

# Role of Financial Innovation in Enhancing the Meezan Bank's Market Share: Evaluating the Perception of Regional versus Branch Level Employees

## Maryam Qureshi<sup>1</sup>, Saima Hassan Ikram<sup>2</sup>, Usman Bashir<sup>3</sup>

#### Abstract

In Pakistan very few researchers have focused on targeting the element of financial innovation within the sector of Islamic banking, despite of its ongoing growth. This study therefore aims to provide the perception based analysis about the effect of Financial innovative/Fintech tools on the market share of Meezan Bank in Pakistan. The present study report the results from the questionnaire survey distributed to the 52 branch as well as regional employees of Meezan Bank in Pakistan. The analysis of survey findingsthrough multivariate regression suggest that financial innovation is positively related to the market share of Meezan bank. On the basis of Step wise regression it is suggested that among the six elements of Fintech services (Mobile banking, internet banking, telephone banking, Automated teller machines (ATMs), Point of Sale terminals (POS), and Artificial Intelligence (AI) only ATM and POS are the most significant variables. Moreover, regional employees are significantly optimistic about the influence of Fintech on the market share of the selected bank.

Keywords: Financial innovation, Fintech, market share, perception based analysis, Meezan bank, and AI

## 1. Introduction

Digitalization of the financial sector particularly in the banking sector is based on the nature of practices that are backed by financial innovation for enhancing the requirements of facilitation by the customers (Omoge et al., 2022). Moreover, recent technological innovations and the emergence of big data have increased the usage of artificial intelligence (AI) worldwide in every sector. Financial Sector (FS) which is comprised of Financial Markets (FM) and institutions have greater influence of AI. AI has revolutionized the Financial Services Industry, by creating new financial services such as intelligent consultancy, efficient customer service, monitoring and warning, and smart lending (Ali & Sajid, 2020; Arshi, 2022). Currently, the significant finance based AI applications are in risk management, algorithm trading and process automation (Saqib et al., 2021). Research is in accelerated pace in this area among the scholars of many developed nations and as a result of it they are reaping several benefits. Pakistan is one of those developing states in which the discipline of AI is still under process (Hassan et al., 2020), (Khan et al., 2021), (Rabbani et al., 2022).

According to Rizvi, innovative financial technology leads to the platform where consumer can take benefit from advanced financial services, models and financial transactions which ultimately enhance the market share of the FS by increasing their operational efficiency (Rizvi, 2018). Market share of any business entity is represented by its percentage of total income in the overall sector/industry (Hussain M.K et al., 2022). Firms can reach to unprecedented levels of profitability through enhancingtheir market share (Akhisar et al., 2015). There are several tactics for achieving the superior market share. Company can offer innovative services to clients, attract smart workers, and grab a sustainable competitive advantage for increasing market share (Goyal et al., 2016). Companies having a first mover advantage in offering new products can also increase their market share as clients of their competitors will switch towards them because of the unavailability of the new product elsewhere (Nisar, 2017). As a result of it, the majority of the customers will have a long lasting relationship with the firm and simultaneously firm will have a supernormal market share as the share of competitors due to switchover diminishes (Nazaritehrani and Mashali, 2020). As AI is the usage of advanced technological solutions for addressing the circumstances of ambiguity and uncertainty. So its major implication is in the domain of risk management because often risk factors are characterized by data variety and uncertainty (Zigiene et al., 2019).

Banking industry has a significant potential for incorporating Fintech (internet, mobile, telephone, over the counter services and ATM banking) and AI in order to expand their target market (Ahamed and Mallick, 2019). Financial innovation not only accelerate profitability for the industry but also offers cost efficiencies as well (Khalifaturoi'fah, 2021; Yang, 2021; Zouari-Hadiji, 2021). Banking industry in Pakistan is continuously facing the challenges of adopting modern tools and technologies for transforming their practices and systems for meeting the varying demands of the market.

As an Islamic state FS of Pakistan is represented by two sub sections: Conventional and Islamic Banks. According to the recent article published in Dawn newspaper on November 20 2023, the Federal Shariat Court (FSC) ruling in April 2022, demands elimination of interest from the overall economy by the end of 2027<sup>4</sup>. The FSC has further ruled that future financial dealings in Pakistan either domestic or international should be Shariah compliant like through the issuance of Sukuk. Islamic Financial Institutions (IFIs) are also facing the similar challenges from continuously upgradation in technological advancements. To survive in this era they should become technologically literate (Siska, 2022). Islamic Banking is currently bearing significant risk of losing market share due to severe competition from other IFIs and Conventional Banks as well (Apriyanti, 2018). Thus, Islamic Banks should be capable of responding to latest trends (Financial innovation through Fintech, AI etc.) for their survivaland sustainability in the FS.

