IJCRT.ORG ISSN : 2320-2882

INTERNATIONAL JOURNAL OF CREATIVE RESEARCH THOUGHTS (IJCRT)

An International Open Access, Peer-reviewed, Refereed Journal

A Study On The Key Factors Influencing Upi Adoption And User Satisfaction Among Small Retailers In Karnataka

[1]Ms. Kavya M, [2]Dr. Manoj Kumara N V
[1]PG Research Student, [2]Associate Professor & Research Guide
[1,2]Department of Management Sciences, Maharaja Institute of Technology Mysore,
[1]ORCID: 0009-0008-5547-1367, [2]ORCID: 0000-0001-5066-1868

Abstract: This study examines the impact of Unified Payments Interface (UPI) and digital payment systems on the financial behaviour of small retailers across five districts in Karnataka. As digital payment adoption accelerates in India, understanding the behavioural patterns and satisfaction levels of small business users is critical for driving financial inclusion and digital transformation. The study aims to identify the key factors influencing behavioural intention, actual usage, and user satisfaction with UPI services. A descriptive research design was adopted, utilizing primary data collected from 400 small retailers through structured questionnaires, supported by secondary data from RBI, NPCI, and economic reports. Statistical tools such as descriptive statistics, one-sample t-tests, and ANOVA were used for analysis. Results show that ease of use, smartphone comfort, cashback incentives, and peer recommendations significantly impact adoption. User satisfaction is influenced by app usability, transaction speed, customer support, and trust in service providers. Gender and location emerged as major demographic influencers, while age had limited effects. The study concludes that strengthening digital infrastructure and enhancing service quality are vital to encourage consistent UPI usage among small retailers. Future research can explore UPI usage among other business segments, assess the long-term impact of digital incentives, and compare adoption patterns between rural and urban markets to guide policy and fintech innovations.

Index Terms **-** UPI, Digital Payments, Small Retailers, Behavioral Intention, User Satisfaction, Karnataka.

I. INTRODUCTION

The rapid evolution of India's digital payment infrastructure has positioned the country as a global leader in real-time transactions. Unified Payments Interface (UPI), introduced by the National Payments Corporation of India (NPCI) in 2016, has become the backbone of this transformation. As of June 2025, UPI processed over 18.40 billion transactions worth ₹24.04 lakh crore, reflecting a 32% year-on-year growth in volume and 20% growth in value, showcasing widespread acceptance across user segments (NPCI, 2025). Small retailers, particularly in semi-urban and rural areas, are increasingly embracing UPI for its ease of use, low cost, and real-time settlement features. In Karnataka, a state with a strong mix of urban and semi-urban economies, the adoption of UPI among small retailers has become increasingly visible. Cities like Bengaluru, Mysuru, and even tier-3 districts like Ramanagaram and Mandya show growing preference for QR-based UPI payments. According to a recent RBI report (2025), Karnataka ranks among the top five states in UPI usage, with small and micro retailers forming a key component of this digital transition.

However, this digital shift also brings forth critical challenges. Cybersecurity threats, rising cases of UPI frauds, lack of digital literacy, and patchy internet access continue to affect small retailers, especially in rural Karnataka. According to the RBI's 2025 report, over 28,000 digital payment-related frauds were reported nationwide in the past year, a large portion of which involved small merchants. Despite government efforts through schemes like PM SVANidhi, Digital India, and zero-MDR policy, many retailers still struggle with limited grievance redressal, lack of training, and uncertainty about transaction failures. This research paper

explores these issues by focusing on UPI usage behaviour, adoption factors, and challenges faced by small retailers across five districts in Karnataka, aiming to provide insights for policymakers and digital service providers to strengthen financial inclusion at the grassroots level

II. Background of the Study

The concept of digital payment adoption, particularly through platforms like the Unified Payments Interface (UPI), is crucial in understanding the evolving financial behaviours of small retailers and the broader shift toward a cashless economy. UPI has not only simplified monetary transactions but also introduced a layer of formalization and traceability in India's traditionally cash-dominated retail sector. For small business owners, UPI adoption reflects more than just technological advancement-it signals readiness to engage with the digital economy, improve business efficiency, and enhance customer experience. This study explores the behavioural, demographic, and contextual factors influencing the adoption and satisfaction of UPI systems among small retailers in Karnataka, thereby contributing to the broader understanding of digital financial inclusion in emerging markets.

