



# E-Service Quality and Trust on Customer's Patronage Intention: Moderation Effect of Adoption of Advanced Technologies:

Muhammad Sabbir Rahman, North South University, Dhaka, Bangladesh

 <https://orcid.org/0000-0003-1613-7944>

Md Afnan Hossain, University of Wollongong, NSW, Australia & North South University, Dhaka, Bangladesh

Mahmud Habib Zaman, North South University, Dhaka, Bangladesh

 <https://orcid.org/0000-0001-7924-8348>

Mahafuz Mannan, North South University, Dhaka, Bangladesh

## ABSTRACT

The extensive development of electronic gadgets along with technology-oriented communication tools has created a significant impact on the realm of online retail banking transactions. In Bangladesh, online retail banking can strengthen the financial frameworks by establishing associations between both financial institutions and customers. The evaluation of e-service quality, trust, and customer's adoption of advanced technology are still unexplored within the retail banking context. Thus, this research paper fills a specific research gap via empirically testing the role of trust in between the relationship of e-service quality and customers' patronage intentions in the context of online retail banking. Moreover, the research also examines the moderation role of adoption of advanced technology in between the relationship among trust and customers' patronage intentions. Structural equation modelling (SEM) was applied to analyze the proposed hypotheses. The results confirmed that customer's trust plays a significant role in mediating the relationship between e-service quality and customers' patronage intentions. Adoption of advanced technology has also proved as significant moderator in explaining trust and customer's patronage intention in online retail banking setting.

## KEYWORDS

Bangladesh, Customers' Patronage Intention, E-service Quality, Online Retail Banking, Technology Adoption, Trust

## INTRODUCTION

The evolution of information and communication technologies (ICT) has become a fundamental part of the development in the financial sectors, creating ample opportunity for retail banks to further improve e-service quality towards both existing and future customers. As a result, several banking institutions have implemented various information technology (IT) enabled projects to develop financial modernizations (Jun & Cai, 2001, Oruç & Tatar, 2017; Chernikova et al., 2015; Reydet and Carsana, 2017) in their respective institutions; i.e. online retail banking. There are several advantages of using online retail banking; i.e. customers get the advantage of the convenience, availability, and

DOI: 10.4018/JGIM.2020010103

This article, originally published under IGI Global's copyright on October 4, 2019 will proceed with publication as an Open Access article starting on January 11, 2021 in the gold Open Access journal, Journal of Global Information Management (converted to gold Open Access January 1, 2021), and will be distributed under the terms of the Creative Commons Attribution License (<http://creativecommons.org/licenses/by/4.0/>) which permits unrestricted use, distribution, and production in any medium, provided the author of the original work and original publication source are properly credited.

the speed from the online banking services. Consequently, banks also gain the advantage by managing operating cost in low by offering the service through various online applications (Xue et al., 2011, Adapa & Roy, 2017).

As pointed out by authors Jabnoun and Al-Tamimi (2003), superior transaction efficiency is achieved by reducing physical facilities and reducing the number of employee (in support of online service delivery), however, it may create a lack of interaction between provider and customers; thus adversely influencing customer's perception. To reduce additional fees or the tension felt by customers while dealing with human interaction, banks nowadays offer online services. This endeavour relieves customer's concerns by providing various online services which are efficient in generating ongoing loyalty and customer's patronage intention of target customers (Adapa & Roy, 2017). Researchers agree that due to the rise and success of online retail banking investigation should not only be concentrated on stakeholders but to customers and the policymakers alike (Dada, 2017; Al-dweeri et al., 2017; Yap et al., Pikkarainen et al., 2004; Sathye, 1999, Devlin, 1995).

The utilization and adoption of online retail banking have also been the focus of current researches. Research on internet banking and causal connections of different variables towards the patronage intention are being investigated and suggested in various experimental models based literature (Reydet&Carsana, 2016; Lee, 2009; Martins et al., 2014; Liébana-Cabanillas, 2016). Despite the importance of technology adoption in retail banking services, there are gaps in literature on the systematic approach of adaption of advanced technology of a least developing country such as Bangladesh has not been investigated (Siddiqi, 2011; Mueed, 2012).

The limited literature may be due to the competitive nature of the banking industry services in Bangladesh itself. The report of International Finance Corporation - IFC (2009) revealed that the segment entails of four state-owned banks, five government regulated specialized banks, thirty domestic private commercial Banks, nine foreign-commercial banks, and twenty-nine non-bank financial institutions (NBFI). Furthermore, among the 48 banks operated in 2006, a total 6,562 branches are operating in the country (Bangladesh Bank, 2006). In fact, one of the most prominent sectors in Bangladesh is reported to be the retail banking industry (Siddiqi, 2011). Therefore, exploration of the inter-relationships among the constructs such as e-service quality, customer's trust, adoption of new technology and customer's patronage intention may help to improve the sector. For example, research on the above constructs may help managers to improve upon existing services and gain a distinct advantage in their respective retail banks (Andaleeb et al., 2016).

Most importantly, this research plays a significant role in contributing to the online retail banking literature by investigating the nature of e-service quality, trust, technological adoption and customer's patronage intention under the perspective of a least developing country. While the majority of previous research was focused on the traditional aspect of retail banking (Jamal and Naser, 2002; Erol and El-Bdour, 1989, Jamal and Naser, 2003), this study on the other hand, aims to investigate customer's patronage intention via e-service quality, trust, and adoption of new technology in Bangladesh online retail banking services. The researchers also examine the mediation role of trust in between e-service quality and customer's patronage intention along with analyzing the role of advanced technology adoption (by the customers) in between trust and customer's patronage intention. The research, therefore, has emphasized the effects of both moderating and mediating variables to understand the customer's patronage intentions from the perspective of online retail banking. It also anticipates improving the theoretical understanding and insight of the sophistication of e-service quality and its measurement on the online retail banking sector.

## **THEORETICAL BACKGROUND AND HYPOTHESES DEVELOPMENT**

The customs of interactions between firms and customers have been changing since the rise of internet-based services (Rowley, 2006). Adoption in E-service provides an interactive communication through online and also differentiates the service offerings that help to build firm's competitive advantage

(Santos, 2003). With the emergence of advanced service quality and customer's intention towards E-service, this study was grounded a literature review to identify and evaluate the current knowledge on electronic service quality, trust, customer's patronage intention and the adoption of new technology on a particular service such as online retail banking.

