

Factors Affecting Adoption of Mobile Banking at the Bottom of the Pyramid in India

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ABSTRACT

Recent success of companies like ITC, Hindustan Lever, Godrej etc. have prompted companies to think of an earlier neglected market referred to as the market at the “bottom of the pyramid”. The market has unique characteristics and the strategies of the upper markets don’t usually work in this category or segment. The size of the market and the lower transaction cost of banking transactions have prompted banks to think of entering this segment with mobile banking as a distribution channel for banking services. The factors affecting rejection or acceptance of mobile banking have piqued interest among researchers and remain unknown due in part to consumers’ trust, cost and risk perceptions associated with this new platform. This study extends this line of research by conjointly examining dimensions of cost, trust, and risk in mobile banking with perceived ease of use and perceived usefulness as mediating variables of the relationship. Results of this study indicate that though perceived cost and perceived risk both had negative relationship with perceived ease of use yet the trust dimension had strongest influence on actual usage for this segment. The results indicate that in order to gain penetration in this segment companies need to pursue strategies to gain trust of the customers in this segment.

Keyword: Mobile Banking, Bottom of Pyramid, Technology Acceptance Model, Consumer Behaviour

INTRODUCTION

As per C.K. Prahalad, most MNCs have originated in affluent part of the world and therefore their views of business are have been conditioned by their knowledge and familiarity with more affluent consumers (Prahalad & Hart, 1999). These companies have conventionally overlooked the less affluent segments of the society citing this segments limited purchasing power as a reason (Gupte, 2013). These MNCs traditionally have been of the opinion that due to low purchasing power and per capital incomes of the individuals, these segments are less profitable and in certain cases not worth the operating costs of traditional business models. Therefore, it was left to government and public sector providers to cater to the poor and less affluent sections of the society.

It was in 2002 that Hart and Prahalad published their theory of “fortune at the bottom of Pyramid” and attracted attention of MNCs to direct their attention to this section of society (Hart & Prahalad, 2002). In their work they highlighted that the bottom of the pyramid represented new market opportunity both in a economic and a social

respect. Latest estimates put the number of people living at the bottom of the pyramid to be around 4 billion in emerging economies with an opportunity of more than \$ 5 trillion (Expo, 2014). Given these numbers though the margin per customer might be ultra thin yet the volumes would put a company in a very profitable position.

However, penetrating the BOP market and mass marketing to this segment means a company needs to base its business model on affordability, acceptability, availability and awareness where the model is driven by low fixed cost and flexibility (Prahalad & Hart, 1999). These innovative business models are easier talked about than implemented. However, marriage between technology and business processes has opened up this avenue for companies.

This holds valid for banking sector as well where technologies like e-banking, business correspondent, mobile banking have reduced the fixed cost of operations and given the flexibility of local embeddedness to the service provider. It is within this backdrop that the current study was undertaken with an objective to study the factors which influence the adoption of marketing mobile banking at the bottom of the pyramid. The study

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would help marketers develop strategies to influence the adoption rate and make the market feasible in terms of volume. The study would also contribute to the limited literature on characteristics of the market at the bottom of the pyramid.

BANKING SECTOR: UNTAPPED POTENTIAL

Total banking assets in India touched US\$ 1.8 trillion in FY13 while bank deposits grew at a compounded annual growth rate (CAGR) of 21.2 per cent over FY06-13 and total deposits in FY13 were US\$ 1,274.3 billion (IBEF, 2014). These statistics indicate that the Indian banking sector is constantly growing. These figures present only the partial picture. India is yet to tap into the bottom of the pyramid potential. The banking potential at the bottom of the pyramid can be deduced from the following statistics.

World Bank estimates, published in 2013, indicate that about 2.5 billion adults lack access to formal financial services, limiting their ability to benefit from economic opportunities, improve their health and education, and raise their income levels (Bank, 2013). As per statistics on data dashboard of World bank only 35 % of Indian population have an account at a formal financial institution, 4 % use the account to receive government payment, 2 percent use a bank account to receive remittances and 12% save in a financial institution (Bank, 2015). Therefore, there is a vast untapped potential at the bottom of the pyramid. However, with the traditional banking business processes and models this segment would remain elusive and low profit segment. But recent development in technology has led to reduction in costs of banking business processes (Mattila & Hanin, 2015; Mostafa, 2015) and development of new models and processes like ATM, e-banking and mobile banking therefore is helping in making these segments more viable.

