Impact of Fintech on The Financial Performance of Pakistani Banking Sector: A Comparative Study of Islamic and Conventional Banks

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Abstract

FinTech is a developing technology which primarily changed the way of banking. The association between banks and FinTech got the attention of many scholars. In this regard, the present research aimed to investigate the influence of financial technology on the Pakistani banking sector's financial performance including both Islamic and non-Islamic banks for tenure of 5 years comprising of 2018-2022. Four Islamic banks and all the conventional banks except micro finance banks were chosen as a sample for this study. The analysis of the present research is grounded on the independent variable Fintech (Internet banking, Mobile banking and ATM transactions) and the dependent variable financial performance (ROA, ROE and EPS) of both banking systems. The researcher collected quantitative data as per the quantifiable nature of the study from the yearly statements of the concerned banks and State Bank of Pakistan website. Linear model regression of panel data was used to derive the empirical outcomes from the analysis of financial technology and banks' fiscal performance. The outcomes of the research resulted that overall Pakistani banking sector's financial performance was insignificantly impacted by FinTech with reference to ROA and ROE. But individually fiscal performance of Islamic banks has been positively influenced by financial technology while insignificant impact on conventional banks' financial performance in reference with ROA and ROE. Moreover, the outcomes of the research further resulted that FinTech has positive significant impact on the financial performance of Pakistani banking sector as a whole with respect to EPS. Theoretically, the present study added latest information to the existing literature regarding Pakistani banking sector's performance in liaison with FinTech. Practically, the present study has dual implications. From customers' perspective the use of FinTech services creates easiness for clients to avail banking services irrespective of the time and place constraints. While from banks' perspective the use of FinTech services by customers promotes the agenda of green banking by reducing paperwork in the form of vouchers as well as improves operational efficiency.

Keywords: FinTech, Financial Performance, Islamic Banking, Conventional Banking, Pakistani Banking Sector.

Introduction

FinTech, refers to Financial Technology, is an expression that denotes the combination of technology and finance. "FinTech is technologically enabled financial innovation that could result in new business models, applications, processes, or products with an associated material effect on financial markets and institutions and the provision of financial services" (European Commission, 2018) cited in (Rupeika-apoga & Thalassinos, 2020). The innovation in technology leads banks to enter a modern age of digitization, which introduced them with a new tool known as FinTech (Monika et al., 2021). FinTech got recognition due to its wide range of applications as it provides a complete set of banking services to clients involving credit facilities, money transfer, payment of bills and investment in stocks by using mobile phones or computers with ease and transparency 24/7. The advancement in financial services brought up by FinTech has shaped financing methods and expectations of the customers. The physical interaction of bankers and their customers have been declined with the use of innovative computerized mediums specifically during and post COVID-19 (Feyen et al., 2021). This movement towards the use of technology led customers to increased level of FinTech adoption in terms of internet banking. As a result, customers have changed the pattern of managing their accounts which pose a significant risk for banks to tackle the shift in customers' preferences (Hassan & Misrina, 2021).

The use of FinTech in banking services became common (Medyawati et al., 2021). With FinTech becoming a common tool in banking services, it enabled customers to have access to a diversified range of banking services with convenience and security (Abdillah, 2020). FinTech is a composition of financial services and technology that turned around classic mode of business into new-fashioned model. Earlier people used to make payments face to face which require them to carry a large sum of physical cash from one place to another, but now FinTech services enabled people to make payments via internet banking (Bank Indonesia, 2018) cited in (Siska, 2022). Financial technology has two dimensional aspects over performance of banks. Firstly, the widespread use of smartphones facilitates customers with easy access to banking services which leads to enlarge customer base of banks. Consequently, money is being injected into banks which enhance their liquidity position, deposit base and ultimately results in improving banks' profitability (Ky et al., 2019). Secondly, as per the highly regulated framework of banks, it is challenging to design diversified banking services in integration with technology as it may require banks to take additional measures to incorporate FinTech services into operations of banks. As a result, banks' performance might be negatively affected because provision of innovative services may cause banks to bear higher financial costs (Beccalli, 2007; Jalal-Karim & Hamdan, 2010; Thakor, 2020). Generally, every activity of everyday life is somehow associated with technology in this modern age of digitization. Similarly, banking operations are going through similar phase. To succeed in these changing circumstances, banks must enhance their technological soundness (Siska, 2022). There exists competitive rivalry for market penetration between conventional and non-conventional banks argued by (Apriyanti, 2018). Consequently, for gaining competitive edge, banks must become technologically equipped enough to meet changing customers' needs through development of innovative banking products and services.