## **E-Service Quality**

The web experience, the satisfaction of customers, trusts, and patronages are the significant determinants within the dimension of the literature of e-service quality (Rowley, 2006). Traditional service quality frequently depends on the involvement of human whereas E-service quality depends on the technological advancement (Jabnoun and Al-Tamimi, 2003). Previous research related to e-service quality has drawn criticisms for adopting Parasuraman's et al., (1985) SERVQUAL measurements (traditional service quality instrument) on the internet-based digital environment, where researchers developed the scales without any adequate experimental confirmation. Researchers concentrated on the quality of website evaluation without considering the overall constructs of e-service quality (Parasuraman et al., 2005, Lee and Lin, 2005). For example, Szymanski and Hise (2000) investigated only the satisfaction of customers without considering the service convenience of customers, quality design of the website, merchandising and customer's privacy in the context of the online transaction. Yoo and Donthu (2001) built up a SITEQUAL includes four significant dimensions concentrating mainly on website convenience, stylish outline, speed, and security. In that study, researchers measured the perceived quality of an Internet shopping site through the understanding quality of an Internet shopping site viewed by the consumers. Thus the researchers have emphasized three aspects of Internet shopping sites' to assess the perceived quality. Firstly, consumer's perceived quality of an Internet shopping was assessed. Secondly, the researchers explained that the consumers understand Internet site quality in the common vernacular language. Thirdly, Internet sites may develop without shopping features that reflect a different definition of quality which was not included in the proposed SITEQUAL framework. However, Barnes and Vidgen's (2002) failed to prove the effect of SITEQUAL empirically whereas researchers concluded that the dimension of SITEQUAL does not capture all the aspects of site service quality. On revealing these insufficiencies, Zeithaml et al. (2002) build up a quality measure of e-service (e-SQ), comprising of five (5) measurements: (1) data accessibility/availability of information; (2) ease of use; (3) protection/privacy; (4) layout graphical style; and (5) reliability. Various examinations have inspected these measures. Ariely (2000) has found information and data accessibility as an essential determinant of e-SQ that control the product-relevant information, order, and content. Montoya-Weiss et al., (2003) found the ease of use (e.g., easy way to make a transaction through the internet) and protection/security (e.g., the privacy of personal information, reduce the risk of fraud) are essential when customers take services through online. Udo et al., (2010) also mentioned the importance of a website's layout design which includes right color, graphics, content size, and type. However, Wolfinbarger and Gilly (2003) investigated that customer's satisfaction, and quality of service is predicted by the reliability characteristics of a firm. In a consequent research Parasuraman et al., (2005) analyzed quality of e-service in internet-based transaction, where researchers focused on four measures: (1) efficiency (e.g., ease of use); (2) fulfillment/satisfaction (e.g., reliable and good graphical content); (3) availability/accessibility (data accessibility, available information); and (4) privacy/security (data protection). Momentously, we take note of that current study in e-service quality to be contingent on the assessment of the execution of authentic service quality. The prospect now subsists to expand this idea by examining the degree to which the procedures are entirely illustrative of clients' online banking desires.

## **Trust**

Trust is one of the most dominant constructs in many transactional interactions. In many marketing works of literature, it has observed that the trust cue usually generate when a party establishes assurance in other partner's trustworthiness and honesty (Ranaweera and Prabhu, 2003). Halliday (2003) also

stated that ‘Trust’ is not defined uniformly, it is the confidence and positive expectations of the other party whoever is delivering services. The two most productive definitions occupied with marketing are as given by Rousseau et al. (1998) who characterize trust as a “spiritual state involving the intention to acknowledge susceptibility in view of uplifting desires of the expectations or practices of another”, and the illumination by Moorman et al. (1993) where researchers acknowledged ‘trust’ as “the ability to depend on others when exchanging something and in whom one has self-reliance.” Moreover, Al-Ekam et al. (2012) have provided a new definition of trust with parallel meaning of belief as a phase that cannot be created immediately and it is exclusively contingent on between the two parties relation. Even though the effect of trust in client-firm associations has been decisively set-up, the trust cue has been applied in rather diverse ways (Ranaweera and Prabhu, 2003). For instance, Parasuraman et al. (1985) explained assurance along with trust construct as a measure of service quality. However, Gremler and Brown (1996) demonstrated trust as one of the crucial antecedents of customer’s loyalty, and Gwinner et al. (1998) established the cue ‘trust’ as a highly rated customer’s confidence benefit that generates the long-term relationship with the particular service firm. According to Hung et al., (2007) excellent support and outstanding service quality lead to building customer satisfaction and trust. Setó-Pamies (2012) also empirically validated that the customer’s degree of comfort or happiness depends on service quality and that also leads to customer’s trust. Furthermore, Academicians and practitioners’ even marketers are also keen to know the level of customer’s desired satisfaction to secure customers’ loyalty and trust. In earlier research, Jayawardhena (2004) also identified that customers place more importance on E-service quality such as satisfactory downloading speed, easy navigation, and efficiency in searching features, security, and privacy; consequently, these build up customer’s trust. Other research investigated that particular electronically value delivery linkages (such as internet banking and ATMs) ensure banking success, building trust, and cost-effectiveness as being reliant upon E-service quality (Santos, 2003; Al-Hawari and Ward, 2006). Thus, this research proposes the following hypothesis (H1).

**H1:** *E-Service quality is positively related to customer’s trust in online retail banking usage.*

## **Patronage Intention**

In the recent years, services firms emphasized more on understanding customer’s patronage intention which is an essential element to secure success (Reynolds et al., 2002; Darian et al., 2005). Patronage has the operationally positive relationship with actual behavior and behavioral intention (Chandon et al., 2005; Darley et al., 2008). This idea is also used in the theory of reasoned action (TRA) (Fishbein and Ajzen, 1975; Ajzen and Fishbein, 1980). This study has considered patronage intention as the outcome variable. Rust et al. (1999) pointed out that customer’s patronage intention mainly depends on the evaluation of service quality of a particular service provider (such as customer’s evaluation of online banking transaction). Since the different degree of service quality contributes differently to the formation of overall service quality assessment and consequently lead to a specific patronage intention (Grace and O’Cass, 2005). Therefore, service providers (e.g., Bank) should concentrate more on effective and efficient service quality to influence the customers’ patronage intention. Based on the above discussion this study formulates the following hypothesis (H2) for further empirical investigation.

**H2:** *E-Service quality is positively related to customer’s patronage intention of online retail banking usage.*

Furthermore, Chen and Hitt (2002) established that system quality enhances customer’s satisfaction, and create an impact on customer’s switching behavior and retention. Moreover, Patronage intentions or patronage behavior depends on customer satisfaction and trust (Garbarino and Johnson,

1999; Sharma & Patterson, 2000; Yap and Kew, 2007). Other researches also explored the connection between trust and patronage intention in the online based transaction context (Meyerson et al., 1996; Everard and Galletta, 2005). Thus, this research proposes the following hypothesis (H3).

**H3:** *Customer's trust is positively related to customer patronage intention of using online retail banking.*

Hence, previous research has investigated the association among service quality, satisfaction, trust and patronage intention in the context of e-commerce settings (Kassim and Asiah Abdullah, 2010; Anderson and Srinivasan, 2003; Lee and Lin, 2005; Eid, 2011; Kim et al., 2009). However, the role of trust as a mediator between the ties of E-service quality and patronage intention is rarely being discovered in the context of online retail banking. Thus, the researchers extend the relationship that offers a further understanding on how E-service quality influences to customers patronage intention. The discussions lead to the following hypothesis (H4) for further empirical investigation.

