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ANALYSIS OF FACTORS IN E-BANKING: A REVIEW

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Abstract: This article is written amidst an environment wherein the government of India has emboldened 'Digital India' as a revolutionary movement in specific spheres like education, governance and technology. Banking sector is also moving towards arming its customers digitally with all its services. The ultimate aim of e-banking is to convert brick and mortar branches to digital avenues. This paper delves into reviewing e-banking trends that were noticed in the academic world, post Digital India initiative. It will be covering few dynamic areas like e-banking, in general and internet banking, mobile banking and mobile money, in specific, all of which are making a big impact to every Indian's life.

Keywords: e-banking, internet banking, mobile banking, mobile money, review.

INTRODUCTION

According to the estimates of International Telecommunication Union, World Telecommunication/ ICT Development Report and World Bank, in 2014 only 41 out of 100 people were found to be internet users in the world. To run e-banking platforms, internet usage is a basic need and the number of internet users mentioned above, shows that it has not even touched the mean so far. There were 32% of internet users during 2014, in Asia- Pacific region, which is well below the world average. In the same year, India had only 19% internet users, but on the positive side, the rate of change was seen to be rapid. As per NASSCOM's (The National Association of Software and Services Companies) 'The Future of Internet in India' report, by 2020, India is set to double its internet user base and will leave US far behind, in numbers. International Telecommunication Union, World Telecommunication/ ICT Development Report and World Bank, in 2014 says that 32% alone used internet in developing countries when compared to 78% internet users in developed countries, in 2014. The scene would be same when we compare urban and rural internet users in the world. Apart from urban- rural divide, there is a gender gap, in internet usage wherein 61% of men used internet compared to 39% women in India, according to a report by Statista, in 2014.

E-banking penetration in the world was 28.7% in 2012, as per Statista. The scenario was the same in Asia –Pacific region with 22%, in the same year. Such an avenue was still untapped. The spending on Information Technology investment by banks in Asia Pacific was pegged at 29% in 2015, a percent less than the previous year, as per Ernst and Young's global banking outlook report. Nevertheless,

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technology is going to play a vital role with the rate of investments that banks invest. As far as IT spending of Indian banks was concerned, the growth rate of IT investment was 10.6% in 2015, as per Gartner, Inc. (USA). Banks in India are trying to bring about a change but there was a lag in the usage for such investments made.

The present millennial generation in the world, among whom 61% favoured a shift from conventional to digital banking, according to Visa's Gen Y Report in 2012. It shows that there is a part of the population, which is eager to come forward to use digital platforms, but some factors are stopping them.

Concisely, e-banking represents a partially used potential market, which is still in its nascent stages. All the above data are influenced by various factors. These factors will be reviewed in this paper, to gain an insight to the persisting problem of e-banking adoption.

REVIEW OF LITERATURE

E- Banking

The scope of banking has widened due to technology, which is moving banks from conventional mode to digital one, as per the study conducted by Mittal et. al., (2016). The remnant old conventional modes must be systematically reduced in order to increase and retain customer loyalty. But this claim is contrary to the study conducted by Joanne (2015), in Canada, which stated that, customer loyalty can be retained only when paper bills are preserved as documents for future references and legal formalities. Transition from traditional to digital mode of banking is slower. As technology progresses, a full transition into digital banking would not be an issue if legal formalities are taken care of. Such transition slowness was pointed out in a study conducted by Akhisar et. al., (2015), among 23 developing and developed countries which pointed out that, bank profitability is still based on number of bank branches set up and not on the number of ATMs. Even if the transition seems to be slower, it is the need of the hour. Introduction and sustenance of technology demands more investment, but banks can only aim to grow higher through such platforms, in the future, according to a study by Rao and Rao (2015).

Transaction security is a critical issue that is in the minds of customers. A recent study conducted by Mohammed et. al., (2016) among 198 banking customer stated that, transaction security was the factor that made them not to choose e-banking. In the same way, an exploratory study conducted by Thompson et. al., (2016) among middle-class women in Kerala also raised this factor. It reduced customer's trust on e-banking according to a study by Yousafzai et. al., (2003). But, a study by Sikdar et. al., (2015), among 280 bank customers in India, analyzed using structured equation modeling argued that 'accessibility' was the factor that was of high concern. It can be inferred that, security was much lesser concern and it did not affect their

