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# Digital Payment Adoption in Tourism: Ethical and Privacy Challenges Faced by Tourists in Delhi

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## Abstract

*Digital payments in India are affecting the tourism industry in various ways. This study investigated how tourism in New Delhi is affected by ethical and privacy concerns through the use of digital payments among international tourists and domestic tourists. A cross-sectional, quantitative design was used for this research project. The researchers studied data they obtained using a structured questionnaire designed to survey 412 tourist respondents who were visiting the major tourist attractions in New Delhi, consisting of 332 domestic and 80 international resident tourists, to gather quantitative data for their research. The descriptive analysis of the results, in general, suggests that digital payment use is moderately to highly prevalent within the sample of surveyed international and domestic tourists ( $M = 3.78$ ,  $SD = 0.64$ ). Additionally, there were moderate levels of ethical ( $M = 3.61$ ,  $SD = 0.67$ ) and privacy-related ( $M = 3.69$ ,  $SD = 0.71$ ) issues associated with digital payment use described by surveyed international and domestic tourists. Correlation coefficient analyses to provide evidence of two relationships involving digital payment use. The first relationship involves the ethical issue connection ( $r = 0.42$ ,  $p < 0.01$ ) present with respect to digital payment use, whereas the second relationship involves the privacy issue connection ( $r = -0.36$ ,  $p < 0.01$ ) also in reference to digital payment use.*

**Keywords:** Digital Payment Adoption, Tourism Industry, Ethical Concerns, Privacy Concerns, Tourist Behaviour.

## Introduction

Digital payment systems have revolutionized the method by which economic exchanges occur at tourism destinations, particularly in urban and advanced technological settings (Shigaonker, 2018). In India, the introduction of digital payment systems, specifically via the Unified Payments Interface (UPI), has enabled cashless transactions across the retail, hospitality, transportation, and tourism

sectors (Mahesh & S., 2022; Patnaik et al., 2023) therefore, digital payment methods are now an important part of the proper tourist experience (Susanto et al., 2022). By providing convenience, speed, and reducing tourists' reliance on physical currency, digital payments have advantages for tourists. However, digital payments create greater worry for tourists regarding ethical conduct, data privacy, and trust in digital infrastructure; the increased fear created by tourists is especially pronounced when they are in an unfamiliar environment with limited institutional knowledge and perceived vulnerability (Ioannou et al., 2020; Yallop et al., 2021).

Current research on digital payment acceptance covers residents, buyers, and vendors comprehensively (Patil et al., 2018; Sahi et al., 2021). Tourists as an end-user category have not been explicitly examined beyond their recent rise as a significant group of users using these technologies (Wang & Chan, 2025). In contrast to permanent residents, tourists are normally less educated about/deeply aware of local legislation or laws/rules/whistle-blowing policies for addressing issues with businesses. They may also perceive additional risks associated with digital payments due to their lack of familiarity with local customs/practices; thus, ethical issues (i.e., how fair/transparent a company appears to be with regard to data), privacy (e.g., access to, sharing of, or control of over their info) influence their willingness/intention to adopt and use these digital payment solutions (Lee et al., 2025; Patnaik et al., 2023). To date; however, there is little/insufficient empirical research/information regarding how these ethical/privacy issues impact the willingness of tourists to adopt/use technology for payments in those areas of current literature reviewed before (Sahi et al., 2021). Previous studies provided little support for an integrated explanation of the roles of ethical/privacy issues and trust in influencing users' acceptance and use of technology by treating these issues as independent constructs (Patnaik et al., 2023). Digital trust refers to users' feelings regarding the trustworthiness/security/reliability/integrity of a digital-based system (Lee et al., 2025). This digital trust is essential for users to feel comfortable using a digital payment service to mitigate privacy/ethical-related risks and facilita~XZxZv

Although comparative understandings of domestic and foreign tourists are few, the dissimilarities of the ways in which they perceive and experience digital transactions are shaped by many cultural familiarity, regulation awareness, institutional trust, and other factors that influence how they perceive and behave towards payments (Singhal et al., 2020). Emerging international economies, such as India, are experiencing a revolution in the use of digital payments, transforming how tourist purchases occur. Yet, tourist-related research does not consider tourists' unique ethical and privacy risk factors created due to a lack of familiarity with local regulations, protections, and providers.

