Role of Telecom Industry in Promoting Mobile Money Transfers and Its Customer Satisfaction in Pakistan: A Review

Muhammad Shujah ur Rehman^{1*}, and Zarina Abdul Salam²

^{1,2}International Business School, Universiti Teknologi Malaysia, Kuala Lumpur, Malaysia *shujahmalik@hotmail.com

Abstract: Technology revolution is the biggest challenge now a days for every industry and that causes due to new innovations in the world. To meet the pace of technological shift and get benefited from its advancement is the dream of every organization and individual. Now a days provision of financial service solution to the population of remote areas through Mobile Money Transfer is due to technology. Mobile money transfer is being happened due to adoption of technology advancement by Telecom and banking industry. In few countries these two industries works together and in few doing separately to provide this financial service. Pakistan is progressing towards the adoption of latest technology and meets the international standard which is now accessible to every person belongs to different socio-economic class. This paper is based on the review of various literatures on empirical studies on mobile payment services provided by Telecom sector in Pakistan. The telecom's customers are thrice than banking customers which is 140 million and 37 million respectively, it seems benefited to promote mobile payments through telecom sector. Hence Telecom has started provision of financial services in terms of fund transfer by using mobile networks and formulated the procedures for it. The trend of using branchless banking via mobile is increasing in Pakistan. The services of branchless banking outreached to distant areas of rural Pakistan at cheaper cost which do not required huge amount to open a single branch as the conventional banking requires. Currently the banking sector in Pakistan is just covering 12% of financial transactions so it is acceptable for the bank to adopt the alternate financial channels. The estimations shows that after every 11 minutes a person joins cellular services and telecom contributing 3% to the GDP, whereas the total revenue of telecom sector has reached to Rs 357.7billion in the year 2014. These facts pointed out the Pakistan have immense impending in mobile banking. As a result of adopting branchless less banking through telecom companies is the formal banking which is easy and manageable for the bank as well as for customers also as they don't have to wait in the long queues for the small transaction or for paying utility bills. Besides these, the other advantages of using mobile payment are time saving, efficient, secures and error free. It is

concluded that due to advancement of technology in every field of life, banking sector also acquired userfriendly technology and developed mobile money transfer services.

Key words: Mobile, money transfer, telecom, technology

Paper type: Conceptual paper

1. Introduction

Mobile money transfer services is growing more in developing countries like wise in Kenya more than 13 million people are active users of mobile money service to send and receive money over mobile phones. Mobile money or mobile payment service are using text-message and retailer network for cash transaction (Jack and Suri, 2011; Mas and Morawczynski, 2009). More than two million people in Philippine use mobile money to send money to their loved ones in remote islands. Similarly in India mobile network operators are trying to make awareness among people of mobile payment service where mobile phone subscriptions are speeding up with 10 million per month. It is declared by the information technology firms that mobile money transfer become the top most consumer application for 2012 (Gartner, 2009). Some international bodies like Consultative Group to Assist the Poor (CGAP), GSM Association (GSMA), Department for International Development (DFID) and the World Bank's International Finance Corporation (IFC) are working with collaboration to give access of banking services to those who do not have any financial accessibility (Maurer, 2012). It is apparent that mobile money transfer play vital important role and can be used for financial incline.

2. Literature Review

Banking industry has biggest challenged to spread their network to approach the poor and needy people by its branchless banking to those who have no access to financial services. State bank of Pakistan made the regulation for banks to start their branch less banking instantaneously in 2009, easy paisa of Telenor firstly launch mobile money transfer service in Pakistan (Hussain and Tahir, 2014). Cost of providing mobile money services to huge population telecom industry solve this problem by providing service to its massive customer base of 140 million of SIM users, if it compares to banking customers of 25 million. Telecom industry starts providing financial service of fund transfer through their existing retailers even in rural areas.