The significance of this study lies in its ability to shed light on real-world usage patterns, barriers, and enablers of UPI in semi-urban and urban settings. As India continues to push for greater digital penetration, particularly among underserved segments, understanding how small retailers interact with fintech tools becomes critical for designing inclusive policies and scalable solutions. This research offers practical insights for policymakers, fintech developers, and banking institutions aiming to improve adoption rates, enhance service delivery, and build digital trust. Additionally, it contributes to the literature on digital behaviour and technology acceptance by highlighting how demographic variables such as age, gender, education, and income influence UPI usage, thereby providing a foundation for more targeted and equitable financial strategies in India's growing digital economy.

III. Review of Literature

Several studies have explored the factors influencing digital payment adoption across various contexts. Perceived ease of use, usefulness, and innovativeness were found to shape user attitudes positively (Bhuiyan et al., 2025[7]; Kumar et al., 20257[17]; Kirmani et al., 2023[15]). Behavioural intention and continued usage were studied by Nandru et al. (2025[23]), Lakshmanan & Shanmugavel (2025[19]), and Pragha et al. (2025[26]), while Roopa et al. (2025[28]) and Vijay Kumar & Unnisa (2024[18]) emphasized the role of UPI in transforming retail transactions and the digital ecosystem. Trust was another major theme, explored through institutional cybersecurity (Krishna et al., 2025[16]), blockchain integration (Pandey & Kushwaha, 2025[25]), and mindfulness (Srivastava et al., 2025[30]).

Technology acceptance frameworks like UTAUT and its extensions were applied by Ali et al. (2024[1]), Khan et al. (2024[14]), Alkhwaldi et al. (2024[2]), and Al-Okaily et al. (2024[3]), highlighting the influence of trust, awareness, and security. Le (2022[20]) combined PMT with UTAUT for QR-code payments. User-specific factors were also considered-Saha & Kiran (2022[29]) focused on baby boomers, Hafiz Hanafiah et al. (2024[9]) on Gen Z tourists, and Muradovich et al. (2025[22]) on Indonesian students' crypto habits.

In rural and marginalized settings, Nandru et al. (2024[24]) studied QR code use among street vendors, Manrai et al. (2021[21]) looked at rural women, and Roopa et al. (2025[28]) examined small retailers. Barriers to adoption were identified by Hussain et al. (2024[11]) through qualitative methods, and resistance factors were addressed by Behera et al. (2023[6]) using Innovation Resistance Theory. Adoption impact on branding, loyalty, and marketing was studied by Bapat & Hollebeek (2023[4]), Bapat & Khandelwal (2023[5]), and Dang et al. (2023[8]). Further, bibliometric and policy-oriented studies added broader insights-Jain & Jain (2024[12]) conducted a literature review of 1,016 articles, while Putrevu & Mertzanis (2024[27]) analysed digital payment impacts on competitiveness and policy. Overall, these 30 studies offer a comprehensive understanding of digital payment adoption across demographics, platforms, and regions.

IV. Problem Statement

While UPI adoption is growing rapidly in India, there is limited research on the behavioural intention, usage, and satisfaction of small retailers-especially in Karnataka. Most studies focus on urban consumers, leaving a gap in understanding small business users.

V. OBJECTIVE OF THE STUDY

- To identify the factors influencing behavioral intention and actual usage of mobile payment (m-payment) services among selected small retailers in Karnataka.
- To evaluate the factors affecting user satisfaction with Unified Payment Interface systems in Karnataka.

VI. RESEARCH METHODOLOGY

6.1 Research Method:

This study adopts a descriptive research method to systematically analyse the current status, usage patterns, and satisfaction levels of UPI-based digital payment systems among small retailers in Karnataka. It aims to capture real-world trends and user behaviour through structured data collection

6.2 Sampling Design:

a) Population of The Study

The population includes small and micro retailers across Karnataka who are existing or potential users of UPI. With over 20,000 estimated active UPI users among 80,707 small units, the study focuses on a highly relevant segment for digital payment analysis.

b) Sampling Method - A non-probability sampling method is used due to the lack of a centralized database of small retailers. This approach ensures practical access to respondents despite population-wide uncertainties.

c) Sampling Technique - The study employs convenience sampling, selecting participants based on ease of access and willingness to participate. This technique is suitable for geographically scattered populations with limited sampling frames.

d) Sample Size - Using Cochran's formula with a 95% confidence level and 5% margin of error, a sample size of 377 was determined and rounded to 400. The sample was evenly distributed across five southern Karnataka districts- Bengaluru Urban, Mysuru, Mandya, Chamarajanagara, and Ramanagara -to enhance representativeness and ensure regional balance.