**H4:** *Trust mediates the relationship between E-service quality and customer's Patronage intentions towards online retail banking.*

### **Adoption of Advanced Technology**

Research on consumer behavior in high-technology has become an essential part of marketing literature in the last decade (Norton and Bass, 1987; Gatignon and Robertson, 1989; Weiss and Heide, 1993). This literature generates valuable insights into particular consumption outcomes such as product and service adoption or rejection (Gatignon and Robertson, 1989; Norton and Bass, 1987). Numerous theories were established to clarify the customer's product and service adoption. Amongst them, the diffusion of innovations method proposed by Rogers (1962), the approach of resistance to change proposed by Ram and Sheth(1989), the theory of planned behavior proposed by Ajzen(1991) and the theory of acceptance model proposed by Davis et al., (1989) are the most important ones. Researchers report a few adoption enablers and inhibitors that are mainly identified with clients'/non-clients' qualities (e.g., inventiveness and innovation availability), impression of innovation attributes (e.g., execution anticipation, perceived usefulness and ease of use), social impacts (e.g., social norms and social media), and environmental issues (e.g., perceived risk) (Al-Ajam and Md Nor, 2015; Andrews and Bianchi, 2013; Kaushik and Rahman, 2015). In the 21<sup>st</sup> century, every company tries to provide the most advanced version of competitive high technology oriented product and services. The benefit of services and products depends on the number of varieties and compatible goods and services (for instance ATMs and ATM card; computer hardware and software for banking transaction) (Katz and Shapiro, 1994). Compatible technology in online banking services becomes a factor when usually consumers evaluate the end services.

Moreover, from the customer perspective, service improvement is a necessity due to the rapid evolution of information communication technology (ICT) (Lowson, 2001). However, there may be a different opinion from any particular consumer segment who considers technology from the service provider as a cause of dissatisfaction (Snellman and Vihtkari, 2003). Furthermore, from service providers perspective, adopts the most sophisticated technology enhance the overall efficiency ahead of competitors in providing clarifications to their customers (Wu et al., 2006). By implementing advanced technology, retailers (such as a bank) can enhance consumer preferences and values (Grewal et al., 2012). Even though consumers are not worried about the retailer's (e.g., Bank) utilization of advanced technologies, they might be receptive to how these advanced technologies can make new proficiencies and create value for them (Lin et al., 2013).

## Association of Adoption of Advanced Technologies, Trust and Patronage Intention

During the last decade, a steady trend of adopting technology has been set by the service industries, as service providers are subsequently investing more for further technological advancement (Australian Coalition of Services Industries Annual Review, 1997). The term Trust has also been proven as an essential component of online transaction and has a substantial connection with the customer's patronage intention (Kaul et al., 2010) whereas in the presence of adoption of advanced technology the role of trust and patronage intention is yet to be established. In favor of adoption, the 'theory of trying' recommends a three dimensional conceptualization of attitude, which is likened to the three conceivable reactions to the potential yields of behavioral portrayal which are attempting and ensuing, attempting yet fizzling, and figuring out how to utilize the innovation and technology (Bagozzi et al., 1992). Along these lines, the state of attitude toward innovation appropriation comes about because of the joined impacts of i) attitude toward attempting and succeeding ii) attitude toward attempting yet fizzling, and iii) attitude toward figuring out how to utilize the innovation (Bagozzi et al., 1992; Xie et al., 2008). For instance, banks with advanced technology can impact positively on customer's patronage intention (attitude toward trying and succeeding) and also able to build up trust. Therefore, this particular instrument 'adoption of advanced technology' is considered to moderate the relationship between trust and patronage intention in the context of online retail banking. Thus the following hypothesis (H5) is suggested.

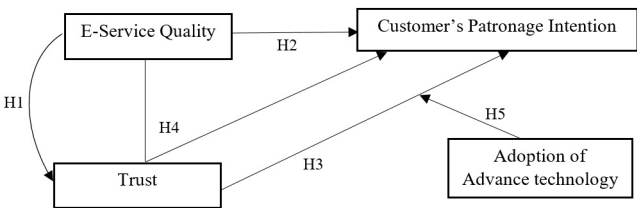
**H5:** *Adoption of advanced technology moderates the relationship between trust and customer's patronage intention towards online retail banking usage.*

## METHODOLOGY

Data was gathered through self-administered instruments which were adapted from previous literature and applied a convenience sampling procedure while collecting the data (i.e., retail banking customers in Bangladesh). Using undergraduate research assistants, the researchers developed a structured questionnaire and circulated the instruments among various consumers of retail banks. The researchers also ensured confidentiality and anonymity of the respondents during the data collection and reporting phase(s). All the respondents were knowledgeable bank account holders who used different online retail banking services.

A total of 300 instruments were circulated, of which, 250 respondent's response was used for further analysis. The descriptive statistics of the data revealed that most (70 percent) of the respondents were availing services from larger banks, while 20 percent operated their accounts from medium-sized banks, and remaining 10 percent used the services of smaller banks. The survey respondents included both male and female consumers; i.e. 63 and 37 percent, respective consumers. More than 70 percent of the survey participants were between the ages of 25 to 35 years and most respondents attained higher education; i.e., 60 percent of the respondents had university degrees. Moreover, the

**Figure 1. Conceptual model of e-service quality and trust on customer's patronage intention and the moderating role of adoption of advanced technologies**



data also revealed that 60 percent of the respondents were employed (i.e. serving as service holders) while 40 percent of the respondents had their own business. The average monthly incomes of the respondents were more than BDT 25, 000 per month.

Respondents were requested to point out their level of perception with the statements (items) using a five-point Likert scale (i.e. ranging from 1 = strongly disagree, to 5= strongly agree) consisting of twenty-two (22) items to measure all the variables. The researchers also tested the internal consistency of the collected data via using Cronbach's alpha for each of the variables. All variables had a Cronbach's alpha value above 0.70 and thus all items were considered for this research. This research applied a confirmatory factor analysis (CFA) to assess the adequacy of the measurement model and the hypotheses were tested by using structural equation modelling (SEM) in AMOS 20.0.

The e-service quality variable was measured using 10 items adapted from Parasuraman (2005); i.e. (1) Service efficiency (3 items), (2) customer's satisfaction (3 items), (3) Service availability (2 items); and (4) customer's privacy and security (2 items). All the constructs were adequate and reliable having alpha value(s) equal to and above 0.853. The Trust construct was operationalized by using eight (8) items adapted from Madjid, (2013); Kassim and Nor Asiah (2010) research with an alpha value of 0.851. In measuring customer's patronage intention, the items were adapted from Grewal et al., (2003) having four (4) items (alpha= 0.796).

To test the moderating effect of the adoption of advanced technologies (in between trust and customer's patronage intention of using online retail banking services), items were adapted from Karthik (2014). Besides, the researchers applied methods recommended by Little et al., (2007) to test the moderation effect. The researchers used two-group (high perception of adoption of new technology versus low perception of adoption of new technology) models that tested the moderating role of adoption of new technology between the customer's trust and patronage intention. The two groups were differentiated by calculating the mean scores of adoption of technology amongst the respondent's responses. Using AMOS software, the critical contrast between the necessary parameters of the high and low view (or perception of adoption of new technology) between the groups was identified.