The existing body of literature has addressed ethical issues and privacy concerns related to the use of digital payments conceptually, rather than empirically relating these surrogate demographic variables with domestic tourists' or foreign tourists' usage of digital payments compared to domestic tourists' or foreign tourists' demographics. Published research pertaining to India has ignored urban informal sectors as well (Hasan & Gupta, 2020; Khanra et al., 2020). Digital transactions in tourism are growing rapidly as a result of smartphone penetration, government regulation initiatives, and the COVID-19 pandemic's effect on consumer acceptance of contactless payments (Kesavan & Srinivasan, 2023; Singh & Singh, 2022). In comparison to other continents, mobile wallets and QR codes have been widely adopted to conduct payments in hotels, transportation, and attractions, although the rate of digital payments' adoption by hotels has been slower than the pace of the hospitality industry's adoption of the technology (Mahesh & S., 2022; Weltman et al., 2024).

Key drivers of usage of digital payments are largely consistent with the Technology Acceptance Model, but also include social norms, technology infrastructure, and incentives related to the adoption of new technology (Jain & Jain, 2024; Ramayanti et al., 2023); however, privacy concerns and complexity are the major barriers to the usage of digital payments by both domestic and foreign tourists (Hussain et al., 2024).

Concerns regarding ethics include inclusion, fairness, reliability, preventing fraud, transparent fees, and protection of data (Kwok, 2023; Patnaik et al., 2023) and concerns regarding privacy are data breaches, public Wi-Fi, cross-border flows, and lack of enforcement of lax regulations; India's Data Protection Act has few protections due to weak enforcement of them (Hossain, 2023; Sharma & Adeniyi, 2025). Age is a key factor affecting adoption of technology; younger, more tech-savvy people adopt faster than older, poorer, rural and women (Hussain et al., 2024; Ranjith, 2021; Shree et al., 2021). Domestic tourists are more likely to use UPI for payments than international tourists due to language issues and KYC requirements (Singhal et al., 2020). Several policies, such as the National Digital Tourism Mission, RBI foreign UPI usage, and interoperability provisions promote the use of UPI for travel within India; similar initiatives exist in Indonesia, Brazil, and the EU (Asian Economic Integration Report 2024, 2024; Joshi, 2025). There are gaps in literature about gaps in resident-centric research, no empirical link between ethics and/or privacy/trust/usage; cross-national comparisons; integrated research models; and lack of research on urban informal sectors (Jai

The current research analyses how tourists use digital payment systems in Delhi based on ethical and privacy concerns and how trust can mediate these online payments based on an international tourist perspective between domestic and foreign tourists. Delhi's presence as a top destination for global tourism and its role in leading payments through digital means makes it an ideal location for such research (Shigaonker, 2018). Through creating a unified framework that brings together ethical and privacy concerns, as well as trust, this research fills key gaps in both the areas of digital payment systems and tourism; extending previously established technology adoption and perceived risk theories/models to tourists who use these services as transient users; and providing policymakers and stakeholders with reliable empirical evidence/insight to create safe, trusted, and widely accessible digital payment ecosystems.

This paper has two key goals: (1) To investigate the effect of ethical and/or privacy concerns on tourism expenditures of visitors to Delhi using electronic/digital transactions or payments; & (2) to examine whether or not there exists a distinction between domestic and foreign tourists regarding the propensity to purchase goods and/or services by way of electronic/digital methods based upon perceived ethical and privacy issues.

In relation to the hypotheses outlined, there are two hypotheses that need to be tested; the first hypothesis states that The ethical and privacy issues are significantly affecting how tourists in Delhi are using digital payments and the second hypothesis states that Between foreign and domestic tourists, there is a statistically significance difference with respect to those being able to use digital payment methods and ethical and privacy issues. Testing these hypotheses will provide valuable insight into the relationship between user perception and technology adoption and how these factors are manifested within diverse tourist populations (Chamboko-Mpotaringa & Tichaawa, 2023; Patnaik et al., 2023).

### **Conceptual Framework for this Study**

The conceptual framework describes the interplay between ethical and privacy issues and the experience of tourists in Delhi using digital payment systems. Ethical and privacy concerns are the Independent Variable as both ethical concerns create an individuals' confidence, trust and willingness to use a digital payment system during their time on vacation as well; and thus, they affect tourists' overall level of use of those payment methods. Digital payment method usage is the Dependent Variable being a reflection of the number of times tourists have used a digital payment system while on vacation and the level of comfort in their ability to do so.