MOBILE BANKING: TECHNOLOGY BASED OPTION FOR BOTTOM OF PYRAMID

Mobile banking allows a customer to access their bank account by using a mobile phone, to conduct a transaction like checking account status, transferring money and paying bills. Convergence of communication technology and banking had led to development of this mobile banking which boasts of advantages like independence,

convenience, cost saving and promptness to the customer (Masinge, 2010).

Mobile banking is a win-win alternative both for the banks and the customers. Estimates indicate that average costs for mobile financial transaction is about 20 US cents, compared to US \$1.45 at branches (GSMA, 2013). Customers benefit not only from this decreased transaction cost but also in terms of a flexible service as they carry the distribution channel of the bank in their pockets.

These decreased overhead expenses have motivated banks to explore new segments which earlier were unfeasible because the lower transaction cost means that volumes could help companies achieve profits: A notion which is backed by mobile revolution India. Mobile Economy India report indicates that with 900 million mobile connections, India is the second largest market by mobile connections and unique subscribers in the world and has 1/4th of the mobile connections in the APAC region (GSMA, 2013). These numbers indicate that if marketed properly mobile banking could lead to banks tapping into a huge unexplored market potential and reaping synergistic benefits. However, none of these benefits can be realised if the consumer does not adopt the technology. Statistics indicate that 90% of the 100 million accounts opened under the financial inclusion plan since 2006 are unused (Jain, 2012).

It is within this backdrop that the current study was undertaken to study the factors which affect adoption of mobile banking at the bottom of the pyramid.

NEED AND RELEVANCE OF STUDY

Review of literature indicates that there is a high penetration of mobile phone in the Indian society. Data indicates that in India the penetration of mobile phones was 71 per 100 people i.e. 71 people out of every 100 in India had a cell phone subscription (Group). Research indicates that ~345m adults live on less than \$5/day and use formal financial services (Chaia et al., 2013). In the same study the number of adults is taken to be 760m (as per 2005 estimates) using the same estimates there is more than 50% of market which does not have access to financial services. Coupling these two facts there is a market of 345m people who could be receptive to mobile banking and there is a huge market that could be made

receptive to the product. Therefore, mobile banking has the potential to address the needs of low income group consumers.

However, mobile banking is yet to find its footing in the market let alone realise its potential. Therefore, there is a need to study the other two dimensions of marketing to the bottom of the pyramid i.e. awareness and acceptability. It was within this gap that the current study was placed to study the reasons for adoption of mobile banking. Current study was an attempt to identify the factors which influence a respondent's actual usage mobile banking (acceptability).

Past research indicates that there are multiple reasons that account for the reluctance to adopt mobile banking by the customers at the bottom of the pyramid. These could be low profits from the small but frequent transactions conducted by this segment (Leeladhar, 2006), lack of products to meet the specialised needs of this segment, minimum balance requirements, cost of transaction (Ravi & Gakhar, 2015) and/or documents required to open the bank accounts (Jain, 2012). Though individual researchers have tried to study the reasons for non adoption of mobile banking, review of literature did not highlight any comprehensive study. However there was no dearth of research on Internet or online banking. Mobile banking is an extension of internet banking where the consumer uses a smart phone browser to conduct a transaction instead of a personal computer. Mobile has a unique set of characteristics which make the concept more challenging however, the extension in technology logic was used to infer the list of factors and propositions. Review of literature therefore, includes all technology oriented business processes.

