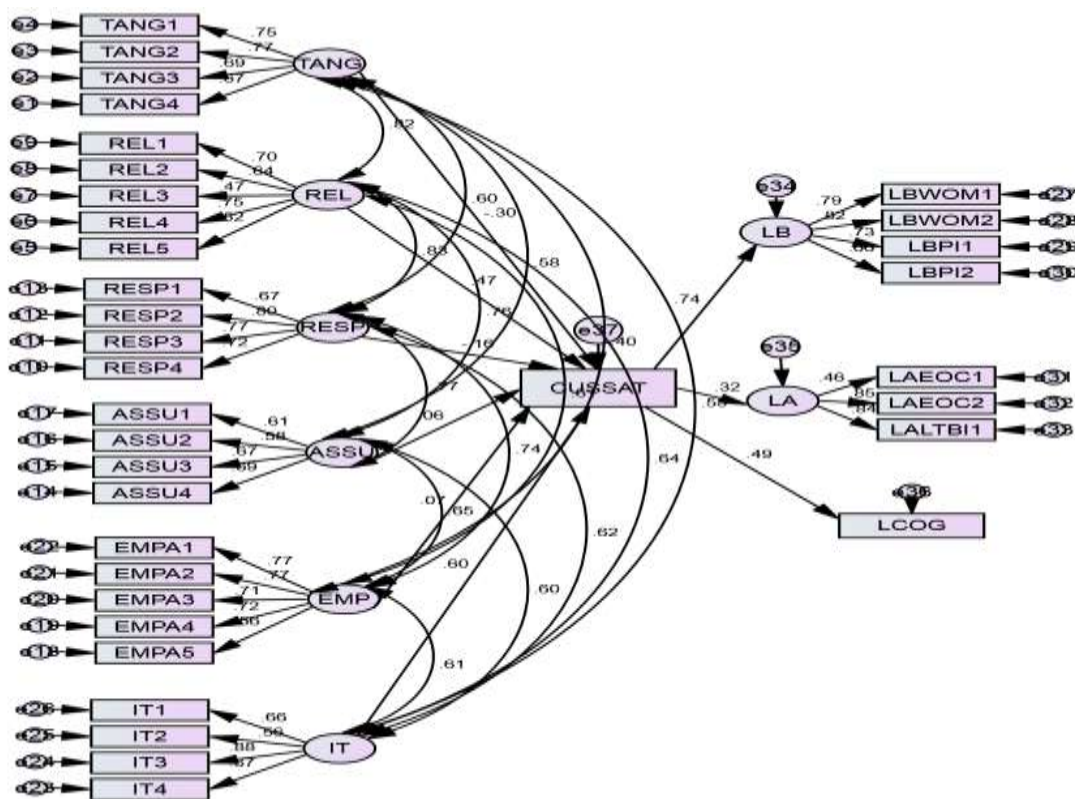
5.9 Analysis of Data by Using AMOS

Figure-5.3: Output form AMOS-Path Diagram

Table-5.23: Output form AMOS- <u>Notes for Model (Default model)</u>

Number of distinct sample moments:	630
Number of distinct parameters to be estimated:	92
Degrees of freedom (630 - 92):	538

Table-5.24: Result AMOS (Default model)

Minimum was achieved	Chi-square = 1913.636
Degrees of freedom = 538	Probability level = .000
Minimum was achieved	Chi-square = 1913.636
Degrees of freedom = 538	Probability level = .000

Table-5.25: Output form AMOS- Model Fit Summary- CMIN

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	92	**1913.636**	**538**	.000	**3.557**
Saturated model	630	.000	0		
Independence model	35	8579.677	595	.000	14.420

Table-5.26: Output form AMOS- Model Fit Summary-RMR, GFI

Model	RMR	GFI	AGFI	PGFI
Default model	.199	**.797**	**.763**	.681
Saturated model	.000	1.000		
Independence model	.659	.207	.161	.196

Table-5.27: Output form AMOS- Model Fit Summary- Baseline Comparisons

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	.777	.753	.829	**.809**	**.828**
Saturated model	1.000		1.000		1.000
Independence model	.000	.000	.000	.000	.000

Table-5.28: Output form AMOS- Model Fit Summary- Parsimony-Adjusted Measures

Model	PRATIO	PNFI	PCFI
Default model	.904	**.703**	.748
Saturated model	.000	.000	.000
Independence model	1.000	.000	.000