## DATA ANALYSIS AND DISCUSSION

The result of confirmatory factor analysis (CFA) estimation (or measurement items) regarding the construct's dimensionality are given in Table 1. The study also examined the constructs including individual reliability, average variance extracted (AVE) and composite reliability (CR) suggested by Hair et al., (2010). The outcomes demonstrated internal consistency (or reliability) and were ready to proceed for further data analysis (See Table 1). The single factor loadings (and their relative AVE values) have indicated excellent qualities that affirmed the convergent validity of the scales. Also, the values of the corresponding construct's AVE were more than 0.70, portraying sufficient discriminant validity of the constructs (Fornell and Larcker, 1981). The researchers additionally assessed the model fits criteria through analyzing the estimation of the chi-square ( $X^2$ ), comparative fit index (CFI), the goodness of fit index (GFI), and the root mean square error of approximation (RMSEA) as strongly proposed by Hair et al., (2010).

After analyzing data through CFA, the researchers examined the hypotheses (mentioned above) by utilizing structural equation modelling (SEM). SEM techniques were applied for assessing the different reliance connections among the factors. To demonstrate the model fit, the analysts surveyed the model by utilizing the consequence of  $X^2$ , GFI, CFI, and the RMSEA.

Above all, the result of the structural model (Table 2) explains the respective standardized path coefficient among the variables that represent the relationships among the constructs. According to Cohen (1992) standardized path coefficient ( $\beta$ ) with estimations of  $<0.10$  may indicate "little" impact; while estimations of 0.30 indicate a "medium" impact and values with  $\beta > 0.50$  (or more) indicates a "vast" impact.

The outcome from the SEM investigation uncovered that all the standardized path coefficients ( $\beta$ ) for e-Service quality is positive and significant towards trust (i.e.,  $\beta = .671$ ;  $t$  value = 2.781 and  $p$ -value = 0.01). Similarly the result of the patronage intention of customers construct is significant (i.e.,  $\beta = .572$ ;  $t$  value = 2.761 and  $p$  value = 0.01). However, the coefficient of trust with the patronage

**Table 1. The result evaluation of the measurement model**

Constructs	Factor Loading	$\alpha$	CR	AVE
E-Service Quality (SQ) ( $X^2=435$ ; $df=158$ ( $p = 0.00$ ); (RMSEA=0.05; GFI=0.91; CFI =0.92)				
The online retail banking site makes it easy to find what I need (SQ1)	0.925	0.853	0.962	0.721
The sites enable me to complete a transaction quickly (SQ2)	0.847			
Information at this site is well organized (SQ3)	0.811			
This site makes financial transaction available within a suitable time frame (SQ4)	0.768			
The retail bank delivers services as it is promised (SQ5)	0.874			
Banks make accurate promises about the delivery of online retail banking services (SQ6)	0.831			
The site is suitably available for the online transaction (SQ7)	0.821			
Pages of the site usually do not freeze during the transaction (SQ8)	0.911			
I believe the site does not share my personal information with another site (SQ9)	0.774			
I believe the site protects information about my credit card. (SQ10)	0.717			
Customer's Trust (CT) ( $X^2=7.80$ ; $df= 2$ ( $p=0.02$ ); $RMSEA= 0.02$ ; $GFI= 0.95$ ; $CFI = 0.96$ )				
I believe in the employees banks are professional workers (T1)	0.873	0.851	0.917	0.734
I'm convinced in the services present by the retail bank (T2)	0.932			
I trust there is no problem while make transaction with the retail bank I am dealing with (T3)	0.842			
I'm confident that the retail bank will fulfill all their stated promise (T4)	0.779			
The retail bank is trustworthy (T5)	0.850			
I trust the retail bank to deliver accurate answers to my queries (T6)	0.752			
Overall, there is mutual trust between retail bank and their customers (T7)	0.763			
I think the retail bank is trustworthy for its clients (T8)	0.821			
Customer's Patronage Intention (CPI) ( $X^2=13.50$ ; $df=8$ ( $p=0.01$ ); $RMSEA=0.06$ ; $GFI=0.91$ ; $CFI =0.92$ )				
The online site of the retail bank is a pleasant place for conducting transaction (CPI1)	0.738	0.796	0.869	0.622
The aspect of the online retail bank (i.e. website design) is attractive (CPI2)	0.781			
The likelihood that I would use the online banking transaction application service is very high. (CPI3)	0.749			
I am willing to recommend the bank to my friends for online banking transaction (CPI 4)	0.895			

**Observations:**  $X^2$ = chi square;  $df$  = degree of freedom; RMSEA= root mean square error of approximation; GFI= goodness of fit index; CFI=comparative fit index; Cronbach alpha (value > 0.70); AVE=Variance extracted (value > 0.50); CR=Composite Reliability (value > 0.70).



Table 2. Result of structural equation modeling

Hypotheses	Independent variable (IV)	Dependent variable (DV)	Estimate $\beta$	t value	P value	Result
H1	E-Service Quality	Trust	.671	2.781	0.01	Supported
H2	E-Service Quality	Customer's patronage intention	.572	2.761	0.01	Supported
H3	Trust	Customer's patronage intention	.030	0.825	0.81	Rejected
Fit indices	Statistics	Degrees of Freedom (DF)	P			
$\chi^2$	579.86	206	0.01			
GFI	.819					
CFI	.828					
RMSEA	.041					

intention (of customers) failed to prove any significant result (i.e.  $\beta = 0.30$ ; t value = 0.825 and p value = 0.81). Therefore H1 and H2 are supported, whereas H3 is not supported (see table 2). This is possibly the most surprising empirical evidence of the research results; contrary to existing literature, the role of trust did not influence patronage intentions (in the context of online retail banking).

To examine the hypothesis four (H4), researchers performed bootstrapping techniques to test the mediation effect of trust between e-service quality and customer's patronage intention. The result from SEM path analysis revealed that e-service quality influences customer's patronage intention of using online retail banking; where the direct effect is minimum (0.019). However, the aggregate impact of e-service quality to patronage intention of customers (of utilizing online retail banking services) is 0.591, with an indirect influence of 0.572 and a direct result is 0.019. In this way, the researchers presumed that the indirect impact is more established than the direct effect; i.e., the effect of trust towards patronage intention of customers (in online retail banking).

Grounded on the above outcomes, the researchers reached the conclusion that trust (as a mediating variable) has a significant and positive influence in between the relationship of e-service quality and customer patronage intention (for online retail banking services). Therefore hypothesis four (H4) is accepted.

Besides, the researchers applied multi-group SEM analysis to examine the moderating effect of adoption of new technology in the connection amongst trust and patronage intention of the customers (i.e. using banking activities through online). The outcome uncovered that the moderating impact of advanced technology is significant as the difference in chi-square (between the unconstrained and constrained model) was over 19.675 at 11 degrees of freedom (DF).

The distinction in the chi-square test was  $(342.107 - 322.013) = 20.094$ , while the contrast between in DF is 11 (117 – 106). For the test to be critical, the distinction in the chi-square test must be more than the estimation of chi-square (with 11 degrees of freedom); the result was 19.675. Table 3 shows the results for hypothesis 5, indicating the moderating impact of adoption of advanced technologies is significant; thus hypothesis 5 is accepted. Therefore, the findings conclude that the role of the adoption of new technology is significant in establishing the relationship between customer's trust and their patronage intention (for online retail banking).