Artificial Intelligence has a major contribution in digitalizing and transforming the modern day businesses. The present research adds to the current literature by being the pioneerwork to "Examine the role of AI in enhancing or upgrading the financial innovation process in the Islamic Bank: Evaluation of the perception of regional versus branch level employees". There should be continuous research in these areas to gain proper understanding and extend their application to the diversified areas. The past

<sup>&</sup>lt;sup>1</sup> Lecturer, SZABIST University, Permanent Faculty in the Department of Management Sciences, Hyderabad, Pakistan, <u>maryam.qureshi@hyd.szabist.edu.pk</u>

<sup>&</sup>lt;sup>2</sup> Assistant Director Academics, National University of Modern Languages (NUML), Hyderabad, Pakistan, saima.hassan@numl.edu.pk

<sup>&</sup>lt;sup>3</sup> Minhaj University Lahore, Pakistan, <u>usman.crd@mul.edu.pk</u>

<sup>&</sup>lt;sup>4</sup> Corporate Window: Conversion towards Islamic Finance, Article in Dawn Newspaper, 20 November 2023.

literature suggests that no research has been conducted in identifying the influence of AI as a component of financial advancement and modernization and its influence on Islamic banks. The motivation to pursue this area of research stems from the current progress of AI across the world and the study of (Rabbani et al., 2022) in which it was suggested that future researchers should study the impact of AI along with other channels of financial innovation on the market share of Conventional as well as Islamic Banks.

# 1.1. Objectives of Study

- To define the explicit impact of technologically advanced financial tools on the customer base of Meezan bank in Pakistan.
- To investigate how artificial intelligence has impacted Meezan Bank's target market in Pakistan.
- To identify the significant financial innovative tool in terms of its influence on increasing the customer base among the group of six financial innovative processes.
- To understand and evaluate the perception of regional versus branch level employees regarding the impact of technologically efficient financial tools on Meezan Bank's market share.

# 1.2. Research Question

RQ.1. How does the usage of Fintech such as; mobile phone banking (MB), internet banking (IB), telephone banking (TB), ATMs, and POS terminals impact the market share of Meezan Bank?

RQ.2. Does AI affects the market share of Meezan Bank?

RQ.3.Which one is the substantial financial innovative technique in consideration of increasing the customer base of the bank?

# 1.3. Hypothesis

H1 Financial innovation in terms of MB, IB, TB, ATM, POS, and AI has a substantial influence on the target market of Meezan bank.

H2 Regional employees are optimistic regarding the effect of Fintech on the customer base of Meezan bank.

# 2. Literature Review

The continuous popularity of financial innovation in terms of mobile banking, telephone banking, internet baking, ATM, POS and AI gained acceptance and interest among the research scholars, many research efforts are directed towards the explanation of these phenomena in order to implement them efficiently. Risk at one extreme is one of those factors that can easily erode the competitive advantage of any business (Zigiene et al., 2019). In FS the significant risk factor is financial risk which along with operational and liquidity risk leads to the huge capital losses (Hussain S et al., 2022). The accelerated growth of Fintech is stimulating the advancement of AI and machine learning in financial field and lead to cost reduction, efficient risk management, improved quality of service and increased profit or market share.

Banking industry has changed in a dynamic way and move towards the emerging trends of Fintech and AI for delighting their customers (Rashmi R et al., 2021). One of the study regarding the effect of Fintech on Islamic banking's financial performance employed quantitative-descriptive research design and secondary data suggested that Fintech service has an impact on the performance of Bank Syariah Indonesia in terms of capital adequacy ratio, return on assets (ROA), return on equity (ROE), operating expenses to operating income and financing to deposit ratio (Siska, 2022).

Currently, technological innovative companies are the ones which are continuously flourishing. The study of "the impact of Fintech startups on incumbent retail banks' share prices" indicates that a growth in the funding of Fintech lead towards significantly peaked stock returns. This study used secondary data from the venture finance-data firm CB Insights (Li et al., 2017). Deng et al., (2021) used benchmark regression model for analyzing the municipal digital financial inclusion index compiled by Peking University and the annual report data of 155 small and medium-sized banks from 2011 to 2016 and recommended that Fintech has drastically reduced bank's level of risk taking.

Mobile Banking is a term which encompasses conducting banking transactions via cellular phones (Anyasi and Otubu, 2009). It presents an opportunity to extend the coverage of financial services to new consumers which ultimately results in enhancing their market share (Lee and Kim, 2007). Mutua (2012) studied the "impact of mobile banking on the commercial banks in Kenya" using a descriptive research design. The study targeted six mobile service providers offering connections to 43 commercial banks operating in Kenya and relied on secondary data. The findings suggested a positive relationship between mobile banking and the financial indicators of commercial banks in Kenya but the extent of this relationship was mild. However, this study contributed towards the formulation of banking policies which can enhance the awareness of mobile banking among the users for reaping its benefits in a most appropriate manner.

Internet banking as another tool of financial innovation and intermediation has gained popularity in the last decades. Stoica et al. (2015) conducted study on "the impact of internet banking on the performance of Romanian banks" using Data Envelopment Analysis (DEA) and Principal Component Analysis (PCA). The results suggested by this paper are that the banking sector in Romania was characterized by the two business strategies "Cost oriented" and "Internet banking oriented" and only few banks are efficiently using internet banking for maximizing their market share. However, rests of the banks are using the hybrid approaches and it also offers several policy recommendations.