Table-5.29: Output form AMOS- Model Fit Summary- RMSEA

Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	**.074**	.070	.078	.000
Independence model	.169	.166	.173	.000

5.10 Interpretation of Output form AMOS

Hair et al. (2006, p-756,805) suggests that overall fit can be assessed by using χ^2 value for the structural model, one other absolute fit index, one incremental fit index, one goodness of fit indicator. In order to interpret the output from analysis of moment structures (AMOS), as we need to know the definitions and acceptable values of all the indices and hence these are highlighted in short s below:

Absolute fit indices are the measure of overall goodness-of-fit for both the structural and measurement models collectively and examines how well the model specified by the researcher reproduces the observed data (Hair et al., 2006, p-706,746)

- ➢ Chi-square value is a direct statistical measure of difference used to compare the observed and estimated covariance matrices which is the most fundamental absolute fit index and forms the basis for many other goodness-of-fit measures. If sample size is large and the number of observed variables increases then Chi-square value increases (Hair et. al., 2006, p-706, 746)

- ➢ Degree of Freedom (DF or df) represents the amount of mathematical information available to estimate model parameters (Hair et. al., 2006, p-745).

- ➢ Goodness-of-Fit (GOF) examines how well a specified model represents the covariance matrix among the indicator variables/items i.e, it explains the similarity between the observed and estimated covariance matrices (Hair et al., 2006, p-708,745).

- • Goodness-of-Fit Index (GFI) value is indirectly depends on sample size but possible range is 0 to 1 with higher values indicating better fit and GFI

values with greater than 0.9 are considered as well fit   (Hair et al., 2006, p.747).

- Adjusted Goodness-of-fit index (AGFI) adjusts GFI by a ratio of the degrees of freedom used in a model to the degrees of freedom available and takes differing degrees of model complexity into consideration. Like GFI values, acceptable range of AGFI values is in between 0 to 1with higher values indicates better fit and AGFI values are typically lower than GFI values (Hair et al., 2006, p-747).

➤ Root Mean Square Error of Approximation (RMSEA) indicates how well a model fits a population, not just for a sample used for estimation which tries to correct for model complexity and sample size by including each in its computation. Lower RMSEA values indicate better fit but for most acceptable models typically values are below 0.1 (Hair et. al., 2006, p-748).

Incremental fit indices assess how well a specified model fits relative to some alternative baseline model or null model (Hair et. al., 2006, p-749).

➤ Normed Fit Index which is one of the original incremental fit indices is a ratio of the differences in the χ^2 value for the fitted model and a null model divided by the χ^2 value for the null model. Acceptable range of NFI values is between 0 to 1 where a model with perfect fit produces NFI value of 1(Hair et. al., 2006, p-749).

➤ Comparative Fit Index (CFI) is also an incremental fit index and an improved version of normed fit index. Possible range is 0 to 1 with higher values indicating better fit and CFI value with more than 0.9 indicates that the model is well fit (Hair et. al., 2006, p-749).

➤ Tucker Lewis Index (TLI) involves a mathematical comparison of a specified theoretical measurement model and a baseline null model where models with good fit have values that approach 1 and a model with a higher value suggests a better fit than a model with lower value (Hair et. al., 2006, p-749).

Output from AMOS (*see: from Table 5.23 to Table 5.29*) reveals that, the values of all indices are as follows:

➢ CMIN = **1913.636**

➢ DF = **538**

➢ CMIN/DF = **3.557 (less than 5 preferable)**

➢ **Absolute Fit Indices**

    ➢ GFI = **.797** (Acceptable range = 0 to 1, higher values indicates better fit)

    ➢ AGFI = **.763** (Acceptable range = 0 to 1, higher values indicates better fit)

    ➢ RMSEA= **.074** (Typically values are below 0.10 for most acceptable models)

➢ **Incremental Fit Indices**

    ➢ NFI = **.777** (Acceptable range = 0 to1, higher values indicates better fit)

    ➢ TLI = **.809** (Typically model with good fit have values that approach 1).

    ➢ CFI= **.828** (Acceptable range = 0 to 1, higher values indicates better fit)

➢ **For Overall Model Fit**- If we Look

    ➢ Chi-square value

    ➢ One absolute fit Index

    ➢ One incremental fit Index

    ➢ RMSEA value

Hence Model fit is good.

5.11 Concluding Remarks of Data Analysis and Data Interpretation

➢ All the dimensions of service quality are correlated substantially with customer satisfaction.

