Periodic Research

Trade Off Between Behavioral Intentions and Adoption: An Integrated Model for Mobile Payment Services Adoption

Abstract

The research aims to study the trade-off between behavioural intentions and adoption towards the mobile banking payment services. Total 440 respondents were taken to study the mobile banking adoption behaviour of the respondents using UTAUT model. Behavioural intentions of the respondents get affected by the ease of use, quality, information, security and the privacy. The integrated model gives a synergetic combination with an integration of UTAUT, IS model and initial trust with age, adoption level and frequency of usage as moderators. The relationship established among these three theories evinces the significance of quality attributes and trust through the security measures in adoption of mobile banking services which contributes to the published literature.

Keywords: E Banking, Plastic Money, India Consumer, Perceptions.

Introduction

Mobile payments via mobile banking have become the key development in the logistics chain of banking services(S. K. Sharma & Sharma, 2019). The growth story of digital payments in India is poised due to the defining the business eco systems around digital payments allowing them for interoperability and promotional efforts of players(Lele& Jain, n.d.).Reserve Bank of India (RBI) in its documents released on Payments and Settlements Systems in India: Vision 2019-21 emphasized in achieving competitiveness, cost efficiency, convenience and confidence driving towards specific outcomes, specifically, achieving the digital economy. Digital payment ecosystemin India transitioned from large corporations to SMEs, retailers, small and growing businesses. It is estimated that the digital transactions could reach $1 trillion by 2025(Krishnapur, 2019). According to KPMG report, digital payments in India are witnessing a CAGR of 12.7%. Nonetheless, the mobile payments are also inherited with security concerns where fraudsters use simple and easy to dupe techniques to rob the customers' accounts. As per Deloitte report, the mobile payments industry estimated to loss of 2- 3 per cent of the revenues due to the frauds such as phishing, intrusion and cyber-attack, fake KYC, access to wallet through unauthorized SIM swap, commission frauds by agents and application manipulation by authorized users(Delloitte, n.d.). According to RBI statistics amount of cash available with the public stood at Rs 20.49 lakh crore as on September 2019 which is 13.3 percent more than September 2018. It also states that 96 per cent of the money in circulation and rest in the form of bank deposits. In the early days of demonetization, Indians started with adopting the UPI transactions and people are enforced to deposit the cash which stood at 83% in 2016(Bhargava &Raghavan, 2019). The issue remains still which need to be addressed is the adoption of mobile payments made by the public. As pointed by Monish Shah, Partner, Deloitte India, *"Trouble is on the adoption side, not on the deployment side. Digital adoptions by customers have traditionally trailed digital deployment by banks by a big margin pushing payback periods. Given the initiatives made by all stakeholders in developing the digital infrastructure, one of the main reasons for low digital adoption remains awareness rather than access"*(S. Sharma, 2019).

The extant literature on mobile banking adoption relies upon the information system theories such as TAM, UTAUT, TTF, D & L IS model and e-GAM model. Previous research also encompassed the integration of information system theories to examine the antecedents of mobile banking

Priyanka
Research Scholar,
Dept. of Commerce,
Baba Mastnath University,
Rohtak, Haryana, India

Periodic Research

adoption (Chaouali& El Hedhli, 2019; Oliveira et al., 2014; Püschel et al., 2010; Slade et al., 2015). It is possible that the users perceived the advancement in mobile technologies provided more access to the mobile payment services, however, they would not adopt if they do not perceive security in their transactions that impedes the trust. Moreover, the system attributes that facilitate the usage of m-payment services derives the behavioral adoption. This research study combines the UTAUT, IS theory, Trust and Perceived security to establish the direct effects of attitude, quality attributes, trust and perceived security on mobile payment services.

This study makes few contributions. To the best of our existing knowledge, previous research studies emphasized on the user perception towards mobile banking services and considered the integration of other dimensions to the less extent. The study tries to address this gap by integrating the dimensions from UTAUT, IS Model, Initial trust with perceived security. Furthermore, the study conducts multi-group –moderation effect with the categorical variables such as age, adoption and frequency of usage of m-payment services.

Review of Literature

The literature on Information systems has drawn considerable attention towards the mobile banking/m-payments adoption. Popular theories such as TAM(Davis, 1989), UTAUT(Venkatesh et al., 2003), TTF (Goodhue& Thompson, 1995), D & L IS (Information Systems Model) (Delone& McLean, 2003)were extensively used to explore the factors that affect the attitude towards adopting the mobile banking services.