Another study focused on "the impact of E-banking innovations on Banks' deposit market share in Iran" using Panel Data Vector Autoregressive methods (Panel-VAR) and Granger causality test. According to the results of Granger Causality Test, the increase in bank's deposits can be attributed to the number of banking facilities provided. However, in the case of market share, financial innovation was found to be the cause. (Kashmari et al., 2016).

Nazaritehrani and Mashali (2020) also conducted research on "the development of E-banking channels and market share in the developing countries" in which primary data was collected through survey questionnaire. The model of linear regression was used to assess the impact of innovative channels including internet banking, automated teller machines (ATM), mobile banking,

telephone banking (TB) and point of sale (POS) on bank's market share. Results suggested that internet banking, POS and TB positively affect a bank's market share. However, the impact of mobile banking and ATM was rejected.

"The only thing useful banks have invented in 20 years is the ATM" (P. Volcker, 2009). Gyabaah et al., (2015) researched the influence of ATM in delivering service: a case study of GCB Bank Ltd. The 272 respondents including customers and staff members of GCB Bank Ltd were selected using a purposive sampling technique and descriptive research design was used. The study generated both quantitative and qualitative data like people's experiences, their feelings and aspirations. The frequency counts, sample mean and variance was calculated and analyzed through SPSS software. Findings suggest that clients are conscious about security issues related to the usage of ATM like its location etc. but they tend to use it when needed so banks must make ATM available to its customers at all times if they want to increase their customer base.

In one study customer satisfaction was measured in terms of services, assurance and efficiency offered through electronic banking services by Salihu and Metin (2017) in which primary data was collected through a questionnaire distributed to 52 respondents. Correlation and regression analysis was performed in which the answers specified that service and reliability have positive effect and strong correlation with customer satisfaction, while efficiency's effect is negative and it has a weak correlation with satisfaction.

The rapid rate of technological advancements in the financial industry has opened up doors for the field of artificial intelligence (AI). In the recent years it has gained access to almost every domain or industry which signifies its superiority over human intelligence (Gallego-Gomez and De-Pablos-Heredero, 2020). The banking industry relies heavily on human labor for the accomplishment of their services so the execution of AI practices in this industry has been initiating gradually.

One of the studies highlighted the role of AI in FS and particularly in FM as it brings massive revolution to the entire industry through a series of innovative financial services like intelligent consultancy, smart lending, monitoring and warning, and effective customer service (Naim, 2022).

Ali et al., (2022) evaluated the performance of AI in promoting the efficiency of Jordanian banking industry. They focused on primary data collected from the employees and customers of Jordanian banking system. The productive results of AI implementation were gauged by considering four key areas: mobile banking, data collection, transaction data enhancement and chatbots. Furthermore, this study also focused on assessing the efficiency of the selected banks in terms of cost reduction, risk management, consumer convenience and enhancement of their trust as well. From the perspective of the end user the study revealed that the shift from conventional banking procedures to AI based banking services contribute in creating ease and enhancing their confidence towards banking system. However, the bank is also having the benefit of cost reduction, and effective risk management with the implementation of AI based systems.

Rabbani et al., 2023 investigated "the moderating role of AI in the association between a bank's innovative financial process and the bank's market share". The authors conducted analysis of primary data gathered from the survey questionnaire distributed to the employees of top most innovative bank of Pakistan through SPSS and Smart PLS software. The analysis wascarried out through structural equation modeling estimation techniques such as the measurement model, discriminant validity, convergent validity and outer loading etc. The research summarized that an innovative financial process has a material impact on the market share of the banks. However, AI could not accelerate this relationship. This study also suggested that the awareness of AI should be increased among the staff and customers of the banks.

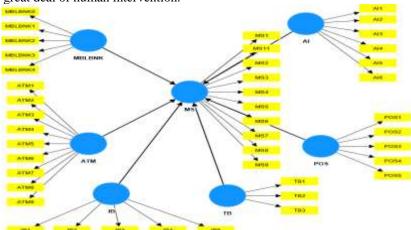
The existing literature suggested that Fintech and AI are crucial for the success of any sector and only one study has been performed on linking these two aspects with the financial efficiency of the banking sector in Pakistan. Moreover, no research has been done on the Islamic banks in terms of the usage of Fintech as well asinvestigating the role of AI. The present study serves this multidimensional purpose in a single study.

# 2.1. Theoretical Framework

The continuous shift towards modern day technologies is affecting the key dynamics of every industry; one might predict a drastic transformation in the banking industry. Sustainable finance is a subset of traditional finance and investment which focuses on the sustainable development through efficient usage of natural resources; reduction in land, water and air pollution; reduction in greenhouse gas emissions and the implementation of environmental friendly banking policies through the phenomena of green banking. Green banking is one which is focusing on financial innovation through the usage of Fintech services (Electronic banking, ATMs, POS, and AI). Market share is a major variable for the profit assessment of any organization and it can be improved by reducing the cost and raising the product/service quality standards. Financial organizations can gain sustainable competitive advantages through the usage/implementation of highly innovative technologies that can raise their service standards and ultimately leads them towards highest market share. Prior studies have regarded financially innovative tactics as a means of bank's growth and most of them are pertaining to developed countries. Chen and Puttitanan (2005) declared that the implementation of financial innovative tools and bank's share in the market.

