



**THE EFFECT OF E-SERVICE QUALITY AND
PERCEIVED RISK ON CUSTOMER LOYALTY AMONG
BANGLADESHI ONLINE BANKING CONSUMERS**

BY

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ABSTRACT

Due to the recent advancement in technology, online banking has become very popular among the Bangladeshi banking customers. As a result, banking organizations are spreading their online operations across the country. The quality of online services has been shown to be related to customer satisfaction and customer loyalty which are considered as key indicator for profitability in banking organization. As such, satisfied customers are expected to remain active in dealing with banks for a period of time; moreover, if they find consistency in the quality of services offered, they eventually convert to loyal customers who are not only important for organization's profitability, but also its survival. However, online banking (or e-banking) services have some perceived risks since there are attributed drawbacks to the technology; some of these are financial risk, time risk, performance risk, social risk, and privacy risk. Moreover, despite the fact that customer satisfaction, customer loyalty, and online services are interlinked, no significant research has been done so far to show the interlinked relationship. Furthermore, extensive review of literature reveals that no substantial research has been done on e-service quality of the online banking in Bangladesh. More so, it has been noted in the literature that Bangladesh has potential to adapt the new technological changes since government has set vision 2021 to create a digitalized country. In line with the above, the current study aimed at investigating the effects of e-service quality and perceived risk towards customer's loyalty of online banking consumers in Bangladesh. As a quantitative study, selection of the respondents was based on convenience sampling technique. Based on this, a total 329 respondents were selected from both public and private commercial banks in the country. For this purpose, four major divisional cities which include Dhaka, Chittagong, Rajshahi, and Khulna, were selected. The researcher employed exploratory factors analysis to fit the right items for each construct, while structural equation modeling was used to assess the relationship between the constructs. The result of the study reveals that customer satisfaction is directly related to customer loyalty in an online banking organization. Also, customer satisfaction mediates the relationship between e-service quality and customer loyalty, as well as between perceived risk and customer loyalty. In addition, e-service quality has direct and positive relationship with customer loyalty. However, there is no direct positive relationship between perceived risk and customer loyalty in the Bangladeshi online banking services. Furthermore, there is insignificant difference between perceptions of service providers and service receivers. However, this study reveals some difference for the variables of perceived risk, indicating that customers' opinion is different from service providers, suggesting that perceived risk is negatively related to the customers' loyalty in online banking services. The findings of the study is valuable for online banking, particularly in the Bangladesh banking sectors; the findings are also useful for those who are strongly to confirm their e-service quality variables to create better customer satisfaction and also customer loyalty of their organizations. Practitioners, academicians, policy makers and researchers can also benefit from the present study. Furthermore, the researcher recommend future researcher to use mix methods to extend the opening of service receivers and providers. In addition, private and public banks can be studied independently due to their nature of online services.

