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## **TELE-PAY A SUBSTITUTE OF CONVENTIONAL BANKING: A CONCEPTUAL STUDY**

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### **Abstract**

*In modern era technology advancement make life easier and quicker. As adoption of technology becomes the essential part of every organization, same is happening in banking industry. Currently, technology acceptance is one of the core issue discussed in banks executive management meetings. The biggest challenge in the service industry is to provide the financial services to those who don't have access to it. This study focuses to enhance the solution for delivering financial services as a tele-pay through integration rather than direct branch banking. Telecom and bank collaboration solve the problem of providing basic financial services to those who do not have access the services either due to their remoteness or inaccessibility. Tele-pay is considered as mobile payment services provided through telecom companies. Using Technology*

*acceptance model (TAM) we have investigated four factors which are important for adoption of mobile payment by the customers i.e; trust, accessibility, perceived ease of use and perceived usefulness. Technology acceptance model (TAM) is widely used to analyze these factors influence on adoption of mobile payment. Studies have considered compatibility, self-efficacy and social influence affecting mobile payment adoption and trust, accessibility, perceived ease of use and perceived usefulness were found to be more relevant for customer acceptance. These indicators are used to investigate in the context of Pakistan to enhance mobile payment acceptance. The implication of this study for both telecom and banking industry is to further explore the ways for ease of adoption for mobile payment services among mass people.*

### **Keywords**

Tele-Pay, Mobile Payment, Telecom, Banking, Financial Services

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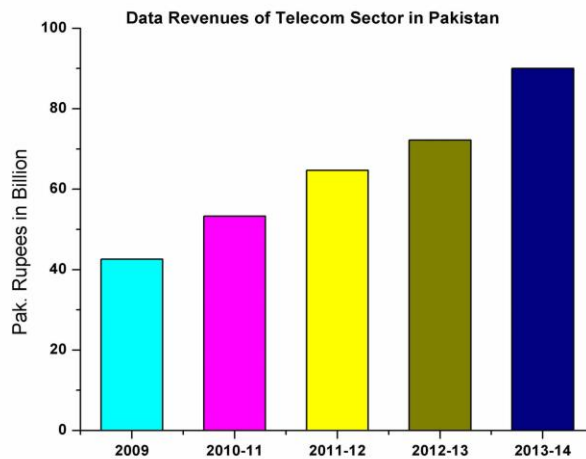
## **1. Introduction**

In Kenya more than 13 million people are active users of tele-pay service to send and receive money over mobile phones. Tele-pay or mobile payment service are using text-message and retailer network for cash transaction (Jack & Suri, 2011; Mas & Morawczynski, 2009). In Philippine mobile payment service is used by over two million people 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. Information technology firms declared 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), Department for International Development (DFID), GSM Association (GSMA) 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 financial access (Maurer, 2012). It is evident that mobile money transfer play important role and can be used for financial inclusion.

The biggest challenge for banking industry is to spread their network to reach the poor people by its branchless banking to those who do not have access to financial services. State bank of Pakistan made the regulation for banks to start their branch less banking instantaneously in 2009 and in the same year first transaction was done through easy paisa (Hussain & Tahir, 2014). The main issue here is the cost of providing these services to mass people and telecom

industry solve this problem by providing service to its huge customer base of 140 million of SIM users as compare to banking customers of 25 million. Telecom starts providing financial service of fund transfer through their existing retailers even in rural areas.

Mobile payment service is a practical transactional service that uses mobile technology and non-banking channels for offering financial services to those who are not approachable in a profitable manner for providing formal banking services. M-PESA is the example of this services it was first officially launched in 2007 in Kenya which immense success attract others countries to follow this service. It is used to transfer payment or to process any monetary exchange to other. Mobile payment service is easy, quick and reliable. Mobile payment initiated by telecom service provider through their distribution channels. Numerous telecom companies saw a great business opportunity in mobile payment service which can operate with collaboration of bank and can launched their services and product to grasp the opportunity of this growing segment. High mobile penetration is helpful to provide mobile payment service more conveniently. However subscribers using mobile payment are not as much as expected. India has the second highest mobile subscribers of 903 million but mobile payment users are only 4 percent of it (Yadav, Yadav, & Kumar, 2014). In Pakistan mobile phone penetration is also high and it reaches 76.6% of total population as per Pakistan Telecommunication Authority (PTA).



**Figure 1:** Six years revenue trend of telecom sector of Pakistan

The above figure shows six years revenue trend of telecom sector of Pakistan. It shows the rapid growth of revenue of telecom industry from 2009 to 2014. For six year continuous increase of telecom shows that this industry has potential to further grow. Now it has opportunity to grow faster with integration of banking services. The objectives of the study are as follows.

- To identify different models used for mobile payment services.
- To identify the factors that influence customers to adopt mobile payment services.

For this motive, the research is to study the different models use for mobile payment. Also the factors which need to be investigate to enhance the adoption of mobile payment.