trust on the banking system. Customers deposit their hard-earned money in banks and it is bank's obligation to safeguard it. Safety features can be brought to the awareness of bank customers when marketing banking products and services. This can relatively enhance the usage of such a platform. In the Indian scenario, it was accessibility, which was pulling customers away from digital platforms. To get rid of accessibility hindrances, at various different levels, many studies had come forward with solutions. One of the studies, by Mishra et. al., (2015), among 110 Bank Customers, using Analytical Hierarchy Process (AHP), strongly advocated for the usage of Automated Teller Machine (ATM) as the initial step towards bringing accessibility closer to customers. Moreover, ATM was ranked as the most preferred technology for ease of use and that made other platforms like internet banking and mobile banking to slip down in ranking. A study by Dauda et. al., (2015) was conducted in Nigeria among 1,291 banked individuals, which took a bird's eye view of the future ATM process and suggested that it would be better to increase simplicity in usage even more, by introducing cardless ATM and thereby integrating it with smart phones. Such a transformation of ATMs was vouched for back in India, in a review paper by Sundaram and Sriram (2016), which pointed out the need to re-engineer existing ATM systems. Furthermore, in order not to leave behind other platforms like internet banking and mobile banking, due to hurdle of ease of use, a study by Rodrigues et. al., (2016) was conducted in Portugal, among 402 respondents, which used hedonic technology acceptance model and it stated that, gamification was a viable option for banks to involve the newer generation into an interactive and enjoyable mode of banking. This was because they found that ease of use and enjoyment were inter-related when it came to making customers use such platforms. Such a transition from ATM to other platforms were taking place and the valid evidence was found in Korea, as per the study by Nam et. al., (2016), from around 4,000 bank customers using propensity score matching method, who vouched for mobile banking due to its portability and other linked features. Surely, more such studies are shedding light on the removal of hurdles to bring ease of use to customers.

In the process of digitalization, India can never forget the rural regions, since it is wide spread than urban. A study was conducted by Kumaraguru and Gomathi (2016) in the rural side of Erode district in Tamil Nadu, which noted that it was bank customer's gender and educational qualification that had a significant relationship on the awareness about E-Banking. Even urban areas are not spared due to lack of awareness and this was brought forth as a study by Amutha (2016) in Thoothukudi district of Tamil Nadu, using probability analysis. A contrarian study by Sethuraman et. al., (2016) in Thanjavur district of Tamil Nadu, using stratified random sampling method, resulted in stating that, it is the lack of reach of bank facilities to rural areas and not ignorance that is hindering the progress of E-Banking. But, regardless of

these factors playing a spoil sport in inducing e-Banking, a study by Ananth (2016) made a point that it is feasible to bring technology, initially by focusing on rural population's common payments for fertilizers or provisions purchase, school fees or loan payments, by making use of Jan Dhan Yojana (a Bank account opening scheme), Aadhaar (Identity cum benefit linking card) and Mobile Phones. It is on basic needs that technology is tapping its potential, to penetrate towards all areas.

The other side of the population area, which is the urban population was demographically drawn by a study conducted by Gupta et. al., (2015) in the financial capital of India, by a survey among 435 bank customers, which was analyzed using ANOVA and F –Test, through which it was inferred that, internet banking usage depended on age group and income earned, whereas tele-banking and ATM usage never depended on those. Another study in Chandigarh by Singh (2016) pointed out that its 100 respondents supported usage of ATM, Internet and Mobile Banking over and above tele-banking. Tele-Banking had gone out of usage since it has no Electronic Fund Transfer [EFT] feature and due to more demand for mobile phone. A similarity that a feature like EFT had with platforms other than Tele-Banking and ATM were, that it had high relation with occupation or income earned, as per the convenience sampling study by Madhivannan and Kavitha (2015) conducted in Thirucharapalli, Tamil Nadu among 50 banking customers, using Percentage and Chi-Square method. Hence, as income increased, people moved from ATM and Tele banking platforms towards Internet and Mobile Banking.

Bank customers have plenty of digital options for financial transactions. This brings confusion to banks in order to identify those factors that cause preference to any of the e-banking platforms. Close to 20 factors were analyzed in a study conducted by Razia and Kavitha (2016) in Coimbatore, Tamil Nadu among 600 bank customers using correlation technique, which pointed out that reputation, security, service responsiveness, ease of use and good service quality were the triggering factors that customers looked out for. To re-confirm it, another study was conducted by Sailaja and Thamodaran (2016) in Tamil Nadu, among 422 respondents, analysed using correlation and regression analysis proved that all the above given factors were highly significant, together with technical improvement activities done by banks.

