

Impact of Financial Inclusion on Banks Profitability: An Empirical Study of Banking Sector of Karachi, Pakistan.

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Abstract:

The main purpose of this research paper is to examine the impact of financial inclusion on banks profitability in Karachi. Financial inclusion is the usage and accessibility of the affordable financial services and products via M- banking, POS, E- banking, ATMs etc. to the deprived, low income and disadvantage sector of the population. Furthermore this study analyzes the relationship amongst the variables of the hypothesis. The foremost reason for targeting the banks of Karachi is that, it is the largest metropolis of Pakistan and generates 65% of the national revenue. The data was collected from the sample size of 149 respondents. The SPSS software was used to statistically analyze the data, moreover descriptive statistics, correlation statistics and regression statistics were utilized to test the research hypotheses. The main variables are financial inclusion and bank's profitability while the sub variables are usage of financial services, access of financial services, cost of financial services and revenue generation. The significance of this study that creates it distinctive is that it discusses exclusively the topic of the impact of financial inclusion on banks profitability, whereas many other studies consider the topic generally. The findings and results of the research indicate that there is an insignificant relation amongst the variables.

Key Words: financial inclusion, Profitability, POS, M- banking, financial literacy

1- INTRODUCTION

Financial inclusion is becoming an essential concern for many developed and developing countries worldwide. Financial inclusion is the usage and accessibility of the affordable financial services and products via M-banking, POS,¹ E- banking, ATMs etc. to the deprived, low income and disadvantage sector of the population. Financial inclusion enhances the accessibility of prescribed financial inclusion services for instance taking a bank account, consuming credit and saving services of Bank. Countries are initiating to establish the strategies to enhance persons' access to financial inclusion for attainment of benefits through financial inclusion.

Another purpose of financial inclusion is to provide the affordable financial services to the deprived population. Affordable financial services such as loans, savings, pensions, insurance, payment systems, remittances and deposit services through E-banking, POS, ATMs, M- banking etc. advantages the entire banking system by reducing cost, increasing profits, enhance quality of services offered to the consumers, eliminating spatial and temporal constraints, expand the domain of banking system. The improved profitability of the banks depends on the higher utilization of the M- banking, POS, ATMs and E-banking etc.

Financial inclusion enhances the efficiency and accessibility of affordable financial services which directly supports enhanced credit access via decreasing transaction costs. Financial inclusion effort is endeavoring to encourage the distribution of financial products and services at reasonable prices. Financial inclusion exertions seek to create the availability of financial services and products for everybody in a safe, convenient, secure and cost effective manner.

Financial inclusion enhances the livelihood of the deprived population. Financial literacy is the individual's capability to understand and make effective use of financial conceptions. Financial education diminishes poverty as it permits persons to attain and use skills and knowledge that enhance their employment prospects and thus, earn greater wages.

¹ Where POS is Point of Sale

In Pakistan 45.6 % of population lives under the poverty line, according to Multidimensional Poverty Indices (MPI). In accordance with 2012-2013 data, MPI indicating that 45.6% of Pakistan's population poor while 14.9% are proximate multidimensional poverty. The extensiveness of deprivation in Pakistan 52% is the avg. of deprivation that people experienced under multidimensional poverty. Whereas the 9.15% of population of Karachi living under the line of poverty.

The main reason for targeting the banks of Karachi is that, it is the hub of Pakistan's economy as well as it is also the financial capital of the country. It is the largest metropolis of Pakistan. 65% of the national revenue is generated via Karachi. Majority of Pakistan's private and public bank's head offices are located in Karachi. Moreover a lot of multinational corporation's offices are also hosted by Karachi.

1.1-Problem Statement:

The reason for this research is to examine how financial inclusion influences the revenue of banks key components of the financial inclusion are access and usage of financial services, affordable financial services and financial literacy. Financial literacy plays a pivotal role in financial inclusion, financially literate individual have enough ability and knowledge regarding how to utilize financial services or products to encounter financial goals.

