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Impact of Information System Quality on Perceived Bank Performance: Mediating Role of E-Banking Product

Mohammad Jonaed Kabir[1], Mohammad Imran[2], Md. Shahidul Islam[3], Nusrat Islam[4], Md. Akefur Rahaman[5]

[1]Associate Professor Department of Business Administration International Islamic University Chittagong

[2]Adjunct Faculty (Assistant Professor) CIU Business School Chittagong Independent University

[3]Divisional officer Service Engineering Division Bangladesh Forest Research Institute

[4]Lecturer Department of Business Administration Int'l Islamic University Chittagong

[5]BBA, MBA (Accounting and Information system) International Islamic University Chittagong

ABSTRACT: With the increase of information technology, the use of e-banking products recently increases tremendously in Bangladesh. So, a study is conducted to determine the direct impact of information system quality on perceived bank performance and the also indirect impact of information system quality on perceived bank performance with e-banking product mediation. Under these circumstances, the value of information system quality, perceived bank performance and e-banking product outcome are measured with five points Likert scale, with 1 being the most strongly disagreed and 5 the most strongly agreed with the statement in a close ended survey questionnaire response from 240 respondents selected by purposefully sampling method in Chattogram city, Bangladesh. In the factor analysis, principal component analysis (PCA) method is developed to classify the data into three factor and validate with Cronbach's alpha, convergent and discriminant value from collected questionnaire response in IBM SPSS Statistics 26. Based on the above classification, structure equation model (SEM) is developed in IBM SPSS AMOS 22 to identify the mediation effect of e-banking product in the information system quality on perceived bank performance and validate with model validity. The bank authority may increase the e-banking product, which will increase the information system quality on perceived bank performance. This research knowledge may be utilized in policy making and strategy formulation to increase the perceived bank performance, which lead to more profit in future.

1. INTRODUCTION

Introduction: The use of information technology simplifies many tasks that are performed by different kinds of business organizations. The rising amount of responsibilities placed on business organizations, and commercial banks in particular, in recent years has led to an expansion of the function that information technology plays inside those organizations. When taking into account the significant contribution that information makes to the process of decision-making, it is imperative that businesses, and commercial banks in particular, have access to adequate information management systems. Commercial banks are able to maintain their competitive edge because to the availability of advanced information technology. In order to make timely, accurate, and reasonable decisions, management of commercial banks need accounting information. Planning, organizing, directing, and managing are all ways in which information may be used in banks to make decisions, which in turn may increase work efficiency and performance. Improving performance is not going to be a walk in the park unless you employ efficient IT. Examining the use of information technology in the decision-making process of commercial banks in Bangladesh, this study seeks to answer the questions of whether the results produced by the automated AIS used by these institutions meet the requirements of their decision-makers. Another focus of this research is the commercial banking industry in Bangladesh and how IT influences their decision-making. In order for the outputs of the automated AIS to be suitable for use in decision-making processes, they need to possess a number of properties. Is the AIS able to provide the required outputs that commercial banks in Bangladesh's decision-makers require, therefore contributing to the performance of these institutions? The objectives of this research will be accomplished after these questions and their responses are considered.

Objective of the study

The objective of the study is to determine the direct effect of information system quality on perceived bank performance. Also the indirect effect of information system quality on perceived bank performance with e-banking product mediation.

