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An economic analysis of mobile banking in Pakistan

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ABSTRACT

Around the globe, various initiatives use the mobile phone to provide financial services to those without access to traditional banks. The current trend is that banks and telecommunication companies together are bringing the unbanked people under the financial umbrella through mobile banking. The aim of the current study is to find out the impact of mobile banking on various economic indicators of Pakistan. For this purpose, the current research was conducted in two phases; in the first phase, primary data were collected through a well-structured interview schedule from the users of mobile banking. In the second phase, primary data were collected through structured interviews from the mobile industry financial experts. This study found that mobile banking brings economic benefits for individuals, companies and countries. These economic benefits lead to bigger economic effects such as an increase in GDP growth, more foreign direct investment, remittances, increase in government's tax base, creates new businesses, employment generation and transparency in transactions. It is concluded that access to finances through mobile banking leads to the country's GDP and the entrepreneurial activities.

Keywords

Mobile Banking, GDP Growth, FDI, Remittances & Domestic Payments, Government Tax Base
JEL Classification
G28; G29

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1. Introduction

In recent years, Pakistani financial institutions have gained momentum in terms of activity and effectiveness. The current trend is that banks and telecommunication companies together are bringing the unbanked people under the financial umbrella through mobile banking in Pakistan. People, businesses and the country receive economic benefits from mobile banking. Through mobile banking, most of population living in villages and remote areas having cell phones has access to the financial services. There Mobile financial services offer many economic benefits to individuals, companies and to the country which translates into wider economic effects such as increased GDP growth, expanded entrepreneurship, Foreign Direct Investment (FDI), high government tax base, growing domestic payments and remittances, increased transparency by limiting corruption. The mobile banking helps in improving savings in terms of time and cost because of reduction in transportation cost. More active use of mobile banking brings subsidiary effects and improvement in family reserves, improvement in earnings, and reduction in financial failures. Due to this rapid diffusion of mobile banking in Pakistan, there may be opportunities for financial developments that could boost the country's GDP in future.

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Barnhart & Barnhart(2000) described banking in terms of business keeping, lending, exchanging and issuing money. It can also be expressed as the business of bankers. At present, banks perform vital role in the development of financial markets. It offers customers an alternative financial services access compared to traditional banks. It helps introducing new products on media channels and find new competitors. This type of banking uses information technology (IT) too. In the face of increasing competition among banks, it is important for the banks that they offer services to customers at lower costs. By using IT resources efficiently, banks can lower costs and thus gain comparative advantage. Also, using services through IT tools, banks can distinguish its self from other banks that do not offer such services.. Anyasi & Otubu (2009) found that banking industry has made enormous progress by using the banking guidelines and advanced information technology. Automation in banking sector has gained importance due to a combination of regulatory rules and competition in the banking sector. The use of information technology in the banking sector improves communication, connectivity and new business development. Mobile banking is commonly termed as m-banking and SMS banking. It can be used to perform tasks as cheque clearing, and to make transactions. At present, mobile banking offer services via SMS or mobile internet. Clients download specified application software on their mobile devices to use the financial services. . Mobile banking is although extensively used throughout the world, but its objective and structure vary from state to state.

Information technology applications can be used to maintain and provide account history along with mini-statements, information about term deposits, loan statements, credit and debit card statements, mutual funds/ equity statement of secondary markets, information about insurance policy, pension funds. Transfer of funds nationally and internationally, micro-finance facility, bill payments can also be made through mobile banking. Information about investment in various portfolios and real-time stock quotes can also be obtained through mobile banking. Support services for obtaining credit, mortgage and insurance can also be requested through mobile banking services. Request for cheque books and credit & debit cards can be made through mobile banking too. Mobile banking applications can be used to locate the automated services machines (ATMs). Furthermore, companies about the services can be recorded through the mobile banks applications. Most people in Pakistan have access to mobile phones and they have bank accounts too, however there is a lack of coordination between the banks and telecommunication companies. Many people have mobile phones but don't have bank accounts and vice versa.

