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Analysis of Customer Behaviour Towards Digital Payments: A Gender Based Inferential Analysis

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Abstract: ***The involvement of the technology in the economy has making a huge impact worldwide.Modern societies benefit from abundant resources created through continuous technological innovation. The technology has been developed in every sector in India too.In past few years, the payment sector has experienced substantial growth that is leading to the emergence of numerous innovative and convenient digital transaction platforms. Different platforms such as UPI, Mobile wallets, internet banking, and cardless payments have taken important part in customers life due to various benefits such as user-friendly features, convenience, and multiple other benefits. The present study is carried out to examine the behaviour of male and female respondents towards digital payments in Himachal Pradesh by using independent t-test. The study found significant difference regarding the constructs such as perceived usefulness, social influence, facilitating conditions, perceived benefits, financial risk, attitude and continuance intention to use digital payment, which indicate difference in evaluating utility, benefits, impact of external factors like social influence, availability of resources, monetary risk and attitudinal response across the gender.***
Keywords: Consumer Behaviour, Digital Payment, digital platforms,Inferential Analysis

I. INTRODUCTION

The involvement of the technology in the economy has making a huge impact worldwide.Modern societies benefit from abundant resources created through continuous technological innovation. Continuous development practices support consumption demand by enhancing convenience and efficient resource utilization. The technology has been developed in every sector in India too. The payment system has also not remained untouched from it. In India, Government has actively promoted the expansion of digital payment system. There has been a tremendous growth in digital payment in India and the Indian government has various financial institutions have implemented different initiatives to further increase digital payment usage. These initiatives include different schemes like UPI, BHIM, e-RUPI, as well as many other promotional and incentive programs such as Digi Dhan Abhiyan, Digital Apnayen, Merchant Incentives Scheme and many more. Department of Financial Services (DFS) has played a significant leadership role by promoting sustained growth under the DIGIDHAN Mission. The digital payment transactions rose sharply to 22,831 crores in FY 2024-25. There is compound annual growth of 41% from 2,071 crores in FY 2017-18. During this period, the total transaction in values jumped substantially from Rs 1,962 lakh crore to Rs 3,509 lakh crore

In past few years, the payment sector has experienced substantial growth that is leading to the emergence of numerous innovative and convenient digital transaction platforms. Different platforms such as UPI, Mobile wallets, internet banking, and cardless payments have taken important part in customers life due to various benefits such as user-friendly features, convenience, and multiple other benefits. These platforms are significantly transforming the way users engage with digital payment systems in India and across the globe. In totality the value of digital transactions, such as digital credit transfers, cashless and contactless transactions have substantially grown in both developed and emerging countries (Pasirayi et al., 2022).

A range of stakeholders, including financial institutions, payment service providers technology forms, intermediaries and the end users are involved in the digital payment ecosystem. Economy has experienced substantial global growth due to the factors such as the robust in the use of internet and smartphones, the growing prevalence of digital commerce, tilt in the consumer preferences and continuous development in technological innovation (Boar and Szemere, 2020). As well as smart phones have been noted to exert a great impact on the humans lives as compared to other technology because of the implementation of (Jack and Suri, 2011).

DIGITAL PAYMENT

The concept of money has changes with digitalisation. Its development from metal coin to paper currency, the digitalization era has ushered in electronic and card-based forms of money show how the money has evolved over the time with the technological involvement and latest commercial practices (König, 2001). Currently, in the era of digitalization, consumers have various tools such as, prepaid or post-paid cards, smartphones, and smart wearables to make payments.

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India is transforming to paper-based payment system to paperless economy, that can be classified in four stages: Inception, transitioning, tipping point, and nearly cashless (Thomas, Jain, and Angus, 2013)

Digital Payments are the payments where transaction takes place digitally. These are the transactions in which funds are moved from one party to another digitally or through electronic means, where there is no involvement of physical currency. These transactions take place through devices like smartphones, tablets, and computers. In this process both the parties, both sender and receiver must have the accessibility to digital platform which can include a bank account linked to an online bank service, a mobile payment application, or a web-based payment gateway as internet banking (Khando Khando et. al., 2023).