2. PREVIOUS STUDIES ON IT AND REPORTING

As part of their research on the topic, Abayomi and Adegoke (2016) looked at how computerized accounting systems affected the efficiency and effectiveness of banks in Nigeria. They found that the banking industry gains a lot from using computerized accounting systems. A study conducted by Abubakar, Gatawa, and Kebbi (2011) examined the effect of Infomation System on the performance of certain commercial banks in Nigeria. The researchers discovered that the utilization of Information System in this sector led to an increase in return on equity. A study conducted by Agbolade (2011) titled "Information and communication technology and banks profitability in Nigeria" demonstrated that the utilization of Information System in the banking sector led to a rise in industry profits and a slight but positive shift in investment levels. Using regression coefficients and component analysis, they confirmed that there was a negligible amount of profit even before the advent of ICT, thereby disproving your theory. The study conducted by Akande (2016) titled "Information system effect on performance of entrepreneurs in South Western Nigeria" found that CA systems efficiently handle accounting data, allowing for the generation of timely and accurate reports. The efficiency and efficacy of the system in relation to the activities of the entrepreneur are the main reasons why computerized accounting systems are used by them. Information systems can help businesses improve the quality of their financial statements and process transactions faster, according to research by Bakri (2016) titled The Effect of the Use of Information Technology and Organizational Culture on the Quality of Information Systems. "Financial reporting quality and investment efficiency of private firms in emerging markets." A study conducted by Chen, Hope, Li, and Wang (2011) indicated that nations with less robust investor protection measures, financial systems focused on banks, and higher levels of tax and financial reporting rule conformity had lower financial reporting quality (FRQ). The World Bank's data and their empirical studies demonstrate that the FRQ improves investment efficiency. They also found that bank funding strengthens the connection between FRQ and investment efficiency, but tax incentives to cut earnings weaken it. There has been much speculation in the academic literature on the possible connection between tax-minimization incentives and the informative role that profits perform. They provided extensive proof to back up their assertions in this regard. Researchers in Indonesia looked at how sugar companies' financial data and managers' efficiency were affected by using a computer-based accounting information system (CBAIS). It was discovered by Darmansyah and Fitrijanti (2016). There is strong evidence that CBAIS usage significantly improves accounting information quality, which in turn significantly affects management performance in the sugar business. In their 2007 work titled "Web-based corporate reporting in Bangladesh: An exploratory study," Dutta and Bose discuss the results of an experimental study they carried out on the use of the Internet for the dissemination of corporate information by listed enterprises in Bangladesh. Companies listed on either the Dhaka Stock Exchange (DSE) or the Chittagong Stock Exchange (CSE) make up 268 of the study's sample (CSE). We gathered information regarding online corporate reporting by viewing the sample businesses' corporate websites using a standard web browser. Based on their research, the authors proved that online corporate reporting is a relatively new phenomenon in Bangladesh. Eruemegbe (2015) found that information and communication technology improves the efficiency and effectiveness of banks, gives them a competitive edge, and boosts their profitability in his study of the impact of ICT on banking sector organization performance. In 2011, Ghasemi, Shafeiepour, Aslani, and Barvayeh investigated "The influence of Information System (IS) on current accounting systems." Companies may quickly and simply develop individual reports for management decision-making, according on their results. Computerized accounting systems provide various benefits, including improved functionality, accuracy, processing speed, and the ability to generate reports for external use. At the end of the essay, we looked at the pros and cons of information system (IS) accounting systems. In their 2014 study titled "Impact of Technological Innovation on Delivery of Banking Services in Nigeria," Joseph, Ani, Chioke, and Samuel found that technological innovation had a positive link with the performance of bank staff. In addition, there is a strong association between technical innovation and customer happiness and retention rates, which are both improved by IS utilization. In their study titled "The Relationship between Information Technology Capability and Organizational Performance in Nigerian Banks," researchers Kabiru, Rajalli, and Hasan (2015) demonstrated that, in line with the resource-based view (RBV) of organization performance, a robust relationship exists between IS capability and organizational performance in Nigerian banks. Academics and managers in Nigeria can benefit from this study's findings as they clarify the connection between IS capability and ROI. Kloviend' and Gimzauskiene (2015) demonstrated in their study "The Effect of Information Technology on Accounting System's Conformity with Business Environment: A Case Study In Banking Sector Company" that...with the help of information technology, accounting systems and business environments can become more closely aligned. When the accounting system fails to provide useful information for decision making, information technology may be a useful tool for the compliance process. How Ugandan Manufacturing Firms' Financial Data Reporting Has Changed Due to Computerized Accounting Using Uganda Breweries Limited as a case study, Mark (2011) investigated how the use of computerized accounting affected financial reporting. Uganda Breweries, a Private Company The results demonstrated that 67.7 percent of survey takers were in agreement that a computerized accounting system simplifies ledger transaction submission and decreases the possibility of human error. The purpose of the study by Momani and Obeidat (2012), "Do the Outputs of the IS Satisfy the Requirements of Decision Makers of the Omani Commercial Banking Industry? ", is to determine if the decision makers of Omani commercial banks are satisfied with the outputs of their automated accounting information systems in terms of being consistent, relevant, comprehensible, and dependable. A T-test and a predetermined set of