خلاصة البحث

نظرا للتقدم الراهن في التكنولوجيا، أصبحت الخدمات المصرفية عبر الإنترنت شعبية جدا بين عملاء البنوك البنغلاديشية. ونتيجة لذلك، تقوم المنظمات المصرفية بنشر عملياتها عبر الإنترنت في جميع أنحاء البلاد. وتؤثر جودة الخدمات عبر الإنترنت تأثيرا مباشرا على رضا العملاء وولاء العملاء التي تعتبر مؤشرا رئيسا لتحقيق الربحية لأي منظمة مصرفية. فالزبائن راضون عن استخدام الخدمة لفترة من الوقت، وإذا وجدوا اتساقا في جودة الخدمات المنتجة، فإنها تتحول في نهاية المطاف إلى عملاء مخلصين ليسوا مهمين فقط لربحية المنظمة ولكن أيضا لبقائها. ولكن نظرا لأن التكنولوجيا لها عيوبها، فإن الخدمات المصرفية عبر الإنترنت (أو الخدمات المصرفية الإلكترونية) تنطوي على بعض المخاطر المتصورة؛ على سبيل المثال، المخاطر المالية، ومخاطر الوقت، ومخاطر الأداء، والمخاطر الاجتماعية، وخطر الخصوصية. على الرغم من أن رضا العملاء، وولاء العملاء، والخدمات عبر الإنترنت مترابطة، لم يتم إجراء بحوث هامة حتى الآن لإظهار ذلك. ومع ذلك، يكشف استعراض شامل للمؤلفات أن جودة الخدمة الإلكترونية من الخدمات المصرفية عبر الإنترنت في بنغلاديش يكاد يكون في أي مكان من حيث التعامل مع العديد من أدوات جودة الخدمة الإلكترونية. وتجدر الإشارة إلى أن بنغلاديش مكان محتمل للتكيف مع التغييرات التكنولوجية الجديدة حيث وضعت الحكومة رؤية 2021 لإنشاء دولة رقمية. في هذا الخط، هدفت الدراسة الحالية إلى استكشاف آثار جودة الخدمة الإلكترونية والمخاطر المتصورة تجاه ولاء العملاء للمستهلكين الخدمات المصرفية عبر الإنترنت في بنغلاديش. هذه الدراسة هي كمية في الطبيعة ويتم اختيار العينة من المستطلعين مستندا إلى طريقة مريحة لاختيار العينات. ونتيجة لذلك تم اختيار 329 مستجيبا من مختلف البنوك التجارية العامة والخاصة في البلاد. ولهذه الأغراض اختيرت أربع مدن رئيسية مثل داكا وشيتاغونغ وراجشاهي وخولنا. يتم استخدام تحليل العوامل الاستكشافية لتلائم العناصر المناسبة لكل بناء ويتم تطبيق نموذج المعادلة الهيكلية لتقييم العلاقة بين البنى. وتبين نتيجة الدراسة أن رضا العملاء يرتبط ارتباطا مباشرا بولاء العملاء في المؤسسة المصرفية عبر الإنترنت. وكشفت أيضا أن رضا العملاء تلعب دور الوساطة في إقامة بين جودة الخدمة الإلكترونية ولاء العملاء، فضلا عن المخاطر المتصورة ولاء العملاء. وبالإضافة إلى ذلك، جودة الخدمة الإلكترونية لديها علاقة إيجابية مباشرة لولاء العملاء. ومع ذلك، لا تشير الدراسة إلى العلاقة الإيجابية المباشرة بين المخاطر المتصورة لولاء العملاء في الخدمات المصرفية عبر الإنترنت البنغلاديشية. وعلاوة على ذلك، في نوعية الخدمة الإلكترونية، كشفت الدراسة أنه لا يوجد فرق ذو دلالة بين تصور الخدمة المقدمة ومستقبلات الخدمة. ومع ذلك، فإنه يكشف عن بعض متغيرات مختلفة في المخاطر المتصورة التي تشير إلى أن رأي العملاء يختلف عن مقدمي الخدمات مما يعني المخاطر المتصورة يرتبط سلبا لولاء العملاء من الخدمات المصرفية عبر الإنترنت. نتائج الدراسة هي أهم الأصول للخدمات المصرفية عبر الإنترنت في القطاعات المصرفية الخاصة في بنغلاديش ككل، والذين يعانون من تأكيد متغيرات جودة الخدمة الإلكترونية لخلق رضا أفضل للعملاء وكذلك ولاء العملاء لمنظماتهم. ويمكن للممارسين والأكاديميين وصانعي السياسات والباحثين الاستفادة أيضا من هذه الدراسة. ويوصى مزيد من الباحث على أساس تطبيق أساليب مزيج لتمديد افتتاح استقبال الخدمة ومقدمي الخدمات. وبالإضافة إلى ذلك، يمكن دراسة المصارف الخاصة والعامة بشكل مستقل نظرا لطبيعة الخدمات عبر الإنترنت.

APPROVAL PAGE

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DECLARATION

I hereby declare that this dissertation is the result of my own investigations, except where otherwise stated. I also declare that it has not been previously or concurrently submitted as a whole for any other degrees at IIUM or other institutions.