Since, this study is conducted in Pakistani context where both banking systems are operating namely conventional and non-conventional banks. The whole Pakistani banking sector including Islamic and non-Islamic banks was taken as a population for the current study. Whereas, the selected sample of banks for this study consist of 4 Islamic banks namely Dubai Islamic Bank Limited, Bank Islami Pakistan Limited, Meezan Bank Limited and Al Baraka Bank Pakistan Limited while non-Islamic banks are taken as a whole except microfinance banks, whereas data was assembled for the past five years ranging from 2018- 2022. The current research evaluated the effect of innovative banking services on the financial performance of both conventional and non-conventional banks, where dependent variable was banks' financial performance while FinTech acted as an independent variable.

Problem Statement

Earlier researches (El Chaarani & El Abiad, 2018; Ky et al., 2019) examined FinTech services by means of a single parameter, like ATMs, investment in computer software, mobile banking and Internet banking. Ky et al. (2019) measured the FinTech variables of 170 banks in East African Community from 2009 to 2015 by basing on the involvement of banks with mobile money via mobile network operators. The finding shows a strong positive relationship between FinTech and bank performance. The study is limited to only East African Community and is based on a single variable of mobile money. El Chaarani and El Abiad (2018) studied the effect of technological advancement, such as Internet banking, mobile banking, ATMs and investment in computer software on Lebanese banks performance from 2010 to 2017. The results showed positive association between FinTech and Lebanese banks performance. The study used a relatively small sample of 17 Lebanese banks and two variables for measuring banks performance including ROA and ROE.

Moreover, earlier research studies were more focused on the theoretical aspect while paid less consideration to the empirical aspect (Ali et al., 2019). Besides that, a recent research conducted in Pakistan which is focused on the variations in performance between conventional and non-conventional banks in the economic recession tenure ranging from 2020-2023 (Bhatti et al., 2023), while did not consider the function of FinTech on the fiscal performance of both banking systems. By considering this fact, the researcher found the potential gap to conduct study on the impact of financial technology on the financial performance of Pakistani banking sector.

This study is among the emerging studies to be conducted as an empirical FinTech based study on the fiscal performance of Pakistani banking sector. Hence, the current research aimed to contribute towards the gap in the empirical literature related to the potential impact of FinTech on the fiscal performance of conventional banks and their counterparts in the context of Pakistan. The present study also contributed to the existing literature by examining the variations between Islamic and non-Islamic banks with respect to the influence of FinTech services on the financial performance of both banking systems.

Literature Review

For the purpose of studying the effect of financial technology on banks' performance and competitiveness, Dwivedi et al. (2021) in United Arab Emirates polled 76 bankers (executives and professionals in the banking industry). According to Smart-PLS's results, FinTech improves banks' performance and competitiveness. In specifics, FinTech lowers the cost of financial transactions, boosts flexibility and profit, increases efficiency and fosters growth. Saksonova and Kuzmina Merlino (2017) found that FinTech solutions outperform traditional banking products in terms of ease, speed, safety and consumer satisfaction, based on data collected from 378 individuals in Latvia. FinTech development benefits both consumers and the financial industry by bringing advantages and opportunities. Al-Matari et al. (2022) looked into the effect of FinTech variables on the performance of 47 Saudi Arabian financial firms between 2014 and 2020 using the Global FinTech Adoption Index as a proxy. The research revealed that while financial technology has a positive significant impact on firms' financial performance.