Mobile banking can fill this gap by bringing these unbanked individuals under the financial umbrella. People, businesses and overall the country can gain many economic benefits by using the mobile banking. This study attempts to find out the economic benefits that Pakistan can derive from using the mobile banking. Analysis of economic impacts of mobile financial services warrants inclusion of both direct and indirect benefits. Therefore, this research will focuses on the benefits that can accrue to individuals, companies and overall country.

2. Literature Review

Banks play an important role in today's age. Banks compete in introducing new products and services to get an edge in the increasingly competitive industry. Provisions of services such that customers are facilitated are of utmost importance. Banking industry is going through many transformations such as offering their customers services over the handheld mobile devices. Such services are not constrained by the geographic locations, legal or other barriers and therefore if it has facilitated the customers on hand.

The growth and coverage of wireless telecommunications has provided a platform for mobile banking services. Hibberd (2007) informed there were three billion mobile phones users worldwide and it has been keep growing at a fast pace. Banks have recognised the potential of phone devices to reach out to customers through advertisements. . Furthermore, Keen and Mackintosh (2001) described that innovation in technology played an important role in the selection of mobile value-added services. He further predicted that services offered through mobile devices may

further grow over time with new innovations in mobile banking. Waverman et. al, (2005) found that many studies have been conducted in different countries worldwide over the use of mobile phones for banking. Their study found that an increasing use of mobile devices has a positive effect on the GDP. McKinsey and Company (2006) studied the indirect impact of wireless services in India, China and Philippines and found that the indirect effect were at least three times more than the direct impacts. It was also described that the total wireless economic impact comprised an immediate effect on mobile operators, a subsidiary effect on telecom industry and the surplus is enjoyed by end users. It was predicted that the use of mobile services would increase by 10% in China. It was further found that it contributes \$10 billion to the Indian economy. Vodafone (2005) reported that an increase of 10 handsets per 100 people increases the GDP by 0.6%. Deloitte and Touche (2007) found that a 10% increase in the use of mobile services, would lead to 1.2% GDP increase. The users of m-banking save time and money as they are not required to physically visit the bank branches. Mobile users find it easy to track the transactions and thus help in better management of funds. The user of m-banking can access his bank account from a remote location. Advancement and innovation of mobile technology enhanced the potential to better use the financial services available. There has major cost reductions through branchless banking and using third party networks (can be post offices and small retailers) as a financial service providers. Utilization of cell phones can also facilitate provision of micro-finances. Remittances play an important role in the development of a country and it has been observed that many people uses mobile banking for receiving and sending remittances. Transferring funds through conventional banks, western union, Money Gram has shown to be costly and therefore mobile banking can also play a huge role here too. Mobile banking also facilitates the transfer of funds in small amounts into remote areas in case of emergencies.

Reamonn and Williams (2005) found that the foreign direct investment is likely to be higher in countries where cell phones use and coverage is more widespread.. Although recently there has been more scrutiny of funds through mobile banking due to the concern about funds being transferred to wrong hands. However, m-banking/m-payments has still been growing. Use of m-banking services also lead to subsidiary effects, such as improvement in domestic savings, revenues generations. It changes the dynamics of family savings and distribution (Reijswoud, 2007). Generally speaking, mobile banking compliments the traditional banking. InfoDev (2006) reported that mobile banking has reduced the dependence on traditional banking system. The Boston Consulting Group (BCG) in coordination with the Telenor group studied the potential economic and social impacts of mobile banking for Pakistan, Bangladesh, India, Serbia and Malaysia. It has been found that in these countries; around 72% of population do not use financial services through mobile devices although the number of people having cell phones was similar to that of developed countries. Therefore, they suggested that these people having cell phones be provided financial services through their wireless devices, so that they can come under financial umbrella. The report studied the possible economic and social impacts of each developing country under the study and also looked at regulation required to provide such services. The BCG reported that if a country can minimize the 'unbanked' by 5 percent to 20 percent through mobile banking till 2020, it will boost GDP up to 5 percent. Pakistan can increase its GDP by 3 percent by 2020 if the mobile financial services are provided to people and this will generate more jobs, new businesses opportunities and also result in increased government's tax revenues. In this report, BCG showed mobile banking was an important tool for social and economic development of all the rising nations. Therefore, governments and other regulatory bodies need to provide a favourable environment for the mobile banking system to flourish in future. It has been documented that a country's social and economic development depends on the access of inexpensive mobile banking services to the 'unbanked' people in a country. According to the BCG report, only 15 percent of people were banked while remaining 85 percent of adults were unbanked due to access issues. Even among those 15 percent, only 5 percent have full access to the services of banks while 10 percent have only accessed to the basic banking services i.e. current accounts or saving accounts. As mobile financial services are growing in Pakistan, this could result in better financial developments. Telecommunication companies and banks are offering different mobile banking and