descriptive statistics were used to analyze the collected data and test the study's premise. Because they were concise, relevant, trustworthy, comparable, and consistent, the findings generated by the automated IS of the Omani commercial banks were deemed useful for decision-making. Studying "The Impact of Computerized Accounting System on Financial Reporting in the Ministry of Local Government of Rwanda," Murungi and Kayigamba (2015) found that nearly all respondents (98%) recognized that the Ministry utilizes both cash-based and accrual-based computerized accounting systems. Furthermore, 38% of people who took the survey think that computerized accounting makes things more transparent, and 38% think that it makes things more accountable. Accounting information systems, according to Saeidi's 2014 essay "The Impact Of Accounting Information Systems On Financial Performance - A Case Study Of TATA Consultancy Services (Tcs) - India," are among a company's most important systems. The data it contains will be useful for managers at all levels of the organization. Their work in planning, controlling resources, assessing performance, and decision-making is enhanced by this data. According to Saleh's (2011) study titled "A Study On The Use Of Computerized Accounting Systems In Small Business: A Case Of Small Business In Libya," small businesses are more inclined to implement CAS if they see its benefits.

Salehi and Elahe (2012) did a research named "The Role of Information Technology in Financial Reporting Quality: Iranian Scenario." to investigate the effect of information technology on the quality of financial reporting. This effort led to the creation of a questionnaire. We tested our hypotheses using Duncan's Test, ANOVA, and the T-Evaluate, and then we examined the data. Evidence suggests that accounting data is more relevant and trustworthy after incorporating IT. It also makes things more comparable. According to Shiraj (2015), the first step was to assess the current state of computerized accounting systems (CAS) and their development and implementation. The second step was to analyze the potential impact of CAS on improvement. The research topic was "The Impact of Using Computerized Accounting Systems (CAS) in Financial Reporting Among SMEs: Special Reference To The South Eastern Region, Sri Lanka." He reasoned that computerized accounting systems precisely generate financial reports, and that these reports' prompt generation helps with decision-making for businesses. A study titled "The role of Accounting Information Systems (A.I.S.) in rationalized Administrative Decision-making (field study) Jordanian banks" was carried out by Swalhah (2014). The purpose of the study was to determine the function of A.I.S. in rationalized Administrative Decision-making as it pertained to four banks in Jordan: Islamic International Arab Bank, the Housing Bank for Jordan, Jordan Islamic Bank for Development, and Jordan Islamic Bank. Both the administrative decision-making process and the activation of accounting control processes and settings are greatly aided by accounting information systems. In addition to accounting systems, it is critical to develop the software, hardware, and tools utilized by accounting information systems; these systems should then be expanded into marketing activities and used to build future company strategies. In a study published in the journal Accounting and Finance, Ware (2015) investigated the use of computerized accounting systems as an efficient method of keeping accounting records in Ghanaian banks. The case study focused on the Ga Rural Bank. After considering the pros and cons, he determined that banks' financial reporting has been improved by implementing a computerized accounting system. Companies, especially rural banks, need to use an accounting system to stay competitive. "The Impact of ICT Adoption on Financial Performances of Commercial Banks in KENYA." by Wesutsa (2012) found that commercial banks in Kenya were able to improve their operations, liquidity, and asset quality through the use of ICT. Not only did this increase their market share, but it also helped the firm stay competitive. More so, in the current market, banks have more money to lend thanks to ICT. In their 2016 publication titled "Usage of Computerized Accounting Information Systems at Development Fund Organizations: The Case of Zimbabwe," Yose and Choga highlighted the use of CAIS. Computerized accounting information systems reduced operational expenditures, saved time, and reduced mistakes, according to the study's findings. We were able to accomplish our goal of better presenting financial reports.