Digital payment systems have emerged as an important outcome of technological development. It provides fast, convenient, and secure financial transactions without physical cash.

According to the RBI, digital transactions refer to a smooth and efficient payment mechanism where financial exchange occur without physical cash, where these transactions are relied on electronic medium. In this process both the payer and payee utilize digital or electronic medium to transfer and receive funds. RBI has introduced the Ombudsman Scheme for the Digital Transactions on January 31, 2019 (Bhala, 2019).

II. REVIEW OF LITERATURE

1) Singh and Rana (2017) revealed in their article “STUDY OF CONSUMER PERCEPTION OF DIGITAL PAYMENT MODE” that demographic factor, except education, have little impact on the adoption of digital payments. The authors reported no significant differences in adoption based on gender, age profession, or annual income. However, education level showed a clear effect as users with higher education were more likely to adopt digital payment methods. According to the authors, people who have studied beyond matriculation and are comfortable using the internet are more inclined to use digital payments.

2) The findings of the article “FACTORS INFLUENCING CONSUMER’S INTENTION TO ADOPT DIGITAL PAYMENT – CONCEPTUAL MODEL” by K, Shanmugam (2017), indicates that strengthening the e-payment system depends on several key factors, including consumer awareness, convenience, security availability if digital payment tools, incentives, and an effective legal framework, all of which can significantly enhance usage. The paper proposes a conceptual model that explains the decision-making factors influencing the adoption of digital payment systems. This model incorporated perceived ease of use, perceived usefulness, perceived risk, and trust as major determinants of acceptance. The findings reveal that perceived ease of use is the strongest predictor of digital payment adoption, where customer attitude shows the least influence. The authors conclude that although digital payment systems are expanding rapidly, considerable efforts are still required to further increase their adoption. The study stated that many customers remain hesitant to adapt to digital payment methods, highlighting the need for greater awareness and education. To address this, the authors recommend promoting digital payment usage through seminars, workshops, training programs, and public awareness initiatives

3) Kaleeth and Chellammal (2021), in their study “SATISFACTION LEVELS WITH DIGITAL PAYMENTS AMONG COLLEGE STUDENTS IN RURAL RAMANATHAPURAM DISTRICT” provides valuable insights into the role of digital payments in advancing a digital economy. The study highlights a significant influence of initiatives like ‘Digital India’ and demonetisation period in the increase of digital payment methods usage, specially, in rural areas. The findings of the study show that gender does not notably affect college students' satisfaction with digital payments, as there was a clear imbalance in participation because of fewer female users in comparison to male. The authors suggest that initiatives like awareness campaigns and targeted marketing efforts could help in encouraging more women to adopt digital payment methods. The study stated ease and efficiency of digital transactions have improved everyday life, especially for younger generations who are highly connected to the digital world.

4) Sodhay et. al. (2024) in their research paper “BEHAVIOURAL INTENTION TO ADOPT MOBILE WALLETS AT THE BOTTOM OF THE PYRAMID: A DEVELOPING ECONOMY PERSPECTIVE” aim to explore the aspects that influence the bottom-of-pyramid consumers’ behavioural intention to adopt mobile wallets in emerging nations, such as India by using framework of the uses and gratification theory. Moreover, the study also investigates the gender as moderating effect on adoption. According to the author study reveals only factors significantly impacting mobile wallets adoption are convenience and social influence however contrasting with the previous studies innovation, trust and compatibility has been found no significant relationship among BOP consumers. The study states significant moderating effect between behavioural intention and compatibility and as compared to women, males are more easily impacted by compatibility in adoption of mobile wallets whereas no moderating effect of gender was associated between behavioural intention and innovativeness, behavioural intention and trust, behavioural intention and convenience and behavioural intention and social influence.