Early retail banking patronage researches concentrated on bank's atmospheric stimuli. Whereas recent studies have examined how the transformation of the online services may affect a customer's patronage intention (of using the services of the bank through online). The researchers empirically establish the relative importance of e-service quality, trust, adoption of new technology and customer's patronage intentions within the context of Bangladesh retail banking sector. Above all, this research investigates the influence of e-service quality and trust towards customer patronage intention (of using

Table 3. Testing moderating variable (adoption of advanced technology)

Fit Index	Constrained Model	Unconstrained Model	Chi-Square difference	Hypothesis result
Chi-Square	342.107	322.013	20.094	Supported
DF	117	106	11	
GFI	0.842	0.872		
AGFI	0.836	0.860		
CFI	0.802	0.720		
RMSEA	0.043	0.055		
Chi-Square/ DF	2.920	3.030		
H5: Adoption of advanced technology moderates the relationship between trust and customer's patronage intention towards online retail banking usage.				

online retail banking services). Besides, the researchers applied SEM and also tested moderating effects of adoption of new technology in between trust and patronage intention of the customer.

This research presumes that there is a significant connection between e-service quality and trust; i.e., e-service quality and customer's patronage intention in using online retail banking. The study also uncovered the role of adoption of new technology as an active moderator in between trust and patronage intention (for the customer). Moreover, the assessment likewise concludes that the role of trust in the middle of e-service quality and customer's patronage intention (in regards to using online retail banking services) is fully mediated. Therefore, based on the findings from the research, we can postulate that the applicability of e-service quality and trust are both significant with regards to the online retail banking industry in Bangladesh. The hypotheses test confirms that the adoption of new technology is required for strengthening the relationship between customer's trust and their patronage intention of using online retail banking services.

The research reveals that e-service quality is one of the most significant determinants of trust. E-service quality also leads to increased customer's patronage intention by using online retail banking services. The customers of retail banks expect their desired services to enhance the feeling of trust, developing bonding and establishing a long-term associative relationship with banks. Consequently, this leads to the starting point of trust. Therefore, to establish a trust-based relationship, the retail banks must offer services that strive towards promoting a culture which protects customer's privacy, security, and ethics. Besides, adoption of new technology (by the customer's of online retail banks) is also found a moderating role in building a bank-customers trust and patronage relationship. Therefore, online retail banks should ensure delivering proper service information to the target users to avoid any negative image of the respective bank.

## CONCLUSION

The current research is a pioneer attempt in the online retail banking sector (under the perspective of Bangladesh). Consumers availing online retail banking service are selecting their preferred services based on their individual needs; which are influenced by their level of adoption of new technology. Thus, this research will undoubtedly assist the retail banking service providers to understand the importance (and measure) of e-service quality and fulfill the requirements of both current and potential customers. This investigation uncovered that to compete in the highly competitive business environment, managers of retail banks need to concentrate their e-service quality by enhancing customer's trust to influence customer's patronage intention.

Above all, online adoption of new technology affects customer's trust to willingly engage in online transactions. The findings demonstrate that multiple antecedents influence customer's patronage intention towards online services when introducing new technology into the service encounter (in the context of Bangladesh). Thus, marketers should gather information about the customers with the aim to redesign the technology to be easier to use, or to educate the target customers. There is no doubt that internet technology provides an opportunity for banks to maintain the continuous relationship with customers. Therefore, customers of online retail banks expect the system to be user-friendly and useful; while providers expect the usage of the services to be frequent. Above all, the researchers believe that online banks also require integration with traditional banking methods in formulating their strategic intentions to maximize patronage intention (of target customers).

## **MANAGERIAL IMPLICATIONS**

The trust construct is vital as an enabling factor for online retail banking environment success for a country like Bangladesh. To facilitate this construct, policymakers should implement marketing strategies via designing high-quality websites, targeting appropriate market segments, facilitating electronic commerce and so on. On the other hand, arranging programs for educating target customers to adopt new technology and Internet retail banking strategies (of the respective banks) should also be emphasized. Conceptualizing and modelling the construct 'trust' as a mediating variable and the construct 'adoption of technology' as a moderating variable to explain customer's patronage intention (of online banking) theoretically helps to expand researcher's knowledge of consumer behavior within the online retail banking discipline.

The study shows that trust mediates the relationship between e-service quality and customer's patronage intention. Therefore, online banks need to enhance confidence among customers of their services by introducing a 'customer-oriented information privacy parameter' that allows customers to control parts of their personal information. The use of information security software and different privacy programs (adopted by the retail banks) will assist customers to build confidence in privacy-related issues. Moreover, the website's reliability and trustworthiness of the website may also enhance confidence of the bank's systems.

## **DIRECTIONS FOR FURTHER RESEARCH**

There are a few limitations of the current study, similar to other research. First, although only four variables were used they were all based on the online retail banking industry in Bangladesh. This limits the generalizability of our findings to other sectors. Additional studies using other constructs and various sectors should be pursued to provide further support of the theories. Secondly, this research used cross-sectional data from Bangladesh (i.e. Dhaka city only), rather than conducting a longitudinal study. Therefore, the researchers suggest conducting a longitudinal study to understand how customers patronage intention evolves over time; due to time and cost constraints, the current research did not adopt such an approach.

