



## Conceptual Model for Assessing Service Quality of Mobile Banking

### KEYWORDS

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**ABSTRACT** *The exponential growth in use of mobile phones and drastic fall in the mobile data and SMS charges have paved way for yet another channel to provide banking services, the mobile banking. In India, mobile banking is gaining popularity, albeit slowly. The widely accepted SERVQUAL model for measuring quality of services has been modified as E-S-QUAL to assess the quality of e-services. There are many studies on the e-service quality in the context of internet/electronic banking. But the literature on the quality dimensions of mobile banking is scanty. There is a clear need for a conceptual model for measuring service quality of mobile banking services. The present study extensively reviews the theoretical foundations of service quality in the context of electronic banking and mobile banking to suggest a model for assessing the service quality of mobile banking.*

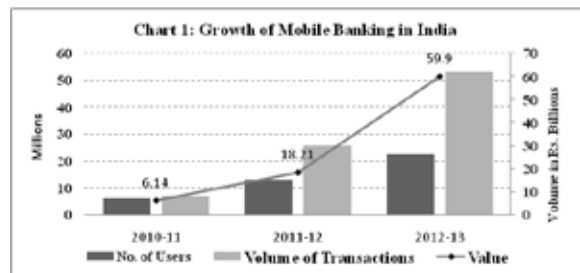
### Introduction

Mobile Banking refers to provision and availment of banking and financial services with the help of mobile telecommunication devices. The scope of offered services may include facilities to conduct bank transactions, to administer accounts and to access customized information.

The earliest mobile banking services were offered over SMS (Short Message Service), known as SMS banking. With the introduction of smart phones with WAP (Wireless Application Protocol) support enabling the use of the mobile web in 1999, the European banks started to offer mobile banking on this platform to their customers (Tiwari & Buse, 2007). Recognizing the potential of mobile as a channel for offering financial services in the country, the Reserve Bank issued the first set of guidelines on mobile banking in October 2008. The bank-led model was considered suitable for the country with a mandate to bank such that all transactions should originate from one bank account and terminate in another bank account.

Initially, Indian banks started offering information based-services like balance enquiry, stop payment instruction of cheques, transactions enquiry, and location of the nearest ATM/branch etc. through this medium. The guidelines issued by RBI in October 2008, permitted banks to facilitate funds transfer from one bank account to another bank account, both for personal remittances and purchase of goods and services. As on date, as many as 78 banks, including a few regional rural banks, urban cooperative banks, offer mobile banking services in the country (PTI, 2014). Mobile banking is being offered through SMS channel, Unstructured Supplementary Service Data (USSD) protocol used by GSM cellular telephones, application-based mobile banking channel to perform variety of services including non-financial transactions such as Balance Enquiry, Mini statement, Cheque Book request etc. and financial transactions such as funds transfer, mobile / DTH recharge, bill payments, etc. The mobile applications are offered on various platforms such as Java, Symbian, Blackberry OS, Windows, Android, Apple iOS, etc (RBI, 2014). Many Banks have made the mobile application available in the app stores such as Google, Apple, Blackberry, etc. for easy search and download by the customers.

Chart 1 depicts the growth of mobile banking in India over the three year period 2010-11 to 2012-13. No. of users has went up from 5.96 million to 22.51 million and the volume of transactions has gone up from 6.85 million to 53.30 million by the end of 2012-2013. The value of transactions stood at Rs. 59.90 billion.



**Source: RBI, January 2014, Report of the Technical Committee on Mobile Banking**

Considering the fact that there are 873.44 million mobile connections as on 30.06.2013 (RBI, 2014) in the country, the adoption of mobile banking services by only 53.30 million is very discouraging. The reasons are many such as low levels of awareness and acceptance, inability of banks to seed the mobile number with the account number, incompatible handsets, absence of collaboration and revenue sharing models between banks and mobile operators, and absence of USSD channels for mobile banking among others (PTI, 2014). With the increasing proliferation of smart phones in India and wireless internet access, potential for mobile banking cannot be undermined in near future.

### Service Quality of e-services

Technology-based self-services that do not require human interaction have changed the way that service firms and consumers interact and are raising a host of research and practice issues relating to the delivery of e-service. E-service is becoming increasingly important not only in determining the success or failure of electronic commerce (Yang, 2001) but also in providing consumers with a superior experience with respect to the interactive flow of information.

Quality has been defined from different perspectives and orientations, according to the person making the definition, the measures applied and the context within which it is considered (Tapiero, 1996; Doyle & Melanson, 2001; Distri, 2003). It has been defined as excellence value (Peter and Waterman, 1995; Fengenbaum, 1995), fitness for use (Juran and Gryana, 1988; Hawkins, 2001), conformance to requirement (Crosby, 1979) and meeting and/or exceeding customer's expectations (Lang and Colgate, 2003). More often than not customers demand quality experience and their resultant behavior is replicated in terms of an attitude towards consumption behavior which has led researchers and analysts to regard quality as a single most important factor for long term suc-

cess and survival.