- **i. Mobile Banking:** Mobile banking is method of rendering financial services through mobile technology (Pousttchi and Schurig, 2004). Initially, it was limited to just giving updated information about the details regarding the customer's account balances and their financial transactions through short message service (SMS). Later on banks used this platform for offering diversified services through wireless application protocol (WAP), SMS, and mobile applications. Mobile banking has many benefits like it is enhancing convenience of the customers as they can access it wherever they want and the target market will also increase.
- **ii. Internet Banking:** Individuals can use electronic payment for performing their transactions on the website of the bank. Internet banking is one form of financial innovation through which clients can access their accounts 24/7 and they don't have to go to traditional branches. Online banking or internet banking is one of the strategies of Green banking which is cost efficient to the bank as well. Cui and Xu (2022) claimed that it is secured, easily approachable by the clients. Pakistan has been using it for over a decade; and it is expanding their business.

- **iii. Telephone Banking:** is the completion of financial transaction which is performed by the customers without following the conventional procedure of physical setting in which a visit to bank's branch and either the disbursement of physical cash or the issuance of financial instrument was involved. Due to on the spot clearance of their financial payments it is gaining popularity and having strong influence on the bank's customers. After COVID-19 this e- banking channel has reached towards a new level of success.
- **iv.** Automated Teller Machine (ATM): Another form of financial service which is accessible through electronic outlet and without going to the bank's branches is an ATM. ATMs can be used for cash withdrawal, balance inquiry, funds transfer, and cash deposits as well. Le and Ngo (2020) identified that the bank's share enhances with the increase in the volume of ATMs as the customer's reach of the banks increases. According to Kamboh and Leghari (2016) ATMs are negatively impacting the business of the banks due to non-familiarity of cash less transactions. Most of the researchers assured a positive relationship between ATMs and bank's market share.
- v. Point of Sale Terminals (POS): POS is a portable device in the retail outlets for clearance of the payments of goods and services. In the context of banking, POS is favorably related to banking deposits in Kenya (Mukira et al., 2022). Kamboh and Leghari (2016); Le and Ngo (2020) also concluded that usage of POS is directly proportional to the profitability and the banking deposits in most of the countries.
- vi. Artificial Intelligence: AI is affecting the bank's market in terms of enhancing global productivity, environmental outcomes and many more. AI has a strong role in achieving the sustainable development goals (SDGs). AI is promoting social resilience through the implementation of technologies adapted to the varying cultural norms and values. AI is based on advanced technological solutions that are resolving the issues of uncertainty. AI has played its role in mitigating the credit risk of the banks as well. Day by day customers are moving towards branchless banking so they want banks to give them seamless experience. AI is a device of cost saving as most of the repetitive tasks can be performed through robotic automation which in turn results in enhanced concentration of knowledge among workers towards value added services requiring great deal of human intervention.



Source: The author has developed a Conceptual Framework. Inspiration is taken from Rabbani et al. (2023).

#### 3. Methodology

## 3.1. Research Model

Based on the existing research we have created the following model:

$$MS = \beta_0 + \beta_1 MB + \beta_2 IB + \beta_3 ATM + \beta_4 TB + \beta_5 POS + \beta_6 AI + \epsilon$$
  
Where MS – Market share DV:

Where MS = Market share DV;  $\beta_0$  = constant;  $\beta_1, \beta_2, \beta_3$  = beta coefficients of IVs; MB = Mobile banking; IB = Internet banking; ATM = Automated teller machines; TB = Telephone banking; POS = Point of sale terminals; AI = Artificial intelligence;  $\epsilon$  = Error term

#### **3.2.** Data Collection

Pakistan's financial sector is considered as a back bone of money center banks so its discussion as a target population is paramount for the economic growth of any state. Moreover, the sustainability of this sector particularly banking industry being its major component is fundamental to study since it can contribute significantly in navigating Pakistan on the path towards sustainable development. Currently, in the era of sustainable development every industry is playing its role by balancing their urge of being financially dominant with the responsible attitude towards society and environment. Every business is looking for economically efficient ways of earning returns as day by day world is suffering from the crises of the depletion of natural and man-made resources. The present study examines the link between financial innovation and the customer's shareof the banking industry of Pakistan. Further, the sampling frame for this research targeted three banks from the top five innovative banks of Pakistan which includes Habib Bank Limited (HBL), Meezan Bank, Muslim Commercial Bank (MCB). The regional office and branch of every bank was targeted for the evaluation of difference in their perception regarding the influence of Fintech on the target market of the bank and the purposeful sampling technique was used. However, only Meezan bank actively contributed in this study as a respondent. The respondents were employees from large and highly innovative banks including men and women with 1 year and above experience. These banks include regional and branch office from two major cities of Sindh Province in Pakistan including Karachi and Hyderabad.

