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Factors Influencing Consumer's Intention to Adopt Digital Payment - Conceptual Model

K Vinitha¹, S Vasantha²

¹Research Scholar, School of Management Studies Vels University, ²Professor & Research Supervisor, School of Management Studies, Vels University

ABSTRACT

E-payment usage depends on security and trust and therefore the increase in usage of e-payment depends on both. E-payment is a technology which doesn't involve physical cash here the payment is done through the electronic medium. Although Demonetisation prevailed a way for fillip to E-payment it has received acceptance throughout the world. But all the modes of e-payment are not used by all. It is an unavoidable fact that perceived risk is associated with the e-payment systems and it contributes to the decision factors in its usage. This paper is focussed to examine the Factors influencing consumer's intention to Adopt Digital Payment . The factors so revealed includes perceived use, perceived risk, perceived ease of use and trust. The findings based on various literature reviews recommends that consumer awareness, convenience, security, availability of e-payment tools, incentives and licit frame are the elements which can fillip the usage of e-payment system. Smartphone penetration, ubiquitous connectivity, biometrics, tokenisation, cloud computing and the Internet of Things are the various trends of transactions of consumers in future.

Keywords: Attitude, electronic payment system, Factors, security, trust.

INTRODUCTION

The payment which is done through digital technique is known as digital payment. In this system the sender and receiver of the money both uses digital techniques to transact the money. We can call this type of payment as Electronic payment also. No physical cash is involved here. The transactions can be completed online or offline. Some of the factors which lead to the growth of digital payments in a country are ever-increasing penetration of smart phones, the entry of several non-banking institutions offering payment services, consumer readiness to adopt digital payments, progressive changes in the regulatory framework. Time saving, User friendly, convenient, faster services are offered by Digital payment system which makes it more advisable than manual systems.

OBJECTIVES

1. To analyse the decision factors influencing Digital payments.
2. To develop a conceptual framework for factors influencing Digital payment system.

Factors influencing Digital Payments

Perceived Risk

Noor Raihan Ab Hamid , and Aw Yoke Cheng^[26] stated that Perceived risk is a valuation of predictions or inadequacy of information about the spreading of possible outcomes and the uncontrollability of outcome achievement March; JG^[23] Vlek, C.,and Stallen.

Noor Raihan Ab Hamid, and Eaw Hooi Cheng^[26] describes Perceived risk as a state of being unsure about something or absence of awareness about the circulation of possible end results and the state in which there is uncontrollability of end result achievement. In the case of e-payment services the consumers have the awareness that giving their credit card details as hazardous but there are no limitations on this. In their paper, they focussed

Corresponding author:

S Vasantha

Professor & Research Supervisor, School of Management Studies, Vels University, vasantha.sms@velsuniv.ac.in

on five selected risks namely physical risk, performance risk, psychological risk, time-loss risk, financial risk.

Schrank & Dubinsky^[33] found that Consumers perceived risk rises with unpredictability and boost up by the associated nondesirable outcomes. In order to dwindle perceived risks, they use several strategies, such as brand loyalty, store image or word-of-mouth, either to confirm their purchasing decision or to curtail the uncertainty they feel about the decision.

Bauer^[3] was the pioneer to introduce the concept of perceived risk to the marketing literature and pointed out that it is a risk-taking behavior when a consumer represents a purchase action.

Pavlou^[30] said the perceived risk has a distinct feature to generate to hold back the consumers to participate in online shopping as it has high vulnerability of online shopping. As the dilemma in online shopping environment involves high perceived risk which in turn will result in reduction of consumers to shop online.

Perceived Usefulness

Davis^[8] has defined Perceived Usefulness (PU) as the degree to which an individual trusts that using a particular system would boost his or her job efficiency.

Hsin Hsin Chang^[10] investigates about the Internet banking adoption among Taiwanese bank customers. He analysed the direct influence of two factors namely perceived usefulness and perceived ease of use. Under perceived usefulness it is a person's strong conviction that adopting a technology will fillip his outcomes. He then examined how much the perceived usefulness and perceived ease of use influenced behavioural intention. The study established perceived usefulness have predominance over the behavioural intention.

Özer et al.,^[29] According to TAM(Technology Acceptance Model), perceived ease of use and perceived usefulness effect behavior developed by the handler towards information systems. This behavior networks the individual's intention and leads to adoption.

Pikkarainen et al.^[31] applied TAM in Finland and they observed that perceived usefulness as a determinant of actual behavior which stimulated the consumer of the banking service to use adequate modern and comprehensible e-banking and it gives them greater independence in executing financial transactions, in

cataloguing on banking assistances, and in acquiring other financial products.

Lemuria Carter & France Bélanger et al.,^[21] user's perception to the extent that the system can improve the user's place of work performance is explained under perceived usefulness. The significance of perceived usefulness has been widely recognized in the field of e-governance and e-banking.