## REFERENCES

- Adapa, S., & Roy, S. K. (2017). Consumers' post-adoption behaviour towards Internet banking: Empirical evidence from Australia. *Behaviour & Information Technology*, 1–14.
- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179–211. doi:10.1016/0749-5978(91)90020-T
- Ajzen, I. & Fishbein, M. (1980). *Understanding Attitudes and Predicting Social Behavior*. Prentice-Hall.
- Al-Ajam, A. S., & Md Nor, K. (2015). Challenges of adoption of internet banking service in Yemen. *International Journal of Bank Marketing*, 33(2), 178–194. doi:10.1108/IJBM-01-2013-0001
- Al-dweeri, R. M., Obeidat, Z. M., Al-dwiry, M. A., Alshurideh, M. T., & Alhorani, A. M. (2017). The impact of e-service quality and e-loyalty on online shopping: Moderating effect of e-satisfaction and e-trust. *International Journal of Marketing Studies*, 9(2), 92. doi:10.5539/ijms.v9n2p92
- Al-Ekam, J. M. E., Mat, N. K. N., Salleh, S. M., Binti, N., Baharom, T. R. B. T. T., Noh, N. A. B., & Hussain, N. E. B. (2012). The influence of trust, advertising, family on intention and actual purchase of local brand in Yemen. *American Journal of Economics*, 64–68. doi:10.5923/j.economics.20120001.15
- Al-Hawari, M., & Ward, T. (2006). The effect of automated service quality on Australian banks' financial performance and the mediating role of customer satisfaction. *Marketing Intelligence & Planning*, 24(2), 127–147. doi:10.1108/02634500610653991
- Andaleeb, S. S., Rashid, M., & Rahman, Q. A. (2016). A model of customer-centric banking practices for corporate clients in Bangladesh. *International Journal of Bank Marketing*, 34(4), 458–475. doi:10.1108/IJBM-10-2014-0156
- Anderson, R. E., & Srinivasan, S. S. (2003). E-satisfaction and e-loyalty: A contingency framework. *Psychology and Marketing*, 20(2), 123–138. doi:10.1002/mar.10063
- Andrews, L., & Bianchi, C. (2013). Consumer internet purchasing behavior in Chile. *Journal of Business Research*, 66(10), 1791–1799. doi:10.1016/j.jbusres.2013.01.012
- Ariely, D. (2000). Controlling the information flow: Effects on consumers' decision making and preferences. *The Journal of Consumer Research*, 27(2), 233–248. doi:10.1086/314322
- Australian Coalition of Service Industries Annual Review. (1997). *The Global Information Economy: The Way Ahead*. Author.
- Bagozzi, R. P., Davis, F. D., & Warshaw, P. R. (1992). Development and test of a theory of technological learning and usage. *Human Relations*, 45(7), 659–686. doi:10.1177/001872679204500702
- Bangladesh Bank. (2006). *Financial Sector in Bangladesh*. Available: <http://www.bangladesh-bank.org/mediaroom/tenders/fsectorinbb.pdf>
- Barnes, S. J., & Vidgen, R. T. (2002). An integrative approach to the assessment of e-commerce quality. *Journal of Electronic Commerce Research*, 3(3), 114–127.
- Chandon, P., Morwitz, V. G., & Reinartz, W. J. (2005). Do intentions really predict behavior? Self-generated validity effects in survey research. *Journal of Marketing*, 69(2), 1–14. doi:10.1509/jmkg.69.2.1.60755
- Chen, P. Y., & Hitt, L. M. (2002). Measuring switching costs and the determinants of customer retention in Internet-enabled businesses: A study of the online brokerage industry. *Information Systems Research*, 13(3), 255–274. doi:10.1287/isre.13.3.255.78
- Chernikova, L. I., Faizova, G. R., Egorova, E. N., & Kozhevnikova, N. V. (2015). Functioning and development of retail banking in Russia. Mediterranean. *Journal of Social Sciences*, 6(S4), 274.
- Cohen, J. (1992). A power primer. *Psychological Bulletin*, 112(1), 155–159. doi:10.1037/0033-2909.112.1.155 PMID:19565683
- Dada, A. (2017). Adoption and Acceptance of Online Banking: A Comparative Study of UK and Nigeria Retail Banks. In *Promotional Strategies and New Service Opportunities in Emerging Economies* (pp. 263-293). IGI Global. doi:10.4018/978-1-5225-2206-5.ch012

- Darian, J. C., Wiman, A. R., & Tucci, L. A. (2005). Retail patronage intentions: The relative importance of perceived prices and salesperson service attributes. *Journal of Retailing and Consumer Services*, 12(1), 15–23. doi:10.1016/j.jretconser.2004.01.002
- Darley, W. K., Luethge, D. J., & Thatte, A. (2008). Exploring the relationship of perceived automotive salesperson attributes, customer satisfaction and intentions to automotive service department patronage: The moderating role of customer gender. *Journal of Retailing and Consumer Services*, 15(6), 469–479. doi:10.1016/j.jretconser.2008.01.002
- Davis, F. D., Bagozzi, R. P., & Warshaw, P. R. (1989). User acceptance of computer technology: A comparison of two theoretical models. *Management Science*, 35(8), 982–1003. doi:10.1287/mnsc.35.8.982
- Devlin, J. F. (1995). Technology and innovation in retail banking distribution. *International Journal of Bank Marketing*, 13(4), 19–25. doi:10.1108/02652329510082915
- Eid, M. I. (2011). Determinants of e-commerce customer satisfaction, trust, and loyalty in Saudi Arabia. *Journal of Electronic Commerce Research*, 12(1), 78.
- Erol, C., & El-Bdour, R. (1989). Attitudes, behaviour, and patronage factors of bank customers towards Islamic banks. *International Journal of Bank Marketing*, 7(6), 31–37. doi:10.1108/02652328910132060
- Everard, A., & Galletta, D. F. (2005). How presentation flaws affect perceived site quality, trust, and intention to purchase from an online store. *Journal of Management Information Systems*, 22(3), 56–95. doi:10.2753/MIS0742-1222220303
- Fishbein, M., & Ajzen, I. (1975). *Belief, attitude, intention and behavior: An introduction to research and theory*. Reading, PA: Addison-Wesley.
- Fornell, C., & Larcker, D. F. (1981). Structural equation models with unobservable variables and measurement error: Algebra and statistics. *JMR, Journal of Marketing Research*, 18(3), 382–388. doi:10.1177/002224378101800313
- Garbarino, E., & Johnson, M. S. (1999). The different roles of satisfaction, trust, and commitment in customer relationships. *Journal of Marketing*, 63(2), 70–87. doi:10.1177/002224299906300205
- Gatignon, H., & Robertson, T. S. (1989). Technology diffusion: An empirical test of competitive effects. *Journal of Marketing*, 53(1), 35–49. doi:10.1177/002224298905300104
- Grace, G., & O’Cass, A. (2005). An examination of the antecedents of repatronage intentions across different retail store formats. *Journal of Retailing and Consumer Services*, 12(4), 227–243. doi:10.1016/j.jretconser.2004.08.001
- Gremler, D.D., & Brown, S. W. (1996). Service loyalty: its nature, importance, and implications. *Advancing Service Quality: A Global Perspective*, 5, 171–181.
- Grewal, D., Baker, J., Levy, M., & Voss, G. B. (2003). The effects of wait expectations and store atmosphere evaluations on patronage intentions in service-intensive retail stores. *Journal of Retailing*, 79(4), 259–268. doi:10.1016/j.jretai.2003.09.006
- Grewal, D., Roggeveen, A. L., Compeau, L. D., & Levy, M. (2012). Retail value-based pricing strategies: New times, new technologies, new consumers. *Journal of Retailing*, 88(1), 1–6. doi:10.1016/j.jretai.2011.12.001
- Gwinner, K. P., Gremler, D. D., & Bitner, M. J. (1998). Relational benefits in services industries: The customer’s perspective. *Journal of the Academy of Marketing Science*, 26(2), 101–114. doi:10.1177/0092070398262002
- Hair, J. F., Ringle, C. M., & Sarstedt, M. (2011). PLS-SEM: Indeed a silver bullet. *Journal of Marketing Theory and Practice*, 19(2), 139–152. doi:10.2753/MTP1069-6679190202
- Halliday, S. V. (2003). Which trust and when? Conceptualizing trust in business relationships based on context and contingency. *International Review of Retail, Distribution and Consumer Research*, 13(4), 405–421. doi:10.1080/0959396032000129507
- Hung, K. S., Lui, K. S., & Kwok, Y. K. (2007). A trust-based geographical routing scheme in sensor networks. *Wireless Communications and Networking Conference*, 3123–3127. doi:10.1109/WCNC.2007.577
- IFC. (2009). *Bangladesh: Microfinance and Financial Sector, Diagnostic Study (Final Report)*. Available: [http://www.ifc.org/ifcext/mifa.nsf/AttachmentsByTitle/Bangladesh\\_20090920.pdf/\\$FILE/Bangladesh\\_20090920.pdf](http://www.ifc.org/ifcext/mifa.nsf/AttachmentsByTitle/Bangladesh_20090920.pdf/$FILE/Bangladesh_20090920.pdf)