Financial inclusion mainly focuses on the access and usage of affordable financial services or products to the financially excluded or deprived population of society. Accessibility of financial services should be escorted by usage which must be held via the financial literacy of customers. Therefore the main purpose for conducting this study is to analyze the impact of the financial inclusion on banks profitability.

1.2-Research Questions:

This research leads the following questions:

- Is there any relationship between banks revenue generation and the access of financial services/products?
- Is there any relationship between banks revenue generation and the usage of financial services/products?
- Is there any relationship between banks revenue generation and the cost of financial services/products?

1.3-Objective of the Study:

The prime objective of this study is to evaluate the impact of financial inclusion on banks profitability in Karachi.

The sub objectives of the study are:

- To examine the relationship between banks revenue and deprive population access to financial services.
- To find out the relationship between usage of financial services and banks revenue.
- To analyze the relationship between the banks revenue and cost of financial services.

1.4- Limitations

The study was limited to Karachi Pakistan, which bounds the generality of the research. Collection of data from the sample size is comprises of 200 participants under the given span of time it was a challenge to meet the deadlines although. However, the scarcity of time doesn't impose any effect on the quality of the research anyhow.

1.5- Significance of the Study

Emerging economies are essentially aided by financial inclusion in order raise the standards of development. Role of financial inclusion on economic development of Pakistan, poverty alleviation through financial inclusion but

the purpose of doing research specifically in banking sector is due to the essential role played by the banks in development and growth of the economy. Financial inclusion is access to tools that permit borrowing or saving.

Financial inclusion help out the banks in targeting the cost conscious, low income or deprived individuals of society via giving them the cost effective and affordable financial products and services which ultimately enhances the access and usage of financial services. Karachi was selected as the target market because it is the financial capital and the center economy of country. It is the major metropolis and generates 65% of the national revenue. Students may also use this research finding to identify extents for further studies.

2- LITERATURE REVIEW

According to (Divya, 2013) financial inclusion refers to the deliverance of the financial services to the disadvantaged section and the low income sector of society at affordable cost. This study was based on the exploratory and descriptive research and data was gathered from the daily wage earners of Tenali town, South India. The study observes the financial inclusion impact on the daily wage earners. The public policy key objective is to avail the payment and banking services to entire population without any discrimination. To deliver the bank services to the low income individuals at affordable cost is the main objective of the financial inclusion. The results of the study shows that, the main focus should be the creation of new financial instruments for daily wage earners and make those instruments being a part of financial inclusion and it is essential to educate the people about financial services.

Financial inclusion indicates an increase in accessibility to prescribed financial inclusion services for instance taking a bank account, consuming credit and saving services of Bank. Getting the benefits through financial inclusion, countries are initiating to establish the strategies to enhance persons' access to financial inclusion. The study shows that the income level, information and communication technology (ICT) inclination, attributes and age of persons have an influence on the accessibility and utilization of bank facilities in Nigeria. (Efobi, Becroft, & Osabuohien, 2014)

In the view of (Raman, 2012) study financial Inclusion dispute is emergent as pristine archetype of economic growth. Financial inclusion plays a vital role in poverty alleviation from the country. Financial inclusion not only improves inclusive financial severity of agriculture but it also help in enhancing non-farm rural activities which induce rural economy development and enhance economic situation of individuals. Reserve bank of India (RBI) and government plays an essential role in endorsing financial inclusion for the development of economy. Protection and empowerment are the two strategies that the RBI adopted to generate awareness and also expand the scope of banking facilities. This study shortly concludes the financial inclusion as: Financial inclusion = Banks+ MFI+ NFA+IT+OFIs². Therefore, financial inclusion is necessary for social and economic development, inclusive growth and business prospect. Some initiatives such as creating financial literacy institutions and aviator basis credit counseling beginning a financial literacy promotion etc. are currently in progress of expanding financial inclusion.