        ➢ IT and customer satisfaction is 0.621

        ➢ reliability and customer satisfaction is 0.5

        ➢ empathy and customer satisfaction is 0.492;

        ➢ responsiveness and customer satisfaction is 0.480

> - assurance and customer satisfaction is 0.446

> - tangibles and customer satisfaction is 0.345

> - In this study correlations between independent variables (service quality dimensions) are not too high (i.e., less than 0.7); therefore all variables are retained.

- All the dimensions of loyalty are correlated substantially with customer satisfaction.

> - customer satisfaction and behavioral loyalty is 0.657

> - customer satisfaction and cognitive loyalty is 0.485

> - customer satisfaction and attitudinal loyalty is 0.308

- From regression analysis- the largest beta coefficient +0.423, which is IT (Sig. =0.000). This means that IT made the strongest unique contribution to explain the dependent variable customer satisfaction, when the variance explained by all other variables in the model is controlled for.

- From AMOS- Model is FIT

Chapter Six

Major Findings

Chapter Six: Major Findings

Descriptive statistics of variables used in bivariate correlation between dimensions of service quality and customer satisfaction have been highlighted in section 5.3 (*see: table-5.10*). Mean values suggested that there exists reasonably high levels of tangibles, reliability, responsiveness, assurance, empathy, information technology and overall customer satisfaction in the banking sector of Bangladesh. Table-5.12 shows the mean values of different dimensions of loyalty. Mean values suggested that there exists reasonably high levels of customer satisfaction, behavioural loyalty, attitudinal loyalty, cognitive loyalty in the banking sector of Bangladesh.

The direction of the relationship between the service quality dimensions/attributes and customer satisfaction has been tested with the help of bivariate correlation method, where the values of Pearson's r were calculated to assess the strength of the relationships between dimensions of service quality, customer satisfaction and loyalty. Significance level (sig value) was taken into consideration to measure the level of statistical significance level. In order to interpret the relationship I followed the guidelines suggested by Cohen (1988, cited by Pallant, 2007, pp-132) as per following:

Small if r = 0.10 to 0.29

Medium if r = 0.30 to 0.49

Large if r = 0.50 to 1.0

6.1 Relationship between Dimensions of Service Quality and Customer Satisfaction

Table 6.1 pointed out that the strength of the relationship between dimensions of service quality used in this study and overall customer satisfaction. The strength of correlations between tangibles and customer satisfaction (Pearson's r = 0.345); responsiveness and customer satisfaction (Pearson's r = 0.480); assurance and customer satisfaction (Pearson's r = 0.446); empathy and customer satisfaction (Pearson's r = 0.492) are medium suggesting relationship between tangibles and customer satisfaction; responsiveness and customer satisfaction; assurance and customer satisfaction; empathy and customer satisfaction are not strong whereas the strength of correlations between reliability and customer satisfaction (Pearson's r =

0.500); and information technology and customer satisfaction (Pearson's r = 0.621) are large suggesting strong relationship between reliability and customer satisfaction and between information technology and customer satisfaction. Table 6.1 also pointed out that the relationships of customer satisfaction with all the six dimensions of service quality are significant at the $p < 0.01$ level. This study reveals that information technology plays the most important role for developing customer satisfaction.

Table-6.1: Correlation between Service Quality and Customer Satisfaction
(For detail Correlation matrix, see: table 5.11)

		Tangibles	Reliability	Responsiveness	Assurance	Empathy	IT
Overall Customer Satisfaction	Pearson Correlation	.345**	.500**	.480**	.446**	.492**	.621**
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000
	N	469	469	469	469	469	469

**. Correlation is significant at the 0.01 level (2-tailed).

The study pointed out that there exist positive significant relationship between service quality and customer satisfaction in the banking sector of Bangladesh as suggested by previous studies (e.g. Anderson and Sullivan, 1993; Fornell et al.,1996; Prabhakaran and Satya, 2003; Chen, 2009; Bedi, 2010; Zafar et al., 2012; Hassan et al., 2013; Mittal and Gera, 2013; Khan and Fasih, 2014; Sabir et al., 2014; Siddique, 2011; Saha et al., 2014; Seto-Pamies, 2012; Lee et al., 2012; Tu et al., 2011a and 2011b; Sivadas and Baker-Prewitt, 2000).