In a study conducted by Montazemi et. al., (2015) in the United States of America on the pre and post adoption stages of e-banking, through a survey among 25,265 bank customers, it was found that social influence induces e-banking in customers, during the pre-adoption stage. This is possible in a micro-level, but a study by Reddy et. al., (2015) on a macro-level revealed that there was increase in the usage of e-banking only when inflation, in the long and short run period and economic growth, in the long run period sustains in an economy.

Internet Banking

A study by Kumar et. al., (2016), among the non-users using regression analysis opine that, for internet banking to be highly useful, a primary requisite is accessibility. A personal computer or a laptop or a tablet and internet is a need for such a transaction. But, awareness of such a facility seems to be of not much hindrance, since most of the customers in private and foreign banks were aware of it, in a study conducted by Tandon et. al., (2016).

India has a large proportion of population in between the age group of 20 and 30, who are young. Their concern is not about accessibility or awareness, but rather it is about 'security risk'. An opinion on this varies from one region to another. In Kashmir, according to a study done by Bashir et. al., (2014), around 155 youngsters were selected through convenience sampling using technology acceptance model, it was found that, 'perceived risk' lingered in their minds. A similar trend was seen in few other areas in India, in a survey conducted by Roy et. al., (2016) with 270 respondents using partial least squares -structural equation modeling (PLS-SEM) method. But, the picture was different down in Indore, as per this study by Yadav et. al., (2015), in Madhya Pradesh whereby convenience sampling was used through structured equation modeling, it was 'perceived usefulness' which was the top most ranked factor. Both types of youths had awareness, but their perception differed in a positive and negative note. Youths in Kashmir lacked enough assurance from the banking system. There is a large scope for banks to remove this phobia of perceived risk and gradually convert it to perceived usefulness at least among the younger generation. A way forward could be by imposing e-trust as per a study by Yousefi (2015) in Iran, through 177 banking customers by using structural equation modeling which suggested that banks could work on few things such as individual's disposition to trust, website's ease of use and security and last of all, the reputation of the bank. These could bring in changes as to how customers perceive this platform.

To find out the satisfaction level among users, a survey was conducted by Raza et. al., (2015) among 400 Pakistani banking customers using SERVQUAL model which hinted about lack of assurances, prompt responses in case of security breaches as well as intangible nature of internet banking. These factors reduced the efficiency of the platform. This clearly points out about the perceived risk that potential bank customers or non-users were apprehensive about. Users were not satisfied with the post-threat disaster management that they got after a transaction security breach. This was affirmed by two different studies which were conducted in Haryana conducted by Lal (2015) and in Kerala, by George and Gireesh (2015) with a sample size of 400, using percentage and confirmatory factor analysis respectively. The result of providing security is undoubtedly trust. Thereby, a study in Oman, by Sharam et. al., (2015) analyzed using multiple linear regression and 110 respondents stated that

customers were looking out for service quality and trust. Another small factor which 200 internet banking users through a study in Melaka, Malaysia by Ling et. al., (2016) pointed out was about- website design and content. They were demanding for more of user friendliness to be introduced in this platform.

Mobile Banking

The future where banking is8 going is to our small, hand held, easily accessible and universal device –Smart Phones. A survey by Bharti (2016) with 1,000 respondents conducted in India agreed that it was easy access that attracted bank customers to opt for it. They could clearly distinguish the benefit that they would beget when compared to internet and tele banking. This was re-affirmed by earlier and concurrent studies. One of the studies in Thailand by Shih et. al., (2015) among 417 mobile bank customers using confirmatory factor analysis found that, users believed that mobile banking was the perfect channel through which they could operate banking transactions. Another study which was an exploratory research conducted by Tran et. al., (2016) in New Zealand had 183 respondents who vouched the fact that their mobile phones were perceived to be very useful when it came to banking.

Social influence was one of the factors that could attract more customers as per Alam (2014), during a survey with 225 mobile banking customers in Bangladesh. There is a paradox, since the same social influence could be dangerous when it was a social risk, whereby the society may blame the customer for a faulty mobile banking transaction. This was brought forth by a purposive sampling, done in Malaysia by Kassim et. al., (2015) respondents using partial least square method.

Another reason why mobile banking was chosen to be the preferred channel was due to its 'performance expectation' that customers had. A study by Bhatiasevi (2015) in Thailand wherein 272 respondents through structured equation modeling believed that this channel could help them increase their transaction performance in a faster way. This was similarly found in a study by Tan et. al., (2016) that focused on 347 millennial generation users, using the same model in Kuala Lumpur.