(Wambua & Datche, 2013) study shows that financial inclusion relief the entire population by superior inclusion and facilitates the lower income sector of the population through the provision of inclusive range of banking facilities. Additionally the essential objective of financial inclusion is poverty reduction through providing advances and loans to the lower segment of society for supporting their education or own small business. Financial inclusion is vital for enhancing the livelihood of weaker groups and poor farmers. This study concludes that the banks create innovative distribution channels to access the bank services with- out visiting bank. The innovated distribution channels are risky which can be a fence to FI. Customers trust worthiness towards bank's

² Where MFI - Micro financial Institutions, NFA - No frills bank account
IT - Information Technology, OFIs - Other financial Institutions

innovative delivery channels is very low. Innovative channels have the limited FI. Results shows that majority of respondents were skeptical about User approachability of innovated distribution channels which has exaggerated financial inclusion in the reverse direction.

(Kaestner & Servon, 2008) discussed that financial literacy is the individual's capability to understand and make effective use of financial conceptions. Financial literacy training is interlinked with the accessibility to communication technologies and information, which can help out low and adequate income persons to become more effective financial players. To get rid from poverty, financial literacy and technological literacy are the most essential resources for the low income people. Low and adequate income persons in urban areas take interest in flattering financially and technologically literate. The E- banking enables the financial literacy training more riveting to participants. E-banking and technological training supports the financial literacy.

According to (Mago & Chitokwindo, 2014) financial inclusion is becoming a crucial dispute for excessive number of unbanked population of emerging countries. The low income and unemployed population due to accessibility fences, discover themselves excepted from financial facilities proposed by financial institutions. The results exposed that low income population are willing to acquire M- banking because it's convenient, inexpensive, secure , easy to use and access. Deprived population of informal sector scarcely enjoys banking facilities. Simply M- banking fills the gap and the low income individuals due to mobile banking enjoy basket of financial services. The economy grows due to the increase in rural areas financial activities.

(Gresvik & Øwre, 2002) observed relation amongst the cashless banking instruments cost implications and banks profitability of Norwegian. this study evaluated that notwithstanding ATMs accounted for increasing cost of banking industry involving maintenance, cash replenishment, replacements, power (solar panels, battery cells cost , or maintenance and cost of diesel-generators), and cost of security, nonetheless cheques cost for cash withdrawals remained extra expensive than ATMs cash withdrawals.

According to (Nayak, 2012) in India having a current or saving account with a bank is the basic tool of financial inclusion. The financial inclusion scope consist of services like immediate credit facilities, opening of bank accounts, financial advisory services, insurance facilities etc. Cooperative banks have a distinct advantage more than commercial banking for financial inclusion. Labor cost and Operating cost of cooperative banks are extensively minimum than commercial banks. It is obvious that cooperative banks have viable options for inclusive growth via generating employment opportunities, rural development and income generation.

(Hernando & Nieto, 2007) Scrutinize the impact of transactional web adoption on the performance of banks. The 72 commercial banks of Spain were considered for the research study from 1994-2002. The first aim of the study was to demonstrate that adoption of internet banking, reduce the cost and diminish the overhead expenses which ultimately increase profitability of banks. This study also determines that the internet is manipulated as complement for physical branches rather than a surrogate.

(Odior & Banuso, 2012) examined in a cross-continent study, including 13 countries, payment system via cards is considered to be more effective than a cash-based system since of two reasons: Firstly, uneconomic scale of cash supply rises as cards dislodge cash, while thrifths of scale increase for cards. Secondly, the dislodgment relegates cash to less significant transactions, leading cash transactions to upsurge unit fixed costs.

The study prove the impact of Electronic banking profitability in the Jordan Bank and evaluate that the cost of executing electronic banking services, do not significantly affect ROE and ROA based on profitability, whereas electronic banking services significantly affect gross profit index (Khrawish & Al-Sa'di, 2011)

The M- banking service is still in its infancy stage. Bangladesh has great potential to accelerate financial inclusion through M- banking. The study examine that financial inclusion will be geared through individual's behavioral

intention. Behavioral intention of customers affected by the perceived financial cost which deterring them to accept M- banking. So the banks can formulate the effective strategy to attract the customers toward M- banking service through service cost reduction. M- Banking facility provider of Bangladesh should project the M- banking facilities in such a way that usage and access of M- banking facility can be increased which eventually will have an affirmative impact on the financial inclusion campaign of the country (Siddik, Sun, Yanjuan, & Kabiraj, 2014)

According to (Eyadat & Kozak, 2005) studied the role of IT in the cost effectiveness enhancements and profits of banking sector. Investments in IT systems can raise profitability of banks, while reduces cost efficiency proportionally to profit effectiveness.