Previous studies (e.g. Bedi, 2010; Islam and Ali, 2011) pointed out that all five dimensions of service quality of SERVQUAL model have strong positive association with customer satisfaction but this study reveals that out of five SERVQUAL dimensions only reliability is strongly associated with customer satisfaction. To the best of my knowledge previous studies which were conducted in the context of this Indian Sub-continent did not consider information technology (IT) as a dimension of service quality but this study used information technology as one dimension of service quality and the study indicates that IT plays the most important role on developing customer satisfaction. Tangibles dimension plays least important role on developing customer satisfaction which is in line with some previous findings (e.g. Khan and Fasih, 2014) but not in line with some other previous findings (e, g, Lau et al., 2013; Islam and Ali, 2011).

6.2 Relationship between Customer Satisfaction and Dimensions of Loyalty

Table 6.2 pointed out that the strength of the relationship between dimensions of Loyalty used in this study and overall customer satisfaction. The strength of correlations between customer satisfaction and attitudinal loyalty (Pearson's r = 0.308); customer satisfaction and cognitive loyalty (Pearson's r = 0.485) are medium suggesting   relationship between customer satisfaction and attitudinal loyalty; customer satisfaction and cognitive loyalty are not strong whereas the strength of the correlation between customer satisfaction and behavioral loyalty is large (Pearson's r = 0.657) suggesting strong relationship between customer satisfaction and behavioral loyalty. Table 6.2 also pointed out that the relationships of customer satisfaction with all the three dimensions of loyalty are significant at the $p < 0.01$ level. Hence it reveals that behavioral dimension of loyalty is more strongly associated with customer satisfaction.

Table-6.2: Correlation between Customer Satisfaction and Dimensions of Loyalty

(For detail Correlation matrix, see: table 5.13)

		Behavioral Loyalty	Attitudinal Loyalty	Cognitive Loyalty
Customer Satisfaction	Pearson Correlation	.657**	.308**	.485**
	Sig. (2-tailed)	.000	.000	.000
	N	469	469	469

**. Correlation is significant at the 0.01 level (2-tailed).

Similar with previous studies (e.g. Liang and Wang, 2004; Zafar et al., 2012; Lau et al., 2013; Hasan et al., 2013; Khan and Fasih, 2014; Sabir et al., 2014, Islam and Ali, 2014; Rahman, 2013; Seto-Pamies, 2012; Lee et al., 2012; Tu et al., 2011a, 2011b; Huber and Hermann, 2011; Oliver, 1997; Mithas et al., 2005; Lewin, 2009; Fornell et al., 1996; Bloemer and Ruyter,1999; Anderson and Sullivan, 1993) this study also reveals that the associations between customer satisfaction and different dimensions of loyalty are significantly positive in the banking sector of Bangladesh.

This study highlights that customer satisfaction is strongly related with behavioral dimensions of loyalty which is in line with previous studies (e.g. Zeithaml et al., 2013; East, 1997; Eskildsen and Kristensen, 2008; Mittal and Kamakura, 2001; Bolton and Lemon, 1999; Zeithaml et al., 2013; Gustafsson et al., 2005). Like some previous

findings (Anderson and Swaminathan, 2011, Anderson and Narus, 1990; Palmatier et al., 2006) this study indicates that customer satisfaction develops attitudinal loyalty. In addition to this the study also reveals that customer satisfaction develops cognitive dimensions of loyalty (e.g. Dwyer et al., 1987) i.e. satisfied customers keep the bank as their first choice among alternatives.

6.3 Key Findings from Multiple Regression Analysis

The key findings of standard multiple regression analysis is as follows:

Mean values (see: table-5.14) suggested that there exists reasonably high levels of tangibles, reliability, responsiveness, assurance, empathy, information technology and overall customer satisfaction.

Correlations between tangibles and customer satisfaction is 0.345; overall reliability and customer satisfaction is 0.5; between responsiveness and customer satisfaction is 0.480; between assurance and customer satisfaction is 0.446; between empathy and customer satisfaction is 0.492; and between IT and customer satisfaction is 0.621 and the relationships of customer satisfaction with all the six dimensions of service quality are significant at the $p < 0.01$ level (see: table-5.15).

Table-6.3: Model Summary (From Multiple Regression Analysis)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.671[a]	**.450**	.443	.929

a. Predictors: (Constant), IT, Tangibles, Assurance, Empathy, Responsiveness, Reliability
b. Dependent Variable: Overall Customer Satisfaction.