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LIST OF ABBREVIATIONS

Abbreviations	Description
ACSI	American customer satisfaction index
AGFI	Adjusted Goodness-of-Fit Index
AMOS	Analysis of Moment Structure
AVE	Average Variance Extracted
CFA	Confirmatory Factory Analysis
CFI	Comparative Fit Index
CL	Customer Loyalty
CMIN	Normed Chi-Square
CR	Critical ratio
CS	Customer Satisfaction
DF	Degree of Freedom
DV	Dependent Variable
EFA	Dependent Variable
EM	Empathy
ESQ	E-service quality
et al.	et alia (and others)
FA	Factor Analysis
FR	Financial risk
GOF	Goodness-of-Fit
IIUM	International Islamic University Malaysia
IV	Independent Variable
KMO	Kaiser-Meyer-Olkin
M	Mean
MI	Modification Indices
P	P-value
PCR	Perceived risk
PR	Performance risk
PVR	Privacy risk
RL	Reliability
RMSEA	Root Mean Square Error of Approximation
RP	Responsiveness
SD	Standard Deviation
SE	Security
SEM	Structural Equation Modelling
Sig	Significance/Significant
SPSS	Statistical Package for Social Science
SR	Social risk
TR	Time risk
WD	Website design

CHAPTER ONE

INTRODUCTION

1.0 OVERVIEW

The quality of service of the e-service organizations has played a crucial role in maintaining competitive advantage in the banking sectors across the world. That is why financial services institutions, such as banking service providers, widely differ as these services are basically regarded as a competitive tool (Logasvathi & Haitham, 2015). It indicates that banks are interested to draw the attention of customers by improving the quality of their services. For that, banks have undergone structural adjustment in order to be more competitive even against non-financial institutions (Ho & Lin (2010). Furthermore, banks are instrumental in economic growth and development in Bangladesh. However, practitioners in banking sector have been continuously faced with many complex challenges in the global market. So, it is important for these practitioners to have a better understanding of the ever-changing customer demands and adaptation of latest technological development to compete more effectively with global organizations (Lau et al., 2013). Another thing in this regard is that measuring the quality of e-services is not an easy task on the part of the service providers due to the critical quality of the service to business. This difficulty mainly arises not only from the intangibility and diversity of services, but from the differences services provided (Saghier & Nathan, 2013). From this point of view, an independent framework for explaining and measuring quality has to be in practice. Among the key frameworks, services quality model developed by Parasuraman et al. (1985, 1988) is the most popular and widely used model to measure the quality of services in the service industry. While the research on e-service quality and customer

satisfaction issues have preoccupied the service literature, researches which investigate the impact of online banking on customer satisfaction in an integrated model are yet to be noticed. In addition, decision-making factors like tangible quality of service product and quality of service environment have not been included in any research; though these factors have an important role in the service environment, with special effect on banks because these factors are signal of quality to the customer (Herington & Wearne, 2009). In addition, perceived risks are considered as important factors in online banking services. Perceived risk has been viewed by Baure (1960) as inconsistent and unwelcoming magnitudes which are linked to customers desired. It shows consumer willingness to find a preferred product or services for committing any purchasing decision (Cox, 1967). Perceived risk is viewed as decisive factors for making online financial transitions (Ndubisi & Sinti, 2006). If customer desires are not match with the actual buying consequences and purchasing target, they considered this as high risk – termed as perceived risk – as a degree of subject of uncertainty of results. In addition, uncertainty of internet services generate implied confusion for making online transaction (Al-Gahtani, 2011). It is viewed, that the risk of hacking and online tricking can demoralized the potential of online customers for making financial transactions as there is high risk of exposing personal information in webs (Wisniewski, 2009). Based on this literature review, it can be concluded that the need to investigate and assess the effect of tangibility, reliability, responsiveness, empathy, and security on customer satisfaction is crucial. Finally, the significance of e-service quality and perceived risk on customer loyalty appears to justify for the survival of services companies, including banking companies; several empirical type of researches in various industrial sectors, such as banking sectors, hotels, insurance, long distance call companies, and other financial companies, are performed to

determine the factors that determine the quality of e-service. More specifically, this study is limited to e-service quality practices in online banking sector in Bangladesh.