According to Davis et al.^[7], perceived usefulness refers to consumers' perceptions regarding the outcome of the experience.

Koufaris^[19], have established the soundness of the requirements of perceived usefulness and it revealed to affect the intention of potential Internet shoppers.

Perceived Ease of Use

Davis^[8] has stated Perceived Ease Of Use (PEOU) as the level to which an individual trusts that using a specific system will be exertion free.

Hua, Guangying^[14] in the study he explains perceived ease of use as any work which is done effortless. An experimental study was conducted to explore how user's perception about online banking is affected by the perceived ease of use and the privacy policy. They then came to a conclusion that perceived ease of use is of not as much of importance when compared with privacy and security.

Monsuwe, Dellaert, & Ruyter,^[25] stated that Perceived ease of Use was not having direct effect on attitude intention but it affected more on indirect mediation factor from Perceived Use. Perceived ease of use mentions their insights regarding the process which leads to final output.

Lai Poey Chin and Zainal Ariffin Ahmad^[20] the empirical outcomes from the study concluded that perceived ease of use is important to determine perceived usefulness and consumers' intention to use the single platform e-payment system. Perceived ease of use can be used as intermediary of perceived enjoyment. The users observe the single platform e-payment system as User-friendly, convenient, time saving and hence they would be more ready to adopt to the digital payment system.

Chung-Chi, S. and Jyh-Shen C. ^[6] The study

focussed the significance of perceived ease of use whether it depends on short term vs-long term transaction expectation, product type and whether security concern information is presented. The result of the studies suggested that when internet service is only for a short span transaction and when buyers have no concern of the security the perceived ease of use increases the intention towards digital services. Where as the sellers preference will be for using a digital service which requires comparatively high verification when the requirement of using digital service is for long term transaction.

Trust

Mayer et al.,^[24] Trust is stated as the consent of the people to be aware of the actions of another part based on the belief that the other will perform a particular action important to the trustor, regardless of the capability to observe or control that other party. Mayer et al.^[24] insisted that he was uncertain whether trust comes before perceived risk or otherwise. Preceding studies has shown that perceived risk is a significant determinant of online behaviour, and there were diverse reviews on perceived risk and trust.

Hua, Guangying^[14] in the study he referred trust as a significant factor for those pertaining to deal with finance related online services; moreover, the conclusion of the studies based on observations and experiments states that consumers make their online decisions based on the depth of trust they have. Inorder to gain that trust privacy and security plays a vital role.

Jean camp^[17] his study concluded that the requirement of trust to make a rational decision can be done only with a gathering and they can come to a conclusion based on the collected reviews on whether to trust or not to trust.

Andert et al.,^[2] in his work found that Trust is the empowering of assurance that anything can happen or may not happen in a foreseeable or sworn manner. The empowering of assurance is reinforced by identification, authentication, accountability, authorization, and availability.

Nooteboom et al.^[27] stated that advanced perceived risk minimises the level of trust towards the companion.

Ýkram Daþtan Cem Gürler^[16] The study investigated the factors effecting adoption of mobile payments.

The empirical findings point out that perceived trust, perceived mobility and attitudes positively affect the adoption of Mobile Payment Systems (MPS); perceived usefulness and perceived ease of use have no effect on adoption of Mobile Payment Systems. Perceived reputation is positively related to perceived trust and finally environmental risk is negatively related to perceived trust.

Channa de Silva^[5] in his report suggested that trust on digital payment is not there in the consumers as a few fraudulent transactions which went viral among the public will create a feeling of insecurity and they will tend to move from digital payments to cash payments. Hence the banks and the Information technology industry has to ensure that the applications and the supporting technology back-end is secured adequately.

Intention to adopt e-payment:

Ajzen^[1] states intention as a person's tendency to choose to do or not to do any work.

Fusilier and Durlabhji^[9] observed that there are two items to measure intention to statement of use, the first assumption is having access to mobile banking, and the second is after having access to mobile banking, customers are expected to use it.

Dr. J. Raja M Senthil Velmurgan A Seetharaman^[10] concluded the cause of intention to transact as because of the easiness and cheaper use of electronic cash when compared to the physical cash and not only that it cannot be counterfeited and it can also be used in telecommunications and data networks for e-commerce with safeguard for the privacy of the consumers.