UTAUT model has emerged as the extension of the theories such as TAM and Innovation Diffusion Theory (IDT). Perceived usefulness as performance expectancy, perceived ease of use as effort expectancy and subjective norms as social influence are synonymously used in UTAUT from TAM. Facilitating conditions reflect the resources facilitating conditions of Decomposed Theory of Planned Behavior. Review of past studies examined the relevance and irrelevance of facilitating conditions on the adoption behavior(Giovanis et al., 2019). As pointed by (Giovanis et al., 2019), except, facilitating conditions, all other dimensions are directly influencing the behavioral intention to adopt the mobile banking services. This study considers the inclusion of facilitating conditions as a determinant of adoption of m- payment services. The users might prefer to use the services when the organizational and technical infrastructure is accessible to them (Ben lallouna&Chemingui, 2013; Zhou et al., 2010). Further, social influence which is considered as subjective norms in Theory of Planned Behavior is excluded from this study. Past studies reveal there was no significant direct effect of social influence on adoption. For example, (Shin, 2009) argued insignificant relationship between social influence and behavioral intention to adopt mobile wallets in Korean context. Mobile phones as well as mobile wallets/m-payment services are not new to the citizens of India

due to the demonetization that took place in 2016. The users are motivated and attracted by the service providers to use mobile payment services to make them aware of accurate, timely, seamless and accountable funds flow(Koenig-Lewis et al., 2015).

The Information Systems Success model claim to measure the contribution of system quality, information quality and service quality to influence the user satisfaction while measuring the success of e-commerce (Delone& McLean, 2003). The meta-analysis conducted by (Petter&McLean, 2009) reveal that there have been ample number of studies that assessed strength of relationships which has significant, insignificant and mixed results. The IS model has been empirically tested in different contexts such as online shopping, mobile banking, electronic government/e-governance, health care, on-line learning, e-excise, hospital information systems and e-commerce with an integration of other models such as TAM, self-determination theory, UTAUT and TTF model.

Research Methodology
Objectives of Study
1. What is the impact of integrated model of mobile payments adoption on the behavioral intention to use?
2. Whether there exist any differences among the consumers categorized based on age, adoption and frequency of usage on the relationship between the determinants of mobile payments adoption and behavioral intention to use?

The study follows descriptive research design and adopted convenience sampling method to collect the responses Around 1450 e-mails were sent as an invitation to participate in the survey using hyperlink to update the responses. 447 responses have been received with a response rate of 30.82 percent. Out of 447 responses, 7 questionnaires were eliminated from the study due to missing data or non-valid responses, thereby, 30.34 percent was the final response rate.

Data Analysis and Results

The covariance structure analysis was performed using AMOS software to test the measures of overall goodness of fit for the research model. Overall suitability of the model was examined using absolute fit measures such as CMIN, GFI, SRMR and RMSEA. Incremental fit measures such as NFI, CFI and TLI were used to evaluate the fitness of the research model. The model fit indices for the measurement model are within the acceptable levels as follows: CMIN=1274.043, degrees of freedom = 930, CMIN/DF= 1.370; RMR= 0.05, SRMR=0. 0353, GFI= 0.889; NFI= 0.93, RFI = 0.9230, IFI= 0.98, TFI= 0.978, CFI = 0.98, RMSEA= 0.029. However, among measurement model fit indices, GFI is still lower than the acceptance level (>0.9). Therefore, the model has to be revised by dropping the items with the factor loadings less than 0.5. From the model for PS3 item from Perceived Security was dropped which has a factor loading 0.428. The revised measurement model fit indices are within the acceptable levels as follows:

Periodic Research

Table – 1: Confirmatory Factor Analysis Results

Fit Indices and Recommended Vales	CMIN	DF	CMIN / DF	RMSEA	GFI	CFI	NFI	TLI
Recommended Values			<3	<0.08	>0.90	>0.90	>0.90	>0.90
Base Line Model Fit Indices Values	1168	883	1.323	0.027	0.896	0.983	0.936	0.981

Structural Model

In this stage, the structural model was tested to examine the causal relationships and test the hypothesis associated. Similar to measurement model, the model fit indices for the structural model were observed. The structural model fit indices shall be within the acceptance levels as follows. Figure shows the structural model results and are also tabulated.