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III. RESEARCH GAP

The expansion of digital payment system has attracted considerable academic attention, with many studies examining factors that influence customer behaviour and adoption of digital payment platforms. Most of the existing research primarily focuses on the overall adoption ad general acceptance of digital payment technologies among customers. Whereas, there has been limited attention given to understand how demographic factors, particularly gender, influence the key constructs associated with digital payments. In the existing literature, differences in perceptions, attitudes, and behavioural intentions between make and female users remain insufficiently explored int the existing literature. As a result, there is a need for more focused research that investigates the role of gender in shaping the customer responses to digital payment system.

IV. OBJECTIVE OF THE STUDY

To analyse the impact of gender on multiple dimensions of consumer behaviour towards digital payment through independent t-test analysis.

V. METHODOLOGY

The study is based upon primary data and follows a quantitative research approach to examine gender-based differences regarding the customer behaviour towards digital payment in Himachal Pradesh.

The target population consists the people who are the users of digital payment platform such as internet banking, mobile banking, card-based payments and UPI- based payments. Datahas been collected from the users of digital payment by shortlisting those respondents who stated that they use or have used the digital payments. The study includes 450 respondents by using convenience sampling method which includes 256 male and 194 female users.

VI. SAMPLING TECHNIQUE

Primary data is collected a structured questionnaire designed to measure various dimension of customer behaviour. The instrument contain multiple statements measures on 5-point Likert scale. The questionnaire includes constructs such as ease of use, ease of usefulness, social influence, facilitating conditions, security, perceived benefits, privacy and security risk, financial risk, price value, trust, attitude, satisfaction and continuance intention to use digital payment.

In the study, gender acts as independent variable, and these constructs function as dependent variables. Statistical analysis is conducted using IBM SPSS Statistics 27 software. Independent sample t-test is used to compare the mean of male and female respondents for each construct, where the level of significance is determined at 5% ($p < 0.05$).

VII. ANALYSIS AND INTERPRETATION

1) Independent Sample t-Test on Gender-Wise Responses

		Levene's Test for Equality of Variances				
		F	Sig.	t	df	Sig. (2-tailed)
Ease of Use	Equal variances assumed	3.465	0.063	3.571	448	0.000
	Equal variances not assumed			3.528	395.244	0.000
Perceived Usefulness	Equal variances assumed	17.817	0.000	4.815	448	0.000
	Equal variances not assumed			4.634	345.951	0.000

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Social Influence	Equal variances assumed	20.874	0.000	4.019	448	0.000
	Equal variances not assumed			3.845	334.512	0.000
Facilitating Conditions	Equal variances assumed	9.013	0.003	5.514	448	0.000
	Equal variances not assumed			5.379	371.973	0.000
Security	Equal variances assumed	0.003	0.953	1.984	448	0.048
	Equal variances not assumed			2.018	437.567	0.044
Perceived Benefits of Digital Payments	Equal variances assumed	23.757	0.000	6.174	448	0.000
	Equal variances not assumed			5.947	347.346	0.000
Price Value	Equal variances assumed	1.845	0.175	0.844	448	0.399
	Equal variances not assumed			0.863	442.054	0.389
Trust	Equal variances assumed	0.776	0.379	2.412	448	0.016
	Equal variances not assumed			2.414	417.458	0.016
Attitude	Equal variances assumed	15.678	0.000	4.819	448	0.000
	Equal variances not assumed			4.641	347.441	0.000
Satisfaction	Equal variances assumed	1.815	0.179	2.342	448	0.020
	Equal variances not assumed			2.322	401.396	0.021

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Privacy and Security Risk	Equal variances assumed	0.823	0.365	-2.810	448	0.005
	Equal variances not assumed			-2.789	403.826	0.006
Financial Risk	Equal variances assumed	7.015	0.008	-3.480	448	0.001
	Equal variances not assumed			-3.555	441.328	0.000
Continuance Intention	Equal variances assumed	16.763	0.000	5.445	448	0.000
	Equal variances not assumed			5.237	344.576	0.000

The table 4. shows the results of independent sample t-test on the gender-wise responses of the respondents for constructs of the study.