# **3.3.** Measurement Development

In this study, the items used in the survey were adopted from the existing research to fit the context of the role of financial innovation in raising the customer base. The outcome variable of the study was market share and it was measured by considering 11-item statements adopted from the study of Nazaritehrani and Mashali (2020). The financially technological processes were used as an explanatory variable in the form of internet banking (5 items), mobile banking (5 items), telephone banking (3 items), ATM facility (9 items) and point of sale terminals (5 items), and they were adopted from the study of Raza et al. (2017); Nazaritehrani and Mashali (2020). Finally, one variable of financial innovation that is AI was adopted from the study of Ali et al. (2022) consisting of 6 item statements. All the items on the questionnaire were ranked on five point Likert scale ranging from strongly disagree to strongly agree.

## **3.4.** Methods of Estimations

We applied multivariate and step-wise regression model to analyze and interpret the sample data collected from the employees of the bank. SPSS was used for analyzing the results.

## 4. Results and Analysis

The current research is based on primary data which is collected through purposeful sampling and the target organization is Meezan Bank. All the items were scaled on a five point Likert type of scale measure. The total numbers of more than 80 questionnaires were distributed while approximately 52 respondents actively filled out the forms. The analysis was performed through SPSS using Multivariate and Step-wise regression for evaluating the hypothesis of the study.

## 4.1. Demographic Profile of Respondents:

Table 1, 2, and 3 are the frequency tables reporting the demographic details of the respondents in the form of gender, qualification and level of management.

|         |               | Frequency             | Percent             | Valid C<br>Percent | ummulative Percent     |
|---------|---------------|-----------------------|---------------------|--------------------|------------------------|
|         | Male          | 35                    | 53.8                | 67.3               | 67.3                   |
| Valid   | Female        | 17                    | 26.2                | 32.7               | 100.0                  |
|         | Total         | 52                    | 80.0                | 100.0              |                        |
| Missing | System        | 13                    | 20.0                |                    |                        |
| Total   | •             | 65                    | 100.0               |                    |                        |
|         | Т             | able 2: Frequency tab | ole of Level of Ma  | nagement           |                        |
|         |               | Frequency             | Percent             | Valid Percent      | Cumulative Percent     |
|         | Branch Level  | 23                    | 35.4                | 44.2               | 44.2                   |
| Valid   | Region Level  | 29                    | 44.6                | 55.8               | 100.0                  |
|         | Total         | 52                    | 80.0                | 100.0              |                        |
| Missing | System        | 13                    | 20.0                |                    |                        |
| Total   |               | 65                    | 100.0               |                    |                        |
|         |               | Table 3: Frequency    | y table of Qualific | cation             |                        |
|         |               | Frequency             | Percent             | Valid Perce        | ent Cumulative Percent |
|         | Graduate      | 23                    | 35.4                | 44.2               | 44.2                   |
| Valid   | Post Graduate | 29                    | 44.6                | 55.8               | 100.0                  |
|         | Total         | 52                    | 80.0                | 100.0              |                        |
| Missing | System        | 13                    | 20.0                |                    |                        |
| Total   | 2             | 65                    | 100.0               |                    |                        |

The first demographic indicator such as gender represents that among total number of 52 respondents 35 (67.3%) are male and 17 (32.7%) are female respondents. As the study was targeted towards the Meezan Bank being the part of the list of top most innovative banks of Pakistan so the data was collected from the branch as well as the regional employees in order to evaluate their perceptions regarding the influence of Financial innovation on the market share of the bank. In this regard, the second demographic variable was the level of management which suggest that 29 (55.8%) were the regional employees and 23 (44.2%) were branch level employees. Finally, the qualification indicator suggests that 35.4% were graduates and 44.6% were post-graduates.

| Table 4: Descriptive Statistics |    |         |         |      |                |  |  |  |
|---------------------------------|----|---------|---------|------|----------------|--|--|--|
|                                 | Ν  | Minimum | Maximum | Mean | Std. Deviation |  |  |  |
| Gender                          | 52 | 1       | 2       | 1.33 | .474           |  |  |  |
| Qualification                   | 52 | 1       | 2       | 1.56 | .502           |  |  |  |
| Level of Management             | 52 | 1       | 2       | 1.56 | .502           |  |  |  |
| Valid N (listwise)              | 52 |         |         |      |                |  |  |  |

## 4.2. Multivariate Regression Model:

Table 5-8 indicates the results of the regression model. The study adopted a multivariate regression model as criterion variable is studied through multiple explanatory variables. Financial innovative techniques like mobile banking, over the counter services, internet banking, telephone banking, point of sale terminals and artificial intelligence tools in terms of chat bots were the independent variables (IVs) and market share in terms of customer base was the dependent variable (DV).