mobile commerce services in Pakistan. Some of the important partners in offering the financial service through mobile devices are Mobilink, Telenor, Ufone, Warid, Zong, United Bank Limited (UBL), MCB Bank Limited, Standard Chartered Bank, Bank Alfalah, Faysal Bank, Bank Al-Habib, Dubai Islamic Bank and many others.

3. Material and Methods

3.1 Methodology

Primary data were collected through a structured interview schedule which asked the questions relating to the economic impact of mobile banking in Pakistan. Similarly, structured interviews were held also with the experts. Information and data were extracted from the interview schedules. The interviews were conducted in different financial institutions and multinational companies dealing in mobile financial services. The interviews were conducted with the experts of State Bank of Pakistan as well. The interviews were also held with senior professors of economics of different universities. The sample covers responses from 27 individuals. Individuals include 6 experts of commercial banks, 4 CFO's of telecom companies which were dealing with mobile banking, Six prominent economists of Pakistan, 6 experts from SBP Monetary Policy Division, and 5 senior professors of different universities.

4. Results

The following questions were frequently asked from different individuals. The feedback given by them was as follows:

Why there is a need of mobile banking or branchless banking in Pakistan?

A total of 18 experts stated that globally there is a fundamental transformation in all the sectors of the banking industry has been happening such as new products and services are introduced on continuous basis. Furthermore, many people (especially adults) have mobile phones but they are unbanked in Pakistan due to various reasons. Therefore, most of banks and telecommunication companies realised that they can utilise the mobile networks and devices to provide basic value-added services to their customers through a single click on their cell phones. The remaining 09 experts answered that it was a way to decrease the customer's load on traditional bank branches and to facilitate the customers at home. They opined that branchless mobile banking is both cost and time effective.

Why banks are investing in mobile banking rather than traditional branch banking?

Twenty (20) experts responded that although most of the banks were providing their products and services in the urban areas of the Pakistan mainly cities and developed towns through branch banking, but the banking sector also realized that most of the people still lived in rural areas which were unbanked. Therefore, banks are keenly interested to bring those unbanked in their financial umbrella through mobile banking services or branchless banking. So, the banks and telecommunication companies are now investing in mobile banking rather than branch banking. The remaining 7 experts said that it was cost effective as establishing and running a physical bank branch is expensive. It is an effective way to manage the ones resources both for banks and consumer. It is cheaper and easier to manage than the conventional branches.

What is the economic impact of mobile banking on GDP of Pakistan?

According to all experts, there is a positive impact of the mobile banking on the GDP expansion in developing countries like Pakistan. The GDP growth may be high due to rapidly increasing number of mobile users. Banks can generate more profits by bringing more customers under the mobile banking networks thus leading to more tax payments. Mobile banking involves better quality phones which would be bought by consumers for utilizing this service thus generating revenues.

What is the economic impact of mobile banking on F.D.I of Pakistan?

All experts commented that there was a positive impact of mobile banking on the foreign direct investment in the Pakistan. The potentially large market for mobile banking may attract foreign investments in banking sectors and mobile devices and mobile networks. Many international banks and telecommunication companies are already working in Pakistan and they are providing mobile financial services to their customers. The foreign direct investment in this sector may also help boosting the economic growth.

What is the economic impact of mobile banking on savings of a common man?

According to 22 experts, mobile financial services bring unbanked people under the financial umbrella. This type of banking also saves the time and money. Most people in Pakistan have no access to the banks because of unavailability of branches in villages and remote areas. The mobile banking service fills this gap by providing financial services on their cell phones. The remaining 5 experts answered that mobile banking service had also indirect impacts i.e. bigger family savings, higher incomes and availability of funds on urgent basis if needed. The cost of travel and time can be utilized for earning extra income. All the information relating to the funds are available online and therefore funds can be managed more efficiently.