6.3 Source of the data

a. Primary Data

Collected through a structured questionnaire from small retailers in Karnataka to assess their UPI usage, perception, and satisfaction using a five-point Likert scale.

b. Secondary Data

Sourced from NPCI, RBI, Economic Surveys, and journals to support and validate primary findings on UPI adoption and digital payment trends.

6.4 Tools for The Study

To achieve the research objectives, the following statistical tools were employed:

- Descriptive Statistics: Used to analyse the overall trends in UPI adoption among small retailers by calculating the mean and standard deviation, helping to understand general preferences and the variability of responses.
- One Sample t-Test: Applied to identify significant differences in behavioural intention and usage of UPI across different groups of small retailers based on demographics such as age, location, and experience.
- ANOVA: Used to compare UPI user behaviour and satisfaction levels across multiple demographic categories and districts, enabling the identification of significant variations and influencing factors.

6.5 Hypotheses

$H0_1$: There is no significant factors influencing on Behavioral Intention and usage of mobile payment services among selected small retailers in Karnataka.

$H0_2$: There is no factors affecting user satisfaction with UPI system in Karnataka.

VII. DATA ANALYSIS & INTERPRETATION

Reliability testing was performed to confirm the consistency and dependability of the questionnaire items used in data collection.

Table - 1 Reliability Statistics

Objectives	Cronbach's Alpha	No of Items
Obj-1	0.9316	12
Obj-2	0.9345	12
Overall	0.9758	48

Source: *SPSS output-Primary data-Authors Calculations*

Reliability analysis using Cronbach's Alpha showed high internal consistency for all objectives, with values ranging from 0.9179 to 0.9345 and an overall score of 0.9758. This confirms the questionnaire's strong reliability for further analysis.

Table –2 KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.9713
Bartlett's Test of Sphericity	Approx. Chi-Square	13389.6
	df	1128
	Sig.	0

Source: *SPSS output-Primary data-Authors Calculations*

The KMO value of 0.9713 indicates excellent sampling adequacy, and Bartlett's Test of Sphericity (Chi-Square = 13389.6, $p < 0.001$) confirms strong inter-variable correlations. These results validate the data's suitability for factor analysis and support construct validity.

<u>Objective 1:</u> To identify the factors influencing behavioural intention and actual usage of mobile payment (m-payment) services among selected small retailers in Karnataka.

$H0_1$: There is no significant factors influencing on Behavioural Intention and usage of mobile payment services among selected small retailers in Karnataka.

Tables 3 and 4 show descriptive and ANOVA results analyzing the impact of demographics on UPI usage and the consistency of response patterns.

Table – 3 Descriptive Statistics

Variable	N	Mean	S.D	Variance	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	S.E	Statistic	S.E
Knew UPI before	400	4.240	1.190	1.416	-1.549	0.122	1.295	0.243
Peer recommendation influence	400	4.093	0.941	0.886	-1.146	0.122	1.135	0.243
Competitor usage influence	400	4.228	0.958	0.918	-1.276	0.122	1.378	0.243
Cashback encouraged usage	400	4.248	0.961	0.924	-1.517	0.122	2.148	0.243
Comfortable with smartphone	400	4.267	0.956	0.913	-1.475	0.122	2.033	0.243
Security affects adoption	400	4.223	0.875	0.765	-1.307	0.122	1.945	0.243
Regular UPI use	400	4.303	0.896	0.803	-1.515	0.122	2.491	0.243
Easy to use	400	4.343	0.867	0.752	-1.396	0.122	1.788	0.243
Internet supports usage	400	4.225	0.928	0.862	-1.274	0.122	1.374	0.243
Staff use comfortably	400	4.178	0.963	0.928	-1.274	0.122	1.329	0.243
Mostly accept UPI	400	4.245	0.884	0.782	-1.265	0.122	1.465	0.243
Check transaction records	400	4.275	0.917	0.841	-1.336	0.122	1.467	0.243
Valid N (listwise)	400							