REVIEW OF LITERATURE: FACTORS WHICH INFLUENCE MOBILE BANKING AT BOTTOM OF PYRAMID

Consumers are reluctant to adopt technology oriented business processes because it requires significant behaviour change in which at times they have to become co-producers in which case the responsibility for delivery of service and satisfaction becomes partly theirs (Meuter, Ostrom, Roundtree, & Bitner, 2000; Sannes, 2001). Therefore, a bulk of services research in has focused on developing frameworks to understand

and predict a consumer's technology adoption (Aggelidis & Chatzoglou, 2009; King & He, 2006; Schepers & Wetzels, 2007). Review of literature indicated that there are multiple frameworks available to help companies understand the consumer's technology adoption for example Theory of reasoned action (Curran, Meuter, & Surprenant, 2003), Technology acceptance model (Beri, n.d.), computer self efficacy model (Kansal, 2014), task technology fit model (Jarvenpaa, Tractinsky, & Saarinen, 1999), Adapted theory of planned behaviour (Laforet & Li, 2005) and Innovation diffusion theory (Davis, 1985) among others.

This study used technology acceptance model (TAM) as a base for research model. TAM was proposed by Davis as a model for predicting whether users will adopt a new technology or not (Davis, 1993). TAM posits that behavioural intention is determinant of actual use and behavioural intention is in turn determined by perceived ease of use and perceived usefulness. Model also states that perceived usefulness of a technology increases as it is perceived as easier to use (Davis, 1989; Davis, Bagozzi, & Warshaw, 1989; Davis & Venkatesh, 1996). Therefore, as the perception of ease of use and usefulness increase in the customers their actual usage mobile banking would also increase.

Proposition 1: Perceived ease of use and perceived usefulness increases the actual usage mobile banking.

However, the model does not refer to factors which effect perceived ease of use and perceived usefulness. The current research proposes to extend this model backward to study the 3 factors which would affect adoption of mobile banking i.e. perceived cost, perceived risk and trust.

- a. Economic benefit/ Perceived cost: in the current study the perceived cost refers to the cost the customer perceives they will have to incur in a mobile banking transaction. This includes airtime and bank charges. Past researcher has indicated that the bottom of the pyramid segment of consumers with low incomes and are very price sensitive segment (Karnani, 2006; Pitta, Guesalaga, & Marshall, 2008). Karmani in her rebuttal article to Prahalads bottom of the pyramid agreed to price sensitive nature of this segment. This segment lives on a budget and every increased expense is

minutely scrutinised with value of that expense activity. Therefore, Price sensitivity implies that the perceived cost of mobile banking would influence the perceived use and ease of use of mobile banking and hence the actual usage at the bottom of the pyramid.

Proposition 2: Perceives cost would influence the perceived usefulness and ease of use of mobile banking and hence the intention to use.

- b. Perceived risk: Past research has highlighted that perceived risk influences the adoption of innovative technology be it ecommerce, online purchase or online banking (Featherman & Pavlou, 2003; Lee, 2009; Pavlou, 2003; Zhang, Yang, Wang, Zheng, & Sia, 2015). Kansal study indicates that the adoption of online purchase in India is greatly influenced by perceived risk and privacy concerns (Kansal, 2014). Kumar and Dange indicate that the buyers have maximum perceived risk regarding financial risk, social risk, time risk and security risk (Kumar & Dange, 2014). Therefore, higher is perception of risk lower would be perceived usefulness and ease of use of mobile banking and hence lower would be the intention to use.

Proposition 3: Perceived risk would influence the perceived usefulness and perceived ease of use of mobile banking and hence the intention to use.

- c. Trust: this has been one of the most researched factors in adoption of any kind of technology be it

online purchase, online banking etc. Researchers have indicated that incase of online consumers trust had a significant impact on both ease of use and usefulness (McCloskey, 2006; Pavlou, 2003). Research indicates that in as compared to traditional methods where personal contact builds trust, in online methods, trust is built through ability, integrity and benevolence of service provider (Bhattacharjee, 2002; Gefen, Karahanna, & Straub, 2003). Therefore, trust influences perceived ease of use and perceived usefulness and hence the behavioural aspect of mobile banking.

Proposition 4: Trust would influence the perceived usefulness and perceived ease of use of mobile banking and hence the intention to use.

CONCEPTUAL MODEL

The objective of the study was to understand the relationship between various factors and actual usage of mobile banking by the users at the bottom of the pyramid. In order to explore this relationship, actual usage amongst the bottom of the pyramid was taken as dependent variable, perceived usefulness and ease of use as mediating variables and 3 factors as independent variables and two factors proposed by TAM i.e. perceived ease of use and perceived usefulness as mediating variables. Fig. 1 outlines the conceptual model and Table 1 lists the hypothesis proposed for the study.