Ho-1 There is no significant difference between male and female respondents regarding the opinion for ease of use.

Gender-wise there has been found no significant difference in the opinion of respondents regarding ease of use of digital payments as the p value is insignificant (0.06) being more than 0.05 level of significance accepting the null hypothesis.

Ho-2 There is no significant difference between male and female respondents regarding the opinion for perceived usefulness.

There is a significant difference in the gender-wise mean responses of the respondents with regard to the usefulness of digital payments. The calculated p-value of the responses is 0.000 which is significant at 5 percent level of significance. Thus, the null hypothesis is rejected.

Ho-3 There is no significant difference between male and female respondents regarding the opinion for social influence.

Gender-wise there has been found a significant difference in the opinion of respondents regarding social influence towards digital payments as the p-value is significant (0.000) being less than 0.05 level of significance rejecting the null hypothesis.

Ho-4 There is no significant difference between male and female respondents regarding the opinion for facilitating conditions.

There is a significant difference in the gender-wise mean responses of the respondents with regard to the facilitating conditions of digital payments. The calculated p-value of the responses is 0.003 which is significant at 5 percent level of significance. Thus, the null hypothesis is rejected.

Ho-5 There is no significant difference between male and female respondents regarding the opinion for security.

According to the results of the analysis it is revealed that gender-wise there is no significant difference in the opinion respondents about security of digital payment system. As the p value (0.953) falls in the critical area, being insignificant. Accepting the null hypothesis.

Ho-6 There is no significant difference between male and female respondents regarding the opinion for perceived benefits of digital payments.

Gender-wise there has been found a significant difference in the opinion of respondents regarding perceived benefits of towards digital payments as the p-value is significant (0.000) being less than 0.05 level of significance rejecting the null hypothesis.

Ho-7 There is no significant difference between male and female respondents regarding the opinion for price value.

The results of the analysis reveal that gender-wise there is no significant difference in the opinion respondents about price value of digital payment system. As the p value (0.175) falls in the critical area, being insignificant. Accepting the null hypothesis.

Ho-8 There is no significant difference between male and female respondents regarding the opinion for trust.

The results of the analysis reveal that gender-wise there is no significant difference in the opinion respondents about trust regarding digital payment system. As the p value (0.379) falls in the critical area, being insignificant. Accepting the null hypothesis.

Ho-9 There is no significant difference between male and female respondents regarding the opinion for attitude.

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It is evaluated that gender-wise there has been found a significant difference in the opinion of respondents regarding attitude towards digital payments as the p-value is significant (0.000) being less than 0.05 level of significance rejecting the null hypothesis.

Ho-10 There is no significant difference between male and female respondents regarding the opinion for satisfaction.

The results of the analysis reveal that gender-wise there is no significant difference in the opinion respondents about satisfaction regarding digital payment system. As the p value (0.179) falls in the critical area, being insignificant. Accepting the null hypothesis.

Ho-11 There is no significant difference between male and female respondents regarding the opinion for privacy and security risk.

The results of the analysis reveal that gender-wise there is no significant difference in the opinion respondents about privacy and security risk regarding digital payment system. As the p value (0.365) falls in the critical area, being insignificant. Accepting the null hypothesis.

Ho-12 There is no significant difference between male and female respondents regarding the opinion for financial risk.

t-test analysis shows a significant difference regarding the opinion for financial risk between male and female respondents as the p-value is significant (0.008) being less than 0.05 level of significance rejecting the null hypothesis.

Ho-13 There is no significant difference between male and female respondents regarding the opinion for continuance intention.

Gender-wise there has been found a significant difference in the opinion of respondents regarding continuance intention towards digital payments as the p-value is significant (0.000) being less than 0.05 level of significance rejecting the null hypothesis.