***Source**: SPSS output-Primary data-Authors Calculations*

Table - 3 presents descriptive statistics for 14 UPI usage behavior variables, with mean values ranging from 4.093 (“Peer recommendation influence”) to 4.343 (“Easy to use”), reflecting strong agreement among respondents. Standard deviations between 0.752 and 1.190 indicate consistent responses across the sample. All variables show negative skewness, notably “Knew UPI before” (-1.549) and “Cashback encouraged usage” (-1.517), suggesting most respondents strongly agreed. Kurtosis values like “Regular UPI use” (2.491) and “Check transaction records” (1.467) indicate leptokurtic distributions, implying concentrated responses around the mean. Overall, results confirm positive and consistent perceptions of UPI, especially regarding ease of use, smartphone comfort, and digital tracking features.

Table – 4 ANOVA

Variable	Age		Gender		Location	
	F	Sig.	F	Sig.	F	Sig.
Knew UPI before	1.58	0.19	20.46	0.00	9.22	0.00
Peer recommendation influence	2.58	0.05	13.82	0.00	10.11	0.00
Competitor usage influence	2.55	0.06	18.07	0.00	10.02	0.00
Cashback encouraged usage	4.35	0.00	10.20	0.00	7.84	0.00
Comfortable with smartphone	2.65	0.05	7.47	0.01	7.92	0.00
Security affects adoption	0.81	0.49	11.44	0.00	7.00	0.00
Regular UPI use	1.66	0.18	6.64	0.01	5.67	0.00
Easy to use	0.51	0.67	7.96	0.01	8.92	0.00
Internet supports usage	0.60	0.61	15.43	0.00	6.51	0.00
Staff use comfortably	0.45	0.72	14.69	0.00	8.34	0.00
Mostly accept UPI	0.01	1.00	4.48	0.03	5.63	0.00
Check transaction records	0.58	0.63	15.58	0.00	4.84	0.00

***Source**: SPSS output-Primary data-Authors Calculations*

Table - 4 presents ANOVA results showing how age, gender, and location influence various factors of UPI usage. Age had limited but notable effects, with "Cashback encouraged usage" ($F = 4.35$, $p = 0.00$) and "Comfortable with smartphone" ($F = 2.65$, $p = 0.05$) significantly affected. Gender showed strong influence across multiple variables such as "Knew UPI before" ($F = 20.46$, $p = 0.00$), "Peer recommendation" ($F = 13.82$, $p = 0.00$), and "Check transaction records" ($F = 15.58$, $p = 0.00$), indicating noticeable usage differences between male and female respondents. Location also had significant impact, including "Knew UPI before" ($F = 9.22$, $p = 0.00$), "Cashback encouraged usage" ($F = 7.84$, $p = 0.00$), and "Internet supports usage" ($F = 6.51$, $p = 0.00$), reflecting regional variation in adoption and ease of use. Overall, gender and location emerge as the most influential demographic factors, while age shows specific but limited effects.

Objective 2: To evaluate the factors affecting user satisfaction with Unified Payment Interface systems in Karnataka.

H03 : There is no factors affecting user satisfaction with UPI system in Karnataka.

Table – 5 Test of Homogeneity of Variances

Variable	Levene Statistic	df1	df2	Sig.
Satisfied with speed	34.770	3	395	0.00
App navigation easy	11.850	3	395	0.00
Good support service	10.497	3	395	0.00
Instant payment confirmation	23.671	3	395	0.00
Satisfied with security	13.359	3	395	0.00
Rare transaction failures	14.789	3	395	0.00
Trust UPI providers	14.945	3	395	0.00
Easy issue resolution	6.981	3	395	0.00
Regular app updates	11.545	3	395	0.00
Prefer UPI cards	22.949	3	395	0.00
Charges seem fair	2.515	3	395	0.06
Recommend UPI apps	12.929	3	395	0.00

***Source**: SPSS output-Primary data-Authors Calculations*

Table - 5 shows Levene's Test results for homogeneity of variances across user groups for key factors influencing UPI satisfaction. Most variables show statistically significant differences ($p < 0.05$), such as

"Satisfied with speed" (Sig. = 5.8E-20), "Instant payment confirmation" (Sig. = 4.1E-14), and "Prefer UPI cards" (Sig. = 1E-13), indicating unequal variances and high variability in responses. Other significant variables include "Trust UPI providers," "Rare transaction failures," and "App navigation easy," confirming differing satisfaction levels across user segments. The variable "Charges seem fair" (Sig. = 0.0579) is non-significant, showing consistent views across groups. Overall, the results reject null hypothesis H_{03} and confirm that user satisfaction with UPI systems is influenced by multiple demographic or behavioural factors.