What is the economic impact of mobile banking on remittances and domestic payments in Pakistan?

Twenty-one (21) experts described that remittances play an important role in boosting the economic growth of a country. In Pakistan, mobile banking service helps people to send and receive funds locally or internationally within a short time. Mobile banking service offers a quick transfer of funds more cheaply, quickly and easily. On the other hand, the traditional funds transfer providers such as money gram and western union are charging high fees. The high cost of traditional transfer companies makes the funds transfer almost prohibitive and some time people use the illegal transfers such as *hawala* and other money laundering methods. Therefore, mobile banking service offers a cheap and convenient method of transferring funds for low income people. The mobile banking services increase the remittances. The remaining 6 experts opined that both remittances and domestic payments would increase due to the wide spread availability of mobile banking services.

How mobile banking benefits the government to increase their tax revenues?

All the experts shared opinion that the government of Pakistan can also benefit from mobile banking service. The government's revenue increases in tax revenues from banks. Taxes on use of network services, taxes on sale of new mobiles, taxes on businesses focusing on mobile banking applications, tax collection from software and hardware companies. Therefore, mobile banking service use results in increasing the tax revenues of the government.

How mobile banking helps in increasing the transparency in Pakistan?

According to 19 experts, bribery was the most common evil in all the sectors both in private and government sectors. By increasing the documentation, and traceability of the transactions, more transparency can be maintained. Banking by phone reduces the risk of fraud. You will receive a text message urgently when you perform any account activity. This includes deposits, withdrawals, transfers, as soon as any amount deducted or deposited into your account. The remaining 8 experts answered that mobile financial services helped increased the transparency in all the sectors by removing the middlemen and minimizing cash flow. Furthermore, illegal activities such as *hawala* and other means of money laundering can be curbed.

How can mobile banking reduce the economic inequality in Pakistan?

According to all experts, today most people in Pakistan are unbanked because of the inaccessibility of traditional bank branches in the villages and remote areas. So, these 'unbanked people' cannot benefit from financial services

such as opening and maintaining current accounts, saving accounts, local money transfers and remittance, paying utility bills, insurance etc. Therefore, mobile banking service will help this financial service exclusive group of people to come under the financial umbrella and enjoys these services with their cell phones. When unbanked people have more access to financial services, it ultimately reduces the economic inequality in the country in future by empowering them.

What is the satisfaction level of mobile banking customers in Pakistan?

According to 20 experts, as the mobile banking was in infancy stage in Pakistan such as Telenor introduced “easy paisa” in October 2009 and UBL introduced “UBL Omni” in April 2010. Also, the number of mobile banking users has been tremendously increasing every year. This indicates the increasing level of satisfaction and trust on the mobile financial system in Pakistan. Thus, accessibility, affordability, safety, time saving is the key factors which increase the level of satisfaction of mobile banking users and their potential uses. The Remaining 7 experts answered that the satisfaction level from the mobile bank can range from good to fair depending on the bank and the services being provided by that bank. The major advantage is that one does not have to go to the traditional banks, thus avoiding the roads congestions, and line up at the banks.

5. Discussion

Based on the above results, it can be concluded that there has been a major transformation in the banking sector all over the world due to mobile banking. New companies, new products and services are emerging due to mobile banking. Technology plays an important role because mobile banking transformed the traditional processes of banks. Hibberd (2007) and Keen & MacKintosh (2001) studies support the results of this study on transformation in banking sector and role of technology. Due to emergence of mobile banking in developed countries, it brings some economic benefits to individuals and companies, which translate into bigger economic effects in a country. In the developing countries, mobile banking is growing too but with a little pace due to many issues like technology hurdles, unawareness, lack of education, lack of rules and regulations for implementing mobile financial services. One of the foremost reasons of the need of mobile banking in developing countries like Pakistan is the number of people which are not under the financial umbrella and have no access to the traditional branch banking because of inaccessibility, time cost, travelling cost, and low literacy rate.