The use of the grouping variable category of tourist (domestic or foreign) to evaluate the ethical awareness, privacy concern, and digital payment usage patterns allows for comparisons of the ways in which tourists view these three issues, and respond to them, based on the differences between their familiarity with the digital payment system, the governing regulations relative to those payment types, and the level of risk that they face relative to those payment types based upon their digital literacy (Singhal et al., 2020). The linear, simple nature of the framework is conducive to descriptive statistics, correlation, regression, and t-tests/ANOVA, thereby eliminating the need for complex modelling approaches.

### Research Methodology

This quantitative, cross-sectional study examines how ethical and privacy concerns affect digital payment usage by tourists in Delhi, a highly-visited urban destination with a large number of tourists and many digital payments being used. Surveys were administered to 412 tourists (332 domestic and 80 foreign), with the domestic/foreign ratios being similar to those seen among all tourists visiting the major destinations in India. Given that tourist populations are volatile and there was not a full sample frame, the current research used convenience sampling approaches as were used in other studies on tourism. The survey collected demographic information and information about the respondents perceived ethical conduct, perceived privacy concerns, and usage of digital payment while travelling through responses to Likert-type items using a 5-point scale measuring their perceptions to determine how closely respondent demographics relate to digital payment. Descriptive statistics were conducted describing demographic characteristics and usage patterns of respondents, and correlation and regression analyses were performed to establish a correlation between respondent ethical/privacy concerns and their use of digital payments. In addition, statistical analyses were conducted to compare domestic versus foreign tourist use of digital payments while in Delhi. This methodology allows for generation of evidence-based insights into the barriers to using digital payments, such as ethical and privacy concerns. This research will provide both tourism policymakers and tourism service providers with important clarity and practical application to assist them in addressing the issues facing the digital payments industry.

### Results & Discussion

**Table 1 Reliability Analysis**

Construct	No. of Items	Cronbach's Alpha
Digital Payment Usage	6	0.873
Ethical Concerns	9	0.889
Privacy Concerns	11	0.912
Digital Trust	4	0.861

**Source:** Primary Data

The reliability analysis indicates that every construct used in our study possesses a high degree of internal consistency, meaning the measurement instrument used to measure these constructs are reliable as well. Specifically, Digital Payment Use ( $\alpha = 0.873$ ), Ethical Concerns ( $\alpha = 0.889$ ), Privacy Concerns ( $\alpha = 0.912$ ), Digital Trust ( $\alpha = 0.861$ ) are all above the suggested minimum cut-off point of 0.70 which means all items in each of the constructs measure the same fundamental concept with reliability. The fact that Privacy Concerns exhibit the highest level of reliability among the four constructs ( $\alpha = 0.912$ ), demonstrates that participants possessed clear and stable beliefs about the security of their data; whether or not their information would be used for purposes other than those intended; and their privacy when using digital payments while traveling. The high reliability

of both behavioural and perceptual constructs enhances the credibility of the subsequent analyses (i.e., factor analysis and hypothesis testing) by minimizing measurement error. Therefore, these findings confirm that scale items are appropriate for studying ethical and privacy-related factors affecting digital payment adoption by tourists, and consequently establish the methodological rigor and interpretability of the study's empirical findings.

**Table 2 Assessment of Data Normality and Common Method Bias**

Assessment	Measure	Usage	Ethical Concerns	Privacy Concerns	Digital Trust	Threshold	Result
Normality Test	Mean	3.89	3.62	3.78	3.54		
	Std. Deviation	0.71	0.76	0.74	0.69		
	Skewness	-0.412	0.287	0.354	-0.368	±2	Acceptable
	Kurtosis	-0.238	-0.451	-0.396	-0.214	±2	Acceptable
	Kolmogorov–Smirnov (Sig.)	0.000	0.000	0.000	0.002	p > 0.05*	
	Shapiro–Wilk (Sig.)	0.001	0.000	0.000	0.003	p > 0.05*	
Common Method Bias	Harman's Single Factor Variance (%)					< 50%	29.34% (No CMB)
	Variance Inflation Factor (VIF)	2.38	2.31	2.47	2.12	< 3.3	No CMB

**Source:** Primary Data

The assessment of the normality of the data and of common method bias confirms that the dataset is appropriate for parametric analysis. As can be seen from the results in Table 2, the skewness and kurtosis values for Digital Payment Usage, Ethical Concerns, Privacy Concerns and Digital Trust, are all within the prescribed limits of ±2 indicating that the data is normally distributed. While the results of the Kolmogorov-Smirnov test and the Shapiro-Wilk test were statistically significant, this is consistent with what is expected when the sample size is large (N = 412), where these tests tend to be overly sensitive to small deviations from normality. Thus, the primary reliance was on distributional measures such as skewness and kurtosis for confirmation of the assumption of normality, supporting the use of correlation and regression analyses.