Table – 6 **ANOVA**

Variable		Sum of Squares	df	Mean Square	F	Sig.
Satisfied with speed	Between Groups	116.0	4	29.003	29.7424	0.00
	Within Groups	385.2	395	0.975		
	Total	501.2	399			
App navigation easy	Between Groups	79.5	4	19.872	34.7898	0.00
	Within Groups	225.6	395	0.571		
	Total	305.1	399			
Good support service	Between Groups	80.0	4	20.008	30.1595	0.00
	Within Groups	262.0	395	0.663		
	Total	342.1	399			
Instant payment confirmation	Between Groups	77.0	4	19.241	27.8938	0.00
	Within Groups	272.5	395	0.690		
	Total	349.4	399			
Satisfied with security	Between Groups	79.5	4	19.868	25.8606	0.00
	Within Groups	303.5	395	0.768		
	Total	382.9	399			
Rare transaction failures	Between Groups	62.2	4	15.558	21.3995	0.00
	Within Groups	287.2	395	0.727		
	Total	349.4	399			
Trust UPI providers	Between Groups	73.3	4	18.330	30.5446	0.00
	Within Groups	237.0	395	0.600		
	Total	310.4	399			
Easy issue resolution	Between Groups	44.5	4	11.114	15.4018	0.00
	Within Groups	285.0	395	0.722		
	Total	329.5	399			
Regular app updates	Between Groups	85.0	4	21.253	33.873	0.00
	Within Groups	247.8	395	0.627		
	Total	332.8	399			
Prefer UPI cards	Between Groups	89.9	4	22.463	29.3047	0.00
	Within Groups	302.8	395	0.767		
	Total	392.6	399			
Charges seem fair	Between Groups	60.2	4	15.040	13.7173	0.00
	Within Groups	433.1	395	1.096		
	Total	493.2	399			
Recommend UPI apps	Between Groups	97.3	4	24.313	38.0345	0.00
	Within Groups	252.5	395	0.639		
	Total	349.8	399			

***Source**: SPSS output-Primary data-Authors Calculations*

Table - 6 presents ANOVA results indicating all factors significantly affect user satisfaction with UPI systems in Karnataka (Sig. = 0.000). High F-values for "Recommend UPI apps" (F = 38.03), "App navigation easy" (F = 34.79), and "Regular app updates" (F = 33.87) suggest strong influence. Other key variables like "Trust UPI providers" (F = 30.54), "Good support service" (F = 30.16), and "Prefer UPI cards" (F = 29.30) also show significant impact. Additional factors such as "Satisfied with speed" (F = 27.49), "Transaction confirmation" (F = 25.81), and "Rare transaction failures" (F = 24.35) highlight the importance of speed and reliability. Lower but still significant F-values for "Easy issue resolution" (F = 15.40) and "Charges seem fair" (F = 13.72) confirm that cost and support also shape satisfaction. These findings reject the null hypothesis

(H_{03}) and show that user satisfaction is influenced by a wide range of usability, security, and service-related factors.

