
Role of Cell-Phone Banking in the Development of Small Enterprises: An Evidence From Pakistan

*** Ruksana Rasheed**

The Government Sadiq College Women University, Bahawalpur

Mazhir Nadeen Ishaq,

Department of Economics, The Islamia University of Bahawalpur, Pakistan

Muhammad Fahad Malik

Department of Economics, The Islamia University of Bahawalpur, Pakistan

***Email of the corresponding author;** rukhsana.rasheed@gscwu.edu.pk

ABSTRACT

This study was conducted to investigate the relationship between cell phone banking services and business growth in small and informal enterprises. The study area was three districts of Punjab province of Pakistan. The research design was cross-sectional and primary data was collected through questionnaire. The convenience sampling method was used for field surveys in Bahawalpur and Multan. The target population was the business-persons engaged in trade, service, and self-employment. The regression model was applied by integrating the independent variables of mobile banking services i.e. mobile business transactions, mobile investment and mobile loans and the dependent variables i.e. Business sales. The descriptive and analytical results showed that there found positive and significant relationship between business growth and mobile banking key services. The study recommend cell phone banking telecommunication companies should provide tailored user-friendly services to strengthen small business capacity and profits.

Keywords: Small enterprises, cell phone banking, business growth, financial services

To cite this article: Rasheed, R., Ishaq, M,N & Malik, M,F (2022). Role of Cell-Phone Banking in the Development of Small Enterprises: An Evidence From Pakistan. Competitive Social Science Research Journal (CSSRJ), 3(2), 720-729

INTRODUCTION

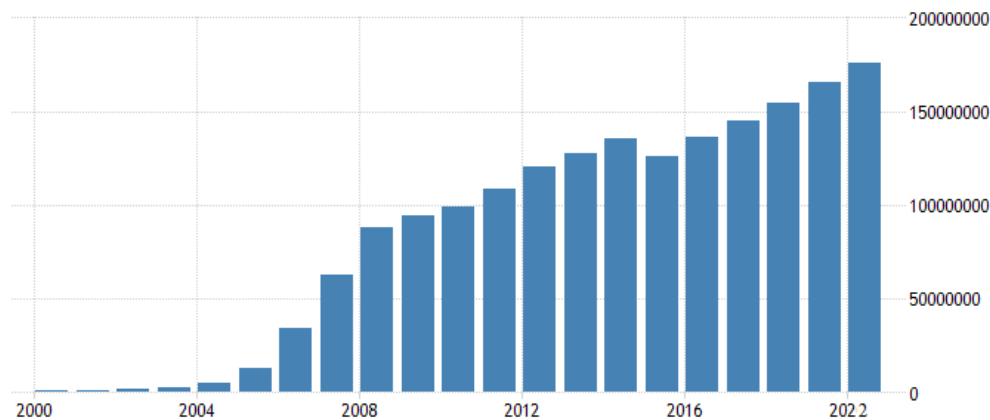
Cell-phone banking is a method of financial transactions that connect the consumers digitally through mobile phone devices. Various mobile based android applications have been introduced by the financial institutions, especially banks and telecommunications companies that enabled the general public to use and maintain their bank accounts, transfer funds and even access credit or insurance products. Cell phone banking empowers the customers to access their banking accounts from everywhere. The business owners can save

their time and efforts to route their payments from their clients directly via mobile phones. The cell-phone banking is particularly popular among small and medium enterprises.

In recent years, payments through mobile phone has increased many folds. The mechanism of mobile money is that a mobile network operator provide the services of converting liquid cash into electronic money. Any mobile phone holder having a SIM card and supported applications in phone can avail this facility. Cell-phone banking through internet covers online purchases, electronic banking, funds transfer, check balance, direct debt, credit card, cash transfer, and to carry out prepaid service. Therefore the purchases are on fast growth, although there are various types of issues in view of legal and regulatory framework.