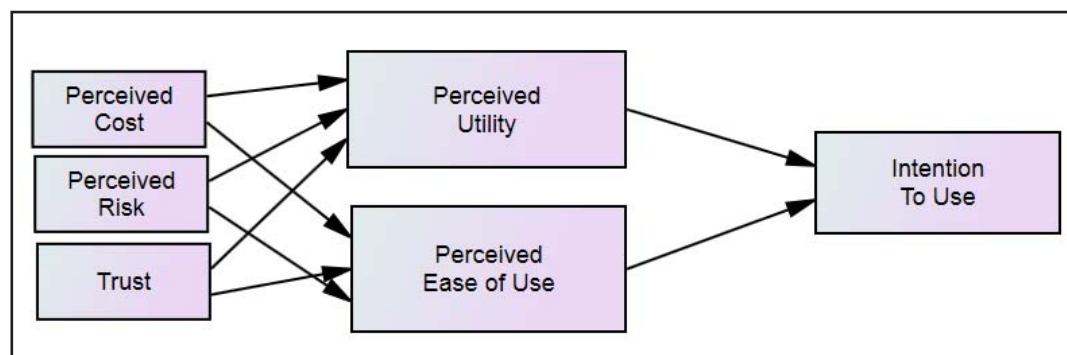


Fig. 1 Conceptual Model

Table 1: Hypothesis of the Study

| | Proposition | Hypothesis |
|---|---|---|
| 1 | Perceived ease of use and perceived usefulness increases the actual usage of mobile banking. | H1: There is a significant and positive relationship between perceived ease of use, perceived usefulness and actual use of mobile banking. PU → AU (+) PEO → AU (+) |
| 2 | Perceives cost would influence the perceived usefulness and ease of use of mobile banking and hence the intention to use. | H2a: There is a negative and significant relationship between perceived cost and perceived utility and perceived ease of use. PC → PU (-) PC → PEOU (-) |
| 3 | Perceived risk would influence the perceived usefulness and perceived ease of use of mobile banking and hence the intention to use. | H2b: There is a negative and significant relationship between perceived risk and perceived utility and perceived ease of use. PR → PU (-) PR → PEOU (-) |
| 4 | Trust would influence the perceived usefulness and perceived ease of use of mobile banking and hence the intention to use. | H2c: There is a positive and significant relationship between trust and perceived utility and perceived ease of use. T → PU (+) T → PEOU (+) |

RESEARCH METHODOLOGY

Research Design

In order to achieve the objectives of this study, a quantitative research methodology was chosen. The current study was designed as a causal study with statistical control research design to study the factors which influence adoption of mobile banking at the bottom of the pyramid.

Population

For the purposes of this study, the population was defined as the segment at the bottom of the pyramid. Defining Bottom of Pyramid in India is a challenging task due to different methodologies followed by different institutions. On the basis of these methodologies, the Bottom of Pyramid in India varies from 335 million (as per the Official Government of India poverty line number) to 1.05 billion people (as per the 2007 McKinsey Report on 'The Rise of India's Consumer Market'). The McKinsey Report states that out of every 6 people in India 5 are bottom of the pyramid living on an annual household income of less than INR 2,00,000 or 16,667 per month. The report also projects come 2015, the bottom of the pyramid will still account for 78% of the country's population or 997 million Ablet, Baijal, Beinhocker, Bose, Farrell, Greenberg, & Gupta, 2007). The McKinsey report is a better indicator of the bottom of pyramid as it not only

measures households living in poverty but also families capable of lifting themselves out of into the middle class.

What further complicates defining the bottom of pyramid in India is the prevalent rural and urban divide Urban India is characterised by greater cost of living, food and transportation. Government of India acknowledges this fact and has accordingly defined two poverty lines – one defining the urban poor (less than Rs. 32 per day) and other the rural poor (less than Rs. 26 per day. As per the National Sample Survey Office (NSSO), the income of rural household is almost half of that of a household in urban India. For the present study bottom of pyramid was defined as those having annual household income less than `3,00,000 in urban India and less than Rs. 1,60,000 in rural India (Team, 2013).