To tackle any potential common method bias associated with convenience sampling and self-reported measures, Harman's single-factor test and full collinearity assessment were used. The first unrotated factor from the Harman test had a total variance percentage of 29.34%, which is considerably less than the 50% threshold, indicating that no single factor accounts for most of the variance. Also, all factor variances have a variance inflation factor (VIF) less than the conservative threshold of 3.3; therefore, common method bias is not likely to be a concern. The results indicate that measurement methods do not influence the relationship of ethical, privacy, digital trust, and use of digital payment issues in the study, and support the credibility and validity of the study's empirical results.

**Table 3 Demographic Profile of Respondents**

<b>Demographic Variable</b>	<b>Category</b>	<b>(N)</b>	<b>(%)</b>
Tourist Type	Domestic Tourist	332	80.6
	Foreign Tourist	80	19.4
Gender	Male	226	54.9
	Female	186	45.1
Age Group	Below 25 years	118	28.6
	25–34 years	147	35.7
	35–44 years	82	19.9
	45–54 years	41	10.0
	55 years and above	24	5.8
Educational Qualification	School Level	56	13.6
	Undergraduate	162	39.3
	Postgraduate	144	35.0
	Doctorate / Professional	50	12.1
Monthly Income	Below ₹25,000	98	23.8
	₹25,000–₹50,000	121	29.4
	₹50,001–₹1,00,000	107	26.0
	Above ₹1,00,000	62	15.0
	Prefer not to say	24	5.8
Travel Frequency	First-time traveller	89	21.6
	Occasional (1–2 trips/year)	201	48.8
	Frequent (3 or more trips/year)	122	29.6

**Source:** Primary Data

As shown in Table 3, the respondents' demographic characteristics demonstrated that this sample adequately represents the demographic characteristics of urban tourism in Delhi. Domestic tourists made up the majority of respondents (80.6%), which aligns with the high volume of domestic visitors across all major Indian metropolitan destinations. Foreign tourists constituted 19.4% of the sample and enabled effective comparisons to be made. There was a fairly even distribution of males (54.9%) and females (45.1%) among respondents, which reduced any chance of gender bias. Respondents were predominantly youth; with 35.7% being between 25-34 years old and 28.6% being under 25 years

for this study; younger travellers are more likely to adopt digital payment systems, but also face different ethical and privacy challenges.

With respect to educational achievement and attainment, the sample included a high proportion of individuals who achieved higher education qualifications: almost 40% of respondents had completed some form of tertiary study and nearly 35% had obtained a higher graduate degree or equivalent; this suggests that the study participants not only possess enough knowledge about how to evaluate ethical and privacy issues in relation to digital transactions, but that those participants were also able to evaluate them effectively. When considering income, we see that the majority of participants are considered to be either in moderate-income or high-income brackets, with just over half of participants earning between ₹25,000 and ₹1,00,000 (approx. \$450 and \$1,800) each

month; thus, these individuals would have the financial means to make use of digital transaction systems while visiting urban tourist destinations. The call of travel frequency further supports the claim as to the diversity of travel experience within this sample of participants, as less than half had travelled for leisure purposes on an occasional basis (48.8%) and almost one third indicated that they travel frequently (29.6%); therefore, the diversity in travel experience will provide multiple perspectives of the digital payment systems and enhance the robustness of the overall study findings. Collectively, the demographics of the sample support the generalisability of the overall research outcomes with respect to examining ethical and privacy related factors that influence tourists5321/-\*!