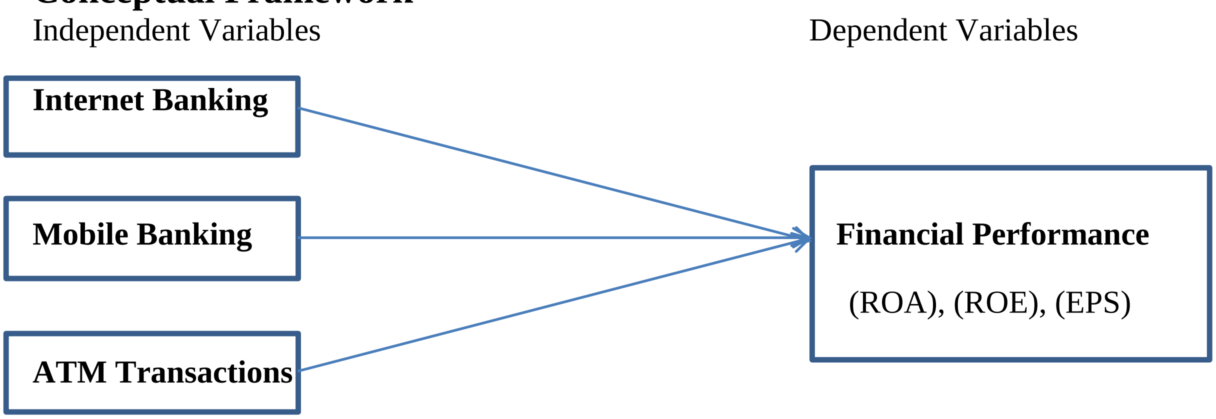
Ky et al. (2019) examined the influence of financial technology on banks' stability and profitability in the five East African Community member states (Tanzania, Uganda, Burundi, Rwanda, & Kenya). The World Bank, Global Financial Development index and Bureau Van Djik provided the dataset of 170 institutions from 2009 to 2015. The researchers revealed a positive correlation between banks' financial performance and FinTech. The effect of FinTech on the fiscal performance of Indian banking sector has been analyzed by Bansal (2014). Eight ratios were selected for assessment of performance of the banks while he had chosen about 10 factors to compute the index. For determining the association between performance of banks and FinTech, he separated the time period into pre and post-e-banking periods using a regression technique. According to his findings, the bank's efficiency increased significantly in post-e-banking tenure as compare to the tenure of pre-e-banking. A study conducted in 2017 by Taiwo and Agwu (2017) examined the impact of digital banking on the efficiency of Nigerian banks. They came to the conclusion that there is a strong association between electronic banking and financial performance of banks. In a developing economy, the effect of technology adoption on banks' performance was examined by (Dabwor, Ezie, & Anyatonwu, 2017). Nigeria has been selected as the representative country. They have come to the conclusion that Internet banking transactions have influenced the banks' operational performance significantly. Ali (2018) attempted to determine the connection between banks' financial performance and internet banking. The research was carried out in Kenya. ROA and ROE were selected as the fiscal performance indicators of banks. The author discovered that the availability of electronic banking positively influenced the fiscal performance of Kenyan banks.

Varma and Nijjer (2022) employed the volume of transactions conducted through mobile banking in India as a proxy for bank FinTech variables, examining the effect of these transactions on banks' efficiency. Bureau van Dijk provided data on 167 banks for the time span of 2011-2019. The outcomes showed an unfavorable effect of FinTech on banks' productivity. Olalere et al. (2021) examined how FinTech affected banks' performance in Nigeria and Malaysia. According to the estimation results of the two-step GMM technique, which were based on data from 26 banks between 2009 and 2019, FinTech has an insignificant impact on Nigerian banks performance while significant impact in Malaysia. Almulla and Aljughaiman (2021) held a research to analyze the FinTech's effect on banks profitability in the Gulf Cooperation nations (Bahrain, Saudi Arabia and the UAE) between 2014 and 2019, on the basis of data taken from 40 listed banks. The numerical results proved that banks profitability is negatively influenced by FinTech.