Table – 2: Structural Model Results

| Fit Indices and Recommended Vales	CMIN	DF	CMIN / DF	RMSEA	GFI	CFI	NFI	TLI
Recommended Values			<3	<0.08	>0.90	>0.90	>0.90	>0.90
Base Line Model Fit Indices Values	1539	942	1.634	0.038	0.865	0.966	0.916	0.962

Findings and Discussions

The model explains 47.1% variation in behavioral adoption of mobile payment services. The path coefficients of Image, perceived usefulness, perceived ease of use, initial trust, facilitating conditions, service quality, System Quality, information quality and perceived security were found to be statistically significant at $p<0.001$, thus supporting ten hypotheses proposed. The model proposed in the study differentiates from the previous studies in that it combines the constructs from initial trust model(Zhou, 2011a), Technology Acceptance Model (Davis, 1989), UTAT ((Oliveira et al., 2014), Information Systems Success Model (DeLone& McLean, 1992), Perceived Security, Behavioral intention and User adoption. In addition, the study also tested the effect of types of adopters, frequency of usage and age as moderating variables on the relationship between the predictors and the behavioral adoption.

Figure 1: BI-ADOPT Matrix

Behavioral Intentions

Periodic Research
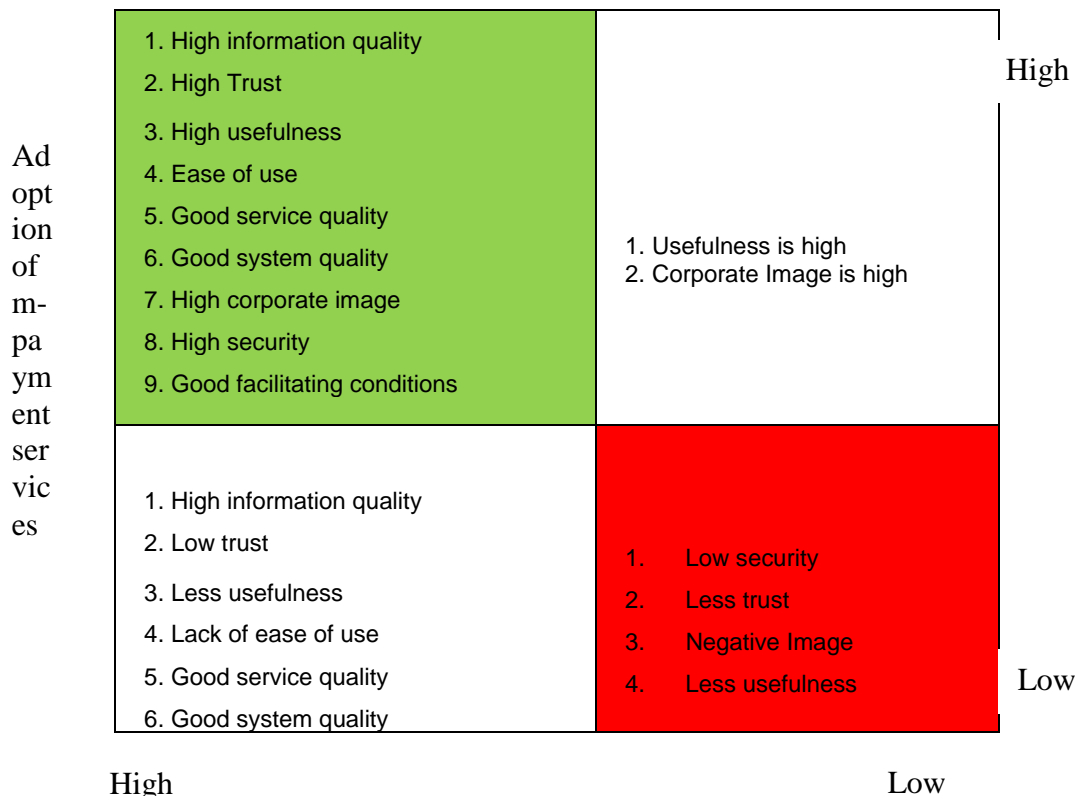
Conclusion

The study offers pragmatic insights in to the role of technical/quality attributes of m-payment services that are essential to take a decision to adopt mobile payment services. To the best of our limited knowledge, the study is an integrated approach combining UTAUT, IS, perceived security and trust to explain the mobile payment services adoption representing the quality attributes, attitudinal attributes, trust and security perspectives. The explanatory power of this model at 57.2 percent of user adoption and 37.3 per cent of behavioral intention compared to 42.4 per cent and 34. 3 percent indicated by (Gupta et al., 2019; C. Kim et al., 2010)is an evident for a significant contribution to the theory. The integrated model gives a synergetic combination with an integration of UTAUT, IS model and initial trust with age, adoption level and frequency of usage as moderators. The relationship established among these three theories evinces the significance of quality attributes and trust through the security measures in adoption of mobile banking services which contributes to the published literature. Moreover, the study also considered the effect of moderating variables such as age (old user, young user), adopters (early adopters and young adopters), frequency of usage (frequent and seldom users) on the base line model. The moderating effects of age, adopters and frequency of usage have given insignificant effects on the mobile payments' adoption. Based on the given findings, contrary to the existing literature, age, adoption stage and frequency of usage of mobile payment services are insignificant which also throws light on the exploring the other moderators such as stickiness to the cash makes the users to adopt mobile payment services.

Limitations and Suggestions for future research