**Table 4 Exploratory Factor Analysis Results for Digital Payment Adoption**

Sampling Adequacy & Factorability					
KMO Measure = 0.901					
Bartlett's $\chi^2$ (df = 435) = 5126.438					
Sig. (p-value) = 0.000					
Total Variance Explained					
Eigenvalue	8.214	5.127	3.421	2.148	
% of Variance	29.34	18.31	12.21	7.67	
Cumulative %	29.34	47.65	59.86	67.53	
Rotated Component Matrix & Communalities					
Item	F1	F2	F3	F4	Communality
PC1	0.812				0.812
PC2	0.784				0.784
PC3	0.798				0.798
PC4	0.826				0.826
PC5	0.773				0.773
PC6	0.809				0.809
PC7	0.817				0.817
PC8	0.792				0.792
PC9	0.781				0.781
PC10	0.765				0.765
PC11	0.754				0.754
EC1		0.742			0.742
EC2		0.768			0.768
EC3		0.719			0.719
EC4		0.705			0.705
EC5		0.731			0.731
EC6		0.694			0.694
EC7		0.761			0.761
EC8		0.786			0.786
EC9		0.748			0.748
DP1			0.684		0.684
DP2			0.712		0.712
DP3			0.701		0.701

DP4			0.738		0.738
DP5			0.665		0.665
DP6			0.691		0.691
DT1				0.708	0.708
DT2				0.732	0.732
DT3				0.749	0.749
DT4				0.721	0.721
<b>Factor Structure Summary</b>					
No. of Items	11	9	6	4	
Loading Range	0.754– 0.826	0.694– 0.786	0.665– 0.738	0.708–0.749	

**Source:** Primary Data

The exploratory factor analysis outcomes in Table 4 provide evidence of both construct validity and the dimensional structure of the measurement model used in this research. The Kaiser–Meyer–Olkin (KMO) value of 0.901 demonstrates excellent sampling adequacy, and Bartlett’s Test of Sphericity results are highly significant ( $\chi^2 = 5126.438$ ,  $p < 0.001$ ) confirming that the correlation matrix is adequate for factor analysis. The exploratory factor analysis yielded four factors: Privacy Concern, Ethical Concern, Digital Purchase Behaviour, and Digital Trust that accounted for 67.53% of variance, which is substantially greater than the generally required criterion for behavioural and tourism studies and represents an acceptable factor structure. Each factor had good loadings across all of the items with loadings that ranged between .665 – .826 and had communalities all above .60; therefore, each item contributed significantly to its respective factor indicated earlier. Additionally, because there were no substantial cross-loadings; there was strong evidence to show that the four factors were not correlated and therefore, there are no overlap or multicollinearity issues among the constructs measured. Finally, the Privacy Concerns construct, which accounted for 29.34% of variance, strongly suggests that concerns associated with data security and privacy are important in establishing how tourists view digital purchasing methods. Therefore, considering the above points, the EFA provides evidence of both information validity (i.e., convergent validity) and differentiating the construction of constructs (i.e., discriminant validity) in addition to indicating that a strong baszz

$H_1$ : Ethical and privacy concerns significantly influence the use of digital payments by tourists in Delhi.

**Table 5 Influence of Ethical and Privacy Concerns on Digital Payment Usage**

Variable / Statistic	Mean	SD	Correlation with DP Usage	Std. $\beta$	t-value	Sig.	Tolerance	VIF
Digital Payment Usage	3.89	0.71	1.000					
Ethical Concerns	3.62	0.76	-0.421**	-0.281	-5.74	0.000	0.61	1.64
Privacy Concerns	3.78	0.74	-0.487**	-0.334	-6.89	0.000	0.58	1.72
Digital Trust	3.54	0.69	0.538**	0.402	8.12	0.000	0.63	1.59
Model Fit Statistics					Value			
R <sup>2</sup>					0.462			
Adjusted R <sup>2</sup>					0.458			
F-value					117.36			
Model Significance					p < 0.001			

**Source:** Primary Data

Table 5 provides the combined findings from a variety of analyses which incorporate descriptive statistics, correlation, and multiple regression to ascertain how ethical concern, privacy concern and trust in digital mediums influence tourists' use of digital payment systems within Delhi. The results lend substantial empirical support to H1, presenting ethical concern and privacy concern as having a fundamental effect on how tourists adopt digital payment systems. The correlation findings demonstrate moderate statistically significant negative correlations between tourists' digital payment usage and both ethical concern ( $r = -0.421, p < 0.01$ ) and privacy concern ( $r = -0.487, p < 0.01$ ). Consequently, it can be inferred that as ethical behaviour is perceived to be poor or as a person feels there will be privacy violation of their data, the likelihood of the tourist conducting a digital transaction decrease. However, significant evidence exists to demonstrate trust in digital mediums to have a substantial positive correlation with tourists' use of digital payment systems ( $r = 0.538, p < 0.01$ ), which will assist creating an environment conducive to the acceptance of technology by tourists.