|            |                   | Tabl                    | e 5: Variables en | tered/removed <sup>a</sup> |             |       |          |                  |
|------------|-------------------|-------------------------|-------------------|----------------------------|-------------|-------|----------|------------------|
| Model      |                   | Variables Enter         |                   | Variables Remov            | ved         |       | Method   |                  |
|            |                   |                         | , POStotal, MBLto | tal,                       |             |       |          |                  |
|            | 1                 | TBtotal, ATMt           | otal <sup>b</sup> |                            |             |       | Enter    |                  |
| a) DV =    | MStotal           |                         |                   |                            |             |       |          |                  |
| b) All va  | ariables are e    | entered                 |                   |                            |             |       |          |                  |
|            |                   |                         | Table 6: Model    | Summary <sup>b</sup>       |             |       |          |                  |
| Model      | R                 | R Square                | Adjusted R Square | Std. Error of t            | he Estimate | Durbi | n Watson |                  |
| 1          | .697 <sup>a</sup> | .486                    | .418              | 3.76148                    |             | 1.413 |          |                  |
| ,          | ·                 | ant), AItotal, IBtotal, | POStotal, MBLtota | al, TBtotal, ATMtotal      |             |       |          |                  |
| b) DV: N   | MStotal           |                         |                   |                            |             |       |          |                  |
|            |                   |                         | Table 7: A        | nova <sup>a</sup>          |             |       |          |                  |
| Model      |                   | Sum of Squares          | s df              | Mean Square                | F           | I     | Sig      |                  |
| Regressio  | n                 | 602.133                 | 6                 | 100.356                    | 7           | .093  |          | 000 <sup>b</sup> |
| 1 Residual |                   | 636.693                 | 45                | 14.149                     |             |       |          |                  |
| Total      |                   | 1238.827                | 51                |                            |             |       |          |                  |
| a) DV: N   | MStotal           |                         |                   |                            |             |       |          |                  |
| b) Predie  | ctors: (Const     | ant), Altotal, IBtotal, | POStotal, MBLtota | al, TBtotal, ATMtotal      |             |       |          |                  |
|            |                   |                         | Table 8: Coef     | ficients <sup>a</sup>      |             |       |          |                  |
| Model      | Unsta             | ndardized Coefficient   |                   | Standardized Coeffici      | ents        |       | t        | Sig.             |
|            |                   | В                       | Std. Error        | Beta                       |             |       | -        | ~-8              |
| (Constant) |                   | 25.045                  | 5.125             |                            |             |       | 4.887    | .000             |
| MBL total  |                   | .098                    | .232              |                            | .0          | 66    | .425     | .673             |
| ATMtotal   |                   | .288                    | .290              |                            | .3          | 15    | .994     | .326             |
| 1 IBtotal  |                   | 082                     | .350              |                            | 04          | 47    | 235      | .816             |
| TBtotal    |                   | .514                    | .376              |                            | .23         | 86    | 1.368    | .178             |
| POStotal   |                   | .357                    | .180              |                            | .20         | 69    | 1.987    | .053             |
| AItotal    |                   | 187                     | .177              |                            | 10          | 54    | -1.060   | .295             |
| a) DV =    | MStotal           |                         |                   |                            |             |       |          |                  |

The results of model summary indicate that financial innovative tools explain the market share of Meezan Bank up to 48.6% and the model is statistically significant as suggested by the p-value which is less than 0.05. All the IVs have positive beta coefficients except internet banking (IB) and artificial intelligence (AI). This finding accepts the first hypothesis.

#### 4.3. Step-wise Regression

| Table 9: Variables Entered/Removed <sup>a</sup> |                             |                   |   |  |  |  |  |  |
|---|-----------------------------|-------------------|---|--|--|--|--|--|
| Model   | Variables Entered           | Variables Removed | Method  |  |  |  |  |  |
| 1   | ATMtotal                    |                   | Stepwise (Criteria: Probability-of-F-to-enter |  |  |  |  |  |
|   |                             |                   | <=.050, Probability-of-F-to-remove>=.100).    |  |  |  |  |  |
| 2   | POStotal                    |                   | Stepwise (Criteria: Probability-of-F-to-enter |  |  |  |  |  |
|   |                             |                   | <=.050, Probability-of-F-to-remove>=.100).    |  |  |  |  |  |
|   | $\lambda (0) \rightarrow 1$ |                   |   |  |  |  |  |  |

a) DV = MStotal

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|       |                   |          | Т          | Table 10: Mo       | del Summar         | У        |     |     |                  |
|-------|-------------------|----------|------------|--------------------|--------------------|----------|-----|-----|------------------|
| Model | R                 | R Square | Adjusted R | Std. Error         | Change Statistics  |          |     |     |                  |
|       |                   |          | Square     | of the<br>Estimate | R Square<br>Change | F Change | df1 | df2 | Sig. F<br>Change |
| 1     | .627 <sup>a</sup> | .393     | .381       | 3.87776            | .393               | 32.385   | 1   | 50  | .000             |
| 2     | $.671^{b}$        | .450     | .428       | 3.72862            | .057               | 5.080    | 1   | 49  | .029             |