Unit of Analysis

The unit of analysis for the study was a mobile phone owner in urban India with or without a bank account in India with annual household income of less than equal to Rs. 300000.

Sampling and Size of Sample

The unit of analysis for this study was people with income less than Rs. 300000 therefore; a simple random sampling

in this case was not possible. Therefore a cluster sampling was adopted. Data were collected by dividing sectors of Chandigarh into clusters on basis of disposable income of the households. To develop a sampling frame for this variable the size of houses was used as an indicator. The reasoning behind this sampling frame strategy was that people in 10 Marla or 1 Kannal houses or bigger houses would have household income of more than Rs. 300000 p.a.. Therefore, areas like Sector 15, industrial area, Sector 22 etc were used which had more of migratory work force. The data within these sectors were collected by walking around these sectors. To further ensure adequacy of sample a screening question confirming the household income per annum was included in the questionnaire. Data were collected from people working in hotels, restaurants, hostels and factories etc. Data were also collected from markets like Rehri market in Sector 22 and Mansa Devi temple. Data were collected from 300 respondents.

Data Collection

Government of India considers anyone who can sign his/her name as literate. Keeping with this definition the segment at the bottom of the pyramid has limited reading and writing skills. Therefore, data from these respondents was collected with help of a schedule. A schedule was prepared on basis of independent and dependent variables in English from the standardised scales (Table 2). The schedule was then translated into HINDI for convenience of the respondent and researcher.

The scales shown in Table 2 are used to collect data.

Table 2: Scales for Data Collection Instrument

| | <i>Variables</i> | <i>Scale</i> |
|---|-----------------------|------------------------------------|
| 1 | Perceived ease of use | Fred D Davis, 1985, Lee, 2009 |
| 2 | Perceived Usefulness | Fred D Davis, 1985, Lee, 2009 |
| 3 | Actual usage | Kim et al., 2007 |
| 4 | Perceives cost | Wu & Wang, 2005; Luarn & Lin, 2005 |
| 5 | Perceived risk | Lee, 2009 |
| 6 | Trust | Bhattacharjee, 2002 |

The respondents responses will be marked on 5 point Likert scale where 1 was strongly disagree and 5 strongly agree.

RESULTS AND DISCUSSION

Demographic

A preliminary analysis of the respondents indicated that 27.7 percent respondents were in the income bracket of Rs. 250000 – 300000, 25% were in the bracket of Rs. 100000 – 150000, and a few respondents in the bracket between Rs. 300000 – 320000. A decision was made to use these questionnaires because the difference in annual income was not significant and these consumers could also be treated as target market for the mobile banking. Out of the 300 respondents 94.3 percent of the respondents had a bank account indicating that these could be the customers for mobile banking. Majority of the respondents in this category were found to be immigrant workers from rural India around 60% of the respondents were immigrants working in and around Chandigarh. Also the demographics indicated that the 74% of the respondents had been using a phone for more than 3 years and were very well versed with applications for running music, movies and messaging. The respondents were 81% males and only 19% were females with majority of respondents i.e. 42% being matric pass i.e. possessed the basic knowledge to learn how to operate mobile banking software. 53% of the respondents were also found to own a smart phone thanks to second hand sets markets in India. The demographic of the respondents indicated that the sample was representative of the population and fit for further analysis.

Psychometric Properties of Scales

Reliability Cronbach Alpha: The internal consistency and reliability of the scale was measured using Cronbach coefficient alpha. According to works of Nunnally for purpose of basic research, a Cronbach alpha of 0.70 or higher is good but above 0.55 was acceptable (Nunnally, 1978). Cronbach alpha for all the scales i.e. perceived cost, perceived risk, trust, perceived ease of use and perceived usefulness met this limit. Perceived cost scale was found to have a Cronbach alpha of 0.58 but was within the lower limit and therefore it was decided not to change the original scale.

The main objective of the study was to identify the factors which influenced the actual usage of a consumer of mobile banking at the bottom of the pyramid. In order to test the proposed hypothesis the conceptual model was tested with help of AMOS 20.