Status of Cell Phone Banking in Pakistan

Total population of Pakistan is estimated around 227.3 million and out of which 82.2 percent population have 186.9 million cellular mobile connections. The internet users are around 82.90 million which constitute 36.5 percent of total population of Pakistan. The mobile banking users and number of internet has increased by 10 percent when compared with previous quarters.



There are four telecom operators in Pakistan which provide cellular connection and internet services. Among them, the Jazz with 69.7 million cellular subscription remained the market leader, followed by the Telenor with 49.2 million subscribers. The Zong and Ufone remained the third and fourth with subscription of 44.4 million and 3.1 million respectively. Due to the increase in the use of internet services, there has been a massive increase in digital financial inclusion. The number of active mobile vault accounts has been increased by 72% from 46.7 million a year ago to 46 million. Therefore, number of active mobile wallet agents or also known as branchless banking has increased of 35% over the last year. According to the report of State Bank of Pakistan (SBP), the volume and value of m-banking grew 12% and 16% respectively during the fiscal year 2020-21. Mobile and internet banking were the two major areas that depicted high adoption of digital payments. The number of transactions conducted through mobile banking stood at 79/1 million with a worth of around Rs. 2.2 trillion.

Business Development and Digital Payments

In context of Pakistan, small and medium enterprises also termed as microenterprises constitute an ever increasing majority of businesses and services. In developing countries,

these businesses support growth of developing countries through costs reductions, employment, and income generation, processing of local raw materials and strengthening the purchase power. The business people in remote areas need new financial services as medium of exchange and cell-phone banking provide solutions to many of their problems. These mobile based applications facilitated the people in bill payment, transfer money, make purchase, deposit and withdraw money using their mobile phone any time anywhere without going to bank branches or remittance companies. The m-banking save the time, provide more acceptability, security and efficient medium of exchange (Cecchetti and Fackler, 2011; Nuseir et al.,2020).

Nyaga and Okonga (2014) findings proved that mobile banking impact positively on the sales and growth of SME businesses. This service also contribute those microenterprises that do not operate own bank accounts. Wanyonyi and Bwisa (2013) examined that mobile money technology has positively influenced the growth and performance of small merchants in context of their better service delivery to customers, ability to store, low operation costs, and retrieve customer data instantly. The study suggested that businesses performance and efficiency improve due to mobile money.

Various studies have carried out to describe to examine the inter-relationship of mobile banking and business sales, profit margins, saving and revenue. The performance of business is expected to improve due to efficient payments(Yan et al.,2020). In Pakistan, majority of microenterprises face challenges to access financial products and services. This study examined whether mobile money services leads to improve the business development and growth. This research primarily focus to study how effectively cell phone banking improve the growth and development of small enterprises in view of Pakistan. Keeping in view the limitations of time and financial constraints, the study focused microenterprise businesses.

Literature Review

McElwee (2006) examined the challenges faced by the small businesses in form of distribution channels, market access and financial capital mobility. small business have limited budget, low technical skills, lack of ICT infrastructure especially in rural areas and lack of management capacity to incorporate ICT in their business operations. Qureshi and Wolcott (2009) described that mobile money technology helped to resolve the issues faced by the microenterprises. It is because that less expensive mobile phones are capable to use the technology at low costs, easier to operate and widely diffused in majority of rural and urban regions.

Jenkins (2008) studied that mobile phone devices allows the subscribers to access the financial services in form of cash deposit, withdrawals, bill payments and money transfer in long-distances. The mobile money agents and telecommunication networks are largely available and small businesses which do not have access to traditional banks can still approach the financial services.

Suri, (2017) studied that rural population enabled to use mobile banking due to vast network availability. These services improve the safety and transaction's privacy. It help to protect and encourage saving habit for larger community. Cell-phone banking overcome many issues in developing countries like weak institutional infrastructure and help to reduce the high bank charges for account maintenance as happened in regular financial

institutions. The. Cell phone banking has significantly reduce in tractions costs in form of less travel time and costs in coordination process, and general probabilities of theft, leakage and opportunity costs (Aron, 2018).