a. Predictors: (Constant), ATMtotal

b. Predictors: (Constant), ATMtotal, POStotal

|   | Table 11: Anova <sup>a</sup> |                |    |             |        |                   |  |  |  |  |  |
|---|------------------------------|----------------|----|-------------|--------|-------------------|--|--|--|--|--|
| M | odel                         | Sum of Squares | df | Mean Square | F      | Sig.              |  |  |  |  |  |
|   | Regression                   | 486.976        | 1  | 486.976     | 32.385 | .000 <sup>b</sup> |  |  |  |  |  |
| 1 | Residual                     | 751.851        | 50 | 15.037      |        |                   |  |  |  |  |  |
|   | Total                        | 1238.827       | 51 |             |        |                   |  |  |  |  |  |
|   | Regression                   | 557.600        | 2  | 278.800     | 20.054 | .000 <sup>c</sup> |  |  |  |  |  |
| 2 | Residual                     | 681.227        | 49 | 13.903      |        |                   |  |  |  |  |  |
|   | Total                        | 1238.827       | 51 |             |        |                   |  |  |  |  |  |

a) DV: MStotal

b) Predictors: (Constant), ATMtotal

c) Predictors: (Constant), ATMtotal, POStotal

| Table 12: Coefficients <sup>a</sup> |                             |            |                           |      |       |      |  |  |  |
|-------------------------------------|-----------------------------|------------|---------------------------|------|-------|------|--|--|--|
| Model                               | Unstandardized Coefficients |            | Standardized Coefficients |      |       |      |  |  |  |
|                                     | В                           | Std. Error | Beta                      |      |       |      |  |  |  |
| (Constant)                          | 23.933                      | 3.644      |                           |      | 6.568 | .000 |  |  |  |
| 1 ATMtotal                          | .573                        | .101       |                           | .627 | 5.691 | .000 |  |  |  |
| (Constant)                          | 21.608                      | 3.652      |                           |      | 5.916 | .000 |  |  |  |
| 2 ATMtotal                          | .414                        | .120       |                           | .453 | 3.456 | .001 |  |  |  |
| POStotal                            | .393                        | .174       |                           | .295 | 2.254 | .029 |  |  |  |

a. DV: MStotal

| Table 13: ExcludedVariables <sup>a</sup> |                   |        |      |                     |                         |  |  |  |  |
|--|-------------------|--------|------|---------------------|-------------------------|--|--|--|--|
| Model                                    | Beta ln           | t      | Sig. | Partial Correlation | Collinearity Statistics |  |  |  |  |
|  |                   |        |      |                     | Tolerance               |  |  |  |  |
| MBLtotal                                 | .056 <sup>b</sup> | .371   | .712 | .053                | .537                    |  |  |  |  |
| IBtotal                                  | .012 <sup>b</sup> | .063   | .950 | .009                | .353                    |  |  |  |  |
| 1 TBtotal                                | .331 <sup>b</sup> | 1.575  | .122 | .220                | .266                    |  |  |  |  |
| POStotal                                 | .295 <sup>b</sup> | 2.254  | .029 | .306                | .653                    |  |  |  |  |
| AItotal                                  | 134 <sup>b</sup>  | 976    | .334 | 138                 | .641                    |  |  |  |  |
| MBLtotal                                 | .007 <sup>c</sup> | .048   | .962 | .007                | .525                    |  |  |  |  |
| 2 IBtotal                                | .055 <sup>c</sup> | .305   | .762 | .044                | .349                    |  |  |  |  |
| TBtotal                                  | .291 <sup>c</sup> | 1.428  | .160 | .202                | .264                    |  |  |  |  |
| AItotal                                  | $140^{\circ}$     | -1.058 | .295 | 151                 | .641                    |  |  |  |  |

a) DV: MStotal

b) Predictors: (Constant), ATMtotal

c) Predictors: (Constant), ATMtotal, POStotal

Step-wise regression model is mostly used in psychological research in order to evaluate the order of importance of variables for selecting useful sets of variable. It is a variable selection procedure and consists of series of steps which are designed for selecting the most useful IVs for inclusion in the regression model. The variables are selected if they satisfy a set of criterion which is the highest t-value. The results suggested that among the set of six IVs only two are the most significant variables in terms of explaining DV. Table 12 indicates that the Step-wise regression created two models which are statistically significant. The first model selected the first best predictor variable which is ATM and the second model looked for the next best predictor variable so the results suggested that POS is the second best explanatory variable. Therefore, ATM is explaining the market share up to 39.3%; the result of the second model indicates that ATM and POS are explaining the market share of the bank up to 45%. Model 1: $MS = \beta_0 + \beta_1 ATM + \epsilon$ 

Model 2: 
$$MS = \beta_0 + \beta_1 ATM + \beta_2 POS + \epsilon$$

# 4.4. Regression with dummy variable

Regression with dummy variables is used to evaluate the perception of branch versus regional level employees about the influence of explanatory variable on the outcome variable. In multiple regression model the coefficient of a dummy variable indicates the expected (or average) variance in the criterion or outcome variable between those with 1 and those with 0 values of that dummy variable holding other explanatory variables constant.