3. RESEARCH GAP

There is a vast array of scientific, commercial, and social domains that have found uses for information technology. The above analyses demonstrate that Accounting Information Systems and its practicality were the primary foci of the aforementioned studies. This is the kind of mundane, administrative work that IT takes care of. Making choices, and improving performance as a result, is a crucial and strategic job of banks. Regarding the function of AIS to improve the efficiency of commercial banks, no such all-encompassing study has been conducted. So, that's where the research stops. This topic was selected by the researcher to fill the research gap.

Hypothesis 1

Null Hypothesis H0: Perceived bank performance is unrelated to the quality of the information system.

Alternative Hypothesis H1: The perceived performance of a bank is directly related to the quality of its information system.

Hypothesis 2

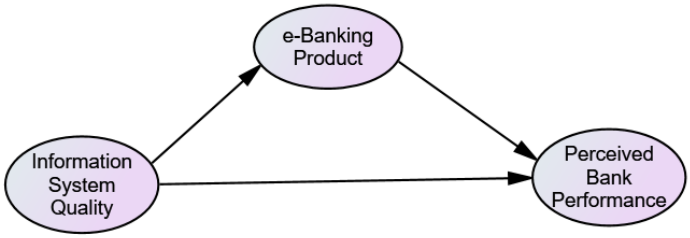
Null Hypothesis H0: There is no indirect effect of information system quality on perceived bank performance with e-banking product mediation.

Alternative Hypothesis H1: There is an indirect effect of information system quality on perceived bank performance with e-banking product mediation.

4. MATERIAL AND METHOD

The e-banking product becomes very popular and recently the use increases tremendously. In the present study of impact information system quality on perceived bank performance with e-banking product, the variables are identified from literature review and experience of authors, which are measured as follows. (1) the quality of an information system is evaluated by looking at how well it does the following: (a) assists with bank investment and growth decisions; (b) aids with industry development decisions; (c) aids with competitive position decisions; (d) aids with accounting, finance, and administration decisions; and (e) satisfies decision making requirements. Effective IS in the planning process, Effective IS in the decision-making process, Effective IS for accounting performance, Effective IS for financial performance, and Effective IS for operational performance are the perceived measures of bank performance (2). (3) The following are some ways that e-banking products are measured: (a) EFT, (b) SWIFT, (c) MIR, (d) ATM, (e) Credit/Debit Card, (f) Credit/Debit Card, and (g) RTGS. In closed-ended surveys, all of the aforementioned answer values are quantified using a five-point Likert scale, where 1 represents a strong disagreement and 5 represents a strong agreement. Prior to administering the survey, it was pilot tested with ten experienced respondents drawn from diverse backgrounds. Based on their feedback, any required adjustments were implemented. Following the screening and cleaning process, 240 respondents from Chattogram city, Bangladesh were chosen for the survey based on their opinions. They were contacted via E-mail, WhatsApp, and hand-to-hand methods. This selection was based on the received opinion data, as some respondents gave the same rank to multiple questions or did not answer many questions. Data from the surveys that were ultimately chosen are entered into the following programs: MS Excel 2016, IBM SPSS Statistics 26, and IBM SPSS AMOS 22. From the survey data, we derive the descriptive analysis values for each answer variable. The data from the survey's response variables are then tested for normalcy using the Shapiro-Wilk and Kolmogorov-Smirnov tests. In order to categorize all of the answer variables into three groups, we first run a normality test. Then, we use factor analysis with Cronbach's Alpha values for each component and the Kaiser-Meyer-Olkin measure to ensure that our samples are representative. (i) The security of the data system; (ii) the public's opinion of the bank's efficiency; and (iii) the E-banking service. After finalizing the factors, a structure equation model is developed with information system quality is selected as exogenous variable, perceived bank performance as endogenous variable to test the direct effect. After that another structure equation model is developed with information system quality is selected as exogenous variable, perceived bank performance as endogenous variable and e-banking product as the mediating variable to test the indirect effective as shown in Figure 1.