## **2. Different Models for Mobile Payment**

In all over the world there are four models use for mobile payment i.e; bank centric model, operator centric model, third party service provider and telco-bank collaboration model (Chaix & Torre, 2011).

### **2.1 Bank Centric Model**

In bank centric model bank provide mobile payment service on its own by using internet connection and make its own agents in the market. It is the best source to provide service to existing customers at their nearest work or home place (Anyasi & Otubu, 2009). In bank centric model payments are need to transfer traditionally between accounts and banks have to play strong role at front and back both (Dahlberg, Mallat, Ondrus, & Zmijewska, 2008). Sometimes making agents for providing mobile payment services become lengthy, costly and time taken process.

### **2.2 Operator Centric Model**

Telecom operator provides mobile payment service through their existing distribution without the involvement of bank. It is more fast and convenient for customer as telecom companies already have huge customer with extensive retailers in the market. M-PESA a telecom company of Kenya is consider to be the best example of this service and famous as founder of mobile payment service (Hughes & Lonie, 2007). Operator centric model has risk of money laundering and it's considered the gap need to be filled.

### **2.3 Third Party Service Provider**

Mobile payment service is provided by any third party who combines the services of both telecom and bank under its own name. This model is not popular enough due to high risk of service provider creditability and trust issue among customer (Zhou, 2013).

### **2.4 Telco-Bank Collaboration Model**

This model is more useful and authentic because it covers all the flaws of above mentioned three models. Telco and bank collaboration combined the expertise of banks for financial security and telecom technology advancement of 3G and 4G along with its massive distribution of agent in different geographical locations to provide mobile payment. (Oh, Lee, Kurnia, & Johnston). This integration of telecom companies' investment in banking industry means telecom deviates from its core business for collaboration. Focus of this study is on telco-bank collaboration model because it is authentic, secure and reliable.

In the context of Pakistan telco-bank collaboration model is adopted to avoid money laundering and terrorist financing. The chances of growth are more as this model is backed by bank for monitoring.

## **3. Factors Affecting the Adoption of Mobile Payment**

In this study we investigate that factors which have been found in previous literature in technology adoption context generally, and then try to narrow down to reduced factors for adoption of mobile payment. There are four main factors that is perceived ease of use, perceived usefulness, trust and accessibility which has direct influence on adoption of mobile payment.

Previous literature reveals that models which have been tried to enlighten the technology acceptance as it is mentioned in theory of planned behavior (Ajzen & Fishbein, 1980). UTAUT (Venkatesh, Morris, Davis, & Davis, 2003) and TAM (Davis Jr, 1986). The approach of TAM and TPB are general in nature. In theory of planned behavior acceptance of technology by users is explained.

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

### **3.1 The Model**

Following are the factors incorporated in proposed model.

#### **3.1.1 Trust**

Due to security risk and services quality of mobile, trust plays an important role in the adoption of mobile transactions. Due to its important contribution in adaptation, trust is considering an important variable in latest researches related to use of information technology (Yang, 2015). Trust is willingness to depend on exchange of anything with whom has confidence, willingness and confidence are closely related if someone is not willing means not genuinely confident to avail the service (Morgan & Hunt, 1994). Agent behavior and trust are closely correlated if the behavior of agent will improper that means failed to develop customer relationship and as a result trust of customer cannot gained (Donovan, 2012).

#### **3.1.2 Accessibility**

Accessibility is the tendency that how ease of access to specific medium (Sivunen & Valo, 2006). Accessibility is the availability of service with less effort or more readily for use and it has direct effect on perceived ease of use. (Karahanna & Straub, 1999). Accessibility is one of the important factor for determining the belief of user for usefulness and it is found to have positive effect on perceived usefulness (Lin & Lu, 2000). Accessibility is the perceived mobility to avail the service and directly related with the adoption of mobile payment (Anthonr & Mutalemwa, 2015).