VIII. Results and Discussion

- The study reveals that UPI adoption is nearly universal across all five districts, with 100% usage in Mandya and Ramanagara, driven largely by middle-aged male respondents (35–45 years), long-standing businesses, and low-income groups predominantly running Kirana and retail outlets.
- Despite regional differences in education, income, and business size, digital maturity is evident across locations, especially in Ramanagara and Mysore, where trust, speed, and infrastructure have contributed to high satisfaction and consistent UPI engagement across diverse business types.
- Small retailers across Karnataka show strong UPI usage behaviour, especially in Ramanagara-83% strongly agree it's easy to use, 75% use it regularly, and 74% credit internet access. Key drivers like peer influence, cashback (68%), smartphone comfort (76%), and staff readiness (66%) highlight a digitally mature and supportive environment.
- Descriptive statistics revealed high mean scores for all 14 UPI usage variables (M = 4.093 to 4.343), along with low standard deviations, negative skewness (e.g., –1.549 for "Knew UPI before"), and leptokurtic distributions (e.g., 2.491 for "Regular UPI use"), indicating consistent and positive perceptions among small retailers.
- ANOVA results showed that gender (F = 20.46) and location (F = 9.22) significantly influenced UPI behaviour for variables like "Knew UPI before," while age had a limited effect, notably on "Cashback encouraged usage" (F = 4.35, p = 0.00), reflecting demographic differences in adoption patterns.
- Respondents across districts reported high satisfaction with UPI services, especially in Ramanagara where 84% strongly agreed on speed and 79% on customer support. Trust in UPI providers and issue resolution was also strongest in Ramanagara, indicating a highly positive user experience. Other districts like Mysuru and Chamarajanagar also reflected consistent satisfaction levels.
- Levene's test for homogeneity of variances showed significant results ($p < 0.05$) for most satisfaction-related factors, including "Satisfied with speed" (Sig. = 5.8E-20) and "Prefer UPI cards" (Sig. = 1E-13), indicating high variability across user groups, while "Charges seem fair" (Sig. = 0.0579) showed consistent responses, highlighting differing satisfaction levels influenced by demographics.
- ANOVA results confirmed that all tested factors significantly impact UPI user satisfaction (Sig. = 0.000), with highest influence seen in "Recommend UPI apps" (F = 38.03), "App navigation easy" (F = 34.79), and "Regular app updates" (F = 33.87), reflecting the importance of usability, trust, and service quality in shaping user experience.
- Encourage UPI adoption among small retailers by enhancing digital infrastructure in underserved regions and continuing incentives like cashback, as these are proven motivators across demographics. Tailored training and support can further boost smartphone comfort and regular usage.
- Service providers should prioritize improving app usability, regular updates, and seamless navigation to enhance user satisfaction and encourage wider UPI adoption across districts.

IX. Conclusion

The study comprehensively evaluated UPI adoption among small retailers across five districts in Karnataka, focusing on behavioural intention, user satisfaction, and the influence of demographic factors. The findings highlight widespread and consistent adoption of UPI, driven by ease of use, smartphone comfort, digital recordkeeping, and peer influence. While gender and location significantly affect usage patterns, factors like cashback and app usability notably shape user satisfaction. Statistical analyses such as ANOVA, Levene's test, and descriptive metrics validated the reliability of these factors in understanding digital payment behaviour. However, disparities in satisfaction and adoption levels across regions and user profiles suggest the need for targeted awareness and infrastructure improvement. Future research can explore UPI usage among other business segments, assess the long-term impact of digital incentives, and compare adoption patterns between rural and urban markets to guide policy and fintech innovations.

REFERENCES

[1] Ali, A. 2001.Macroeconomic variables as common pervasive risk factors and the empirical content of the Arbitrage Pricing Theory. Journal of Empirical finance, 5(3): 221–240.

[2] Basu, S. 1997. The Investment Performance of Common Stocks in Relation to their Price to Earnings Ratio: A Test of the Efficient Markets Hypothesis. Journal of Finance, 33(3): 663-682.

[3] Bhatti, U. and Hanif. M. 2010. Validity of Capital Assets Pricing Model.Evidence from KSE-Pakistan.European Journal of Economics, Finance and Administrative Science, 3 (20).

[1] Ali, O., Zaidi, S.F.H. and Thanasi-Boçe, M. (2024), "Intention to adopt mobile payment during the COVID-19 pandemic", *Journal of Systems and Information Technology*, Vol. 26 No. 4, pp. 473-494. https://doi.org/10.1108/JSIT-09-2021-0188

[2] Alkhwaldi, A.F., Al-Qudah, A.A., Al-Hattami, H.M., Al-Okaily, M., Al-Adwan, A.S. and Abu-Salih, B. (2024), "Uncertainty avoidance and acceptance of the digital payment systems: a partial least squares-structural equation modeling (PLS-SEM) approach", *Global Knowledge, Memory and Communication*, Vol. 73 No. 8/9, pp. 1119-1139. https://doi.org/10.1108/GKMC-07-2022-0161

[3] Al-Okaily, M., Alalwan, A.A., Al-Fraihat, D., Alkhwaldi, A.F., Rehman, S.U. and Al-Okaily, A. (2024), "Investigating antecedents of mobile payment systems' decision-making: a mediated model", *Global Knowledge, Memory and Communication*, Vol. 73 No. 1/2, pp. 45-66. https://doi.org/10.1108/GKMC-10-2021-0171

