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The Mediating Effect of Perceived Speed on Usage of Mobile Banking Technology of Customers in Chennai

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***Abstract--*This paper is aimed at examining the association among the variables Intention to use and Actual use of Mobile Banking Technology and to analyse the mediating effect of perceived speed towards the Actual usage of Mobile Banking. Literature survey paves the way for Perceived speed, as a relevant driver in determining the Intention to use Mobile Banking Technology and there by it leads to the Actual usage of Mobile Banking Technology by the customers of Chennai. In this Paper, data is retrieved from users of Mobile Banking in Chennai. Internet based, and direct survey-based questionnaires were collected from 350 respondents, from it 300 responses were fit for statistical analysis. The results from the study has emphasized that perceived speed is partially mediating the association among Intention to use and Actual usage of Mobile banking in Chennai. The Technology Acceptance Model(TAM) is used to predict the Intention to use and usage of Information Technology in this study. The adroitness of usage of Mobile Banking technology depends on the expectations of the users to be gratified by reaching out the channels to amplify the customer service. The perceived speed proves to be escalated to increase the level of service. As it magnifies the frequency of usage of Mobile Banking Technology.**

***Keywords*:** *Adoption, Customer expectations, Intention to use, Mobility Access, Perceived Speed.*

1. Introduction

Mobile technology is transmuting the world banking and payment sector by granting expediency to prevailing users in developed markets, and by providing novel services to the unbanked customers in evolving markets. The conquerors in the mobile banking industry are those who have a in depth knowledge of local markets, its customers and regulations, who are prepared to transform and provide relevant possessions to the new initiatives, and who are prepared to come forward to hearth partnerships

with novel players. Above all, the users of M-banking Moreover, customers using m-banking signifies that the merits of M-banking depend on time-effectiveness, expediency, security, operational straightforwardness and ease of steering. These facilitate to enrich the m-banking experience and have the latent to surge adoption of mobile banking Technology. Mobile banking is a service offered by a bank or other monetary institution which permits their customers to undergo the monetary transactions greatly using a mobile device like smartphone or tablet. In contrast to Net Banking it makes use of the software called an app, offered by the financial institution for the purpose. Mobile banking functions 24/7, where as Some financial institutions have restricted on the the type of accounts that can be retrieved through mobile banking, and they have imposed a limit on the amount of the transaction. The State Bank of India has hurled a united banking platform in India called Yono offering conservative banking functions and payment services for online shopping, travel planning, taxi booking or online education.

2. Survey of literature

2.1 Technology Acceptance Model

TAM model was developed [9] to elucidate user acceptance of new technologies. The TAM has become the most prevalent model for the prediction of use information technology and intention to use [14]. Numerous research has shown that a system which can be erudite and accomplished easily delights customers and intensifies intention to use the system [5].

2.2 Intention to use

The consumers acceptance or rejection of an innovation of a product depends on the riposte to the environment and culture. The study concluded that the intention to use as an individual's right of choice of performance of work and the two items exists to ration intention to statement of use, the preliminary supposition is to have access to mobile banking, and the secondary is the expectation of

the customers to use it [1]. The study observed that perceived risk, perceived use, perceived ease of use and trust as the factors which influenced consumer's intention to adopt Digital payment [16].

2.3 Actual Use

The study stated that the individual's actual usage depends on their intention to use and Actual use[4]. The paper concluded that has stated that the actual use of e-payment systems is prejudiced by the customer's attitude, feasibility of the technology and their insights into that technology[12].

2.4 Perceived speed

Customer service (SC) are features which are used to measure the services offered by mobile banking to satisfy customer needs which included speed as one of the sub factors[8]. Perceived speed, clemency for interruption and occurrence of terminated influences are the features of consumer perception[2] [3]. Speed is an effective measure of information system. Based on these literatures it is concluded that speed leads to the usage of Mobile Banking and this in turn will increase frequency of usage. [12] described that that there is impact on the variables Perceived Benefits, Perceived Speed and Facilitating conditions by the influence of demographic variables age, and occupation for the usage of Digital payment system.

3. Methodology

The non-probability sampling method is used to the select the respondents. The data was gathered by two various modes: On online mode and Direct survey mode. The questionnaire was circulated continuously from 1st February 2018 – 31st March. The researcher has send online questionnaire by e-mail to a list of 150 respondents. Reminders were sent to retrieve the data on time. The second method for data collection is direct survey, where questionnaires were distributed to 200 respondents who used mobile banking. 300 questionnaires were found to be fit for analysis. 200 were from the direct survey and 100 from the online survey.