- Iyer, K. N. S. (2014). Operational impact of collaboration and resource specificity: The moderating role of technology context. *Journal of Business and Industrial Marketing*, 29(5), 387–399. doi:10.1108/JBIM-07-2011-0088
- Jabnoun, N., & Hassan Al-Tamimi, H. A. (2003). Measuring perceived service quality at UAE commercial banks. *International Journal of Quality & Reliability Management*, 20(4), 458–472. doi:10.1108/02656710310468614
- Jamal, A., & Naser, K. (2002). Customer satisfaction and retail banking: an assessment of some of the key antecedents of customer satisfaction in retail banking. *International Journal of Bank Marketing*, 20(4), 146–160.
- Jamal, A., & Naser, K. (2003). Factors influencing customer satisfaction in the retail banking sector in Pakistan. *International Journal of Commerce and Management*, 13(2), 29–53. doi:10.1108/eb047465
- Jayawardhena, C. (2004). Measurement of service quality in internet banking: The development of an instrument. *Journal of Marketing Management*, 20(1-2), 185–207. doi:10.1362/026725704773041177
- Jun, M., & Cai, S. (2001). The key determinants of internet banking service quality: A content analysis. *International Journal of Bank Marketing*, 19(7), 276–291. doi:10.1108/02652320110409825
- Kassim, N., & Asiah Abdullah, N. (2010). The effect of perceived service quality dimensions on customer satisfaction, trust, and loyalty in e-commerce settings: A cross cultural analysis. *Asia Pacific Journal of Marketing and Logistics*, 22(3), 351–371. doi:10.1108/13555851011062269
- Kassim, N., & Asiah Abdullah, N. (2010). The effect of perceived service quality dimensions on customer satisfaction, trust, and loyalty in e-commerce settings: A cross cultural analysis. *Asia Pacific Journal of Marketing and Logistics*, 22(3), 351–371. doi:10.1108/13555851011062269
- Katz, M. L., & Shapiro, C. (1994). Systems competition and network effects. *The Journal of Economic Perspectives*, 8(2), 93–115. doi:10.1257/jep.8.2.93
- Kaul, S., Sahay, A., & Koshy, A. (2010). Impact of initial-trust-image on shopper trust and patronage intentions: A study of young, male apparel shoppers in India. *International Journal of Retail & Distribution Management*, 38(4), 275–296. doi:10.1108/09590551011032090
- Kaushik, A. K., & Rahman, Z. (2015). An alternative model of self-service retail technology adoption. *Journal of Services Marketing*, 29(5), 406–420. doi:10.1108/JSM-08-2014-0276
- Kim, J., Jin, B., & Swinney, J. L. (2009). The role of etail quality, e-satisfaction and e-trust in online loyalty development process. *Journal of Retailing and Consumer Services*, 16(4), 239–247. doi:10.1016/j.jretconser.2008.11.019
- Lee, G. G., & Lin, H. F. (2005). Customer perceptions of e-service quality in online shopping. *International Journal of Retail & Distribution Management*, 33(2), 161–176. doi:10.1108/09590550510581485
- Lee, M. C. (2009). Factors influencing the adoption of internet banking: An integration of TAM and TPB with perceived risk and perceived benefit. *Electronic Commerce Research and Applications*, 8(3), 130–141. doi:10.1016/j.elerap.2008.11.006
- Liébana-Cabanillas, F., Muñoz-Leiva, F., Sánchez-Fernández, J., & Viedma-del Jesús, M. I. (2016). The moderating effect of user experience on satisfaction with electronic banking: Empirical evidence from the Spanish case. *Information Systems and e-Business Management*, 14(1), 141–165. doi:10.1007/s10257-015-0277-4
- Lin, C. Y., Marshall, D., & Dawson, J. (2013). How does perceived convenience retailer innovativeness create value for the customer? *International Journal of Business and Economics*, 12(2), 171.
- Little, T. D., Card, N. A., Bovaird, J. A., Preacher, K. J., & Crandall, C. S. (2007). Structural equation modeling of mediation and moderation with contextual factors. *Modeling Contextual Effects in Longitudinal Studies*, 1, 207–230.
- Lowson, R. H. (2001). Retail operational strategies in complex supply chains. *International Journal of Logistics Management*, 12(1), 97–111. doi:10.1108/09574090110806253
- Madjid, R. (2013). Customer trust as relationship mediation between customer satisfaction and loyalty at Bank Rakyat Indonesia (BRI) Southeast Sulawesi. *International Journal of Engineering Science*, 2(5), 48–60.

- Martins, C., Oliveira, T., & Popović, A. (2014). Understanding the Internet banking adoption: A unified theory of acceptance and use of technology and perceived risk application. *International Journal of Information Management*, 34(1), 1–13. doi:10.1016/j.ijinfomgt.2013.06.002
- Meyerson, D., Weick, K. E., & Kramer, R. M. (1996). Swift trust and temporary groups. *Trust in Organizations: Frontiers of Theory and Research*, 166, 195.
- Montoya-Weiss, M. M., Voss, G. B., & Grewal, D. (2003). Determinants of online channel use and overall satisfaction with a relational, multichannel service provider. *Journal of the Academy of Marketing Science*, 31(4), 448–458. doi:10.1177/0092070303254408
- Moorman, C., Deshpande, R., & Zaltman, G. (1993). Factors affecting trust in market research relationships. *The Journal of Marketing*, 81-101.
- Muyeed, M. A. (2012). Customer Perception on service quality in retail banking in Developing Countries-A Case Study. *International Journal of Marketing Studies*, 4(1), 116–122. doi:10.5539/ijms.v4n1p116
- Norton, J. A., & Bass, F. M. (1987). A diffusion theory model of adoption and substitution for successive generations of high-technology products. *Management Science*, 33(9), 1069–1086. doi:10.1287/mnsc.33.9.1069
- Oruç, Ö. E., & Tatar, Ç. (2017). An investigation of factors that affect internet banking usage based on structural equation modeling. *Computers in Human Behavior*, 66, 232–235. doi:10.1016/j.chb.2016.09.059
- Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1985). A conceptual model of service quality and its implications for future research. *The Journal of Marketing*, 41-50.
- Parasuraman, A., Zeithaml, V. A., & Malhotra, A. (2005). ES-QUAL: A multiple-item scale for assessing electronic service quality. *Journal of Service Research*, 7(3), 213–233. doi:10.1177/1094670504271156
- Pikkarainen, T., Pikkarainen, K., Karjaluoto, H., & Pahnla, S. (2004). Consumer acceptance of online banking: An extension of the technology acceptance model. *Internet Research*, 14(3), 224–235. doi:10.1108/10662240410542652
- Ram, S., & Sheth, J. N. (1989). Consumer resistance to innovations: The marketing problem and its solutions. *Journal of Consumer Marketing*, 6(2), 5–14. doi:10.1108/EUM0000000002542
- Ranaweera, C., & Prabhu, J. (2003). The influence of satisfaction, trust and switching barriers on customer retention in a continuous purchasing setting. *International Journal of Service Industry Management*, 14(4), 374–395. doi:10.1108/09564230310489231
- Reydet, S., & Carsana, L. (2017). The effect of digital design in retail banking on customers' commitment and loyalty: The mediating role of positive affect. *Journal of Retailing and Consumer Services*, 37, 132–138. doi:10.1016/j.jretconser.2017.04.003
- Reynolds, K. E., Ganesh, J., & Lockett, M. (2002). Traditional malls vs. factory outlets: Comparing shopper typologies and implications for retail strategy. *Journal of Business Research*, 55(9), 687–696. doi:10.1016/S0148-2963(00)00213-7
- Rogers, E. M. (1962). *Diffusion of Innovations*. London: Free Press.
- Rousseau, D. M., Sitkin, S. B., Burt, R. S., & Camerer, C. (1998). Not so different after all: A cross-discipline view of trust. *Academy of Management Review*, 23(3), 393–404. doi:10.5465/amr.1998.926617
- Rowley, J. (2006). An analysis of the e-service literature: Towards a research agenda. *Internet Research*, 16(3), 339–359. doi:10.1108/10662240610673736
- Rust, R. T., Inman, J. J., Jia, J., & Zahorik, A. (1999). What you don't know about customer-perceived quality: The role of customer expectation distributions. *Marketing Science*, 18(1), 77–92. doi:10.1287/mksc.18.1.77
- Santos, J. (2003). E-service quality: A model of virtual service quality dimensions. *Managing Service Quality: An International Journal*, 13(3), 233–246. doi:10.1108/09604520310476490
- Sathye, M. (1999). Adoption of Internet banking by Australian consumers: An empirical investigation. *International Journal of Bank Marketing*, 17(7), 324–334. doi:10.1108/02652329910305689