1.1 BACKGROUND OF THE STUDY

Daniel (1999) considers the concept of online banking as the procurement of information or the providing of services by a specific bank to its clients or the customers of a bank over Internet that is called 'online banking.' Thus it can be said that Internet banking and the online banking are the same. It is possible for everyone to manage finances without any hassle with help of internet banking facilities as they provides as effective and convenient way to undertake different banking transactions through internet banking website from one's residence, workplace or anywhere 24 hours a day and 7 days a week. Electronic service or e-service - as it has become more generally known - is now accepted as one of the key determinants for successful e-business (Carlson & O'Cass, 2010). It has been treated as an asset of the banking organization for more than a decade.

It is observed that a lot of improvement work has already, and is still continually being done, since the inception of e-service to conceptualize, determine and enhance its quality (Carlson & O'Cass (2011). But with the emerging growth of e-services, it is essential for online banking organizations to satisfy their current and prospective customers, and make them loyal, in as much as customers have a minimum expectation of the products and services in their minds.

Customer loyalty is a prerequisite for the growth and survival of a specific firm (Srinivasan, 2012; Anderson & Ponnayolu, 2002). The loyalty of a customer is determined by his/her habit of continuously purchasing the same product (Evans & Berman, 1997). McIlroy & Barnett (2000) stated that customer loyalty is basically

measured by their habit of repurchasing a specific product or service. In addition, companies have also started to realize the value of loyal customers and the need for predicting customer loyalty (Buckinx, Verstraeten & Poel, 2007). Bansal & Gupta (2001) indicated that building customer loyalty is the only way of maintaining competitive advantage. Therefore, the ultimate objective of a company is to secure customer loyalty (Sivadas & Baker-Prewitt, 2000; Siddiqi, 2011).

Customer satisfaction basically depends on the customer's contentment with the services and products of an organization in so far as they are able to meet the customers' expectation. Customer satisfaction is defined by Oliver (1980) as the consumer's fulfillment response. As demonstrated by Saha & Zhao (2005), customer satisfaction is a consequence of insight, appraisal and mental reactions to the use and inclusion of a product/service. Saha & Zhao (2005) further described customer satisfaction as an eventual outcome of a scholarly and enthusiastic appraisal where some examination standard is diverged from the truly seen execution. If the performance perceived is not precisely what is expected, customers will be dissatisfied. Of course, if the clear performance exceeds wants, the customer will be satisfied. Kotler (2000) depicted satisfaction as a person's supposition of joy or dissatisfaction happening as a result of differentiating a product's performance (or result) in relation to his or her wishes.

Customers who are satisfied with the performance of a product or service produced by a business organization involve themselves - based on their previous experience - in purchasing the other products and services presented by the same business organization, which is called 'customer loyalty' (Young, 2012). In this manner, there is a typical supposition in the literature that satisfaction is liable to expanding loyalty (Oliver, 1980). A definitive target of customer satisfaction

estimation ought to be customer loyalty (Sivadas & Baker-Prewitt, 2000). Harkiranpal Singh (2006) stated that consumer satisfaction, loyalty and maintenance are all critical for an association to be effective.

Therefore, in this competitive market loyal and satisfied customers are the main asset to any organization and should be managed very efficiently. But, sometimes banking organizations cannot fulfill customers' expectations due to some constraints or risks. These constraints or risks are called perceived risks. Perceived risk is developed in terms of psychology (Bauer, 1967). The most agreeable significance of perceived risk given by Peter & Ryan (1976) is that it is considered to be a kind of individual estimated loss. Featherman & Pavlou (2003) furthermore described measured risk to be the conceivable loss while looking for an unreal result.