(Siam, 2006) assessed the role of the electronic banking services on the profits of Jordanian banks, and concluded that in the short term e-banking services adversely affect Bank's profitability, whereas in the long term they have a positive impact, as bank investments are all with deem to staff's training and infrastructures .

M- Banking proffers millions of individuals a probable exposition in emergent markets that have access to a mobile phone, still endure excluded from the financial conventional. It can create basic financial facilities further accessible by reducing distance and time to the nearby retail branches of bank (Ivatury & Pickens, 2006) besides minimizing the transaction- related costs and overhead costs of the bank. M- Banking offerings opportunity for financial institutes to expand banking as well as financial services to customers thus growing their market (Lee, Lee, & Kim, 2007)

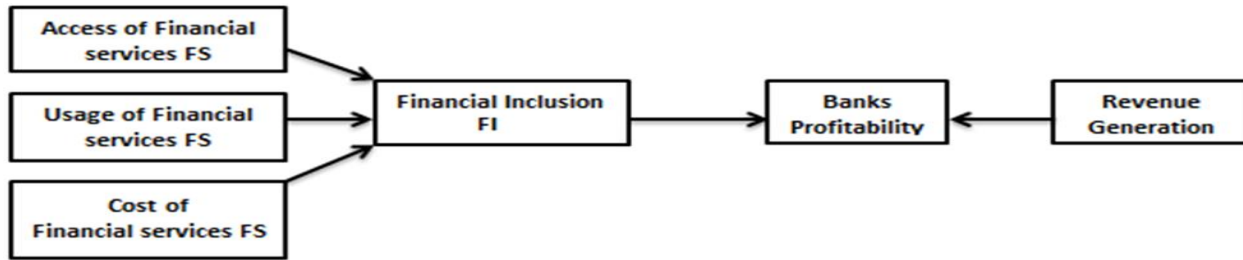
3- METHODOLOGY

This research was based upon the primary data. Data were gathered from the sample size of 149 respondents and the questionnaires were utilized as the data collection tool. Banking sector of Karachi was considered as the target market, whereas the participants were from public and private sector both. SPSS was utilized for test, analysis and interpretation of collected data. So, descriptive analysis was carried out adequately in order to interpret the results of the study.

3.1- Hypothesis

- **H₀₁:** Access of financial services to deprived individuals has no relationship with revenue.
HA₁: Access of financial services to deprived individuals has a relationship with revenue.
- **H₀₂:** There is no correlation between revenue and usage of financial services.
HA₂: There is a correlation between revenue and usage of financial services.
- **H₀₃:** There is no relationship between revenue and cost of financial services.
HA₃: There is a relationship between revenue and cost of financial services.

3.2- Model



3.3- Data Collection \ Source of Data

This research based on the primary data that was gathered from different banks of Karachi.

3.3.1- Sampling Tool

Questionnaires was used as a sampling tool for the data collection, because it provides the chance for appropriate response from respondents.

3.3.2- Sample Techniques

The SPSS software were used to analyze the gathered data as well as descriptive statistics , linear regression statistics and correlation statistics were utilized to test the data and also for interperation of the results.

3.3.3- Sample Size

The targeted sample size was 200 respondents but data was collected from the 149 respondents.

3.3.4- Sampling Unit

Banks of Karachi.