Riley (2018) focused on mobile money spillover effects on remittances, wealth and consumption smoothing. The study used a difference-in-difference approach and concluded that users of mobile banking can drop their consumption. They can earn more per capita income and seem to engage in risk sharing. Bastian et al. (2018) studied the adoption of mobile money in business activities and found that business outcomes as more sales, profits, investments, generate side incomes and get more empowered.

Mothobi and Grzybowski (2017) conducted a research on 11 countries of Sub-Saharan Africa. The study explored the mobile money adoption due to improved physical infrastructure. The study discovered that mobile money adoption is more in poor infrastructure areas. The study explained mobile money provide a good solution to access financial services in far rural areas and it is equally suitable for all income groups irrespective of their status and locality.

Munyoro et al. (2016) studied that mobile technology has been revolutionized the banking industry. The emergence of mobile banking has increased the access and created the opportunities for vulnerable people. Birchet et al. (2008); Mas & Dan, (2010) suggested that advent of mobile banking has created prospects for susceptible people who has access for financial transactions and increase the portfolio of their business activities. Many diverse factors contribute the adoption and acceptance of mobile banking in developing countries. Although there is risk of carrying cash transactions. However, mobile banking paved a new ways for remittances receipts. People used it to send money back to their families, friends and relatives or business associates. All these factors contribute to the acceptance and adoption of mobile banking in business activities.

Raof et al. (2021) observed that most SMEs operated in informal sector and do not have bank accounts. Operators of SMEs consider it very cumbersome to visit banks during their working hours. Therefore, mobile banking has grown more popular among unbanked SMEs customers. The study found that business operators can conveniently transact with their customers and suppliers through their mobile phones without visiting the bank branches. In this way they save their working time, transportation and operational costs, which may improve the business growth performance.

Research Methodology

Theoretical Framework

Cell phone banking offers a wide range of financial services including mobile banking, mobile loans, SMS banking, and instant money transfer (USSD). This is particularly important where traditional banks are not available. This study mainly focused to estimate the capabilities of small businesses to use the financial services of mobile phone banking and its impact on business development. To achieve the objectives of business growth, the SMEs owners may set targets to increase their transactions, increase customer base, increase sales & revenue and to ensure readily available money for suppliers. The target population of this study was all the SMEs listed in Small and Medium Development Authority (SMEDA), National Business Development Program (SBDP) for SMEs, Punjab

Small Industries Corporation (PSIC), Industries, Commerce, Investment and Skill Development Department (ICI & SDD) working under the ambient of federal and provincial government of Pakistan.

Data Source and Sampling Techniques

Three divisions of Punjab province i.e. Bahawalpur, Multan and Faisalabad were selected and businesses were stratified into small and medium groups. A representative sample size was selected from each strata. The stratified random sampling technique was employed. To determine a statistically meaningful results, the minimum sample size was calculated by using the Fisher (1990) formula mentioned below:

$$n = \frac{N}{[1 + N(e^2)]}$$

Whereas:

n = denotes the sample size taken in study

N =denotes the total Population of study area

e = error term of 5% critical value

The approximate number of business listed with above regulatory institutions stands at 41230. The sample size estimated from this population at the 5% level of confidence was around 353.4. Research design for this study was primary and it was conducted through quantitative methods. The target population covers all people using cell phone banking in three cities. A survey questionnaire was developed containing the questions to examine the impact of cell phone banking on business growth as well as the extent to which mobile banking facilitates. A pilot test was administered with 20 business-persons to review the questionnaire contents. To improve the validity and reliability of questionnaire instruments, the suggested adaptations were incorporated in final questionnaire.

Analytical Model and Analysis

Data analysis was carried through descriptive and inferential statistics. The descriptive analysis provide a meaningful description about the data properties, distribution of scores and measurement of few indices. To estimate the association among variables, a correlation analysis is employed. To examine the impact of cell phone banking on business growth and development, the regression analysis is estimated. The regression model is:

$$Y = \beta_0 + \beta X_1 + \beta X_2 + \beta X_3 + \beta X_4 + \varepsilon$$

Whereas:

Y = denotes sale volume of enterprises which is a taken as proxy for business growth.