In Pakistan, mobile banking is flourishing gradually. This study showed that some banks and telecommunications companies individually and collectively doing investments in mobile banking system rather than traditional branch banking because of the huge potential users of mobile financial services throughout Pakistan. Many banks and telecommunication companies are providing mobile financial services to the people on their cell phones. As mobile banking in Pakistan is in initial stage, therefore most of the companies are providing basic financial services such as monitoring accounts 24\7, balance inquiry, generating mini statements, paying utility bills, fund transfers, and SMS alerts. Most of the already “banked” people are using mobile banking services in Pakistan while ‘unbanked’ living in villages or remote areas have showing little interest in mobile banking due to different reasons. With the passage of time, mobile banking will deepen its roots across in Pakistan and individuals and companies will get the economic benefits such as increase in local reserves, availability of finances from banks, time saving, cost saving etc. These economic benefits turn in the bigger economic effects such as growth in GDP, entrepreneurship, jobs, increase in foreign direct investments (FDI), increase in remittances and domestic payments, increase in government tax revenues, increase transparency by curbing corruption (Waverman et. al, 2005, Reamonn & Williams, 2005, and Reijswoud, 2007. Reaching out to unbanked people and providing them the financial inclusion through mobile banking service, there will be an increased growth in Pakistan’s GDP. The BCG report also supports the results of this study that the availability of credit to the entrepreneurs will result in more jobs thus reducing the unemployment in our

country especially in rural areas. Therefore, mobile financial services will play a very important role in the sustainable development of Pakistan in the future.

6. Conclusion

There is a major revolution in the banking industry. Due to the mobile banking services, new products and services, new companies and new channels are being introduced every day. Technology plays an important role in this major revolution in the banking industry and overcoming the legal, physical and industrial hurdles. Estimated number of mobile users worldwide has increased to 3 billion due to the advancements in wireless telecommunication services. Banks, advertisement agencies and cell phone operators see the larger number of people using the wireless devices as tremendous opportunity for mobile banking.. Providing mobile value-added services lead to adoption of mobile banking services.. Due to rapid mobile diffusion and use of mobile financial services, there has been growth in economic activities. This research found that there is a great potential for mobile banking in Pakistan and it has grown rapidly for the last few years. In Pakistan, total number of mobile users are more than 120 million and the number of mobile banking accounts are 1.4 million. In Pakistan, many banks and mobile networks have introduced the mobile banking services such as Telenor and United bank limited bank. This growth in mobile banking in Pakistan have been at a very fast pace, and shows that there is a great potential of mobile banking in our country. Through the mobile banking and mobile commerce, most of the people which were unbanked will be empowered and will come under financial umbrella. The State Bank of Pakistan has placed regulation on mobile banking services to ensure the security, reliability and competence of the mobile banking system to protect the concern of end users. The SBP also introduced “Branchless banking Regulations” in 2008 to help the new entrants in the market. This study showed that there are economic benefits from mobile banking to individuals and companies such as increase in domestic capital development, time and cost savings. The availability of credit to the entrepreneurs may improve the economic a=activities and help to create more jobs especially in the rural areas.

It is important to make the general public more motivated towards understanding the use of mobile banking services. By using the mobile banking, they can get the information about their bank balance, their payments and funds transfer through their mobile devices at remote locations. More Entrepreneurs and businesses may engage in cell phone businesses as there will be more demand for the wireless devices sets. Furthermore, mobile banking can increase the entrepreneurial activities especially in rural areas on smaller scales. Mobile banking can help in direct debit and multi payments authorization, related account access and multi user transaction authorizations. Mobile banking offers an edge over internet banking. Mobile phones can easily be connected from remote areas through 3G/4G networks and WIFI networks which is sometime not possible through internet or internet is not available in many areas in Pakistan. Furthermore, mobile transactions made by mobile phones can be saved easily. Transfer of money can be made instantly from one account in to the other account of the same bank by using mobile banking. The mobile banking has a very important role in the development of banking industry. As a part of banking industry, the mobile banking has also a big role in the economic growth of our country. Banking industry in Pakistan must be encouraged for competition that will help to improve future economic growth. It is concluded that mobile banking is cost effective and progressive. In this research we have consolidated the opinions of experts about the increase of mobile banking that will ultimately help the future researchers to conduct the detailed study on mobile banking.

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