Table-6.4: ANOVA (From Multiple Regression Analysis)

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	326.584	6	54.431	63.126	**.000[b]**
	Residual	398.362	462	.862		
	Total	724.947	468			

a. Dependent Variable: Overall Customer Satisfaction
b. Predictors: (Constant), IT, Tangibles, Assurance, Empathy, Responsiveness, Reliability

Calculated regression model explains about 45% of total variance observed in the dependent variable customer satisfaction (R-Square value is 0.45; see: table-6.3) and the model in this study reached statistical significance (Sig. = 0.000; this really means $p < 0.005$; *see: table-6.4*)

Table-6.5: Coefficients
(For detail Coefficients, see: table 5.19)

Model	Standardized Coefficients, Beta	Sig.
(Constant)		.001
Tangibles	-.050	.275
Reliability	.179	.001
Responsiveness	.035	.511
Assurance	.094	.041
Empathy	.115	.017
IT	.423	.000

The study (e.g. Karim and Chowdhury, 2014; Lau et al., 2013) pointed out that contribution of all SERVQUAL dimensions to explain customer satisfaction is statistically significant. The study of Nautiyal (2014) revealed that contribution of tangibles to explain customer satisfaction is not statistically significant and the study (e.g. Khan and Fasih, 2014; Islam and Ali, 2011) identified that contribution of both tangibles and reliability to explain customer satisfaction is not statistically significant Information technology, IT ($\beta_6 = +0.423$, Sig. =0.000) made the strongest unique contribution to explain the dependent variable customer satisfaction. Out of five SERVQUAL dimensions, reliability ($\beta_2 = +0.179$, Sig. =0.001) was more statistically significant in contributing to explain customer satisfaction which is followed by Empathy ($\beta_5 = +0.115$, Sig. =0.017); Assurance ($\beta_4 = +0.94$, Sig. =0.041). Tangibles ($\beta_1 = -0.050$, Sig. =0.275), and Responsiveness ($\beta_3 = +0.035$, Sig. =0.511) indicate that contribution of these two independent variables to explain dependent variable is not statistically significant (see: table-6.5). These findings are in line with the study of Hasan et al. (2013) which was conducted in the context of banking sector of Pakistan and which also revealed that contribution of both tangibles and responsiveness to explain customer satisfaction is not statistically significant.

6.4 Key Findings from Analysis of Moment Structures (AMOS)

Structural equation modeling (SEM) by using analysis of moment structure has been used to assess model fit. As it is mentioned in section 5.8 overall fit of the model can be assessed by using χ^2 value for the structural model, one other absolute fit index, one incremental fit index, one goodness of fit indicator (Hair et al., 2006, p-756,805). Definitions, values of the present study and acceptable values of all the indices have been discussed in the previous chapter.

Table-6.6: Overall Fit Summary (From AMOS)

Statistic	Value
Chi-square value, CMIN	1913.636, p < 0.01
Absolute Fit Index	GFI = .797, AGFI = .763
Incremental Fit Index	NFI = 0.777; TLI = 0.809; CFI= 0.828
RMSEA	0.074

Findings of the key indices are highlighted in table-6.6. Hence the values of the indices obtained from AMOS supported the model fit.

6.5 Summary of Key Findings

Table 6.7: Summary of Key Findings of the Hypotheses

Hypotheses	Findings	Correlation
H1$_a$: Service quality is positively related with customer satisfaction.	Accepted	Between IT and customer satisfaction and between reliability and customer satisfaction are large but the strength of correlations between other dimensions of service quality (tangibles, empathy, responsiveness, assurance) and customer satisfaction are medium.
H2$_a$: Customer satisfaction is positively related with loyalty.	Accepted	Between customer satisfaction and behavioral loyalty is large but the strength of correlations between customer satisfaction and attitudinal loyalty and cognitive loyalty are medium.

The findings of the study pointed out that all the hypothesized relationships are accepted at the $p < 0.01$ level.

From regression analysis- the largest beta coefficient +0.423, which is IT (Sig. =0.000). This means that IT made the strongest unique contribution to explain the dependent variable customer satisfaction, when the variance explained by all other variables in the model is controlled for whereas the contributions of tangibles and responsiveness to explain customer satisfaction are not statistically significant which is might be due to the fact that in the context of tangibility and responsiveness aspects banks in this marketplace maintain no differences. The analysis of moment structures illustrates that proposed model is fit.

6.6 Other Findings

Though the results indicated that all the dimensions of service quality have direct and positive relationship customer satisfaction but information technology (IT) and reliability are more strongly significant and hence more important dimensions of service quality in developing customer satisfaction in the banking sector of Bangladesh (*see: table-6.1*) Correlation matrix between customer satisfaction and dimensions of loyalty (*see: table-6-2*) indicated that all the dimension of loyalty have direct positive relationship with customer satisfaction but relationship between customer satisfaction and behavioural loyalty is strong and hence satisfied customers shows behavioural loyalty in the banking sector of Bangladesh.