Figure 1: Information system conceptual Model



After finalizing the structure equation model (SEM) with model validity hypothesis is tested in the study.

5. RESULT AND DISCUSSION

Descriptive Statistics of Respondents

The descriptive statistics and normality test of the respondent values for information system quality, perceived bank performance and e-banking product are shown in Table 1.

Table 1: Results of descriptive statistics and tests for normalcy

Sl. No.	Questionnaire	Variable name	N	Min	Max	Kolmogorov–Smirnov Test (Sig)	Shapiro–Wilk Test (Sig)	Median
1.	**Information System Quality**							
1(a)	Information System (IS) helps in investment and growth of bank decision	ISQuality1	240	1	5	0.277 (0.000)	0.747 (0.000)	4

Sl. No.	Questionnaire	Variable name	N	Min	Max	Kolmogorov–Smirnov Test (Sig)	Shapiro–Wilk Test (Sig)	Median
1(b)	IS helps in decision of development in industry	ISQuality2	240	1	5	0.302 (0.000)	0.722 (0.000)	4
1(c)	IS helps in decision of competitive position	ISQuality3	240	1	5	0.275 (0.000)	0.781 (0.000)	4
1(d)	IS helps in accounting, finance and administration decision	ISQuality4	240	1	5	0.244 (0.000)	0.791 (0.000)	4
1(e)	IS satisfy requirement of decision making	ISQuality5	240	1	5	0.292 (0.000)	0.743 (0.000)	4
2.	**Perceived Bank Performance**							
2(a)	Effective IS in planning process	Performance1	240	1	5	0.248 (0.000)	0.881 (0.000)	3
2(b)	Effective IS in decision-making process	Performance2	240	1	5	0.262 (0.000)	0.876 (0.000)	3
2(c)	Effective IS for accounting performance	Performance3	240	1	5	0.211 (0.000)	0.893 (0.000)	3
2(d)	Effective IS for financial performance	Performance4	240	1	5	0.277 (0.000)	0.867 (0.000)	3
2(e)	Effective IS for operational performance	Performance5	240	1	5	0.256 (0.000)	0.879 (0.000)	3
3.	**E-Banking Product**							
3(a)	Electronic Funds Transfer (EFT)	EBProduct1	240	1	5	0.360 (0.000)	0.636 (0.000)	5
3(b)	Society for Worldwide Inter-Bank Financial Telecommunication(SWIFT)	EBProduct2	240	1	5	0.386 (0.000)	0.637 (0.000)	5
3(c)	Magnetic Ink Character Recognition (MICR)	EBProduct3	240	1	5	0.361 (0.000)	0.677 (0.000)	5
3(d)	Automated Teller Machine (ATM)	EBProduct4	240	1	5	0.342 (0.000)	0.632 (0.000)	5
3(e)	Credit Card / Debit Card	EBProduct5	240	1	5	0.353 (0.000)	0.649 (0.000)	5
3(f)	Automated clearing house (ACH)	EBProduct6	240	1	5	0.304 (0.000)	0.671 (0.000)	4
3(g)	Real Time Gross Settlement (RTGS)	EBProduct7	240	1	5	0.286 (0.000)	0.736 (0.000)	4

On a five-point Likert scale, 1 is the minimum and 5 is the maximum for each item's answer variable. At the 0.000 level of significance, the Kolmogorov-Smirnov and Shapiro-Wilk test statistics for each item pertain to information system quality (0.244 to 0.302 for the former and 0.722 to 0.791 for the latter), perceived bank performance (0.211 to 0.277 for the former and 0.867 to 0.893 for the latter), and e-banking product outcome (0.286 to 0.386 for the former and 0.632 to 0.736 for the latter). Therefore, the non-parametric test takes the median values into account for mean rank comparison when the survey answer values do not follow a normal distribution. The items for information system quality have median values of 4, perceived bank performance is at 3, and the e-banking products range from 4 to 5.