VIII. DISCUSSION AND CONCLUSION

On the basis of the results drawn by applying independent t-test it has been found that the analysis reveals mixed results across the examine constructs. The findings indicate that there is no significant difference between male and female users in term of ease of use, security, price value, trust, satisfaction, and privacy and security risk, which suggests that both male and female users demonstrates similar level of confidence, usability, security perception, trust, comfort in using digital payment, price value and perception regarding privacy and security risk.However, the study found a significant difference regarding the constructs such as perceived usefulness, social influence, facilitating conditions, perceived benefits, financial risk, attitude and continuance intention to use digital payment, which indicate difference in evaluating utility, benefits, impact of external factors like social influence, availability of resources, monetary risk and attitudinal response across the gender.

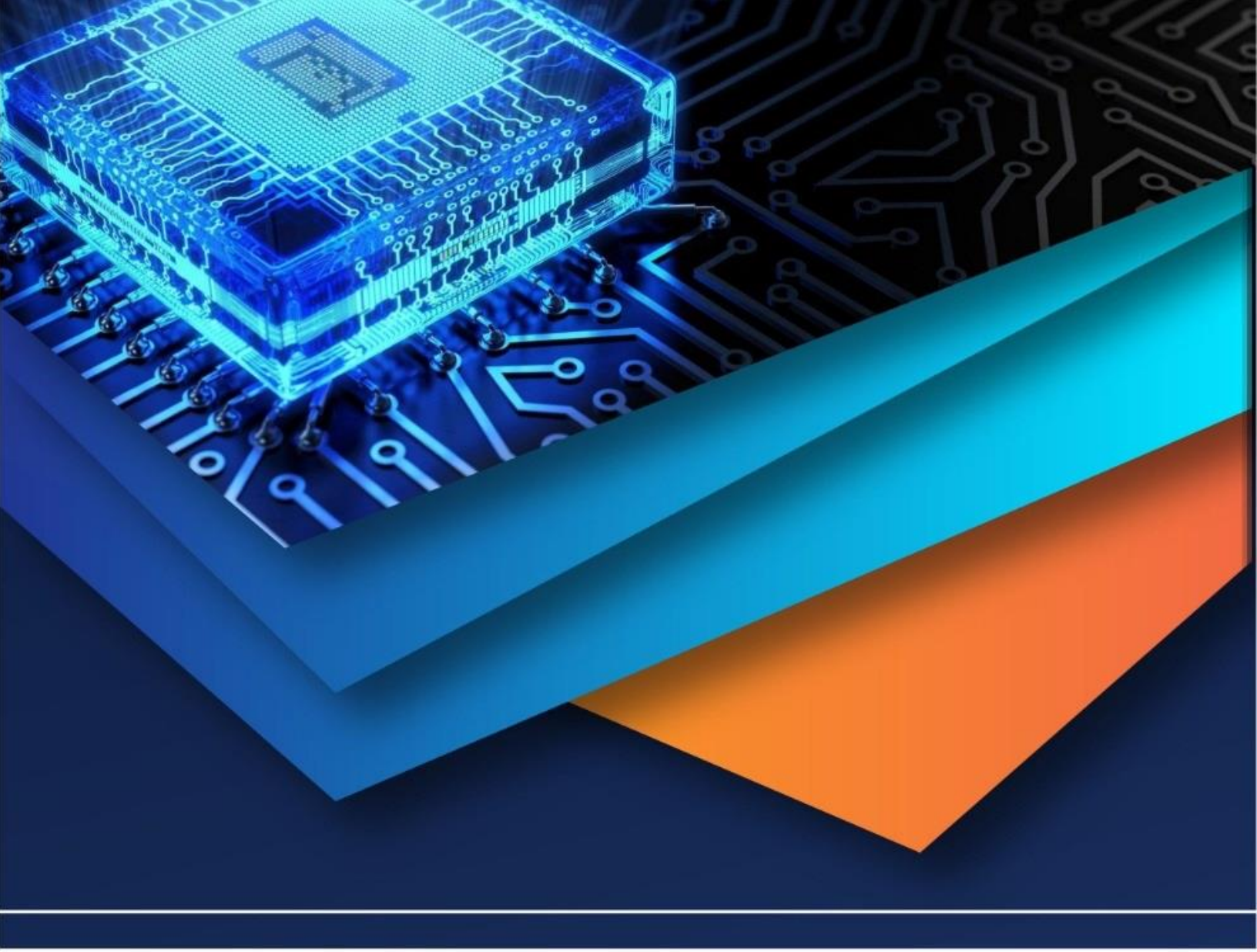
These finding suggest that the digital payment service providers may not need different strategies regarding usability interface, safety and security mechanism, pricing and privacy and security regarding risk. But the significant difference between male and female users toward these constructs significantly shape customer behaviour towards digital payment. On the basis of these findings, it is important for digital payment service providers and policymakers to design strategies that addresses perceptions, attitude and needs of different consumer groups. Efforts should be made to increase awareness about the benefits and usefulness of digital payment systems, strengthen technological and basic conditions, promote positive social influence through educational campaigns and peer recommendations. Such measures can help improve user confidence and encourage wider adoption of digital payment technologies.