4- DATA ANAYLSIS

4.1 - Descriptive Statistics

Table 1 : Descriptive Statistics

	N	Minimum	Maximum	Mean		Std. Deviation	Skewness	
	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Statistic	Std. Error
Deprived population access to financial services/products	149	1	5	2.93	.085	1.038	-.159	.199
Usage of financial services/products	149	1	5	4.34	.066	.802	-1.639	.199
Cost of financial services/products	149	1	5	3.58	.088	1.079	-.627	.199
Bank's revenue generation	149	2	5	4.26	.051	.628	-.418	.199
Valid N (list wise)	149							

Data was collected from the 149 respondent. The descriptive statistics often used to examine the N, minimum, maximum, mean std. deviation and Skewness. Skewness shows the degree of symmetry in collected data. The collected data indicates two different minimum values which are 1 and 2; the maximum value of the data is 5 and the negative values of the Skewness shows that the distribution is negatively skewed and Skewness is < 0.

4.2- Correlations and Regression

Correlation statistics and Linear regression model have also been used to test the research hypothesis and for the analysis of the study. Bank's revenue generation has been regarded as the dependent variable in this study, although other variables access to financial services, usage of financial services and the cost of financial services have been considered as independent variables.

The regression model can be expressed as following equation:

$$y = mx + c$$

Where:

y = dependent variable

m = slope

x = independent variable

c = constant

Following are the tables of correlations and Regression test:

Table 2: Deprived population access to financial services/products & Bank's revenue generation Correlations

		Deprived population access the financial services/products	Bank's revenue generation
Deprived population access to financial services/products	Pearson Correlation	1	.037
	Sig. (2-tailed)		.656
	N	149	149
Bank's revenue generation	Pearson Correlation	.037	1
	Sig. (2-tailed)	.656	
	N	149	149

Table 3: Cost of financial services/products and Bank's revenue generation Correlations

		Cost of financial services/products	Bank's revenue generation
Cost of financial services/products	Pearson Correlation	1	.041
	Sig. (2-tailed)		.623
	N	149	149
Bank's revenue generation	Pearson Correlation	.041	1
	Sig. (2-tailed)	.623	
	N	149	149

Table 4: Usage of financial services/products and Bank's revenue generation Correlations

		Usage of financial services/products	Bank's revenue generation
Spearman's rho	Usage of financial services/products	Correlation Coefficient	1.000
		Sig. (2-tailed)	.
		N	149
	Bank's revenue generation	Correlation Coefficient	-.044
		Sig. (2-tailed)	.596
		N	149

Table 5: Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	
	B	Std. Error	Beta			
1	(Constant)	4.190	.155		27.019	.000
	Deprived population access to financial services/products	.022	.050	.037	.447	.656

a. Dependent Variable: Bank's revenue generation

Table 6: Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	
	B	Std. Error	Beta			
1	(Constant)	4.198	.285		14.756	.000
	Usage of financial services/products	.013	.065	.017	.203	.596

a. Dependent Variable: Bank's revenue generation

Table 7: Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	
	B	Std. Error	Beta			
1	(Constant)	4.171	.179		23.294	.000
	Cost of financial services/products	.024	.048	.041	.492	.623

a. Dependent Variable: Bank's revenue generation

4.3 Discussion and Analysis

4.3.1-First Hypothesis:

H₀₁: Access of financial services to deprived individuals has no relationship with banks revenue.

H_{A1}: Access of financial services to deprived individuals has a relationship with banks revenue.

Table 2 shows the positive correlation between the deprived population access to financial services and Bank's revenue generation which means that variables are directly related with each other. The Pearson correlation for given variables are demonstrated as ($r = 0.037$) values ranging between 0.1 & 0.3 which indicates that there is weak correlation amongst the variables. Whereas the significance 2- tailed value is revealed as ($p = 0.656$) which is > 0.05 , indicates that the null hypothesis is failed to reject.