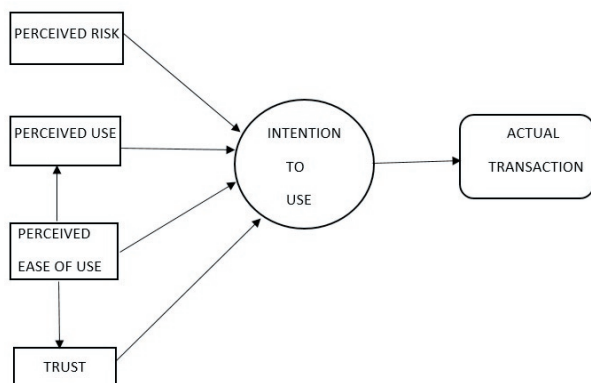
Junadi, Sfenriantob^[19] stated the intention to transact on e-payment and the aspects they found out are increased efficiency, without place or time limitation and thereby reducing cost. A model of factors was placed and it was based on UTAUT(Unified theory of Acceptance and use of technology) to investigate the customer's intention to use e-payment technology . Internet Access, the consumer's experience in using computer and their level of education the technical protection, security statements, Government and Central Bank regulations, productivity in the transaction, speed, easiness and flexibility in the transaction, the reason that their dear and near recommends, supports and uses it these were the factors he put forth.

Chen, et al,^[4] consumers' satisfaction influenced continuance intention, while the perceived usefulness, subjective norm (SN), perceived ease of use, and perceived behavioural control (PBC) apparently effected satisfaction.

Actual Transaction

Oginni Simon Oyewole et al.,^[29] focused on the actual transaction of cash and carry principle which came to a changeover to electronic payment system. Easiness, safety, quick access to funds were the factors which gave digital payments a significant position in Nigeria.

The Hindu In February 2016^[14], a report by Counterpoint Research stated that India has become the second largest smartphone market in the world with 220 million smartphone users. Hence it can be concluded that a mobile first/mobile ready platform is there for businesses. Payment system providers are now offering ready-to-integrate development kits for mobile app companies to deliver a native payment experience.



Conceptual Frame Work

DISCUSSIONS

The findings of this study suggest that in order to strengthen the E-payment system consumer awareness, convenience, security, availability of e-payment tools, incentives and legal framework are the factors which can fillip the usage. It is clear that customer have to move farther to get more acquainted with this system. More we use the new technology more it will be friendlier with us.

This paper presented a conceptual model of Decision factors affecting Digital payment system. The model formulated Perceived Ease of Use (PEOU), Perceived Usefulness (PU) and Perceived Risk (PR)

as the elements of trust in the acceptance of Digital payment system. Among the factors Perceived Ease of Use (PEOU) is found to be the most significant predictor. Conversely, customer attitude was found to have least significant effect on adoption of E-payment.

CONCLUSION

Even though Digital payment system is flourishing extensively there has much more to be done to increase its usage. Still there are people who are reluctant to get accustomed to Digital payment and consequently most of the transactions are cash based. Hence the need to enlighten Digital Payment system is a necessity. Awareness can be created among public by conducting seminars, workshops, training programmes, debates and so on. Tech savvy Youths from colleges can be nominated to guide the folks who need assistance in digital payment system.

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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. Andert Donna, Wakefield Robin, Weise Joel. Professional services security practice. Sun Blueprints™ online-December 2002
3. Bauer, R. (1967). Consumer behavior as risk taking. In: Cox, D. (ed.), Risk Taking and Information Handling in Consumer Behavior, Harvard University Press.
4. Chen, S.C, Chen, H.H., & Chen, M.F. (2009). Determinants of satisfaction and continuance intention towards self-service technologies. Industrial Management & Data Systems, 109(9), 1248 – 1263, <http://dx.doi.org/10.1108/02635570911002306>.
5. Channa de Silva Key Success factors in adopting E-payments <http://nation.lk/online/2016/09/24/key-success-factors-in-adopting-e-payments.html>.
6. Chung-Chi, S. and Jyh-Shen C.(2010) The impact