Mobile payment service is used for making financial transactions by using mobile technology, it is a non-banking channels for offering financial services to those who are not able to access banking services. Kenya has officially launched mobile money transfer service with the name M-PESA in 2007 and its enormous success attract others countries to adopt this service. It was use for the purpose to transfer payment or to perform any monetary exchange to other. Mobile payment service is quick, easy and reliable. Mobile money transfer service initiated by telecommunication service providers through their distribution channels. Numerous telecom companies have prospected that it is a profitable business opportunity to promote mobile money transfer service, this service can operate with collaboration of bank for financial security and it helps to grasp the opportunity of this growing segment. Mobile payment are not up to expectations in Pakistan as compare to other countries. India has the second highest mobile subscribers which is 903 million but mobile money users are only 4 percent of it (Yadav *et al.*, 2014). Mobile phone penetration in Pakistan is also very high and it reaches 70.85% of total population as per Pakistan Telecommunication Authority (PTA).

The objectives of the study are as follows.

(1) To identify different models used for mobile payment services.

(2) To identify the factors that influence customer's satisfaction via adoption of mobile payment services.

A. Models for mobile payment

Different models are studied for the purpose of research that uses for mobile payment. Also the factors which need to be investigate to enhance the adoption of mobile payment which leads to customer satisfaction. All over the world four different models used for mobile money transfer i.e; bank centric model, operator centric model, third party service provider and telco-bank collaboration model (Chaix and Torre, 2011).

Bank centric model

In bank centric model bank provide mobile money service by using internet connection and makes their agents in the market. It is more suitable to provide service to existing customers of banks at their nearest place (Anyasi and Otubu, 2009). In this model transfer of financial payment done traditionally between accounts and banks have to play strong role at front end and back end both (Dahlberg *et al.*, 2008). Initially making agents for providing mobile payment services become time taken, costly and lengthy process.

Operator centric model

Telecom operator provides mobile payment service through their existing agents in the market without the interference of bank. It is more convenient and quick for customer for performing financial transaction, as telecom companies already have huge customer with huge chain of retailers in the market. M-PESA money transfer service of a telecom company of Kenya is the best example of this service and it is famous as founder of mobile money service (Hughes and Lonie, 2007). In operator centric model there is gap of financial security which is risk of money laundering it needs to be filled.

Third party service provider

In this model banks and telecom services combines by third party under its own name to provide mobile money transfer services. This model is not familiar due to high financial risk and uncertainty of service provider creditability and customer trust on provider (Zhou, 2013).

Telco-bank Collaboration model

This model is considered authentic and more useful because it covers all the drawbacks of above three models. In Telecom and bank collaboration, combines telecom technology advancement of 3G and 4G along with its massive distribution of agent in different geographical locations and the expertise of banks for financial security to provide mobile payment (Oh *et al.*, 2005). This study also focuses on telco-bank collaboration model because it is secure, reliable and authentic.

In the context of Pakistan telco-bank collaboration model is adopted to avoid terrorist financing and money laundering. The chances of growing mobile money transfer services are more as this model is backed by bank for providing financial security to customers.

B. Factors affecting the adoption of mobile payment

In this study we identify factors which have been found in previous literature in technology adoption context generally, and highlighted relevant factors for adoption of mobile payment which leads to satisfaction. There are four main factors that is perceived ease of use, perceived usefulness, accessibility and trust which has direct influence on adoption of mobile money transfer service which further influences satisfaction of the customer.

Literature reveals that models which have been used to clarify the technology acceptance as derived from Theory of Planned Behavior (TPB), (Ajzen and Fishbein, 1980), TAM (Davis Jr, 1986) and UTAUT (Venkatesh *et al.*, 2003). The approach of TPB and TAM are general in nature. In theory of planned behavior technology acceptance by users is explained.

In this study proposed a model which shows combination of variable i.e perceived usefulness and perceived ease of use from TAM, trust is adopted from Gaffin theory and accessibility from TAM 2 model. In previous studies these models are used for adoption of technology. Factors which are found more relevant are as follow.

3. The Model

Following are the factors in proposed model.

A. Trust

Trust plays an important role in the adoption of mobile transactions due to financial risk and services quality of mobile money transfer. Considering its contribution in adaptation, trust is considered significant variable in latest researches related to use of information technology (Yang, 2015). Agent behavior and trust are correlated if the behavior of agent will not be proper it result failure to develop customer relationship and unable to gain trust of the customer (Donovan, 2012).