Table 5 shows the regression coefficients which entail the value of Beta which is rate of change .The significance value is indicated as 0.656 which means there is no significant relationship amongst two variables. If there is 1% percent increase in Bank's revenue generation (y) it would result 2.2% increase in deprived population access to financial services (x), by keeping other things remain constant. The positive slope determines a positive correlation amongst x & y , it shows that the both variables moves in the similar direction. Furthermore significance level is > 0.05 that shows the insignificance amongst Bank's revenue generation and deprived population access to financial services. According to the given data the linear equation is:

$$y = mx + c$$

$$\text{Bank's revenue generation} = \text{Deprived population access to financial services} (0.022) + 4.190$$

Where:

y = Bank's revenue generation (dependent variable)

m = Slope

x = Deprived population access to financial services (independent variable)

c = Constant

4.3.2- Second Hypothesis:

H₀₂: There is no correlation between Banks revenue and Usage of financial services.

H_{A2}: There is a correlation between Banks revenue and Usage of financial services.

Table 4 shows the negative value of correlation amongst the usage of financial services/products and Bank's revenue generation. The spearman correlation for given variables are ($r = -0.044$) values ranging between 0 & -0.30 which indicates that there is perfect negative relation amongst variables in general and the significance 2-tailed value is 0.596 which is > 0.05 , shows that the null hypothesis is failed to reject.

Table 6 shows the regression coefficients which entails the value of B, Beta is the rate of change .The significance value is indicated as 0.596 which means there is insignificant relationship amongst two variables. If there is 1% percent increase in Bank's revenue generation (y) it would result 1.3% increase in cost of financial services (x), keeping other things remain constant .The positive slope here determines a positive correlation amongst x & y , it shows that the both variables moves in the similar direction. Furthermore significance level is > 0.05 that thoroughly highlights the insignificance amongst usage of financial services and Bank's revenue generation

According to the given data the linear equation would be as follows:

$$y = mx + c$$

$$\text{Bank's revenue generation} = \text{Usage of financial services} (0.013) + 4.198$$

Where:

y = Bank's revenue generation (dependent variable)
 m = Slope
 x = Usage of financial services (independent variable)
 c = Constant

4.3.3-Third Hypothesis:

H₀₃: There is no relationship between Banks revenue and Cost of financial services.

H_{A3}: There is a relationship between Banks revenue and Cost of financial services.

Table 3 shows the positive correlation between the cost of financial services and bank's revenue generation which means that variables are directly related with each other. The Pearson correlation for given variables are demonstrated as (r = 0.041) values ranging between 0.1 & 0.3 which indicates that there is weak correlation amongst the variables. While the significance 2- tailed value is (p = 0.623) which is > 0.05, indicates that the null hypothesis is failed to reject.

Table 7 shows the regression coefficients which entails the value of B, Beta is the rate of change .The significance value is indicated as 0.623 which means there is insignificant relationship amongst two variables. If there is 1% percent increase in Bank's revenue generation (y) it would result 2.4% increase in cost of financial services (x), by keeping the other things remain constant. The positive slope determines a positive correlation amongst x & y, it shows that the both variables moves in the similar direction. Furthermore significance level is > 0.05 that thoroughly highlights the insignificance amongst Bank's revenue generation and deprived population access to financial services. According to the given data the linear equation would be:

$$y = mx + c$$

$$\text{Bank's revenue generation} = \text{Cost of financial services} (0.024) + 4.171$$

Where:

y = Bank's revenue generation (dependent variable)
 m = Slope
 x = Cost of financial services (independent variable)
 c = Constant

5- CONCLUSION

The result achieved from the research hypotheses testing show that there is an insignificant relationship amongst variables, which are financial inclusion and the bank's profitability. The hypotheses are failed to reject because most of the banks says that the current offered financial services/products are not designed for deprived population that's why the deprived population is excluded from the access and usage of financial services/products. The main reason for exclusion of deprived population form the access and usage of financial services is that:

- The deprived population has not enough capability to pay-off the bank's loan.
- Lack of suitable product, offered by banks.
- Lack of awareness regarding financial services/ products.

Currently efforts are being made to introduce financial inclusion through the provision of the basic banking facilities to the deprived population. Accessibility of the financial services such as loans, savings, pensions,

insurance, remittances, payment systems and deposit services etc. to deprived population enhances the usage of the internet banking, E- banking, M- banking, ATMs, POS etc. which ultimately affects the profitability of banks.

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