The study suffers from the limitations. Firstly, social influence from UTAUT model is ignored in this study on the basis of existing phenomenon. However, social influence can be influential dimension in other contexts as well as at the global level. Secondly, age, adoption and frequency of usage have shown no significant moderating effect on the proposed model. Stickiness to cash of the people might be the cause for non-significant moderating effect. Therefore, in the future studies, stickiness to cash adds new dimensions to explore the new phenomenon. Regulatory changes, competition, network connectivity and financial literacy could also be taken as intervening variables to test the hypothesis. Thirdly, the mediation effect of trust, perceived usefulness and perceived ease of use was not tested in the present model. Future studies could explore the moderation or mediation effect of trust, perceived usefulness and perceived ease of use to understand the behavioral intension to use m-payment services. Fourthly, combining the risk disposition factors and perceived credibility to the existing model might bring some new findings that assists the policy makers and practitioners.

References

1. Akturan, U., &Tezcan, N. (2012). Mobile banking adoption of the youth market: Perceptions and intentions. Marketing Intelligence & Planning, 30(4), 444–459.
2. Albashrawi, M., &Motiwalla, L. (2019). An Integrative Framework on Mobile Banking Success. Information Systems Management, 1–17.
3. Al-Gahtani, S. S., Hubona, G. S., & Wang, J. (2007). Information technology (IT) in Saudi Arabia: Culture and the acceptance and use of IT. Information & Management, 44(8), 681–691. https://doi.org/10.1016/j.im.2007.09.002
4. Amin, H., Hamid, M. R. A., Lada, S., & Anis, Z. (2008). The adoption of mobile banking in Malaysia: The case of Bank Islam Malaysia Berhad (BIMB). International Journal of Business and Society, 9(2), 43.
5. Arvidsson, N. (2014). Consumer attitudes on mobile payment services–results from a proof of concept test. International Journal of Bank Marketing, 32(2), 150–170.
6. At 9.8 GB per month, India has the highest data usage per smartphone. (2019, June 19). The Hindu. https://www.thehindu.com/business/Industry/india-has-highest-data-usage-report/article28078254.ece
7. Baabdullah, A. M., Alalwan, A. A., Rana, N. P., Kizgin, H., & Patil, P. (2019). Consumer use of mobile banking (M-Banking) in Saudi Arabia: Towards an integrated model. International Journal of Information Management, 44, 38–52. https://doi.org/10.1016/j.ijinfomgt.2018.09.002
8. Baabdullah, A. M., Alalwan, A. A., Rana, N. P., Patil, P., & Dwivedi, Y. K. (2019). An integrated model for m-banking adoption in Saudi Arabia. International Journal of Bank Marketing, 37(2), 452–478. https://doi.org/10.1108/IJBM-07-2018-0183
9. Bamoriya, P. S., & Singh, P. (2011). Issues & Challenges in Mobile Banking In India: A Customers' Perspective. Research Journal of Finance and Accounting, 2(2), 112–120.
10. Baptista, G., & Oliveira, T. (2015). Understanding mobile banking: The unified theory of acceptance and use of technology combined with cultural moderators. Computers in Human Behavior, 50, 418–430. https://doi.org/10.1016/j.chb.2015.04.024
11. Ben Iallouna, H., &Chemingui, H. (2013). Resistance, motivations, trust and intention to use mobile financial services. International Journal of Bank Marketing, 31(7), 574–592. https://doi.org/10.1108/IJBM-12-2012-0124
12. Bhargava, Y., & Raghavan, T. c a S. (2019, November 7). Three years since demonetisation, cash is back. The Hindu. https://www.thehindu.com/news/national/three-years-since-demonetisation-cash-is-back/article29912351.ece
13. Chandrasekhar, C. P., & Ghosh, J. (2018). The Financialization of Finance? Demonetization and the Dubious Push to Cashlessness in India. Development and Change, 49(2), 420–436. https://doi.org/10.1111/dech.12369
14. Chaouali, W., & El Hedhli, K. (2019). Toward a contagion-based model of mobile banking adoption. International Journal of Bank Marketing, 37(1), 69–96. https://doi.org/10.1108/IJBM-05-2017-0096