Theoretical Framework

The theoretical underpinning of this research is grounded on Consumer Theory and Technology Acceptance Model (TAM) Model. Consumer theory explains the behavior of people by stating that new innovative services which fulfill their needs are preferred by them over old fashioned services (Aaker & Keller, 1990). In addition to that, TAM Model was designed by Devis in 1989 which states that how various users adopt new technology. Moreover, users consider various factors before adopting new technology (Ajzen & Fishbeai, 1980; Fishben & Ajzen, 1975). TAM explains that two factors are mainly considered by users before adopting new technology which are perceived usefulness and perceived ease of use (Devis, 1989). The purpose of using TAM as a theoretical underpinning tool is having dual aspects. TAM can be a helpful tool to recognize how users embrace FinTech services, which as a result can influence performance of banks. FinTech services are evolving, offering innovative modes of availing banking services. TAM can be helpful for banks in recognizing the factors which can make their offerings appealing to consumers by using financial technology. FinTech services can enhance customer satisfaction by providing convenient access to banking services which is in line with TAM. TAM offers a platform for banks to design consumer centric services that can be convenient and user friendly for customers, which as a result can influence performance of banks.

Conceptual Framework



Hypotheses of the study

H1: FinTech has positive significant impact on the financial performance of Islamic banks.
H2: FinTech has positive significant impact on the financial performance of conventional banks.
H3: FinTech has more positive significant impact on the financial performance of Islamic banks as compare to conventional banks.

Research Methodology

Descriptive research design is used in this study. This particular research design entails finding out the; who, what, where, when and how much (Cooper & Schindler, 2000). The model is considered appropriate, because the basic goal of the current research is to ascertain how financial technology influence Pakistani banking sector's financial performance. The goal of a descriptive research design is to gather information and present results at a single point in time. Secondary data sources were used in the research model including annual reports of concerned banks and State Bank of Pakistan website. This study is based on positivist approach as per the nature of the study, where results are deducted from the available secondary data of both banking systems.

Primarily, the present research is undertaken in the perspective of Pakistani banking sector including both conventional and non-conventional banks. The population of the present study comprised of all the commercial banks of Pakistan excluding microfinance banks. While, the current study's sample consists of four Islamic banks and twenty conventional banks for a time span of 5 years from 2018-2022. From Islamic banks four banks are taken as a sample, because there were only four full fledge Islamic banks operating in Pakistan until the end of 2022. The study is limited to five years because it was started in the mid of 2023, at that time the data of 2023 was not available on SBP website for the year 2023.

The study involves dependent and independent variables. Dependent variable of the present study is the banks' fiscal performance which is measured with reference to profitability ratios namely, ROA, ROE and EPS, while the independent variable is financial technology (Fintech) which is measured in terms of transactions conducted through internet banking, mobile banking and ATM. A technique of Linear Model panel data regression was undertaken for deduction of empirical results based on the available secondary data of the concerned banks. Panel data regression technique is appropriate as per the nature of the study and same technique was used by previous similar studies including a study of (Sangita Dutta Gupta et al., 2018) conducted in India. Panel data assumptions were assessed for derivation of results. It was suggested that random or fixed model can be used for derivation of results from the available secondary panel data. For this purpose, Hausman test was used for selection of random or fixed regression model. Based on Hausman test results, the data was assessed on random model of regression through e-views software.

Data Analysis

This section presents the empirical outcomes generated based on the compiled data related to FinTech and performance of banks.