#### **3.1.3 Perceived Usefulness**

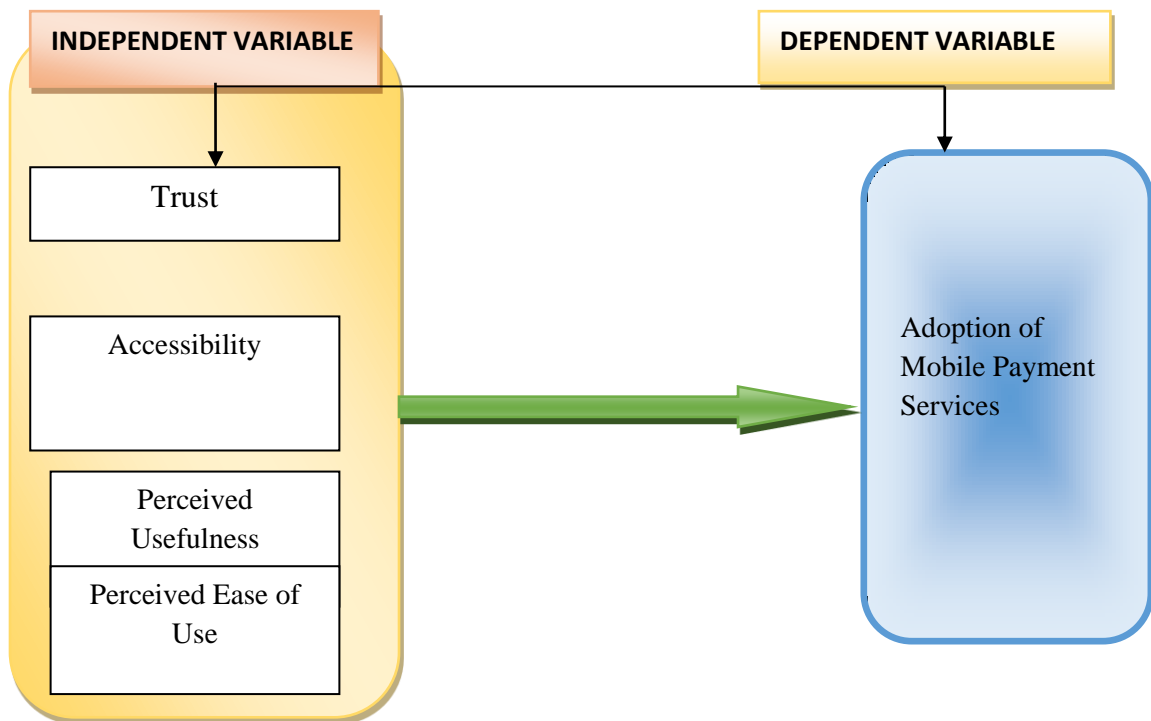
A person believes that adopting particular service will be useful for individual performance. Literature suggested perceived usefulness has positive influence on adoption of mobile payment. Perceived usefulness is indication of user's confidence that adoption of technology will increase their performance. In adoption of Mobile payment, an intention to use is an important factor that can only be achieved when the perceive value is higher (Ho Cheong & Park, 2005).

#### **3.1.4 Perceived Ease of Use**

It is defined by Davis (1989) as person scale his believe that use of particular system would not need extra effort. Use is defined as something which is required for the fulfillment of requirement. Perceived ease of use in term of technology acceptance also 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. Number of previous studies supported the perceived ease of use as crucial factors to adopt the mobile services. Rogers (2003) further added that innovation is important to distinguish the individual's attitude toward the adoption of new services. (Dunlop & Brewster, 2002) further added the visual factor of the innovation which is important to consider as the size and color of the innovative technology influence the decision to adopt. Ling (2001) also illustrated another determinant of social aspect by which people are influenced by other people and their surrounding environment. The social factor of adoption of technology is explained by a "Theory of Fashion" which relates the social factor with the perceived ease of use that leads towards the attitude to adopt the certain innovation.

All these four factors which are important for technology adoption and following is the proposed model for adoption of mobile payment. Figure.2 is the proposed model for mobile payment services adoption when people develop trust on the technology adoption they will prefer the accessibility and ultimately they perceived the service easy to use and get benefited from usefulness of mobile payment. To give benefit of this service to customers is only how quickly they adopt mobile payment system.



**Figure 2: Proposed Model for Mobile Payment Services Adoption**

## **4. Conclusion**

Telecom companies support the banking sector to promote the money transfer system. It is advisable that telco-bank collaboration model is more convenient as Telecom companies can use the financial security provided by bank and banks get the benefit of retailer distribution of telecom which already exists in the market so it will be a win-win situation in working together. In Pakistan mobile payment service is provided with telco-bank collaboration model but the acceptance of mobile payment is low due to lack of awareness, trust and accessibility. This service will can also be used for poverty alleviation by giving small loans in remote areas to make their life better. For developing countries mobile payment services are more beneficial due to its low operational cost to approach people who do not have financial transaction access.

Mobile financial services are stepping in to a new development phase and it has become the core service of mobile operators in developing countries. The adoption of this service mostly depends on the customers confidence and trust on this service. Trust of customer can be achieved by improving the quality of retailer's networks. The biggest challenge after building trust is the accessibility for telecom, as the more accessible this service is the higher will be adoption of this service. Convenience in accessibility directly affects the volume of transaction which will help financial inclusion. Once the acceptance of mobile payment service is done, it is expected to use this service for improving, the basic needs of people like water, electricity and utility services by attracting industries like health, education and agriculture to financial service access in remote areas.

Mobile payment can be used as a tool for socio-economic development of the poor. In different markets, mobile payment industry has to face many difficulties like encouraging people to adopt this service. The telco-bank collaboration needs to be more strengthen their capabilities in their own field in order to improve the quality of this ecosystem. To promote mobile payment services telecom operators needs to cooperate with regulators to stay on the same level in term of standard setting, mobile payment system can flourish more with the collaboration of both banking and telecom industry to achieve financial inclusion.



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