B. Accessibility

Accessibility is the propensity that how ease of access can be achieve to specific medium (Sivunen and Valo, 2006). Accessibility is the availability of service which is more readily for use and it has direct impact on perceived ease of use. (Karahanna and Straub, 1999). Accessibility is important factor for influencing the belief of user for usefulness and it is found to have positive impact on perceived usefulness (Lin and Lu, 2000).

C. Perceived usefulness

It is believes of a person that adopting particular service will be useful for individual performance. Literature recommended that perceived usefulness has influence positively on adoption of mobile payment. Perceived usefulness directed towards user's confidence that their performance will be increase after adoption of technology. In adoption of Mobile money transfer service, an intention to use the service is most relevant factor that can only be achieved when the perceive value is higher (Ho Cheong and Park, 2005).

D. Perceived ease of use

Use is defined as something which needs for fulfillment of requirement. Perceived ease of use in term of technology acceptance is endorsed in the study of Moon and Kim (2001), they concluded that perceived ease of use has impact on the usage of technology involvement products. Davis (1989) define as person scale his believe that use of particular system would not need extra effort. Rogers (2003) further added that innovation play vital role to distinguish the individual's approach towards the adoption of new services. (Dunlop and Brewster, 2002) added that visual factor of the innovation which is important to consider as the size and color of the innovative technology influence the decision to adopt.

Four factors are proposed in the model for this study at Figure 1. It shows that when people develop trust on the adoption of technology they will prefer the accessibility and they perceived the service easy to use and get benefited from usefulness of mobile payment.

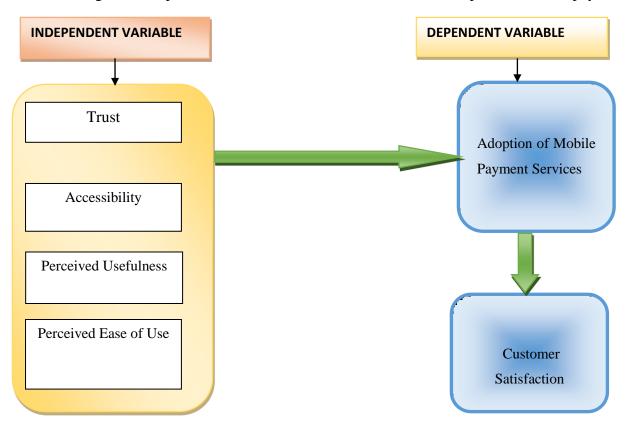


Figure 1. Proposed model for customer satisfaction after adoption of mobile payment

4. Conclusion

Telecom companies has open the wider path to support the banking sector to promote the money transfer services. This study proposed that telco-bank collaboration model is more secure, reliable and fast as Telecom companies can avail the financial security given by bank and banks can utilize the benefit of retailer chain of telecom which has already been established in the market by telecos, so it will be a win-win situation in this collaboration. In Pakistan mobile money transfer services are provided with telco-bank collaboration model but still the rate of accepting this service is very low due to lack of awareness, perceive usefulness, trust and accessibility. Mobile money transfer service can be used for providing small loans to farmers and for other small business activities for poverty alleviation purpose. Developing countries can get more benefit from this service due to its low operational cost to approach people in remote areas who do not have access of services for financial transactions.

The main objective of this study is to identify that different models used for mobile money transfer services and identify the factors which impacts customer satisfaction via adoption of service. The adoption of mobile money transfer service depends on the trust on this service. Trust of customer can be achieved by building customer confidence on retailers. Accessibility is the biggest challenge after building trust on telecom retailers, as the accessibility become easier adoption of service will increase more which leads to customer satisfaction. Ease in accessibility positively impacts the volume of transaction which results in financial inclusion. When the acceptance of mobile money transfer is achieved this service will be used for providing basic facilities to the masses like give easy loans for cropping and other goods they can sell and get money on mobile it ultimately leads to customer satisfaction.