Periodic Research

15. Chong, A. Y.-L. (2013). Predicting m-commerce adoption determinants: A neural network approach. Expert Systems with Applications, 40(2), 523–530. https://doi.org/10.1016/j.eswa.2012.07.068
16. Chung, N., & Kwon, S. J. (2009). Effect of trust level on mobile banking satisfaction: A multi-group analysis of information system success instruments. Behaviour & Information Technology, 28(6), 549–562. https://doi.org/10.1080/01449290802506562
17. Davis, F. D. (1989). Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology. MIS Quarterly, 13(3), 319–340. JSTOR. https://doi.org/10.2307/249008
18. Delloitte, I. (n.d.). Mitigating emerging fraud risks in the mobile money industry | Deloitte India | Financial Advisory | Perspectives. Deloitte India. Retrieved January 30, 2020, from https://www2.deloitte.com/in/en/pages/finance/articles/mitigating-emerging-fraud-risks-in-the-mobile-money-industry.html
19. DeLone, W. H., & McLean, E. R. (1992). Information Systems Success: The Quest for the Dependent Variable. Information Systems Research, 3(1), 60–95. https://doi.org/10.1287/isre.3.1.60
20. Delone, W. H., & McLean, E. R. (2003). The DeLone and McLean Model of Information Systems Success: A Ten-Year Update. Journal of Management Information Systems, 19(4), 9–30. https://doi.org/10.1080/07421222.2003.11045748
21. Dwivedi, Y. K., Rana, N. P., Chen, H., & Williams, M. D. (2011). A Meta-analysis of the Unified Theory of Acceptance and Use of Technology (UTAUT). IFIP International Working Conference on Governance and Sustainability in Information Systems-Managing the Transfer and Diffusion of It, 155–170.
22. Elliott, M. T., & Speck, P. S. (2005). Factors that Affect Attitude Toward a Retail Web Site. Journal of Marketing Theory and Practice, 13(1), 40–51. https://doi.org/10.1080/10696679.2005.11658537
23. Fornell, C., &Larcker, D. F. (1981). Evaluating Structural Equation Models with Unobservable Variables and Measurement Error. Journal of Marketing Research, 18(1), 39–50. https://doi.org/10.1177/002224378101800104
24. Giovanis, A., Athanasopoulou, P., Assimakopoulos, C., &Sarmaniotis, C. (2019). Adoption of mobile banking services: A comparative analysis of four competing theoretical models. International Journal of Bank Marketing, 37(5), 1165–1189. https://doi.org/10.1108/IJBM-08-2018-0200
25. Goodhue, D. L., & Thompson, R. L. (1995). Task-Technology Fit and Individual Performance. MIS Quarterly, 19(2), 213–236. JSTOR. https://doi.org/10.2307/249689
26. Gupta, K. P., Manrai, R., & Goel, U. (2019). Factors influencing adoption of payments banks by Indian customers: Extending UTAUT with perceived credibility. Journal of Asia Business Studies, 13(2), 173–195. https://doi.org/10.1108/JABS-07-2017-0111
27. Hair, J. F., Black, W. C., &Babin, B. J. (2010). Anderson. RE, 2010. Multivariate Data Analysis. New Jersey, Pearson Prentice Hall.
28. Hair, Joseph F. (2006). Multivariate data analysis. Pearson Education India.
29. Hanafizadeh, P., Behboudi, M., AbediniKoshksaray, A., &JalilvandShirkhaniTabar, M. (2014). Mobile-banking adoption by Iranian bank clients. Telematics and Informatics, 31(1), 62–78. https://doi.org/10.1016/j.tele.2012.11.001
30. Im, I., Hong, S., & Kang, M. S. (2011). An international comparison of technology adoption: Testing the UTAUT model. Information & Management, 48(1), 1–8. https://doi.org/10.1016/j.im.2010.09.001