Chapter Seven

Conclusions, Managerial Implications and Further Research

Chapter Seven: Conclusions, Managerial Implications and Further Research

7.1 Conclusions

The aim of the study has been to measure the relationship among service quality, customer satisfaction and loyalty in the context of the banking sector of Bangladesh. Data were collected from accountholders of different banks' branches within greater Dhaka city. In total 469 respondents took part in the research. In order to achieve the objectives of the study, two hypotheses and one model were developed and examined. Statistical methods like correlation analysis, regression analysis, and structural equation modelling by using analysis of moment structures (AMOS) have been used to examine causal relationship between variables and to verify and conclude whether developed model is fit or not. Bivariate correlation analysis measures relationship between two continuous variables on an interval scale. Pearson product moment correlation co-efficient (r) is used to measure the degree to which there is a linear relationship between variables (Pallant, 2007, p-116; Kumar et al., 2001, p-411; Cooper and Schindler, 2006, p-577) whereas multiple regression analysis is a statistical tool used to develop a self weighing estimating equation that predicts values for a continuous variable from the value of more than one continuous independent or predictor variable (Pallant, 2007, p-216; Cooper and Schindler, 2006, p-616) and structural equation modelling is an extension of general linear model that enables a researcher to test a set of regression equations simultaneously (Hair et al., 2006). Based on the findings presented and discussed in the previous sections the following conclusions are drawn:

7.1.1   *Service Quality has an impact on building customer satisfaction*

Consistent with the previous studies conducted in the context of western market (e.g. Anderson and Sullivan, 1993; Fornell et al., 1996, etc.); developing countries (e.g. Prabhakaran and Satya, 2003; Chen, 2009, etc); Bangladesh (e.g. Siddique, 2011; Saha et al., 2014, etc) this study also found that service quality is positively related with customer satisfaction. Hence accountholders can be satisfied by providing quality service to them. Hypothesis 1 predicting a positive relationship between service quality and customer satisfaction is supported, however the association of all

service quality dimensions are not strong. Unlike other studies this study reveals that IT followed by reliability has the strongest impact on customer satisfaction.

Multiple regression analysis examined the effect of six dimensions of service quality on customer satisfaction. IT dimension has the highest beta coefficient followed by reliability, empathy, assurance, responsiveness and tangibles. The contributions of tangibles and responsiveness as independent variables to explain dependent variable, customer satisfaction are statistically insignificant. The results in this study show that information technology dimension of service quality is more critical to build customer satisfaction in the Bangladeshi banking sector. Out of 5 SERVQUL dimensions, reliability is ranked the most important dimension of service quality to generate customer satisfaction which is in line with the study of Ismail et al., 2006.

7.1.2 Customer satisfaction has an impact on building loyalty

This study provides strong support for the predicted relationship between customer satisfaction and loyalty. Confirmation of hypothesis 2 indicates that customer satisfaction develops loyalty in the banking sector of Bangladesh which is in line with the other studies in the context of the Western market (e.g. Oliver, 1997; Baumann et al., 2005, etc); developing economies (e.g. Liang and Wang, 2004; Lau et al., 2013; Khan and Fasih, 2014, etc); Bangladesh (e.g. Islam and Ali, 2014) as mentioned in the literature review section. Though this study reveals that the associations between customer satisfaction and different dimensions of loyalty are significantly positive but the effects of customer satisfaction on all dimensions of loyalty are not the same. The study highlights the strong correlation between customer satisfaction and behavioural dimension of loyalty.

7.1.3 Model for the Relationship between Dimensions of Service Quality, Customer Satisfaction and Dimensions of Loyalty is fit.

Findings of the research model indicate that the model fits well (table-6.6). The chi-square is significant ($\chi^2 = 1913.636$, $p < 0.01$) which is not unacceptable given the sample size. Overall the model performance favourably on other fit diagnostics. Hence as discussed in previous two chapters, findings of analysis of moment structures (AMOS) support the overall fit of the hypothesized structural model (*see: figure-1.1*).