FinTech effect on overall Fiscal Performance of Pakistani Banks with respect to ROA:

Table 1: FinTech effect on overall Pakistani Banks Performance

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	1.105361	3	0.7758

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LMB	0.054285	0.171724	0.316120	0.7526
LIB	0.242837	0.212208	1.144336	0.2554
LATM	0.267192	0.228102	1.171369	0.2444
C	-6.730552	3.059517	-2.199874	0.0303

The empirical results show that banks' financial performance in terms of ROA are insignificantly influenced by FinTech as the overall value is 0.7758 which is superior from the value of significance level 0.005. Moreover, the individual results of mobile banking, internet banking and ATM transactions have insignificant impact on overall Pakistani banks financial performance with respect to ROA valuing at 0.7526, 0.2554 and 0.2444 respectively, which supersedes the value of significance level 0.005.

FinTech effect on Financial Performance of Conventional Banks with respect to ROA:

Table 2: FinTech effect on Conventional Banks Performance

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	1.030299	3	0.7939

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LMB	0.002353	0.003402	0.691635	0.4914
LATM	0.003227	0.002904	1.111249	0.2701
LIB	0.000943	0.002159	0.436881	0.6635
C	-0.078985	0.052738	-1.497690	0.1385

The empirical outcomes reflect insignificant impact of FinTech on financial performance of conventional banks in terms of ROA as the overall value is 0.7939 which supersedes the level of significance. Besides that, the individual results of mobile banking, internet banking and ATM transactions on conventional banks' performance in reference with ROA is also insignificant valuing at 0.4914, 0.6635 and 0.2701 respectively, which surpasses the level of significance.

FinTech Effect on Financial Performance of Islamic Banks with reference to ROA:

Table 3: FinTech effect on Islamic Banks Performance

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	1539.42972	3	0.0000

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LMB	0.003108	0.001092	2.846654	0.0059
LIB	-0.003538	0.001195	-2.961476	0.0043
LATM	0.004510	0.001224	3.683898	0.0005
C	-0.044998	0.015302	-2.940770	0.0046

The numerical findings reveal that financial performance of Islamic Banks are significantly influenced by FinTech with overall figure of 0.0000 which is lower than 0.005. In addition to that, the individual results of mobile banking, internet banking and ATM transactions have positive significant effect on Islamic banks financial performance with empirical findings of 0.005, 0.0043 and 0.0005 respectively, which are under the significance level of 0.005.

FinTech effect on overall Fiscal Performance of Pakistani Banks with respect to ROE:

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	1.423289	3	0.7001

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LMB	-5.068527	100.0147	-0.050678	0.9597
LIB	-117.1774	123.5930	-0.948091	0.3455
LATM	105.8329	132.8502	0.796633	0.4277
C	132.4350	1781.909	0.074322	0.9409

Table 4: FinTech effect on overall Pakistani Banks Performance

The numerical outcomes reveal insignificant effect of FinTech on overall Pakistani banks financial performance in terms of ROE valuing at 0.7001 which is greater from significance level of 0.005. Moreover, the individual results of mobile banking, internet banking and ATM transactions have also insignificant impact on overall banks' performance with respect to ROE valuing at 0.9597, 0.3455 and 0.4277 which exceeds the significance level of 0.005.

FinTech effect on Financial Performance of Conventional Banks with respect to ROE:

Table 5: FinTech effect on Conventional Banks Performance

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	557.312783	3	0.0000

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LMB	0.705913	0.440270	1.603362	0.1138
LIB	0.334801	0.481767	0.694943	0.4896
LATM	4.195004	0.493670	8.497592	0.0000
C	-61.40785	6.170014	-9.952627	0.0000

The numerical findings reflect that the impact of financial technology on the performance of conventional banks in reference with ROE is insignificant valuing at 0.6362 which supersedes the significance level of 0.005. Moreover, the individual results of mobile banking, internet banking and ATM transactions also revealed insignificant effect on conventional banks' financial performance with respect to ROE which is valued at 0.2860, 0.9510 and 0.3617.