31. Internet users in India. (n.d.). Statista. Retrieved January 29, 2020, from https://www.statista.com/statistics/255146/number-of-internet-users-in-india/
32. Jahanyan, S., & Upadhyay, P. (2016). Analyzing user perspective on the factors affecting use intention of mobile based transfer payment. Internet Research, 26(1), 38–56. https://doi.org/10.1108/IntR-05-2014-0143
33. Jeong, B.-K., & Yoon, T. E. (2013). An empirical investigation on consumer acceptance of mobile banking services. Business and Management Research, 2(1), 31–40.
34. Jha, N. (2011, May 6). RBI increases mobile banking limit to Rs 50,000. The Mobile Indian. https://www.themobileindian.com/news/rbi-increases-mobile-banking-limit-to-rs-50000-1467
35. Kapoor, K. K., Dwivedi, Y. K., & Williams, M. D. (2015). Examining the role of three sets of innovation attributes for determining adoption of the interbank mobile payment service. Information Systems Frontiers, 17(5), 1039–1056. https://doi.org/10.1007/s10796-014-9484-7
36. Khalifa, M., & Ning Shen, K. (2008). Explaining the adoption of transactional B2C mobile commerce. Journal of Enterprise Information Management, 21(2), 110–124. https://doi.org/10.1108/17410390810851372
37. Khalilzadeh, J., Ozturk, A. B., &Bilgihan, A. (2017). Security-related factors in extended UTAUT model for NFC based mobile payment in the restaurant industry. Computers in Human Behavior, 70, 460–474. https://doi.org/10.1016/j.chb.2017.01.001
38. Kim, C., Mirusmonov, M., & Lee, I. (2010). An empirical examination of factors influencing the intention to use mobile payment. Computers in Human Behavior, 26(3), 310–322. https://doi.org/10.1016/j.chb.2009.10.013
39. Kim, G., Shin, B., & Lee, H. G. (2009). Understanding dynamics between initial trust and usage intentions of mobile banking. Information Systems Journal, 19(3), 283–311. https://doi.org/10.1111/j.1365-2575.2007.00269.x
40. Koenig-Lewis, N., Marquet, M., Palmer, A., & Zhao, A. L. (2015). Enjoyment and social influence: Predicting mobile payment adoption. The Service Industries Journal, 35(10), 537–554. https://doi.org/10.1080/02642069.2015.1043278
41. Koivumäki, T., Ristola, A., &Kesti, M. (2008). The effects of information quality of mobile information services on user satisfaction and service acceptance–empirical evidence from Finland. Behaviour & Information Technology, 27(5), 375–385. https://doi.org/10.1080/01449290601177003
42. Krishnapur, V. (2019). Road map for the new decade: Creating a secure future for digital payments—The Economic Times. https://economictimes.indiatimes.com/wealth/save/road-map-for-the-new-decade-creating-a-secure-

Periodic Research

future-for-digital-payments/articleshow/73004772.cms

43. *Lee, K. C., & Chung, N. (2009). Understanding factors affecting trust in and satisfaction with mobile banking in Korea: A modified DeLone and McLean's model perspective. Interacting with Computers, 21(5–6), 385–392. https://doi.org/10.1016/j.intcom.2009.06.004*

44. *Lele, S., & Jain, A. (n.d.). Demonetisation effect: Digital payments gain new momentum. PwC. Retrieved December 29, 2019, from https://www.pwc.in/consulting/financial-services/fintech/fintech-insights/demonetisation-effect-digital-payment-gain-new-momentum.html*