Perceived risk is likewise characterized as "the purchaser's view of the instability and attendant unfriendly outcomes of purchasing a product or service (Staelin, 1994). Most of the researchers identified six sections of perceived risk, namely financial related performance, social, physical, security, and time risk (Jacoby & Kaplan, 1972; Kaplan et al., 1974; Roselius, 1971). This study utilized the perceived risk model created by (Boksberger et al., 2007). Now the banking organization emphasizes to reducing the perceived risk as well as increase the customer satisfaction, which will ensure the customer loyalty.

Numerous specialists have utilized service suggestion to different customers as an intermediary for customer loyalty (Caruana, 2002; Collier & Bienstock, 2006; Dabholkar et al., 2000; Ganesh et al., 2000; Reichheld, 2003). Recommendations have been made to give customer loyalty to the organizations, among the different aspects of any supplier or service provider. At present, on the basis of the requirements of customers' perception with a specific end goal to build customer loyalty, different

banks have presented creative items and services (Alam & Khokhar, 2006). They offer better customer services; individual money related services, corporate facilities, exchange services with the assistance of various effective divisions like operational department, credit office, and information technology division.

1.2 MAIN CONCEPTS OF ONLINE BANKING

Online banking with a record is an electronic segment and/or structure that engage(s) customers in direct cash related trades on a website operated by the organization. Examples of this is include, virtual bank, a retail bank and/or credit union etc. Online banking with a record is also implied as internet banking, e-banking, virtual banking cash and by various terms. Online banking was incepted in the mid-1990s. From that point, it has uncompromisingly turned out to be more imperative (Rahman 2008; Shamsuddoha 2008). Online banking is the banking service or activity performed by the banks through the use of computers and other electronic devices. The primary stage of the e-banking is the electronic fund transfer system (Vijaya, 2014).

In 1961, the first National City banks of New York effectively presented the certification of the deposit under the online service system. The essential phase of the e-banking is the electronic fund transfer system (EFTS). The primary components of the EFTS are the automated teller machine (ATM), point of sale (POS), and Terminal and Automated Clearing House (ACH). In 1967, the Barclays' bank of UK built the first money container at first (Amin, & Saifur, 2010). The working strategy of this machine was not very quiet the same as the machine utilized at this point. As indicated by Wikipedia, back then, there were no attractive cards. Within one year of the foundation of the money container by Barclays bank, France, Sweden and Switzerland

began the “National money gadget system”. In 1969, Japan and the USA began the utilization of these sorts of machines delivered by them.

The machines of that time were disconnected from the net; there was no connection with computers. In 1972, Lloyd’s bank of UK set up the main online “cash point” machine. They supplied plastic cards with the all attractive stripes to their customers. There were attractive stripes on those cards. Therefore, the customer’s records or the customer could be recognized. In this online system, each machine was associated with the central computer. Dealing with a record industry is fundamental in every country and can have an essential impact in supporting fiscal change through capable cash related organizations (Salehi and Azary, 2008; Salehi et. al., 2008). Banking of a sectors are highly competitive as well as an ever-changing nature. In the early stage of banking, people used their hands or fingers for calculation. From the last decade or twentieth century, however many innovative devices were introduced and used to conduct the banking services (Rahman et al, 2013). A standout amongst the latest channels of banking service conveyance utilized as a part of the banking organization is online banking. The customers of online banking now seem to lead exchanges with true serenity, doing coordinate bill installments, performing electronic asset exchange, and utilizing the inventive components of the Internet (Riquelme& Rios, 2010).

The considerations of purchasers acquainted with this system started in the middle 1980s, and initially online banking services were arranged for the satisfaction of the customer. There have as of now been various studies identified by e-banking covering a huge scope for research measurements. For instance, (Pyun et al., 2002) in the U.S., Japan, Europe, (Gurau, 2002); (Sathye, 1999) Australia, (Polatoglu & Ekin, 2001) Turkey, (Balachandher et al., 2000) Malaysia, (Ray el al., 2004) and Saudi