FinTech effect on Financial Performance of Islamic Banks with reference to ROE:

Table 6: Impact of FinTech on Islamic Banks Performance

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	2155.00228	3	0.0000

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LMB	0.034875	0.003982	8.758326	0.0000
LIB	-0.036207	0.004357	-8.309561	0.0000
LATM	0.107167	0.004465	24.00220	0.0000
C	-1.206777	0.055803	-21.62564	0.0000

The numerical results disclosed that the impact of financial technology on fiscal performance of Islamic banks in reference with ROE is positively significant valuing at 0.0000 which falls under significance level of 0.005. Moreover, Islamic banks' financial performance is significantly influenced by mobile banking, ATM transactions and internet banking in terms of ROE which are all valued at 0.0000 falling under significance level of 0.005.

FinTech effect on overall Fiscal Performance of Pakistani Banks with respect to EPS

Table 7: Impact of FinTech on overall Pakistani Banks Performance

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	8.774866	3	0.0324

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LMB	2.230137	0.616874	3.615225	0.0005
LIB	-0.932338	0.520120	-1.792543	0.0762
LATM	2.276608	0.707645	3.217158	0.0018
C	-38.27886	9.154948	-4.181221	0.0001

The empirical findings reflect that the influence of mobile banking is significantly positive on overall Pakistani banking sector performance in reference with EPS valuing at 0.0005 which falls under significance level of 0.005. Similarly, transactions conducted through ATM have also positive significant impact on the overall Pakistani banks financial performance valuing at 0.0018. Conversely, internet banking insignificantly influenced the overall financial performance of Pakistani banks valuing at 0.0762.

FinTech effect on the Fiscal Performance of Conventional Banks with reference to EPS:

Table 8: Impact of FinTech on Conventional Banks Performance

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	9.619175	3	0.0221

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LMB	2.579220	0.595108	4.334038	0.0000
LIB	-1.008468	0.504707	-1.998128	0.0485
LATM	1.913990	0.703447	2.720874	0.0077
C	-37.11223	8.846464	-4.195148	0.0001

The empirical results reflect that the effect of mobile banking on the fiscal performance of Pakistani conventional banks is positively significant in terms of EPS which is valued at 0.00000, falls under significance level of 0.005. In addition to that, the findings of internet banking show insignificant effect on the financial performance of Pakistani conventional banks valuing at 0.0485 which supersedes the significance level. Moreover, the impact of ATM transactions is also insignificant on the performance of conventional banks as its value is 0.0077 which is nearly exceeding the significance level.

FinTech effect on the Fiscal Performance of Islamic Banks with reference to ROE:

Table 9: Impact of FinTech on Islamic Banks Performance

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	557.312783	3	0.0000

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LMB	0.705913	0.440270	1.603362	0.1138
LIB	0.334801	0.481767	0.694943	0.4896
LATM	4.195004	0.493670	8.497592	0.0000
C	-61.40785	6.170014	-9.952627	0.0000

The numerical findings show that FinTech has overall positive significant effect on Islamic banks fiscal performance of in terms of Earnings Per Share (EPS) valuing at 0.0000. Moreover, the results of mobile banking reflect insignificant impact on the financial performance of Islamic banks in respect with EPS valuing at 0.1138. Similarly, the effect of internet banking is also insignificant on the fiscal performance of Islamic banks with respect to EPS which is valued at 0.4896. Lastly, the results of ATM transactions reveal positive significant influence on the fiscal performance of Islamic banks in reference with EPS which is valued at 0.0000.

Comparison of Islamic and Conventional Banks

The principal motive of the present study was to analyze the impact of FinTech on the financial performance of Pakistani banking sector and to compare the effect of FinTech on both conventional and non-conventional banks performances. Based on the derived analysis, FinTech has insignificant impact on overall banks performance in reference with ROA and ROE, but in terms of ROE, mobile banking and ATM transactions have positive significant impact on overall banks performance while insignificant impact in terms of internet banking as proxies of FinTech. The results are based on the derived results presented in the tables.

Moreover, the derived results revealed that FinTech with respect to all the three selected proxies (ATM transactions, mobile banking and internet banking) insignificantly influenced the fiscal performance of conventional banks with respect to both ROA and ROE. While the empirical findings further revealed that FinTech with respect to all the three selected proxies (ATM transactions, mobile banking and internet banking) has positive significant impact on the fiscal performance of Islamic banks with reference to both ROA and ROE.