[4] Bapat, D. and Hollebeek, L.D. (2023), "Customer value, customer engagement, and customer-based brand equity in the context of a digital payment app", *Marketing Intelligence & Planning*, Vol. 41 No. 7, pp. 837-853. https://doi.org/10.1108/MIP-09-2022-0417

[5] Bapat, D. and Khandelwal, R. (2023), "Antecedents and consequences of consumer hope for digital payment apps services", *Journal of Services Marketing*, Vol. 37 No. 1, pp. 110-127. https://doi.org/10.1108/JSM-12-2021-0456

[6] Behera, R.K., Bala, P.K. and Rana, N.P. (2023), "Assessing factors influencing consumers' non-adoption intention: exploring the dark sides of mobile payment", *Information Technology & People*, Vol. 36 No. 7, pp. 2941-2976. https://doi.org/10.1108/ITP-03-2022-0223

[7] Bhuiyan, M.R.I., Akter, M.S. and Islam, S. (2025), "How does digital payment transform society as a cashless society? An empirical study in the developing economy", *Journal of Science and Technology Policy Management*, Vol. 16 No. 4, pp. 756-774. https://doi.org/10.1108/JSTPM-10-2023-0170

[8] Dang, T.-Q., Tan, G.W.-H., Aw, E.C.-X., Ooi, K.-B., Metri, B. and Dwivedi, Y.K. (2023), "How to generate loyalty in mobile payment services? An integrative dual SEM-ANN analysis", *International Journal of Bank Marketing*, Vol. 41 No. 6, pp. 1177-1206. https://doi.org/10.1108/IJBM-05-2022-0202

[9] Hanafiah, M.H., Asyraff, M.A., Ismail, M.N.I. and Sjukriana, J. (2024), "Understanding the key drivers in using mobile payment (M-Payment) among Generation Z travellers", *Young Consumers*, Vol. 25 No. 5, pp. 645-664. https://doi.org/10.1108/YC-08-2023-1835

[10] Hassaan, M. and Yaseen, A. (2024), "Factors influencing customers' adoption of mobile payment in Pakistan: application of the extended meta-UTAUT model", *Journal of Science and Technology Policy Management*, Vol. ahead-of-print No. ahead-of-print. https://doi.org/10.1108/JSTPM-01-2024-0029

[11] Hussain, S., Gupta, S. and Bhardwaj, S. (2024), "Determinants inhibiting digital payment system adoption: an Indian perspective", *Qualitative Research in Financial Markets*, Vol. ahead-of-print No. ahead-of-print. https://doi.org/10.1108/QRFM-09-2023-0223

[12] Jain, V. and Jain, N. (2024), "Deciphering the growth of digital payment adoption: an extensive SPAR-4 bibliometric exploration", *Global Knowledge, Memory and Communication*, Vol. ahead-of-print No. ahead-of-print. https://doi.org/10.1108/GKMC-05-2024-0296

[13] Jegerson, D. and Hussain, M. (2023), "A framework for measuring the adoption factors in digital mobile payments in the COVID-19 era", *International Journal of Pervasive Computing and Communications*, Vol. 19 No. 4, pp. 596-623. https://doi.org/10.1108/IJPCC-12-2021-0307

[14] Khan, S., Khan, S.U., Khan, I.U., Khan, S.Z. and Khan, R.U. (2024), "Understanding consumer adoption of mobile payment in Pakistan", *Journal of Science and Technology Policy Management*, Vol. 15 No. 6, pp. 1339-1362. https://doi.org/10.1108/JSTPM-07-2021-0110

[15] Kirmani, M.D., Haque, M.A., Sadiq, M.A. and Hasan, F. (2023), "Cashless preferences during the COVID-19 pandemic: investigating user intentions to continue UPI-based payment systems in India", *Journal of Science and Technology Policy Management*, Vol. 14 No. 4, pp. 758-779. https://doi.org/10.1108/JSTPM-08-2021-0127

[16] Krishna, B., Krishnan, S. and Sebastian, M.P. (2025), "Understanding the process of building institutional trust among digital payment users through national cybersecurity commitment trustworthiness cues: a critical realist perspective", *Information Technology & People*, Vol. 38 No. 2, pp. 714-756. https://doi.org/10.1108/ITP-05-2023-0434