The findings of the study pointed out that the hypothesized relationships are supported significantly at the $p < 0.01$ level. The study provides support for the predicted relationships between different dimensions of service quality, customer satisfaction and different dimensions of loyalty and hence supports a number of past studies (e.g. Fornell et al., 1996; Prabhakaran and Satya, 2005; Huber and Herrman, 2001; Islam and Ali, 2011; Lee et al., 2012).

7.2 Managerial Implications

Local banks are dominating the market now (see; table-3.6) but as discussed earlier, economy is growing and banking sector is growing as well and this market might attract more local and overseas competitors and loyal customer base might play strong positive role during the period of intensive competition. Hence the management of the banking sector of Bangladesh should be focused on developing customer loyalty with higher levels of customer satisfaction by providing quality service to their accountholders and this concept should be taken into consideration by the banks in order to position them in the market segment and to achieve successful long-term relationship with their customers.

Marketers are more willing to be engaged in customer relationship efforts work to satisfy existing customers in order to develop long-term relationship with their existing customer base as marketplaces are more competitive and due to significant changes in the marketing environment customer retention has become increasingly more important (Hoffman and Bateson, 2002). The literature review suggests that loyal customers are considered as the key to survival and success in many service businesses. Providing quality service is an essential strategy to be successful in today's highly competitive marketing environment (Parasuraman et al., 1985; Zeithaml et al., 1990) and managers need to measure customer satisfaction in order to improve customer retention. This study has several managerial implications which are mentioned as below:

i. Generate customer satisfaction by providing quality service for developing loyalty.

Consistent with the previous studies based mostly on the Western market, the findings of this study outline the importance of service quality for developing

customer satisfaction in the banking sector of Bangladesh. Aaker and McLoughlin (2007, p-259) suggested that creating customer satisfaction and loyalty by providing solid value is a way to generate permanent share gain. Quality service may act as winning edge in the highly competitive environment where there is limited scope to differentiate product offerings (Prabhakaran and Satya, 2003). Reichheld and Sasser (1990) suggested that a 5% increase in customer loyalty can increase profits from 25% to 85%. Hence marketer should plan to create value of their products/services in order to generate loyalty among the customers. In order to develop whether firms are able to meet customer needs, many service firms including banks are measuring service quality and customer satisfaction (Jham and Khan, 2008). Hence implementation of necessary customer service measures is suggested. Managers in the banking sector of Bangladesh may achieve strategic advantage by effectively managing all service quality dimensions. The effective delivery of services is not only dependent on processes but also on people who are service provider to the customer. Process, people, and physical evidence are closely linked one another in order to provide effective and efficient service. Hence concerned employees should be trained in order to maintain strong relationship with the accountholders.

ii. Develop loyalty by providing customer satisfaction for developing long-term relationship.

Customer satisfaction is the feeling or attitude of a customer towards a product or service after its consumption or use and is generally defined as the full meeting of one's prior expectations (Oliver, 1980). The customers who are satisfied with their service providers develop a trusted relationship with them which in turn develops loyalty (Anderson and Swaminathan, 2011). Customer satisfaction develops trust which in turn develops commitment (Anderson and Narus, 1990). Trust and commitment develops expectation of continuity, word of mouth and loyalty (Palmatier et al., 2006) and customer satisfaction is generally considered an important predictor of customer loyalty in the service industry (Gustafsson et al., 2005). Customer satisfaction is an important issue as word spreads very fast in internet and hence word of mouth is referred as viral marketing (Macmillan *et al.,* 1997) and customer communities can exercise high influence in the market (Prahalad and Ramaswami, 2000). Previous studies, such as Day and Montgomery (1999), and Morgan and Strong (1998), suggested that firms could achieve sustainable competitive advantage and superior performance by better anticipating changing market conditions and responding to the current and prospective markets. Strong relationship with the

account holders could be effective for better understanding of account holders' needs and requirements.

iii. Develop higher levels of customer satisfaction by focusing more on advanced information technology and reliability dimension of service quality.

The association of information technology and customer satisfaction found very strong. Advanced information technology can develop higher levels of customer satisfaction. Customers of banking sector of Bangladesh prefer a reliable bank/reliable service. In order to position a bank as a reliable bank managers need to nurture and effectively communicate dependability and accuracy in their positioning strategy. Managers in the banking sector of Bangladesh can emphasis more on information technology and reliability dimensions of service quality to generate higher levels of customer satisfaction.