Table 1: Results of Cronbach Coefficient Alpha Test

Construct	Cronbach's Alpha	No. Of Items
Intention to Use	.770	6
Actual Use	.670	6
Perceived Speed	.785	6

Table 1, the result of Cronbach Alpha test shows consistency and reliability of test instruments, the least being Actual Use with a figure of .670.

Table 2: Result of Frequency Count Variable Category Frequency Percentage

Construct	Category	Frequency	Percent (Total 100%)
Gender	Male	160	54.5
	Female	140	44.5
Age	20-29	83	27.7
	30-39	99	33.0
	40-49	39	13.0
	50-59	40	13.3
	60 and above	39	13.0
Qualification	Below HSc	5	1.0
	Upto HSc	17	3.3
	UG	173	33.9
	PG	78	15.3
	Others	27	5.3
Occupation	Employee	139	27.3
	Business	72	14.1
	Retired Employee	46	9.0
	Student	31	6.1
	Homemaker	12	2.4
Mobile Banking usage	Always	122	23.9
	Very Often	126	24.7
	Sometimes	52	10.2

Data Analysis & Results

Hypothesis:

Table 3: Shows the relationship between the constructs

H₁: **Intention to use is positively associated with perceived speed - Accepted**

H₂: **Perceived speed is positively associated with Actual Use – Accepted**

Regression Weights

Table 3: shows that the critical Ratio as high ass 20.443 is absolute value lesser than 0.001 and it shows that every item is related with the measure of the constructs and they relate to only one construct.

Table 3: Regression Weights

Dependent Variable		Independent Variable	Estimate	S.E.	C.R.	P
Perceived speed	<---	Intention to use	.835	.041	20.443	***
Actual Use	<---	Intention to use	.529	.051	10.354	***
Actual Use	<---	Perceived speed	.380	.047	8.137	***

4. Mediating Effect

A mediation exists only when the direct path between the dependent and independent variable decreases when the indirect path through the mediator is brought in the model. The direct path is evaluated without the presence of the mediator and with the presence of the mediator. The standardized beta value was .802 shown in Table 4 and once the mediator is introduced the beta value changes to .501 shown in Table 5. The diminution of relationship between Intention to use and Actual use caused by the mediator called Perceived speed was 0.301 and that represented 62.47% direct effect.

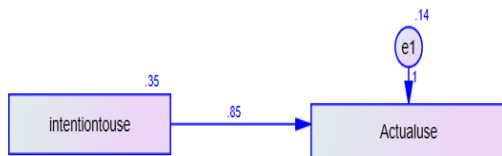**Direct effect between Intention to use and Actual use**

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Figure 1: Direct effect

Table 4: Standardised Regression weights

Standardized Regression Weights:

Dependent		Independent	Estimate
Actual use	<---	Intention to use	.802

Indirect effect Intention to use and Actual use after Mediation
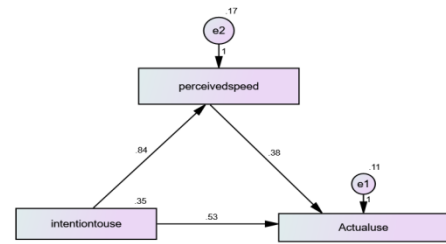
Figure 2: Indirect Effect

Table:5

Standardized Regression weights

Dependent variable		Independent variable	Estimate
Perceived speed	<---	Intention to use	.763
Actual use	<---	Intention to use	.501
Actual use	<---	Perceived speed	.394

The significance of Mediation effect significance was evaluated by using Sobel Test with the bootstrapping technique application in which an explicit model with both direct and indirect paths will be included. The result of Sobel test from Table 6 and Table 7 highlights the significance at 0.01(two tailed). Table 8 shows the total effects of the variables included in the study and it also highlights the significance between the variables at 0.01(two tailed). This shows that perceived speed partially mediates the association between Intention to use and Actual use.

Sobel Test
Table 6:
Direct Effect – Two Tailed significance

Variables	Intention to use	Perceived speed
Perceived speed	.001	...
Actual use	.001	.001

Table 7:
Indirect Effect -Two tailed significance

Variables	Intention to use	Perceived speed
Perceived speed	...	...
Actual use	.001	...