- Setó-Pamies, D. (2012). Customer loyalty to service providers: Examining the role of service quality, customer satisfaction and trust. *Total Quality Management & Business Excellence*, 23(11-12), 1257–1271. doi:10.1080/14783363.2012.669551
- Sharma, N., & Patterson, P. G. (2000). Switching costs, alternative attractiveness and experience as moderators of relationship commitment in professional, consumer services. *International Journal of Service Industry Management*, 11(5), 470–490. doi:10.1108/09564230010360182
- Siddiqi, K. O. (2011). Interrelations between service quality attributes, customer satisfaction and customer loyalty in the retail banking sector in Bangladesh. *International Journal of Business and Management*, 6(3), 12–36. doi:10.5539/ijbm.v6n3p12
- Snellman, K., & Vihtkari, T. (2003). Customer complaining behaviour in technology-based service encounters. *International Journal of Service Industry Management*, 14(2), 217–231. doi:10.1108/09564230310474174
- Szymanski, D. M., & Hise, R. T. (2000). E-satisfaction: An initial examination. *Journal of Retailing*, 76(3), 309–322. doi:10.1016/S0022-4359(00)00035-X
- Udo, G. J., Bagchi, K. K., & Kirs, P. J. (2010). An assessment of customers' e-service quality perception, satisfaction and intention. *International Journal of Information Management*, 30(6), 481–492. doi:10.1016/j.ijinfomgt.2010.03.005
- Weiss, A. M., & Heide, J. B. (1993). The nature of organizational search in high technology markets. *JMR, Journal of Marketing Research*, 30(2), 220–233. doi:10.1177/002224379303000207
- Wolfenbarger, M., & Gilly, M. C. (2003). eTailQ: Dimensionalizing, measuring and predictingetail quality. *Journal of Retailing*, 79(3), 183–198. doi:10.1016/S0022-4359(03)00034-4
- Wu, F., Yenyurt, S., Kim, D., & Cavusgil, S. T. (2006). The impact of information technology on supply chain capabilities and firm performance: A resource-based view. *Industrial Marketing Management*, 35(4), 493–504. doi:10.1016/j.indmarman.2005.05.003
- Xie, C., Bagozzi, R. P., & Troye, S. V. (2008). Trying to prosume: Toward a theory of consumers as co-creators of value. *Journal of the Academy of Marketing Science*, 36(1), 109–122. doi:10.1007/s11747-007-0060-2
- Xue, M., Hitt, L. M., & Chen, P. Y. (2011). Determinants and outcomes of internet banking adoption. *Management Science*, 57(2), 291–307. doi:10.1287/mnsc.1100.1187
- Yap, K. B., Wong, D. H., Loh, C., & Bak, R. (2010). Offline and online banking—where to draw the line when building trust in e-banking? *International Journal of Bank Marketing*, 28(1), 27–46. doi:10.1108/02652321011013571
- Yap, S. F., & Kew, M. L. (2007). Service quality and customer satisfaction: Antecedents of customer's repatronage intentions. *Sunway Academic Journal*, 4, 59–73.
- Yoo, B., & Donthu, N. (2001). Developing a scale to measure the perceived quality of an Internet shopping site (SITEQUAL). *Quarterly Journal of Electronic Commerce*, 2(1), 31–45.
- Zeithaml, V. A., Parasuraman, A., & Malhotra, A. (2002). Service quality delivery through web sites: A critical review of extant knowledge. *Journal of the Academy of Marketing Science*, 30(4), 362–375. doi:10.1177/009207002236911



*Muhammad Sabbir Rahman is an Associate Professor of Marketing and International Business, North South University- SBE. His current research is in the area of segmentation, service quality, healthcare marketing, tourism marketing and knowledge sharing behavior.*

*Md Afnan Hossain is a Senior Lecturer (on leave) at the School of Business, North South University (NSU), Bangladesh. Currently, he is pursuing his PhD in the field of Marketing at the University of Wollongong, Australia. Mr. Hossain received his MSc degree in International Marketing Management from the University of East London, UK. He completed Strategic Marketing course at the prestigious Imperial College London and also completed knowledge-based courses from the University of Oxford and University of Cambridge, UK. Before joining NSU, Mr. Hossain worked as a full-time Lecturer in the School of Business Studies at Southeast University. Besides teaching, Mr. Hossain also involves in research activities. He has demonstrated excellence in research by publishing a good number of international journals (including journals ranked by ABDC, ABS and indexed in Thomson Reuters Emerging Sources Citation & Scopus). His research interest lies in customer analytics, Marketing Analytics, and services marketing sectors.*

*Mahmud H. Zaman is a Lecturer at the School of Business & Economics at North South University. Mr. Zaman completed his Masters degree from Queen Mary, University of London majoring in International Management & Marketing. Mr. Zaman has published in various prestigious journals which are indexed in ABDC, Scopus. Mr. Zaman's research interest is predominately centered towards Base of Pyramid Market, Consumer Behaviour changes and tourism marketing.*

*Mahafuz Mannan is a Senior Lecturer at the Department of Marketing and International Business, North South University. He completed his undergraduate at North South University, Bangladesh, and masters from Australian National University, Australia. His research interest includes consumer behavior, advertising and green marketing.*