Factor Analysis

With a p-value of 0.000, the Kaiser-Meyer-Olkin Measure of Sampling Adequacy in component analysis comes out at 0.881. In order to categorize the survey results, we may use the factor analysis technique (Table 2).

Table 2: Result of the Convergent Validity test, Cronbach's Alpha, and factor analysis

Rotated Component Matrix[a]							
	Component			Variable Name	Cronbach's Alpha	Convergent Validity (AVE)	Square Root of AVE
	1	2	3				
EBProduct4	0.896			e-Banking Product	0.936	0.681	0.825
EBProduct6	0.853						
EBProduct1	0.835						
EBProduct2	0.820						
EBProduct3	0.809						
EBProduct7	0.802						
EBProduct5	0.785						
Performance2		0.968		Perceived	0.969	0.869	0.932

Rotated Component Matrix[a]							
	Component			Variable	Cronbach's	Convergent Validity	Square Root of
	1	2	3	Name	Alpha	(AVE)	AVE
Performance1		0.963		Bank			
Performance5		0.910		performance			
Performance3		0.907					
Performance4		0.878					
ISQuality5			0.946	Information	0.949	0.793	0.891
ISQuality2			0.925	System			
ISQuality3			0.922	Quality			
ISQuality1			0.879				
ISQuality4			0.824				
Extraction Method: Principal Component Analysis.							
Rotation Method: Varimax with Kaiser Normalization.							
a. Rotation converged in 5 iterations.							

The survey results are divided into three categories based on the factor loadings shown in the factor analysis table: e-banking product (0.785 to 0.896), perceived bank performance (0.878 to 0.968), and information system quality (0.824 to 0.946). Here, all the factor loadings are higher than 0.400, we can see that each component's readings are quite reliable.

All of the factor variables are more than 0.7, with Cronbach's Alpha values of 0.936 for the e-Banking product, 0.969 for the perceived bank performance, and 0.949 for information system quality. This proves that the variables used to calculate survey responses are the most trustworthy, accurate, and uniform ones.

To test the convergent validity, the average variance expected (AVE) values of 0.681 for the e-Banking product, 0.869 for the perceived bank performance, and 0.793 for information system quality. So, the survey response data achieve the convergent validity (as all of the AVE values are higher than 0.5). Here to test the discriminant validity, the square root of AVE values of 0.825 for the e-Banking product, 0.932 for the perceived bank performance, and 0.891 for information system quality. Now, the maximum shared variance (MSV) between each unobserved variable are calculated and shown in Table 3.

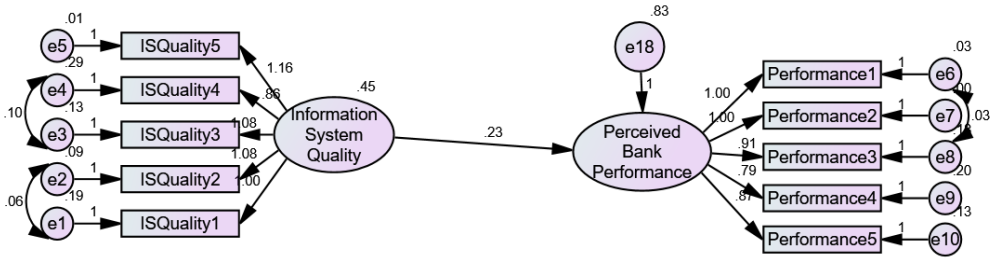
Table 3: Maximum shared variance (MSV) between each unobserved variable

Correlation			Estimate MSV
ISQuality	<-->	Performance	0.171
ISQuality	<-->	EBProduct	0.347
Performance	<-->	EBProduct	0.350

The maximum shared variance (MSV) of information system quality and perceived bank performance is 0.171, which is lower than the square root of AVE for information system quality (0.891) and perceived bank performance (0.932) (from Table 2). Again, maximum shared variance (MSV) of information system quality and e-banking product is 0.347, which is lower than the square roots of AVE 0.891 and 0.825, respectively, for information system quality and e-banking product (from Table 2), as shown by the data. Also, the maximum shared variance (MSV) between the perceived bank performance and the e-banking product is 0.350, which is lower than the square root of AVE 0.932 for the perceived bank performance and 0.825 for the e-banking product. Thus, discriminant validity has been attained by the chosen data set.