REFERENCES

[1] Bhattacherjee, Anol. (2001) "Understanding Information Systems Continuance: An Expectation-Confirmation Model." MIS Quarterly **53** (**9**): 1689–99.
[2] Boar, C., & Szemere, R. (2020). Payments go (even more) digital. analysis of the 2019 Red Book Statistics, November.
[3] B. N. Kadamudimatha, “Digital Wallet : The next way of growth,” Int. J. Commer. Manag. Res., vol. 2, no. 12, pp. 22–24, 2016
[4] Chawla, D., & Joshi, H. (2019). Consumer attitude and intention to adopt mobile wallet in India – An empirical study. International Journal of Bank Marketing, 37(7), 1590–1618. https://doi.org/10.1108/ IJBM-09-2018-0256
[5] Daragmeh, A., Saleem, A., B´arczi, J., S´agi, J., 2022. Drivers of post-adoption of e-wallet among academics in palestine: an extension of the expectation confirmation model. Front. Psychol. 13. https://doi.org/10.3389/fpsyg.2022.984931.
[6] Daragmeh, A., S´agi, J., Z´eman, Z., 2021. Continuous intention to use e-wallet in the context of the covid-19 pandemic: integrating the health belief model (hbm) and technology continuous theory (tct). J. Open Innov. Technol. Mark. Complex. 7 (2), 132. https://doi.org/10.3390/joitmc7020132.
[7] Eltin, Ghina Qothrunnada. 2019. “PengaruhKepercayaan, PersepsiKegunaan, Dan Persepsi Kemudahan PenggunaanTerhadapNiatBerperilaku Dalam Mengadopsi Financial Technology (Fintech).”
[8] Fennell, P. B., Pasirayi, S., Johnson, A., & Rice, D. H. (2022). The effects of transaction methods on perceived contamination and attitude toward retailers. Journal of Marketing Theory and Practice, 30(3), 394-404.
[9] Halim, F., Butarbutar, M., Malau, A. R., Program, M. S., Tinggi, S., Ekonomi, I., Agung, S., & Program, M. S. (2020). Constituents Driving Interest in Using E-Wallets in Generation Z. 1(1), 101–116.
[10] Iscan, C., & Akbulut, F. P. (2023, September). Fraud detection using recurrent neural networks for digital wallet security. In 2023 8th International Conference on Computer Science and Engineering (UBMK) (pp. 538-542). IEEE.
[11] Jack, W., & Suri, T. (2011). Mobile money: The economics of M-PESA (No. w16721). National Bureau of Economic Research.