Model 1: The first model proposed that perceived usefulness and perceived ease of use mediate the relationship between perceived cost, perceived risk, trust and actual usage. The chi square for the model did not support the model ($=260.560$, $df = 7$, $p=0.000$). The value indicated that there was a possible difference between the model's implied population covariance and actual observed covariance. However, researchers have suggested that is sensitive to sample size and therefore should not be solely

used to accept or reject or accept a model (Fornell & Larcker, 1981). A model can be accepted if it passes at least 3 fit indices (Bollen & Long, 1993; Jaccard, 1996). Therefore, an overall fit was estimated using 3 category of indices i.e. absolute fit indices, incremental fit indices and parsimonious fit indices (Table 4). The, GFI, RMSEA, NFI, CFI and AGFI indicated that model was not a very good fit and could be improved.

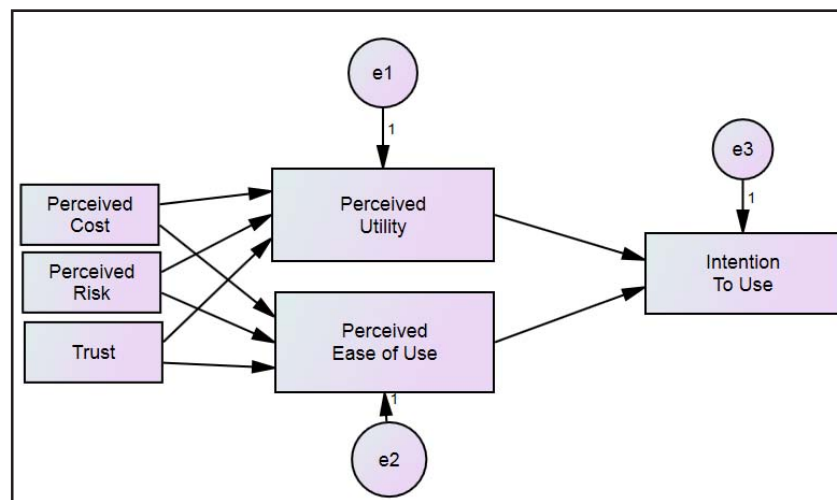


Fig. 2: Model 1

An analysis of the, modification indices indicated that by adding additional path between perceived ease of use to perceived utility, perceived risk to actual usage and from trust to actual usage; would increase the model fit. Literature was reviewed to search for support for these proposed paths. Research indicated that perceived ease of use did influence perceived utility (Venkatesh & Davis, 1996, 2000). Furthermore, at the bottom of the pyramid, the customers are skeptical and have very different purchasing habits. These people like to have a contact with the supplier of the goods and test the goods before they purchase them. Therefore, trust and perceived risk could have a direct covariance with the actual usage mobile banking instead of the relationship being mediated by perceived utility and perceived ease of use. Past research also indicated that customers at the bottom of the pyramid were very sensitive to price and therefore, perception of price influenced their perceived ease of use of the technology. However, the results indicated that there was no significant relationship between perceived cost and perceived utility. Though not significant does not

mean that we remove a path but the path loadings in this case were near to 0.00 and removing the path changed the model fit dramatically. Therefore, it was decided to test the model without this path in order to increase the model fit. The study is based on first order construct factors.

Model 2: The chi square for the new model changed by 102.206, though the null hypothesis was still rejected indicating that the model was not a good fit. However, the three indices indicated that the model was a better fit than the earlier specified model. An analysis of the revised modification indices indicated that additional paths had improved the model fit.

The fit indices for Model 2 indicated that though the chi square still did not support the model fit yet RMSEA was at 0.25 which was above the good fit however, GFI was at 0.89 i.e. within the limit. Therefore, the absolute fit indices were from bad to good. Incremental fit indices indicated moderate to good fit for the model that NFI was 0.83, CFI was 0.83 and AGFI was 0.54.