References

- Ajzen, I. and Fishbein, M. (1980), *Understanding Attitudes and Predicting Social Behaviour*, Englewood Cliffs, NJ: Prentice-Hall, Inc.
- Anyasi, F., and Otubu, P. (2009), "Mobile phone technology in banking system: Its economic effect", *Research Journal of Information Technology*, Vol. 1 No.1, pp. 1-5.
- Chaix, L. and Torre, D. (2011), "Four models for mobile payments", *University Nice Sophia-Antipolis, JEL Classification E*, Vol. 42, pp. 33.
- Dahlberg, T., Mallat, N., Ondrus, J. and Zmijewska, A. (2008), "Past, present and future of mobile payments research: A literature review", *Electronic Commerce Research and Applications*, Vol. 7 No.2, pp. 165-181.
- Davis Jr, F.D. (1986), A technology acceptance model for empirically testing new end-user information systems: Theory and results, Massachusetts Institute of Technology.
- Donovan, K. (2012), "Mobile money for financial inclusion", *Information and communication for development*, pp. 61-73.
- Dunlop, M. and Brewster, S. (2002), "The challenge of mobile devices for human computer interaction", *Personal and ubiquitous computing*, Vol. 6 No.4, pp. 235-236.
- Ho Cheong, J. and Park, M.-C. (2005), "Mobile internet acceptance in Korea", *Internet research*, Vol. 15 No.2, pp. 125-140.
- Hughes, N. and Lonie, S. (2007), "M-PESA: mobile money for the "unbanked" turning cellphones into 24hour tellers in Kenya", *Innovations*, Vol. 2 No.1-2, pp. 63-81.
- Hussain, N. and Tahir, A. (2014), "Financial Inclusion's Catalytic Role in the Urbanization of Pakistan's Rural Poor", *Pakistan's Runaway Urbanization: What Can Be Done?*, pp. 135.
- Jack, W. and Suri, T. (2011), Mobile money: the economics of M-PESA.
- Karahanna, E. and Straub, D.W. (1999), "The psychological origins of perceived usefulness and ease-ofuse", *Information and Management*, Vol. 35 No.4, pp. 237-250.
- Lin, J. C.-C. and Lu, H. (2000), "Towards an understanding of the behavioural intention to use a web site", International Journal of Information Management, Vol. 20 No.3, pp. 197-208.
- Ling, R. (2001), "The diffusion of mobile telephony among Norwegian teens: a report form after the revolution", (Presented at ICUST). *Paris: Telenor RandD*.
- Mas, I. and Morawczynski, O. (2009), "Designing mobile money services lessons from M-PESA", *Innovations*, Vol. 4 No.2, pp. 77-91.
- Maurer, B. (2012), "Mobile money: Communication, consumption and change in the payments space", *Journal of Development Studies*, Vol. 48 No.5, pp. 589-604.
- Moon, J.-W. and Kim, Y-G. (2001), "Extending the TAM for a World-Wide-Web context", *Information* and Management, Vol. 38 No.4, pp. 217-230.
- Oh, S., Lee, H., Kurnia, S. and Johnston, R. (2005), "Competition and Collaboration in Mobile Banking: A Stakeholder Analysis", *Hong Kong Mobility Roundtable*. HKUST, Hong Kong.
- Rogers, E.M. (2003), "Elements of diffusion", Diffusion of innovations, Vol. 5, pp. 1-38.
- Sivunen, A. and Valo, M. (2006), "Team leaders' technology choice in virtual teams", *Professional Communication, IEEE Transactions on*, Vol. 49 No.1, pp. 57-68.
- Venkatesh, V., Morris, M.G., Davis, G.B. and Davis, F. D. (2003), "User acceptance of information technology: Toward a unified view", *MIS quarterly*, pp. 425-478.
- Yadav, S., Yadav, S., and Kumar, P. (2014), "Metal toxicity assessment of mobile phone parts using Milli Q water", *Waste management*, Vol. 34 No.7, pp. 1274-1278.
- Zhou, T. (2013), "An empirical examination of continuance intention of mobile payment services", *Decision Support Systems*, Vol. 54 No. 2, pp. 1085-1091.