Services are divided into high-touch or high-tech services. High-touch services mostly depend on people in the service process producing the service whereas high-tech services are predominantly based on the use of automated systems, information technology and other types of physical resources (Akinyele and Olorunleke, 2010). The famous and most widely adopted model of assessing service quality of all non-web based service encounters, the SERVQUAL proposed by Parasuraman, Zeithaml, and Berry (1988), has been modified to address the specific issues concerned to the e-service delivery. The modified model, called the E-S-QUAL, lists Efficiency, System availability, Fulfillment, Privacy as the dimensions of quality in case of e-services. Another version called E-RecS-QUAL adds Responsiveness and Compensation dimensions to e-service quality (Parasuraman, Zeithaml and Malhotra, 2005).

Most of the studies related to e-service quality are specific to web-based/online services. Even for banking, most studies are focused on the service quality related to internet banking, ATMs. Hence, there is need to identify the service quality dimensions, in the case of mobile banking services and develop a conceptual model for measuring service quality. The present study tries to explore the factors that affect service quality of mobile banking.

#### Service Quality Dimensions of mobile banking – literature review

E-service quality is also should be measured as customers' perceived quality not as service's ability to meet the technical standards. Quality is perceived by the customer based on the experience with service performance meets the prior expectations. Jukka Ojasalo (2010) proposed a conceptual model for e-service quality based on an extensive review of literature. The model proposes Ease of use, Website design and appearance, Personalization, Information, Responsiveness, Communication, Security, and Reliability as the dimensions of e-service quality. However, if there is an absence of direct contact, such as in case of mobile banking, customer perceives less control during the transactions. Bateson (1985) in his studies found that when a consumer uses technology as a form of service delivery efficiency and speed are the factors that are very significant to consumers. Reliability and user friendliness are also important in the evaluation of technology-based services Gummesson (1991).

After a thorough review of existing literature connected service quality, the following seven dimensions are found to be relevant for assessing the quality of mobile banking services. The seven dimensions are;

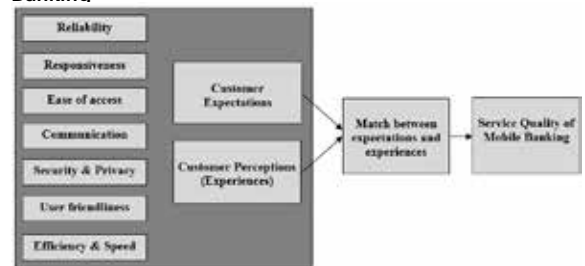
- (1) Reliability involves consistency of performance and dependability. Specifically, it involves accuracy and performing the service at the designated time. The connection needs to be consistent, and the services are performed with accuracy at the first time and avoid complicated follow-ups.
- (2) Responsiveness involves timeliness of service, for example information/confirmation on a transaction should be immediate. In case of failed transaction, the reason and remedy must be immediately intimated to the customer as well the corrective action should be time bound. Information of the performance of corrective action must also be given instantly.
- (3) Ease of Access involves approachability and ease of contact. It means that the service is easily accessible by mobile device being used by the customer. Banks need to create and update the mobile banking application to be suitable for all the handsets available in the market. Waiting time to receive service should not be extensive, timing of availability of services and operations need to be convenient.
- (4) Communication means keeping customers informed in

language they can understand. It means that the bank has to adjust its language for different consumers—increasing the level of sophistication with a well-educated customer and speaking simply and plainly with a novice. It involves explaining the service itself, explaining how much the service will cost, explaining the trade-offs between service and cost.

- (5) Security & Privacy is the freedom from danger, risk, or doubt. It involves safety and confidentiality. The transactions must be fool-proof, protected from intrusion and personal information of the customer and his/her transaction history must be kept private.
- (6) User friendliness means that the application should be simple and should not involve too much of navigation for finding or performing a service/transaction. The interface should adjust to the display characteristics of the handset, easily readable and visually appealing.
- (7) Efficiency and speed refers to the speed and cost of performing the mobile banking operations. The application must be compact and easy to download at no extra cost, the registration process should be simple and quick. While performing operations the data usage charges or SMS charges must be as less as possible.

Figure 1 depicts the conceptual model for assessing service quality of mobile banking services offered by banks. The gap between the expectations and the experiences of customers relating to the seven dimensions will decide the perceived quality of the service.

**Figure 1: Conceptual Model for Service Quality of Mobile Banking**



#### Conclusion

Mobile banking has some specific characteristics that make it different from other web based e-services, hence, it is essential to identify the dimensions/factors which will have a bearing on the service quality. It is identified that seven dimensions - reliability, responsiveness, ease of access, communication, security and privacy. User friendliness, and efficiency and speed – are relevant in case of assessing mobile banking. This study has proposed the model for assessing the service quality based on the seven dimensions of quality and also the parameters under each dimension are identified. Further research can be taken up to design and test a scale based on these parameters.

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