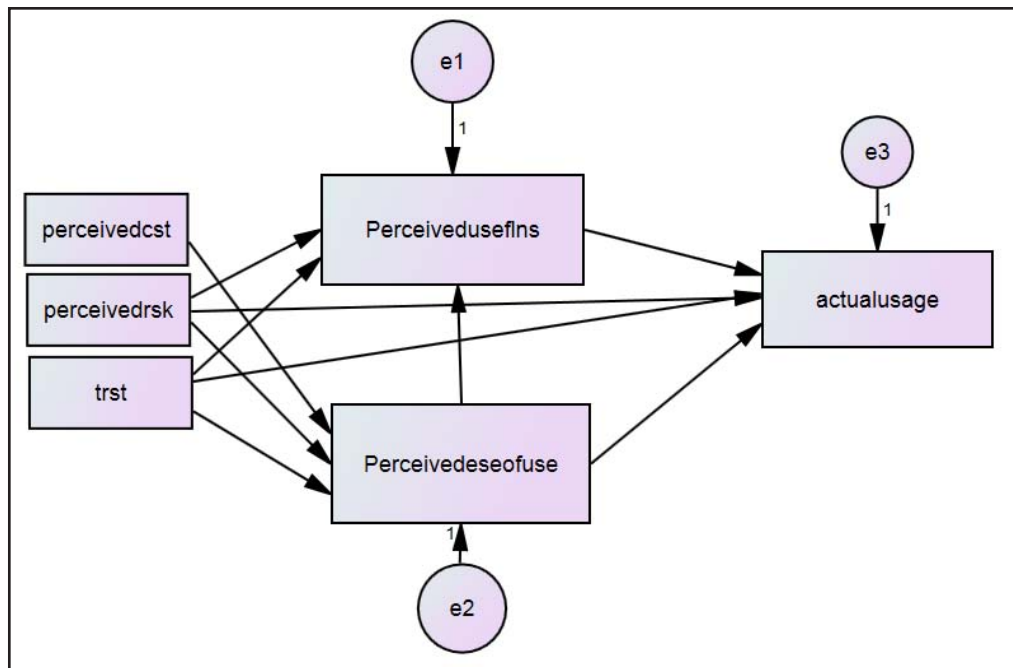


Fig. 3: Model 2

Therefore, in conclusion results indicated that the path between perceived ease of use and perceived usefulness was significant, indicating a strong interdependence between the two mediating variables however only perceived usefulness had a significant relationship with actual usage or actual usage at p value = 0.014 at 95% confidence level (Table 4). Model also indicated that paths from perceived cost, trust and perceived risk to perceived ease of use were significant indicating that perception of perceived ease of use, for the consumer, was influenced by all three factors studied in the current

study. Interestingly the study found that there was no significant relationship, in case of mobile banking for the studied sample, between perceived ease of use and actual usage. A possible explanation for this could be found in the perceived nature of the services. An informal interaction with some of the respondents indicated that financial matters are considered high risk services and therefore, ease of use by the people at the bottom of the pyramid was translated as ease of stealing. However, ease of use did influence the perceived usefulness which had a significant relationship with intention to use.

Table 3: Model Fit Indices

| Model 1 | | Model 2 | | Standardised Measures |
|--------------------|-------|--------------------|------|---|
| Model fit Measures | | Model fit Measures | | |
| GFI | 0.82 | GFI | 0.89 | Values closer to 1 indicate good fit |
| AGFI | 0.38 | AGFI | 0.54 | Value closer to 1 indicate good fit |
| CFI | 0.71 | CFI | 0.83 | 0.80 or greater |
| NFI | 0.70 | NFI | 0.83 | 0.80 or greater |
| RMSEA | 0.307 | RMSEA | 0.25 | Lower values are considered preferred values less than 0.05 |

Source of Std. Indices: Malhotra, N. K. (2008). *Marketing research: An applied orientation, 5/e*: Pearson Education India.

The results also indicated that there was a negative relationship between perceived risk and perceived ease of use and a direct negative variance with intention to use. Past research indicates that customers are afraid of losing money in case of online transactions (Kuisma,

Laukkanen, & Hiltunen, 2007) Furthermore, literature supports the notion of perceived justice and says that if a consumer perceives that in case of an error the recovery systems are not going to be very efficient the perception of risk increases (Chang & Hsiao, 2008). Same arguments

can explain the perceived risk relationship with perceived ease of use and intent to use i.e. if a customer perceives that there is a risk for incurring monetary loss in a transaction and that the loss might not be compensated the perception of risk is high which in turn influences his perception of ease of use and intention to use.