Studies reviewed so far about mobile banking could show an element of positivity, because when it came to riskiness, unlike other channels, the respondents in West Africa weighed the benefits begot from mobile banking more than the risk that they faced, according to a study carried out by Gbongli et. al., (2016). Apart from portability, it could be because of the presence of telecom operators and a regulatory system that mobile banking had, unlike other platforms.

Mobile Money

A subset of mobile banking and overgrowing segment of e-commerce is mobile money. Users of such platform opted for mobile money due to 'performance expectancy'. Slade et. al., (2015) in the United Kingdom, using snowball sampling,

proved this in her study. It was mentioned that 244 users believed in the ability of this platform to finish their payments efficiently. A year later in the same region through a longitudinal study by the same team in Slade et. al., (2015), using convenience sampling, the factor was once again upheld by 268 non-users, who expressed that along with performance expectancy, other factors like social influence, innovativeness, and perceived risk also attracted them to this digital platform. But the same set of non- users disagreed that effort expectancy (ease of use) did not have a role to play. This was also opined by 210 users in a study by Khusbhu and Rajan (2016) in New Delhi, India that effort expectancy was insignificant. Such a view would have risen due to the non-usage of mobile money platform or because of the platform's non-user friendliness, since, in the same year in Malaysia, when 319 young users were surveyed by Teo et. al., (2015) using the same model, it was inferred that factors like performance expectancy, effort expectancy, facilitating conditions, and trust did attract them to this platform. Contrarian studies acknowledged that the platform had effort expectancy engrained in it. The rise of e-commerce was one of the factors that led to the usage of mobile money. Separate studies by Rathore and Swetha (2016) and Mukherjee (2015) in India with approximately 400 respondents using ANOVA concurred to the fact that there is growing acceptability of mobile money in many avenues, apart from the regular credit or debit card transactions in shop.

If the above factors were the once that could draw users to mobile money, a more starker reality was presented in a study by Yang et. al., (2015) in China wherein 310 users through structural equation modeling were found to have a fear over ignorance on the information they had in hand about the service provider's charges, fees and operation. Frequent network service problems, intangibility of the service that was offered and the uncertainty over adherence to regulatory norms by the service providers were the questions that were posed before such a platform. Trust is the result of all these corrected challenges and only then the poorer people in the society could be included in this platform, according to a study by Chauchan (2015) in India.

DISCUSSION AND CONCLUSION

From the studies of various researches, it was found that, banks have to embrace internet technology and align it with its strategy in order to sell its products and services, as well as for staying competitive (Kamel, 2005). But, issues do exist in several forms. A major hurdle is the legal formality issue, which affects customer loyalty. Such an issue is harmful for both the new users in mobile banking or mobile money. A new mobile banking user who faced any legal formality issue would never use mobile money or a new mobile money user who faced any legal formality issue would never use mobile banking. It is interlinked and hence customer loyalty

is fragile (Weber and Aline, 2010). Studies have found that trust and security are closely inter- related. To build trust, innovation of technology is the element that banks can rely on. This article cited reviews that could strength security and also noted that trust in its extended sense is customer loyalty itself (Mukherjee et. al., 2003).

Rural people have inaccessibility to E-Banking when compared to urban and semi-urban areas because of lack of awareness. As per 2001 census, there are 122 major languages and 1,599 other languages in India. It is an inevitable task for banks, to reach out to this population through their mother tongue languages. Another route that could be taken is to introduce voice-calls and bio metric in such areas for finishing technological transactions with minimum steps (Sharma, 2012).

When it comes to internet banking, there is a lacuna that customer usage is not on par with the investment that has been poured in public sector banks. This is mainly because of the lack of awareness that is found among customers (Gupta and Vandana, 2015). One more hurdle was security threats and its post treatments. Customers were of the view that such security breaches were not well attended to, which calls for a serious overhaul of customer service management (Joseph and George, 2003).

Mobile Banking undoubtedly got an upper hand over Internet Banking, due to cost feasibility in purchase of a basic mobile phone over a Personal Computer or Laptop or Tablet and due to user friendliness and mobility (Martins et. al., 2014). Another factor that influenced mobile banking was social influence, but it was found to harm customer's self esteem when exposed to a wrong transaction. To avoid this, banks can focus on replacing social influence with social media influence, on customers (Yu, 2012). The last segment dealt with mobile money, wherein customers were in search of transparency in the system. A social impact rating by regulatory bodies could be a way forward for such a problem (Cahan, 2009).

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