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Table 8:
Total effects – Two tailed significance

Variables	Intention to use	Perceived speed
Perceived speed	.001	...
Actual use	.001	.001

5. Discussion and Conclusion

The model suggests customer's intentions to use determine actual system use, [9] TAM is an authoritative theory used in the prediction of user acceptance of technology. Some empirical tests have shown that TAM is a healthy model for Information Technology. TAM also proved to be a means to consumers' intentions toward acceptance of mobile payments. Several e-commerce-oriented researches have adopted TAM, to examine consumer acceptance in e-commerce[6]. The objective of this study is to hypothesis the mediating effect of perceived speed on Intention to use and Actual use of mobile banking usage of customers in Chennai. The model has displayed that Intention to use has a positive and significant effect on Actual use of mobile banking perceived speed has been added as the mediating variable between Intention to use and Actual use the proposed model has been empirically inspected and the direct relationship between the variable is validated the relationship between Intention to use and Actual use is validated. The direct path coefficient between Intention to use and Perceived speed is 0.763 it is significant. The direct path coefficient between Perceived Speed is 0.394 and it is significant. Thus, the study has analysed the mediating effect of perceived speed on Intention to use and Actual use. The standardised beta value was .802 and after the the mediation gets introduced the beta value changed to .501. The relationship diminished between Intention to use and Actual use caused by the mediator called perceived speed was 0.301 which represented 62.47% of direct effect which concluded that perceived speed partially mediated the association between Intention to use and Actual use, this outcome enables perceived speed to be a proven relevant driver in determining the usage of Mobile Banking Technology in Chennai.

References

[1] Ajzen, I.(1985), "From intentions to actions: a theory of planned behavior", in Kuhl,J.AndBeckman, J.(Eds),Action- Control: From Cognition to Behavior, Springer,Heidelberg, pp.11-39.

[2] Bhatti, N., Bouch, A., & Kuchinsky, A. (2000). Integrating user perceived quality into web server design. Computer Networks, 33(1-6), 1-16.

[3] Bouch, A., Kuchinsky, A., & Bhatti, N. (2000). Quality is in the eye of the beholder: Meeting users' requirements for internet quality of service. In Proceedings of the ACM CHI 2000 Conference on Human Factors in Computing Systems, Hague, Netherlands.

[4] Carl Adams User acceptance of mobile payments: A theoretical model for mobile payments Dec 2014 pp-619-624

[5] Childers, T. L., Carr, C. L., Peck, J., & Carson, S. (2002). Hedonic and utilitarian motivations for online retail shopping behavior. Journal of retailing,77(4), 511-535.

[6] D. Gefen and D. W. Straub, "The Relative Importance of Perceived Ease of Use in IS adoption: A study of E-Commerce Adoption," Journal of the Association for Information Systems, vol. 1, no. 8, pp. 130, 2000

[7] D. Gefen, E. Karahanna, and D. W. Straub, "Trust and TAM in Online Shopping: An Integrated Model," MIS Quarterly, vol. 27, no. 1, pp. 51-90, 2003

[8] D. Hale & R. Thakur, "Self-service technologies and Generation Y: are they beyond the personal touch". International Journal of Electronic Marketing and Retailing, vol. 1, no. 2, 2006, pp.

[9] F. D. Davis, "Perceived Usefulness, Perceived Ease of Use and User Acceptance of Information Technology," MIS Quarterly, vol. 13, no. 3, pp. 319-340, 1989.

[10] F. D. Davis, R. P. Bagozzi, and P. R. Warshaw, "User Acceptance of Computer Technology: A Comparison of Two Theoretical Models," Management Science, vol. 35, no. 8, pp. 982-1003, 1989.

[11] https://www.firstpost.com/tech/news-analysis/mobile-banking-to-overtake-internet-banking-as-half-of-the-digital-transactions-are-happening-on-mobile-says-icici-4301769.html

[12] K. Vinitha, S. Vasantha (2018)Usage of E-Payment and Customer Satisfaction Indian Journal of Public health research and development DOI Number: 10.5958/0976-5506.2018.00196.1 pp 130-133

[13] Larsen, T. J., Sorebo, A. M., & Sorebo, O. (2009). The role of task-technology fit as users' motivation to continue information system use. Computers in Human Behavior, 25, 778–784. doi:10.1016/j.chb.2009.02.006

[14] Lu, J., Yu, C. S., Liu, C., & Yao, J. E. (2003). Technology acceptance model for wireless Internet. Internet Research, 13(3), 206-222.

[15] SBI launches Yono, an integrated app for financial services Business line, The Hindu. 23 November 2017. Retrieved 24 November 2017

[16] Vinitha K, Dr. Vasantha S Influence of Demographic Variables on usage of e-payment and customer

satisfaction, International Journal of Mechanical Engineering and Technology (IJMET), 2017, Volume 8, Issue 11, November 2017, pp. 265–276; ISSN Print: 0976-6340 and ISSN Online: 0976-6359; Journal Impact Factor (2016): 9.2286

[17] Vinitha K, Vasantha S Factors Influencing Consumer's Intention to Adopt Digital Payment-Conceptual Model, Indian Journal of Public Health Research and Development, 2017, Volume 8, Issue3, Print ISSN : 0976-0245. Online ISSN : 0976-5506, pp 170-175, DOI : 10.5958/0976-5506.2017.00181.4.