Significant path in the model which was not hypothesized was the path between trust and intention to use. The results supported that there was a significant and positive relationship between trust and intention to use. Though past research supports the relationship between trust and consumer perception of ease of use and perceived usefulness, in the current study direct variance was also found between trust and intention to use. An explanation for this could be found in past research where authors have indicated that online or ecommerce banking lacks physical proximity of the user with the bank and therefore, the intention to use is influenced by the customers perception regarding the integrity, benevolence, and competence of the bank: the trust dimension of ecommerce (Luo, Li, Zhang, & Shim, 2010; Yousafzai, Pallister, & Foxall, 2003).

Table 4: Estimates for the Model

| <i>Path</i> | <i>Hypothesis</i> | <i>P value</i> | <i>Std. estimate</i> | <i>Hypothesis Test result</i> |
|--|-------------------|----------------|----------------------|-------------------------------|
| T→PEOU | Tà PEOU (+) | *** | 0.461 | Supported |
| PC→PEOU | PCà PEOU (-) | 0.004 | -0.143 | Supported |
| PR→PEOU | PRà PEOU (-) | 0.001 | -0.163 | Supported |
| PR → PU | PR à PU (-) | .714 | -0.016 | Not Supported |
| T → PU | T à PU (+) | *** | 0.323 | Supported |
| PEOU →PU | Not hypothesized | *** | 0.472 | -- |
| PU→Int | PUà Int (+) | 0.014 | 0.153 | Supported |
| PEOU→Int | PEO à Int (+) | 0.350 | 0.056 | Not Supported |
| Trst → Int | Not hypothesized | *** | 0.478 | Supported |
| PR→Int | Not hypothesized | 0.006 | -0.125 | Supported |
| PC→PU Path removed to increase the model fit | Not hypothesized | | | -- |

What findings suggest is that trust, perceived cost, and perceived risk influenced the consumer perception of perceived ease of use. As the perceived risk and perceived cost increased the perceived ease of use in case of mobile banking for the bottom of pyramid decreased however as the trust increased the perceived ease of use also seemed to increase. In context of perceived usefulness, it seemed that trust was the only dimension which influenced the perceived usefulness out of the factors hypothesized for the study. However, perceived ease of use was found to have a significant influence on perceived usefulness which in turn was found to be influencing actual usage.

Therefore, the results of the study indicated that the companies which are catering to the bottom of the pyramid customers need to work on establishing the trust relationship with the customers. Trust seems to act as an important mechanism influencing the adoption of not only mediating variables i.e. perceived ease of use and perceived usefulness but also actual usage of mobile banking. Strategies like customer relationship management, exception performance, complaint resolution and empathy would help companies establish trust.

CONCLUSION

The objective of this study was to formulate and test empirically a model of how perceived cost, trust and perceived risk influence the behaviour of mobile banking services with perceived ease of use and perceived usefulness (TAM) as mediating variables. This paper's goal was to specifically test the variables in context of mobile banking and for bottom of the pyramid consumers. These consumers at the bottom of the pyramid are not bulk purchasers and per unit profit in this segment is small but the volume of the market more than make up for per unit profitability. Therefore, a study into the factors which influence the adoption rate of mobile banking in this segment would mean a difference between a successful company and a failed company.

Research model, for this unique segment, successfully converged to indicate that trust, perceived risk, and perceived cost influenced perceived ease of use which influenced perceived usefulness and these were the driving factors for adoption and use of mobile banking services at the bottom of the pyramid. The results supported the proposed model and also highlighted the

potential influence of trust in adoption of mobile banking. The results of structural equation modeling indicated that in order to market successfully to this segment companies needed to work on strategies which fostered trust in the perception of a consumer for the bank. A trust in the bank and its capability would directly and indirectly influence the consumer's adoption of this distribution channel at the bottom of the pyramid.

The author hopes that this research model will stimulate further research and provide a useful lens for conjointly examining unique characteristics of this bottom of the pyramid market and its acceptance of mobile banking.

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