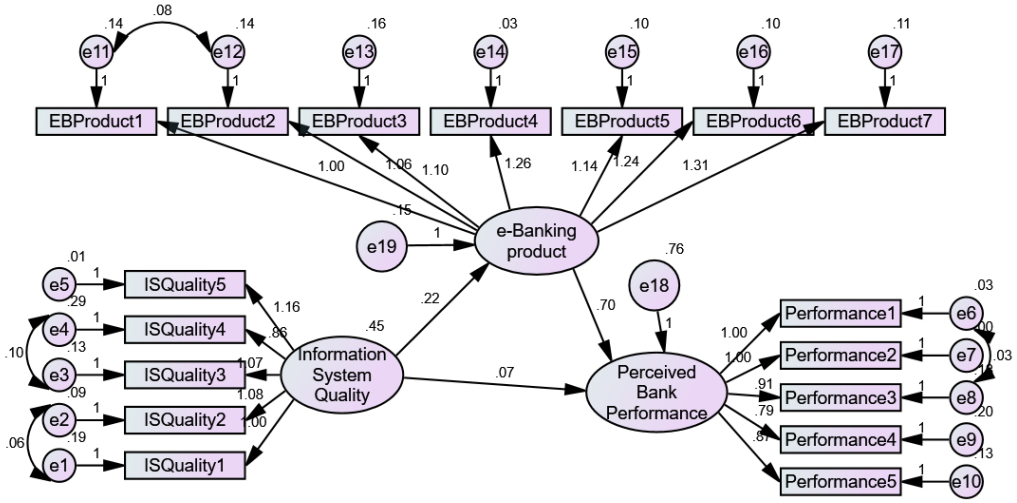
We can now identify the following components based on the factor analysis's output: (a) ISQuality1: IS helps with bank investment and growth decisions; (b) ISQuality2: IS aids with industry development decisions; (c) ISQuality3: IS aids with competitive position decisions; (d) ISQuality4: IS aids with accounting, finance, and administration decisions; and (e) ISQuality5: IS satisfies decision making requirements. (2) Perceived bank performance may be assessed in five ways: (a) Performance1: Good IS in planning; (b) Performance2: Good IS in decision-making; (c) Performance3: Good IS in accounting; (d) Performance4: Good IS in financial performance; and (e) Performance5: Good IS in operational performance. (a) The (3) e-Banking product consists of the following items: (b) e-funds transfer (EFT) (EBProduct1), (c) magnetic ink character recognition (MICR) (EBProduct3), (d) automated teller machine (ATM) (EBProduct4), (e) credit card / debit card (EBProduct5), (f) automated clearing house (ACH) (EBProduct6), and (g) real time gross settlement (RTGS) (EBProduct7).The results of the factor analysis guided the development of ISQ-PBP structural equation model (Figure 2) that includes information system quality as the exogenous variable and perceived bank performance as the endogenous variable.

Figure 2: ISQ-PBP structural equation model



In the ISQ-PBP structural equation model, the model index values as follows: $\chi 2/df$ is 1.060 (< 3), CFI is 0.999 (> 0.9), IFI is 0.999 (> 0.9), TLI is 0.999 (> 0.9), NFI is 0.990 (> 0.9), RFI is 0.986 (> 0.9), and RMSE is 0.016 (< 0.08). In this case, the chosen ISQ-PBP model is well-fitting since the model index values meet all of the survey's standard requirements. In the ISQ-PBP model the regression weight (path coefficient) of information system quality on perceived bank performance is 0.23 (p = 0.011).
Now, we introduce the e-banking product as a mediator between information system quality and perceived bank performance in the following ISQ-EBP-PBP structural equation model (figure 3).