45. *Madan, K., & Yadav, R. (2016). Behavioural intention to adopt mobile wallet: A developing country perspective. Journal of Indian Business Research. https://doi.org/10.1108/JIBR-10-2015-0112*

46. *Makanyeza, C. (2017). Determinants of consumers' intention to adopt mobile banking services in Zimbabwe. International Journal of Bank Marketing, 35(6), 997–1017. https://doi.org/10.1108/IJBM-07-2016-0099*

47. *Market, C. (2019, May 10). Number Of Smartphone Users In India Likely To Double To 859 Million By 2022. Business Standard India. https://www.business-standard.com/article/news-cm/number-of-smartphone-users-in-india-likely-to-double-to-859-million-by-2022-119051000458_1.html*

48. *Oliveira, T., Faria, M., Thomas, M. A., &Popovič, A. (2014). Extending the understanding of mobile banking adoption: When UTAUT meets TTF and ITM. International Journal of Information Management, 34(5), 689–703. https://doi.org/10.1016/j.ijinfomgt.2014.06.004*

49. *Podsakoff, P. M., MacKenzie, S. B., Lee, J.-Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. Journal of Applied Psychology, 88(5), 879.*

50. *Püschel, J., Mauro C. Hernandez, J., & Afonso Mazzon, J. (2010). Mobile banking: Proposition of an integrated adoption intention framework. International Journal of Bank Marketing, 28(5), 389–409. https://doi.org/10.1108/02652321011064908*

51. *Sellitto, C., Phonthanukitithaworn, C., & Fong, M. W. L. (2016). An investigation of mobile payment (m-payment) services in Thailand. Asia-Pacific Journal of Business Administration, 8(1), 37–54. https://doi.org/10.1108/APJBA-10-2014-0119*

52. *SH, S. (2019, July 1). PhonePe app downloads rises 77% in FY19 even as Paytm retains lead, shows*

data.   Https://Www.Livemint.Com. https://www.livemint.com/industry/banking/phonepe-app-downloads-rises-77-in-fy19-even-as-paytm-retains-lead-shows-data-1561921777576.html

53. *Sharma, S. (2019, July 12). Thousands of digital payment frauds putting Modi's 'digital India' dream at risk? The Financial Express. https://www.financialexpress.com/industry/banking-finance/thousands-of-digital-payment-frauds-putting-modis-digital-india-dream-at-risk/1641910/*

54. *Sharma, S. K., & Sharma, M. (2019). Examining the role of trust and quality dimensions in the actual usage of mobile banking services: An empirical investigation. International Journal of Information Management, 44, 65–75. https://doi.org/10.1016/j.ijinfomgt.2018.09.013*

55. *Shin, D.-H. (2009). Towards an understanding of the consumer acceptance of mobile wallet. Computers in Human Behavior, 25(6), 1343–1354. https://doi.org/10.1016/j.chb.2009.06.001*

56. *Slade, E. L., Dwivedi, Y. K., Piercy, N. C., & Williams, M. D. (2015). Modeling Consumers' Adoption Intentions of Remote Mobile Payments in the United Kingdom: Extending UTAUT with Innovativeness, Risk, and Trust. Psychology & Marketing, 32(8), 860–873. https://doi.org/10.1002/mar.20823*

57. *Tarhini, A., Alalwan, A. A., Shammout, A. B., & Al-Badi, A. (2019). An analysis of the factors affecting mobile commerce adoption in developing countries. Review of International Business and Strategy. https://doi.org/10.1108/RIBS-10-2018-0092*

58. *Teo, A.-C., Tan, G. W.-H., Ooi, K.-B., Hew, T.-S., & Yew, K.-T. (2015). The effects of convenience and speed in m-payment. Industrial Management & Data Systems. https://doi.org/10.1108/IMDS-08-2014-0231*

59. *Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). User Acceptance of Information Technology: Toward a Unified View. MIS Quarterly, 27(3), 425–478. JSTOR. https://doi.org/10.2307/30036540*

60. *Wetzels, M., Kleijnen, M., & de Ruyter, K. (2001). Customer adoption of e- service: An experimental study. International Journal of Service Industry Management, 12(2), 184–207. https://doi.org/10.1108/09564230110387542*

61. *Wong, Z. (2011). A Proposed Revision to the DeLone and McLean's IS Success Model. 2010 International Conference on E-Business, Management and Economics. IPEDR, 3.*