The regression analysis supports these relationships by showing that privacy is the most significant negative influence on digital payment use ( $\beta = -0.334, p < 0.001$ ), followed by ethics ( $\beta = -0.281, p < 0.001$ ). This indicates that tourists perceive that fear of the unauthorized access, surveillance or misuse of personal data is one of the main reasons they do not adopt digital payments, even in technologically advanced metropolitan locations. On the contrary, the analysis demonstrates that digital trust is a strong positive predictor of digital financial behaviour for tourists ( $\beta = 0.402, p < 0.001$ ), highlighting the importance of trustworthy systems, transparent policies, and institutional credibility in promoting digital financial behaviour by tourists. The model portrays a great deal of explanatory ability, as it accounts for 46.2% of the variance in digital payment use ( $R^2 = 0.462$ ) and the overall robustness of the regression model is confirmed by the large F statistic (117.36,  $p < 0.001$ ). Furthermore, the tolerance and VIF values are all within acceptable limits, which rules out concerns for multicollinearity and supports the stability of the estimate of the effects. The results of the study overall indicate that ethical and privacy factors, together with digital trust, significantly influence tourists' digital pa

H<sub>2</sub>: There is a significant difference between domestic and foreign tourists in terms of digital payment usage and ethical and privacy concerns.

**Table 6 Differences Between Domestic and Foreign Tourists**

Variable	Tourist Type	Mean	SD	Mean Difference	t-value	Sig. (p)	Result
Digital Payment Usage	Domestic (n = 332)	4.02	0.66	+0.60	4.18	0.000	Significant
	Foreign (n = 80)	3.42	0.74				
Ethical Concerns	Domestic	3.51	0.72	-0.46	-3.27	0.001	Significant
	Foreign	3.97	0.78				
Privacy Concerns	Domestic	3.64	0.71	-0.48	-3.89	0.000	Significant
	Foreign	4.12	0.76				
Digital Trust	Domestic	3.63	0.65	+0.42	3.14	0.002	Significant
		3.21	0.73				

**Source:** Primary Data

An independent samples t-test comparing domestic tourists to foreign tourists for digital payment use, ethical concerns, privacy concerns, and digital trust between domestic and foreign tourists is reported in Table 6. The results indicate significant differences within each construct, meaning there is considerable empirical evidence to support H2. The mean domestic tourists' digital payment use is significantly higher ( $M = 4.02$ ) than foreign tourists ( $M = 3.42$ ;  $t = 4.18$ ,  $p < 0.001$ ), which suggests a greater level of familiarity, accessibility, and confidence among domestic tourists when using local digital payment systems. Similarly, domestic tourists exhibited more digital trust ( $M = 3.63$ ) than foreign tourists ( $M = 3.21$ ;  $t = 3.14$ ,  $p = 0.002$ ), indicating that domestic tourists had more confidence in the security of the system, institutional safeguards, and regulatory oversight of the domes

In contrast to domestic tourists, In terms of ethical concerns ( $M = 3.97$ ) and privacy concerns ( $M = 4.12$ ), there were statistically significant differences between foreign and domestic tourists ( $p < 0.01$ ). Specifically, foreign tourist appears to be more sensitive to data protection and surveillance issues as well as having concerns about their personal/financial information being used against them when using digital ecosystems they have never previously used. The differences identified above could be related to foreign tourists having less awareness of local regulations, feeling they have less control over their personal data, and being uncertain about the security of their data when it is transferred across international borders. Collectively these findings confirm clear behavioural/perceptual dispa