| Model    | Variables Entered |                    |                     |             | Variables Removed     | Method        |                   |
|----------|-------------------|--------------------|---------------------|-------------|-----------------------|---------------|-------------------|
| 1        |                   |                    | Region <sup>b</sup> |             |                       | Enter         |                   |
| a.       | DV: MStotal       |                    |                     |             |                       |               |                   |
| b.       | All requested w   | variables ent      | ered                |             |                       |               |                   |
|          |                   |                    | Та                  | able 15: Mo | odel Summary          |               |                   |
| Model    | R                 |                    | R Square            |             | Adjusted R            | Std. Error of | the Estimate      |
|          |                   |                    |                     |             | Square                |               |                   |
| 1        |                   | . 287 <sup>a</sup> | .082                |             | .064                  | 4.76826       |                   |
| a.       | Predictors: (Co   | onstant), Reg      | gion                |             |                       |               |                   |
|          |                   |                    |                     | Table 16    | 5: Anova <sup>a</sup> |               |                   |
| Model    |                   | Sum of             | f Squares           | df          | Mean Square           | F             | Sig.              |
| R        | egression         | 102.01             | -                   | 1           | 102.011               | 4.487         | .039 <sup>b</sup> |
| 1 Residu | al                | 1136.8             | 16                  | 50          | 22.736                |               |                   |
|          | Total             | 1238.8             | 27                  | 51          |                       |               |                   |
| a.       | DV: MStotal       |                    |                     |             |                       |               |                   |
| b.       | Predictors: (Co   | onstant), Reg      | zion                |             |                       |               |                   |

|               |                             | Table 17: Coe | efficients <sup>a</sup>   |      |        |      |
|---------------|-----------------------------|---------------|---------------------------|------|--------|------|
| Model         | Unstandardized Coefficients |               | Standardized Coefficients |      | t      | Sig. |
|               | В                           | Std. Error    | Beta                      |      |        | Ţ.   |
| (Constant)    | 42.870                      | .994          |                           |      | 43.117 | .000 |
| 1             |                             |               |                           |      |        |      |
| Region        | 2.820                       | 1.331         |                           | .287 | 2.118  | .039 |
| a. DV: MStota | al                          |               |                           |      |        |      |

The results recommended that regional employees are having statistically significant perception about the impact of Fintech on the market share of Meezan bank as compared to the branch level employees. Moreover, this model is also statistically significant as depicted by the results mentioned in the Table 17. It accepted the second hypothesis.

# 5. Conclusions & Recommendations:

Recently, the financial system has promoted the system of cash less transactions (Fabris, 2019); which enhances the provision of financial technology services. The potential of Fintech and AI in profit contribution cannot be underestimated. AI has transformed the mechanism of delivering services in the banking sector by enhancing labor productivity and reducing significant costs. The current study contributed in the literature through various ways. Firstly, based on the research gap it attempts to explore the impact of financial innovation and AI on the target market of the top most Islamic bank of Pakistan. Secondly, it also highlighted the material tool of financial innovation in terms of enhancing the customer base of the Meezan bank. Finally, it also evaluated the perception of regional vs branch level employees of Meezan bank.

This study employed a survey based method for the collection of primary data. The sample includesMeezan Bank as it is the first and the largest Islamic bank of Pakistan. This research relied on purposeful sampling technique for data gathering as it wants to evaluate the perception of branch vs regional employees regarding the impact of Fintech on the deposits of the Islamic Bank.

For analyzing the research topic Multivariate regression, Step wise regression and Regression with dummy variable were used with the help of SPSS. Results suggested that all the dimensions of financial innovative procedures explains market share of the selected bank up to 48.6% and ATM along with POS are the significant IVs in terms of influence on DV (market share). Finally regional employees have a strong perception regarding the influence of Fintech services on the target market of Meezan bank.

The current study is in support of the technological progress as Fintech is having a profound influence not only on Conventional banks but it does enhance the market share of Islamic banks as well. Nevertheless, the study also offers managerial implications as Pakistani banking sector need to upgrade its Fintech channels in order to align with the modern technology of AI. Moreover, the banks should also focus on spreading awareness both inside and outside organization regarding the provision of Fintech services to further accelerate their market share. This study serves as a major milestone by offering a clear understanding of financial innovation in the banking sector. Moreover, the policy makers should address the issue of less awareness of Fintech among the general public as well as the training of existing staff for proper utilization of the benefits of AI integration in their current financial processes.

The limitations of the study include the fact that this research focuses only on a banking sector particularly Islamic banking of a single country (Pakistan). Thus, the findings are somehow specific to the studied sector and cannot be generalized for other industries. A comparative study on the role of financial innovation in the Conventional versus Islamic banks should be pursued by the future researchers. Moreover, the small sample size is another limitation of this study which should be increased so that advanced statistical procedures such as Structural equation modelling (SEM) can be easily applied on it.

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