In addition to that, the numerical outcomes of FinTech have varying results concerning banks performance in reference with EPS. As in the case of conventional banks, the results of mobile banking are significant while internet banking and ATM transactions results are insignificant. In case of Islamic banks performance the results revealed significant impact in case of ATM transactions while insignificant impact in reference with mobile banking and internet banking.

Conclusion

The present study was primarily aimed to analyze the influence of financial technology on the financial performance of Islamic and conventional banks of Pakistan for tenure of five years comprising of 2018 to 2022. A sample of four Islamic banks and the whole conventional banks except microfinance banks was chosen for the present study. The analysis of the current study was based on the independent variable Fintech (Internet banking, Mobile banking and ATM transactions) and financial performance as dependent variable (ROA, ROE, & EPS) of both banking systems. The researcher collected quantitative data as per the quantifiable nature of the study from the yearly statements of the concerned banks and SBP website. Linear model of panel data regression was adopted for the derivation of empirical outcomes from the analysis of FinTech and banks' financial performance.

This study was directed by the incredible progress of FinTech services in Pakistan and rest of the world. In this research, the researcher examined the correlation between financial technology and banks' performance and how this correlation could variate between Islamic and non-Islamic banks.

The empirical findings of the current research resulted that financial technology has insignificant effect on the fiscal performance of Pakistani banking sector as a whole inclusive of Islamic and non-Islamic banks in reference with ROA and ROE. Moreover, in terms of individual performance, FinTech has positive significant influence on the financial performance of Islamic banks while insignificant influence on the financial performance of conventional banks with reference to both ROA and ROE. Furthermore, the empirical outcomes resulted that FinTech has positive significant influence on the fiscal performance of both banking systems with reference to EPS.

The outcomes of the current research are in line with the researches of (Almulla & Aljughaiman, 2021) and (Al-smadi, 2016). These studies also showed that financial technology has insignificant influence on the fiscal performance of Gulf Cooperation Countries and Jordanians banking sectors specifically with reference to ROA and ROE.

Limitations and Recommendations of the study

There is a general phenomenon that any research study has some limitations and with the passage of time updated studies fulfill those limitations. Same principle would be valid regarding this research. The present study was based on a short time period of five years (2018-2022) due to limited resources and time constraints. Moreover, in this study only regression was used for data assessment.

Future researches should examine whether there is a statistically significant variance in the performance of organizations that pursue FinTech services compared to those that do not, using a sample of banks that provide and do not provide FinTech services.

References

Aaker, D. A., & Keller, K. L. (1990). Consumer evaluations of brand extensions. *Journal of marketing*, *54*(1), 27-41.

Ali, A. A. (2018). *Impact of Online Banking on Financial Performance of Commercial Banks: A Case Study of Barclays Bank of Kenya* (Doctoral dissertation, United States International University-Africa).

Ali, H., Abdullah, R., & Zaini, M. Z. (2019). Fintech and its potential impact on Islamic banking and finance industry: A case study of Brunei Darussalam and Malaysia. *International Journal of Islamic Economics and Finance (IJIEF)*, *2*(1), 73-108.

Al-Matari, E. M., Mgammal, M. H., Alosaimi, M. H., Alruwaili, T. F., & Al-Bogami, S. (2022). Fintech, board of directors and corporate performance in Saudi Arabia financial sector: Empirical study. *Sustainability*, *14*(17), 10750.

Almulla, D., & Aljughaiman, A. A. (2021). Does financial technology matter? Evidence from an alternative banking system. *Cogent Economics & Finance*, *9*(1), 1934978.

Apriyanti, H. W. (2018). Model Inovasi Produk Perbankan Syariah di Indonesia. *Economica: Jurnal Ekonomi Islam*, *9*(1), 83-104.