[17] Kumar, M., Singh, J.B. and Sharma, S.K. (2025), "Evolving "affordances" and "constraints" in mobile payment use: a study of Indian micro-enterprises' UPI adoption process", *Journal of Enterprise Information Management*, Vol. 38 No. 2, pp. 660-678. https://doi.org/10.1108/JEIM-09-2023-0455

[18] Kumar, S. V., & Unnisa, N. (2024). A study on UPI transactions in India. *International Journal of Advances in Business and Management Research (IJABMR), 1*(3), 8-22. https://doi.org/10.62674/ijabmr.2024.v1i03.002

[19] Lakshmanan, K. and Shanmugavel, N. (2025), "Investigation on the factors influencing the continuation intention to use digital wallet in the rural parts of India using extended UTAUT2", *Asian Journal of Economics and Banking*, Vol. 9 No. 1, pp. 22-47. https://doi.org/10.1108/AJEB-08-2024-0100

[20] Le, X.C. (2022), "The diffusion of mobile QR-code payment: an empirical evaluation for a pandemic", *Asia-Pacific Journal of Business Administration*, Vol. 14 No. 4, pp. 617-636. https://doi.org/10.1108/APJBA-07-2021-0329

[21] Manrai, R., Goel, U. and Yadav, P.D. (2021), "Factors affecting adoption of digital payments by semi-rural Indian women: extension of UTAUT-2 with self-determination theory and perceived credibility", *Aslib Journal of Information Management*, Vol. 73 No. 6, pp. 814-838. https://doi.org/10.1108/AJIM-12-2020-0396

[22] Muradovich, K. A., Sari, M., & Gautama, B. P. (2025). Understanding UPI Students' Perceptions and Financial Behaviors Toward Cryptocurrency: A Qualitative Study. *JURNAL EKONOMI BISNIS DAN MANAJEMEN (EKO-BISMA), 4*(1), 376-383. https://doi.org/10.58268/eb.v4i1.138

[23] Nandru, P., Chendragiri, M. and S.A., S. (2025), "Factors affecting the adoption of mobile payment services during the COVID-19 pandemic: an application of extended UTAUT2 model", *Journal of Science and Technology Policy Management*, Vol. 16 No. 3, pp. 405-431. https://doi.org/10.1108/JSTPM-03-2023-0044

[24] Nandru, P., S.A., S.K. and Chendragiri, M. (2024), "Adoption intention of mobile QR code payment system among marginalized street vendors: an empirical investigation from an emerging economy", *Journal of Science and Technology Policy Management*, Vol. 15 No. 6, pp. 1709-1733. https://doi.org/10.1108/JSTPM-03-2023-0035

[25] Pandey, V. and Kushwaha, G.S. (2025), "From risk minimisation to trust building: an empirical study on blockchain technology in digital payment system", *Journal of Modelling in Management*, Vol. 20 No. 4, pp. 1351-1376. https://doi.org/10.1108/JM2-03-2024-0080

[26] Pragha, P., Dhalmahapatra, K., Sambasivan, M., Rathore, P. and Saha, E. (2025), "Understanding students' switching intentions from cash payment to mobile payment in education sector", *Journal of Applied Research in Higher Education*, Vol. 17 No. 3, pp. 868-879. https://doi.org/10.1108/JARHE-11-2023-0522

[27] Putrevu, J. and Mertzanis, C. (2024), "The adoption of digital payments in emerging economies: challenges and policy responses", *Digital Policy, Regulation and Governance*, Vol. 26 No. 5, pp. 476-500. https://doi.org/10.1108/DPRG-06-2023-0077

[28] Roopa, P., Vijayalakshmi, B., & Nishitha, P. (2025). UPI and Its Impact on Business Performance of Retailers. *Smart Journal of Business Management Studies*, *21*, 38-50. https://doi.org/10.34293/2321-2012.2025.0001.4

[29] Saha, P. and Kiran, K.B. (2022), "What insisted baby boomers adopt unified payment interface as a payment mechanism?: an exploration of drivers of behavioral intention", *Journal of Advances in Management Research*, Vol. 19 No. 5, pp. 792-809. https://doi.org/10.1108/JAMR-01-2022-0022

[30] Srivastava, A., Rai, N., Mishra, V. and Madupalli, R.K. (2025), "Role of mindfulness in merchant's adoption of mobile payments in an unorganized sector", *Journal of Business & Industrial Marketing*, Vol. 40 No. 3, pp. 653-668. https://doi.org/10.1108/JBIM-11-2023-0661