Business executives focused on building and maintaining customer loyalty in the Bangladesh market should note that the findings here support the notions that service quality is essential to develop customer satisfaction whereas customer satisfaction is an essential ingredient for the emergence of loyalty. In conclusion, a key implication of this study is that managers in the banking sector of Bangladesh may drive competitive advantage from others by formulating right service mix with quality service. There is a strong evidence to suggest that service quality has a strong positive and direct influence on account holders' satisfaction which in turn develops loyalty. Marketers could use this as a guideline for developing marketing strategies and focus on planning and developing marketing strategy.

7.3 Further Research

One limitation of this study is the context of the study. The findings of this study are based on views of the respondents about their attitudes towards service quality with their specific service provider (bank) and the respondents are selected from branches of different banks of greater Dhaka city and convenience type non-probability sampling is used, hence this study might suffer from some respondent bias caused by self selection and or construction of the sampling frame. The study also focused on established relationships based on findings from the previous studies in the context of the Western markets. Therefore, findings of this study might

not be directly generalised to other institutional environments of Bangladesh beyond the textile sector.

Moreover, in this study account holders' attitudes towards service quality of the service provider is measured just at one certain period of time. As suggested by Kenning (2008) further studies using some longitudinal data might add more value in this context. This study is based on the limited number of articles/books/research studies that I managed to collect or download. List of the articles/books used to prepare this study are mentioned later. Though I reviewed a good number of articles/books but this is not the exclusive list. There may have some other important studies which were overlooked and hence not reviewed. Hence further study based on more in-depth analysis might develop the findings of this study.

The relatively small correlations between tangibles dimension of service quality and customer satisfaction are not very surprising, though this finding is not consistent with the previous studies based on the Western markets. It might be due to the fact that most of the banks surveyed for this study within Dhaka city have appearance of physical elements which are more or less similar. However as discussed earlier, customers' interpretation regarding service quality is different and relationship among service quality, customer satisfaction and loyalty varies in the context of marketplace and industry. To the best of my knowledge, at present, there are no studies investigating the role of different dimensions of service quality, customer satisfaction in developing different dimensions of loyalty in the context of Bangladesh market. Therefore more research is required in other settings with different purchase categories, degrees of purchase involvement, and sample populations in order to verify and generalise the findings of this study and to determine other factors if any. In conclusion, this study could lead to further research in the context of banking sector of Bangladesh or any developing economy.

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Appendix

Appendix- Questionnaire

Service Quality, Customer Satisfaction and Loyalty: Measuring Relationship among these with regard to the Banking Sector in Bangladesh.

The following set of statements relate to your feelings about the Bank you deal. Please indicate how much you agree with each of the following statements (put √ or Y in the appropriate box).

	Strongly disagree	Mostly Disagree	Slightly disagree	Neither Agree nor Disagree	Slightly agree	Mostly agree	Strongly agree
Bank has up-to-date equipment.							
Bank's physical facilities are visually appealing.							
Bank's employees are well dressed and appear neat.							
The appearance of the physical facilities of the Bank is in keeping with the type of services provided.							
When Bank promises to do something by a certain time, it does so.							
When you have problems, Bank is sympathetic and reassuring.							
Bank is dependable.							
Bank provides its services at the time it promises to do so.							
Bank keeps its records accurately.							
Bank tells customers exactly when services will be performed.							
You receive prompt service from the Bank's employees.							
Employees of the Bank are always willing to help customers.							
Employees of the Bank are free enough to respond to customer requests promptly.							
You can trust employees of the Bank.							
You feel safe in your transactions with the Bank's employees.							
Employees of the Bank are polite.							
Employees get adequate support from the Bank to do their jobs well.							
Bank gives you individual attention.							
Employees of the Bank give you personal attention.							
Employees of the Bank know what your needs are.							
Bank has your best interests at heart.							
Bank has operating hours convenient to all their customers.							

The ATMs of the bank are technologically well equipped							
There is an adequate number of ATMs in this book							
The computerized systems in the bank functions properly							
The Internet banking services of this bank are diverse.							
Overall, you are very satisfied with the service of the Bank.							
If other people inquired about your bank then you would recommend it.							
You are happy to voluntarily recommend your bank to others.							
You are intended to deal with your Bank.							
You will do more transactions/dealings/ business with the Bank in the next few years.							
The chances of your terminating this relationship with your Bank in recent future are low.							
You will stay with your bank even if competitors offer lower charges and/or better interest rates.							
If you see an attractive offer in another bank branch, you will not leave your bank In five years time, you expect that you will still be doing most banking with your current bank.							
You consider your Bank as your first choice to buy/receive financial services.							

THANK YOU FOR YOUR TIME AND EFFORT