Bansal, S. (2015). The Impact of technology on the performance of Indian banking industry: an empirical study. *Macro Research Project, Indian Institute of Banking*.

Bhatti, A. A., Raza, A., Devi, A., Jamali, M. A., & Khokhar, M. (2023). Financial Technology and Performance of Islamic Vs. Traditional Banks in Pakistan: By Non-Parametric Data Envelopment Analysis (DEA). *Journal of Social Sciences Review*, *3*(2), 269-281.

Cooper, D. R., & Schindler, P. (2014). *Business research methods*. Mcgraw-hill.

Dabwor, T. D., Ezie, O., & Anyatonwu, P. (2017). Effect of ICT adoption on competitive performance of banks in an emerging economy, the Nigerian experience. *Journal of humanities and Social Science*, *22*(8), 81-89.

Dwivedi, P., Alabdooli, J. I., & Dwivedi, R. (2021). Role of FinTech adoption for competitiveness and performance of the bank: a study of banking industry in UAE. *International Journal of Global Business and Competitiveness*, *16*(2), 130-138.

El-Chaarani, H., & El-Abiad, Z. (2018). The impact of technological innovation on bank performance. *El-CHAARANI H. and El-Abiad*, (2018).

Feyen, E., Frost, J., Gambacorta, L., Natarajan, H., & Saal, M. (2021). Fintech and the digital transformation of financial services: implications for market structure and public policy. *BIS papers*.

Hassan, N., & Misrina, A. P. (2021). Impact of Fintech on Work From Home & Mobile Banking Operations: Evidence From Islamic Banking Sector During Covid-19 in Sri Lanka. *International Journal of Business, Technology and Organizational Behavior (IJBTOB)*, *1*(6), 433-446.

Jalal-Karim, A., & Hamdan, A. M. (2010). The impact of information technology on improving banking performance matrix: Jordanian banks as case study. In *European mediterranean and middle eastern conference on information system* (pp. 21-33).

Ky, S. S., Rugemintwari, C., & Sauviat, A. (2019). Is fintech good for bank performance? The case of mobile money in the East African Community. *The Case of Mobile Money in the East African Community (June 5, 2019)*.

Medyawati, H., Yunanto, M., & Hegarini, E. (2021). Financial technology as determinants of bank profitability. *Journal of Economics, Finance and Accounting Studies*, *3*(2), 91-100.

Milic-Czerniak, R. (2019). Rola fintechów w rozwoju innowacji finansowych. Studia BAS, (1), 37-60.

Monika, A., Azam, A. N., & Teguh, S. I. (2021). The impact of Fintech development to profitability of Islamic bank. *International Journal of Research and Review*, *8*(1), 250-258.

Navaretti, G. B., Calzolari, G., Mansilla-Fernandez, J. M., & Pozzolo, A. F. (2018). Fintech and banking. Friends or foes?. *Friends or Foes*.

OLALERE, O. E., KES, M. S., ISLAM, M. A., & RAHMAN, S. (2021). The effect of financial innovation and bank competition on firm value: A comparative study of Malaysian and Nigerian banks. *The Journal of Asian Finance, Economics and Business*, *8*(6), 245-253.

Rupeika-Apoga, R., & Thalassinos, E. I. (2020). Ideas for a regulatory definition of FinTech.

Saksonova, S., & Kuzmina-Merlino, I. (2017). Fintech as financial innovation–The possibilities and problems of implementation.

Schueffel, P. (2016). Taming the beast: A scientific definition of fintech. *Journal of Innovation Management*, *4*(4), 32-54.

Siska, E. (2022). Financial Technology (FinTech) and its impact on financial performance of Islamic banking. *ARBITRASE: Journal of Economics and Accounting*, *2*(3), 102-108.

Thakor, A. V. (2020). Fintech and banking: What do we know?. *Journal of financial intermediation*, *41*, 100833.

Varma, P., & Nijjer, S. (2022). Examining the role of fintech in the future of retail banking. *ECS Transactions*, *107*(1), 9855.