[12] Kaleeth, A. B. L., & Chellammal, T. SATISFACTION LEVELS WITH DIGITAL PAYMENTS AMONG COLLEGE STUDENTS IN RURAL RAMANATHAPURAM DISTRICT.
[13] Khando Khando, M. Sirajul Islam, & Shang Gao. (2023). The Emerging Technologies of Digital Payments and Associated Challenges: A Systematic Literature Review. Future Internet, 15(1). DOI:10.3390/fi15010021
[14] König, S. (2001). The Evolution of Money From Commodity Money to E-Money. UNICERT IV Program, 1, 21.
[15] Kumar, A., Mishra, S. K., & Saini, A. (2024). Predicting NFC-based mobile payments usage intention with perceived usefulness as mediator: a dual-stage PLS-SEM and NCA analysis. Journal of Advances in Management Research, 21(4), 556-583.
[16] Oliveira, T., Thomas, M., Baptista, G., & Campos, F. (2016). Mobile payment: Understanding the determinants of customer adoption and intention to recommend the technology. Computers in Human Behavior, 61, 404–414. https://doi.org/10.1016/j.chb.2016.03.030Ozturk
[17] Pachare, S. M. (2016). Demonetization: unpacking the digital wallets. We'Ken-International Journal of Basic and Applied Sciences, 1(4), 180-183.
[18] Sahu, G., & Singh, N. (2018). Identifying Critical Success Factor (CSFs) for the Adoption of Digital Payment Systems: A Study of Indian National Banks. Emerging Markets from a Multidisciplinary Perspective, 61–73. https://doi.org/10.1007/978-3-319-75013-2_6
[19] Sasongko, D. T., Handayani, P. W., & Satria, R. (2022). Analysis of factors affecting continuance use intention of the electronic money application in Indonesia. Procedia Computer Science, 197, 42-50.
[20] Seethamraju, R., Diatha, K. S., & Garg, S. (2018). Intention to Use a Mobile-Based Information Technology Solution for Tuberculosis Treatment Monitoring–Applying a UTAUT Model. Information Systems Frontiers, 20(1), 163–181.
[21] Singh, N., Srivastava, S. and Sinha, N. (2017), "Consumer preference and satisfaction of M-wallets: a study on North Indian consumers", International Journal of Bank Marketing, Vol. 35 No. 6, pp. 944-965.
[22] Singh, S., & Rana, R. (2017). Study of consumer perception of digital payment mode. Journal of internet banking and commerce, 22(3), 1-14.
[23] Sodhay, S., Kathuria, L. M., Kaur, T., & Kaur, G. (2024). Behavioural intention to adopt mobile wallets at the bottom of the pyramid: a developing economy perspective. International Journal of Quality and Service Sciences, 16(3), 345-371.
[24] Thomas, H., Jain, A., & Angus, M. (2013). The global journey from cash to cashless. MasterCard Advisors' Cashless Journey, 1-15.
[25] Trivedi, S. K., & Yadav, M. (2018). Predicting online repurchase intentions with e-satisfaction as mediator: A study on Gen Y. VINE Journal of Information and Knowledge Management Systems, 48(3), 427–447.
[26] Venkatesh, Viswanath, James Y L Thong, and Xin Xu. 2012. "Consumer Acceptance and Use of Information Technology: Extending the Unified Theory of Acceptance and Use of Technology." MIS quarterly: 157–78.
[27] Vinitha, K., & Vasantha, S. (2017). Factors Influencing Consumer's Intention to Adopt Digital Payment-Conceptual Model. Indian Journal of Public Health Research & Development, 8(3).
[28] Xu, C., Peak, D., &Prybutok, V. (2015). A customer value, satisfaction, and loyalty perspective of mobile application recommendations. Decision Support Systems, 79, 171–183.
[29] https://www.pib.gov.in/PressReleasePage.aspx?PRID=2213154&reg=3&lang=2
[30] https://business.bofa.com/en-us/content/digital-wallets-adoption-digital-payments-strategy.html#footnote-1

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