Figure 3: ISQ-EBP-PBP structural equation model



The following set of model index values are included in the ISQ-EBP-PBP structural equation model: $\chi 2/df$ is 2.443 (< 3), CFI is 0.967 (> 0.9), IFI is 0.968 (> 0.9), TLI is 0.960 (> 0.9), NFI is 0.946 (> 0.9), RFI is 0.935 (> 0.9), and RMSE is 0.078 (< 0.08). The selected ISQ-EBP-PBP model fits the data well since the model index values are in accordance with the survey's norms. The ISQ-EBP-PBP model's regression weights, also known as path coefficients, are displayed in Table 4.

Table 4: regression weights of ISQ-EBP-PBP model

Endogenous variable		Exogenous variable	Direct effect		Indirect effect of e-banking product	
			Estimate	p-value	Estimate	p-value
Performance	<---	ISQuality	0.069	0.450	0.157	0.000
EBProduct	<---	ISQuality	0.223	***		
Performance	<---	EBProduct	0.703	***		

The regression weights (path coefficients) for the direct influence of information system quality on e-banking product (0.223, p < 0.000) and for the e-banking product to perceived bank performance (0.703, p < 0.000) in the ISQ-EBP-PBP model, respectively, are significant. Additionally, the path coefficients (regression weights) for the indirect influence of information system quality on perceived bank performance through mediation of e-banking products are 0.157 (0.000). A regression weight of 0.069 (p = 0.450) indicates that there is a direct influence of information system quality on perceived bank performance in the ISQ-EBP-PBP model.

DISCUSSION

In the ISQ-PBP model the regression weight (path coefficient) of information system quality on perceived bank performance is 0.23 ($p = 0.011$). So, the null hypothesis 1 is rejected (as the p-value is < 0.05). Hence, information system quality has a significant impact on perceived bank performance.

In the ISQ-EBP-PBP model, the regression weights (path coefficients) for direct effect of information system quality to e-banking product and e-banking product to perceived bank performance are 0.223 ($p < 0.000$) and 0.703 ($p < 0.000$) respectively. Also the regression weights (path coefficients) for indirect effect of information system quality to perceived bank performance with e-banking product mediation is 0.157 (0.000). So, the null hypothesis 2 is rejected (as the p-value < 0.05). There is a significant contribution of information system quality on perceived bank performance with e-banking product mediation. But in the ISQ-EBP-PBP model regression weights (path coefficients) for direct effect of information system quality to perceived bank performance is 0.069 ($p = 0.450$). So, the information system quality has no significant contribution on perceived bank performance with e-banking-product mediation. So, information system quality has a full mediation effect on perceived bank performance

CONCLUSION

The information technology prefers and uses in the banking process as it simplifies our work. In the research study observes that information system quality has direct significant contribution on perceived bank performance. But, after introducing the e-banking product, the present research study observed that e-banking product has a full mediation effect of information system quality on perceived bank performance. The bank authority may increase the e-banking product, which will increase the information system quality on perceived bank performance. This research knowledge may be utilized in policy making and strategy formulation to increase the perceived bank performance, which lead to more profit in future.

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QUESTIONNAIRE

1.	**Information System Quality**	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1(a)	Information System (IS) helps in investment and growth of bank decision					
1(b)	IS helps in decision of development in industry					
1(c)	IS helps in decision of competitive position					
1(d)	IS helps in accounting, finance and administration decision					
1(e)	IS satisfy requirement of decision making					
2.	**Perceived Bank Performance**					
2(a)	Effective IS in planning process					
2(b)	Effective IS in decision-making process					
2(c)	Effective IS for accounting performance					
2(d)	Effective IS for financial performance					
2(e)	Effective IS for operational performance					
3.	**e-Banking Product**					
3(a)	Electronic Funds Transfer (EFT)					
3(b)	Society for Worldwide Inter-Bank Financial Telecommunication(SWIFT)					
3(c)	Magnetic Ink Character Recognition (MICR)					
3(d)	Automated Teller Machine (ATM)					
3(e)	Credit Card / Debit Card					
3(f)	Automated clearing house (ACH)					
3(g)	Real Time Gross Settlement (RTGS)					