X_1 =express the cell phone banking utilization

X_2 = is mobile money investment

X_3 = is the mobile banking loan services

The relationship of these above variables is estimated through regression model and the collected data was analyzed through the SPSS software version 22.0.

Results and Discussion

Descriptive Analysis

The primary data was processed and it revealed the data characteristics as shown in Table 1. It was found that 40.5% of businesses were in operation for less than 5 years, 30.5% were in operation for 5-10 years and 15% have operation for 10-15 years and remaining 14% for over 15 years. In In Pakistani setup, usually more males are family-head and males are involved in income generating activities.

Table 1: Descriptive Statistics of Small Business-Persons

Gender	Male	80%
	Female	20%
Age	18-24 Years	22%
	25-35 Years	25%
	36-45 Years	26%
	45-55 Years	13%
Number of years in business operation	1-5 years	40.50%
	5-10 Years	30.50%
	11-15 years	15%
	More than 15 Years	14%
Educational status	Illiterate	18%
	certificate	30%
	graduate	32%
	Master degree	20%
Earning level	less than 50000	25%
	50,000- 100000	30%
	100000-150000	40%
	more than 150000	15%

Source: Authors' survey data analysis, 2022

The results in Table 1 demonstrated that male entrepreneurs constitute 80% of sample size. The age of business-person showed that 21% of them are aged between 18-25 years, 24% are between 26-35 years, 26% between 36-45, 21 lie in the 45-55 years and 13% fall in age group over 55 years. These results revealed that majority of entrepreneurs are young people are involved in business enterprises. The young people are more inclined to use latest mobile technology and applications as compare to senior aged people.

Educational status of respondents showed that 32% have diploma or certificate qualification, 30% were graduate, 20% has master degree and 18% has no educational background or illiterate. The results showed that earning level of small business operators fall in the range of Rs.50,000 was as 25%, followed by in the range of Rs.50,000 to Rs. 100,000/- as 30%, while those earning above Rs. 100,000/- to Rs. 150,000 constituted 40%. A paltry 15% of the small business had monthly revenue of more than Rs. 150,000.

Correlation Analysis

The association between business growth and cell phone banking services was found through correlation analysis. The results in Table 2 showed that there found a positive relationship with a maximum correlation factor of 0.687 between cell phone banking and business growth. s

Table 2:Correlation Analysis

Variables	Business growth	Mobile banking	Mobile money investment	Mobile banking loan
Business growth	1	0.687	0.517	0.613
Mobile banking	0.687	1	0.825	0.93
Mobile money investment	0.517	0.825	1	0.854
Mobile banking loan	0.613	0.93	0.854	1

Source: Authors' survey data analysis, 2022.

4.3 Regression Analysis

Multiple regression model has been applied to estimate the impact of cell phone banking services (transactions, investment and loans) on business growth in the selected research area of Pakistan. Results of regression model summary are presented in Table 3.

Table 3

Model Summary

Model	R square	Adjusted R Square	Std. Error of the Estimates
1	0.422	0.413	0.8194

Source: Authors' survey data analysis, 2022.

The model explained the extent to which a change in business growth is affected by the mobile banking services that are three independent variables namely the routine transactions, investment and loan. The data in Table 3 showed that value of R square is 0.413 which means that three independent variables included in the regression model are capable to explain 41.30% variance in microenterprise business whereas the remaining 58.7% variance in the dependent variable is due the other factors that were not included in this research.

The impact of mobile baking service variables are explained through coefficients estimated through regression model and its values are presented in Table 4. The constant value of 4.345 depicted the combined impacts of three variables of cell phone banking service. Results about mobile business transactions showed that a unit increase will lead to a 1.879 increase in business sale growth and coefficient is significant is 1% level. This finding revealed that business-person who send and receive payments through mobile banking services have the probability to grow their business sale more as compared to non-users of mobile banking. These findings are also supported with the results of previous studies such

as Onyango et al. (2014) and Basheer et al.(2020). This implies that mobile banking contributed to improve business growth and performance because it facilitates the customers to buy and sell many goods & services anywhere and anytime.