- of perceived ease of use on Internet service adoption : Journal computers Human Behavior volume 26 Issue 1, January, 2010.
7. Davis FD, Bagozzi RP, Warshaw PR (1992). Extrinsic and intrinsic motivation to use computers in the workplace. *J. Appl. Soc. Psychol.*22(14): 1109-1130.
 8. Davis, FD., Perceived usefulness, perceived ease of use, and user acceptance of information technology, *Management Information Systems Quarterly*, Vol.13, No.3, 1989, pp. 319-339.
 9. Fusilier, Marcelline and Durlabhji,Subhash.2005. "An exploration of Student Internet Use in India (the technology acceptance model and the theory of planned behavior)". *Journal of Marketing*. Vol.22No.4.Pp233-246.
 10. Dr.J. Raja M Senthil Velmurgan A Seetharaman E-payments problems and prospects <http://www.mmu.edu.my/%7Ebm/fbl/> ISSN: 1204-5357 2015.
 11. Hsin Hsin Chang An Empirical Investigation of Internet Banking in Taiwan *Global Journal Of Business Research* Volume 4 Number 2 2010.
 12. <https://bcgperspectives.com>.
 13. <https://upipayments.co.in/digital-payment>.
 14. <http://www.thehindu.com/news/cities/mumbai/business/with-220mn-users-india-is-now-worlds-secondbiggest-smartphone-market/article8186543.ece>.
 15. Hua, Guangying 2009. An Experimental Investigation of Online Banking Adoption in China, *Journal of Internet Banking and Commerce*, April, Vol. 14.
 16. Igbaria, M., Zinatelli, N., Cragg, P., & Cavaye, A. L. M. (1997). Personal computing acceptance factors in small firms: A structural equation model. *MIS Quarterly*, 21(3), 279-305
 17. Ýkram Daþtan Cem Gürler Factors Affecting the Adoption of Mobile Payment Systems: An Empirical Analysis Emerging Markets journal Volume 6 No 1 (2016) | ISSN 2158-8708 (online) DOI 10.5195/emaj.2016.95 <http://emaj.pitt.edu> |.
 18. Jean Camp L. In: *Designing for trust*. LNAI 2631;2003.p.15-29.
 19. Junadi, Sfenriantob 1877-0509 © 2015 The Authors. Published by Elsevier B.V. CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>). (ICCSICI 2015) doi: 10.1016/j.procs.2015.07.557 Science Direct.
 20. Koufaris, M. (2002). Applying the Technology Acceptance Model and Flow Theory to Online Consumer Behavior information Systems Research, 13(2), 205-223.
 21. Lai Poey Chin and Zainal Ariffin Ahmad Perceived Enjoyment And Malaysian Consumers' Intention To Use A Single Platform E-payment <http://www.shs-conferences.org> or <http://dx.doi.org/10.1051/shsconf/20151801009>.
 22. Lemuria Carter & France Bélanger., "The utilization of e-government services: citizen trust, innovation and acceptance factors," *Information Systems Journal* 15, pp5– 25,2005.
 23. Mansour Samadi, (Ph.D.), Ali Yaghoob-Nejadi, (M.A.) A Survey of the Effect of Consumers' Perceived Risk on Purchase Intention in E-Shopping Business Intelligence Journal - August, 2009 Vol. 2 No. 2.
 24. March, JG., Bounded rationality, ambiguity, and the engineering of choice, *Bell Journal of Economics*, Vol.9, 1978, pp. 587-608.
 25. Mayer, R. C., David, F. D. and Schooman, F. D.(1995). An integrative model of organizational trust. *Academy of Management Review*, 20(3): 709-734.
 26. Monsuwe, T. P., Dellaert, B. G., & Ruyter, K. d. (2004). What drives consumers to shop online A literature review. *International Journal of Service Industry Management* , 15 (1), 102-121.
 27. Noor Raihan Ab Hamid , and Aw Yoke Cheng A Risk Perception Analysis on the use of Electronic Payment Systems by Young Adult <http://www.unitar.my/>, <http://www.apu.edu.my/> E-ISSN: 2224-340226 Issue 1, Volume 10, January 2013 E-ISSN:
 28. Nooteboom, B., Berger, H. and Noorderhaven, N(1997). Effects of trust and governance on relational risk. *Academy of Management Journal*, 40(2):308-338.
 29. Oginni Simon Oyewole, El-Maude, Jibreel Gambo, Mohammed Abba , Michael Ezekiel Onuh article Electronic Payment System

- and Economic Growth: A Review of Transition to Cashless Economy in Nigeria *International Journal of Scientific Engineering and Technology* (ISSN : 2277-1581) Volume No.2, Issue No.9, pp : 9 13-918 1 Sept. 2013.
30. Özer, G., Özcan, M., & Aktaş, S. (2010). Muhasebecilerin bilgi teknolojisi kullanımının teknoloji kabul modeli (TKM) ile incelenmesi. *Journal of Yasar University*, 3278, 3293.
31. Pavlou, P. (2003). Consumer acceptance of electronic commerce: Integrating trust and risk with the technology acceptance model. *International Journal of Electronic Commerce*, 7, 101-134.
32. Pikkarainen, T., Pikkarainen K, Karjaluoto H, Pahlila S (2004). Consumer acceptance of online banking: an extension of the technology acceptance model. *Internet Research: Electron. Net. Appl. Policy*, 14(3): 224-235.
33. Sanghita Roy, Dr. Indrajit Sinha Determinants of Customers' Acceptance of Electronic Payment System in Indian Banking Sector – A Study *International Journal of Scientific & Engineering Research*, Volume 5, Issue 1, January -2014 ISSN 2229-5518.
34. Schrank, H. and Dubinsky, A. J. (2004). Effect of brand name on consumers' risk perceptions of online shopping. *Journal of Consumer Behaviour* 4(1), 40 50.
35. Vlek, C., and Stallen, PJ., Rational and personal aspects of risk, *Acta Psychologica*, Vol.45, 1980, pp. 273-300.