Table 4

Results of Regression Model Coefficients

Model	Standardized Coefficients		t-statistics	Sig.
	Coefficient	Std. Error		
Constant	4.345	0.574	7.569686	0.000
Mobile Money transactions	1.879	0.723	2.598893	0.008
Mobile investment	3.265	0.656	4.977134	0.000
Mobile Loan	0.564	0.204	2.764706	0.010

Source: Authors' survey data analysis, 2022.

The study results revealed that mobile investment or saving facility had a significant positive influence on business growth with a coefficient value of 3.265 and significant at 1% level. This relationship was also existed in the study of Nyaga and Konga (2013) and Asada et al. (2020) that proved many SMEs used the mobile banking saving and loan facilities and improve their business performance. This results provide an evidence that small business save their time and effort to access small loan and saving facilities rather to visit commercial banks in person.

The results in Table 4 indicated that mobile loan facility has positive and significant impact on sale of enterprises with coefficient value of 0.564 and it was significant at 1%. It implied that whenever the enterprises are deficient in money and their supplies of products are declined then users of mobile banking instantly avail the mobile loan from their cell phone and continued to fulfill the order placements. In this way their business activities are not affected badly and they can continue in smooth manners. Batisha and Vieentee (2012) found that mobile saving and credit facilities are substitute to the traditional banking credits. Therefore, the propensity of cell phone banking users increases their success because they can access financial services without paying high bank charges, physical visits and wasting time queuing in the halls of commercial banks (Abdulmuhsin et al.,2021)

Conclusion and Recommendation

This study has been conducted to examine the impact of cell phone banking on growth and development of small and informal business enterprises. The data for study was collected through questionnaire survey in three districts of Punjab province of Pakistan. The regression model was applied with three independent variables provided by cell phone banking i.e. mobile business transactions, mobile investment and mobile banking loan facilities. The results of this study showed that male and young aged entrepreneurs were more inclined for the adoption of cell phone banking as compare to old age group. Findings of study concluded that cell phone banking positively influenced the sales, revenue and profit of small businesses. The factors of sales, revenue and profit are pre-requisite of any business growth. The study also concluded that mobile loan and credit lowered the financial crises and burden. The overall results of this study showed a positive impact of

cell phone banking services on business growth and performance in lieu of convenience in investing and sending payments through mobile phones. Further research can be done to find out the effect of other variables on business growth rather than cell phone banking services.

The study findings suggested that to get a maximum benefit from mobile technology, a greater cooperation may be extended by telecommunication operators in the service delivery of small enterprises. The mobile money services can help to facilitate in formalizing these businesses, as small businesses do not maintain books of accounts to quantify their real time progress. The mobile banking operators can tailored user-friendly services to strengthen its capacity and profits.

References

- Abdulmuhsin, A. A., Abdullah, H. A., & Basheer, M. F. (2021). How workplace bullying influences knowledge management processes: a developing country perspective. *International Journal of Business and Systems Research*, 15(3), 371-403.
- Aron, J. (2018) "Mobile money and the economy: a review of the evidence". *The World Bank Research Observer*, Vol. 33, Issue 2, August 2018, pp. 135 – 188
- Asada, A., Basheerb, M. F., Irfanc, M., Jiangd, J., & Tahir, R. (2020). Open-Innovation and knowledge management in Small and Medium-Sized Enterprises (SMEs): The role of external knowledge and internal innovation. *Revista Argentina de Clínica Psicológica*, 29(4), 80-90.
- Basheer, M. F., Saleem, M., Hameed, W. U., & Hassan, M. M. (2021). Employee voice determinants and organizational innovation: Does the role of senior manager matter. *Psychology and Education Journal*, 58(3), 1624-1638.
- Bastian, G., Bianchi, I., Goldstein, M., Montalvao, J. (2018) "Short-term impacts of improved access to mobile savings, with and without business training: experimental evidence from Tanzania". Working Papers 478, Center for Global Development.
- Batista, C., & Vicente, P. C. (2021). Is mobile money changing rural Africa?: evidence from a field experiment. Centre for Research and Analysis of Migration, Department of Economics, University College London.
- Birch et al. (2008). Payments and inclusion: From branchless banking to Bankless Banking. *Journal of Internet Banking & Commerce* , 13(3), 1-5.
- Cecchetti, S.G., Schoenholtz, K.L., & Fackler, J. (2011). *Money Banking, and Financial Markets* (3rd ed.). New York: The McGraw-Hill.
- Dupont, W. D., & Plummer Jr, W. D. (1990). Power and sample size calculations: a review and computer program. *Controlled clinical trials*, 11(2), 116-128.
- Jenkins, B. (2008). *Developing mobile money ecosystems*. Washington, DC: International Finance (IFC) and the Harvard Kennedy School. Retrieved from <http://www.w.gsmworld.com>
- Mas, Ignacio and Dan Radcliffe. (2010). *Scaling Mobile Money*. Bill and Melinda Gates Foundation.
- McElwee, G. (2006). Farmers as entrepreneurs: Developing competitive skills. *Journal of Developmental Entrepreneurship*, 11(3), 187–206.
- Mobile and Sim Data
- Mothobi, O., Grzybowski, L. (2017) "Infrastructure deficiencies and adoption of mobile money in SubSaharan Africa". *Information Economics and Policy*, Vol. 40, Issue C, pp. 71 – 79
- Munyoro, G and Matinde, M. (2016). The Significance of Plastic Money to the Hospitality Industry: A Case Study of Rainbow Towers Group of Hotels (RTG). *Research Journal's Journal of Economics* , ISSN 2347-8233; Vol. 4, No. 5.

- Nyaga, K. M. and Okonga, B.M. 2014. Does Mobile Money Services Have any Impact on SMEs performance in Naivasha Kenya. *International Journal of Current Research*, 6(10), 9394-9398.
- Onyango, A., Ongus, R., Awuor, F., and Nyamboga, C. 2014. Impact of adoption and use of mobile phone technology of the performance of micro and small enterprises in Kisii municipality, Kenya. *World Journal of Computer Application and Technology*, 2(2), 34-42.
- Qureshil, S., Kamal, M., & Wolcott, P. (2009). Information technology interventions for growth and competitiveness in micro-enterprises. *International Journal of Enterprise Information Systems (IJEIS)*, 5(2), 71–95.
- Raooof, R., Basheer, M. F., Shabbir, J., Ghulam Hassan, S., & Jabeen, S. (2021). Enterprise resource planning, entrepreneurial orientation, and the performance of SMEs in a South Asian economy: The mediating role of organizational excellence. *Cogent Business & Management*, 8(1), 1973236.
- Riley, E. (2019) "Hiding loans in the household using mobile money: Experimental evidence on microenterprise investment in Uganda"
- Suri, T. (2017) "Mobile Money". *The Annual Review of Economics*, Vol. 9, pp. 497 – 520
- T. Nuseir, M., Basheer, M. F., & Aljumah, A. (2020). Antecedents of entrepreneurial intentions in smart city of Neom Saudi Arabia: Does the entrepreneurial education on artificial intelligence matter?. *Cogent Business & Management*, 7(1), 1825041.
- Wairimu, W. W. 2015. Micro, small and medium-size enterprises (MSMEs) as suppliers to the extractive industry, Nairobi- Kenya. *United Nations Development Programme Report: UNDP-Kenya*
- Wanyonyi, P. W. and Bwisa H. M. 2013. Influence of mobile money transfer services on the performance of micro enterprises in Kitale municipality. *International Journal of Academic Research in Business and source sciences*, 3(5), 500 –517.
- Yan, R., Basheer, M. F., Irfan, M., & Rana, T. N. (2020). Role of psychological factors in employee well-being and employee performance: an empirical evidence from Pakistan. *Revista Argentina de Clínica Psicológica*, 29(5), 638.