## Discussion

This study provides strong empirical evidence regarding how ethical concerns and privacy issues are a major factor in the way tourists utilize digital payments in New Delhi and that there are also major differences in behaviours between domestic and international tourists. The regression analysis shows that both ethical concerns ( $\beta = -0.281$ ,  $p < 0.001$ ) and privacy related concerns ( $\beta = -0.334$ ,  $p < 0.001$ ) have a statistically significant negative impact on the way tourists use digital payment services, with privacy concerns being the strongest negative factor. This suggests that tourists are particularly sensitive to the risks associated with the misuse of their data, unauthorised access to their data, and the transparency of the information they provide to digital payment providers when using these services in a new digital environment. Digital trust also has a strong positive impact on the way a tourist uses a digital payment service ( $\beta = 0.402$ ,  $p < 0.001$ ), confirming the importance

of digital trust in decreasing the perceived risk of ethics and privacy while using these digital payment services. Together, the model accounts for 46.2% of the variance in the way a tourist uses digital payment services ( $R^2 = 0.462$ ), demonstrating a significant amount of explanatory power for behavioural and tourism research.

Statistical differences between both groups of tourists are evident in their overall use of digital payments, as found in this more detailed comparison. Comparatively, domestic tourists used significantly more digital payments ( $M=4.02$ ) than did foreign tourists ( $M=3.42$ ,  $t=4.18$ ;  $p<0.001$ ) and held significantly more trust in using digital payment methods. Conversely, while foreign tourists exhibited much more concern regarding being treated ethically and more privacy related concerns ( $M=3.51$  vs.  $3.97$ ;  $t=-3.27$ ), they also exhibited significantly more privacy-related concerns when compared to domestic tourists ( $M=4.12$  vs.  $3.64$ ;  $t=-3.89$ );  $p<0.001$ ). This results from both groups' respective levels of contextual familiarity and institutional trust. Domestic tourists have already experienced India's digital payment system and understand the country's regulatory framework; therefore, they feel confident about using digital payments here. On the other hand, foreign tourists lack this contextual familiarity as well as this level of institutional trust so they perceive a greater amount of ambiguity concerning the presence of data-protection mechanisms.

In conclusion, the study has accomplished its research goals by filling important gaps in the literature. The robustness of the measurement model was confirmed through descriptive statistics, reliability analyses (Cronbach's  $\alpha > 0.70$ ), and factor analyses. In addition, there was substantial evidential support for the hypothesized relationships between the study's independent and dependent variables from both a correlation ( $r = -0.421$  to  $-0.487$ ,  $p < 0.01$ ) and regression standpoint. The focus of the research was on tourists, an under-represented user group in prior research on digital payment adoption; thus, this research extends the digital payment adoption literature by including the ethical and privacy concerns of tourists, and by incorporating these two constructs into an explanatory framework for digital payment adoption in tourism. The comparison of domestic and foreign tourists allows for a comparative analysis within a new context (i.e., an emerging economy), and was highlighted with a rigorous methodological assessment of normality and common method variance.

Collectively, the results of the study provide support for both perceived risk and technology acceptance theories, and highlight that ethical and privacy concerns are significant barriers for tourists to make tourism-related digital transactions. Therefore, the authors strongly recommend that ethical and privacy concerns be explicitly included as part of digital tourism adoption models. Overall, the authors believe that the results of this study provide valuable theoretical, context-specific, and practical contributions, and offer significant implications for tourism stakeholders, digital payment providers, and policymakers who are attempting to enhance trust and encourage adoption of digital payment methods among a variety of tourists.

### **Policy Implications**

This research has significant policy implications for the government and regulators within tourism destinations that are attempting to develop digital payment systems that are secure, inclusive, and ethically responsible. The findings of this study reveal that ethical and privacy concerns have a statistically significant negative effect on usage of digital payments ( $\beta = -0.281$  and  $\beta = -0.334$ ,  $p < 0.001$ ), which indicates that simply increasing the amount of infrastructure in place will not allow for the continued adoption of digital payment systems; thus, there must be an increase in regulatory trust as technology continues to diffuse. Therefore, it is important for policymakers to create digital payment governance that is centred on tourists as the vulnerable and transient use group and not

assume uniform behaviour of consumers based on the behaviour of resident populations.

In addition to the significant increase in ethical and privacy concerns among foreign tourists, policymakers must create cross-border data protection transparency policies that clearly identify how tourist data can be used. Policymakers should also mandate multilingual, standardised disclosures for digital payments used in tourism, especially at high-volume tourist locations, such as airports and heritage sites, transportation hubs, and informal vendors. Regulatory agencies like the Ministry of Tourism and the Reserve Bank of India should work together to create visible and distinct compliance certification programs for tourism businesses that accept digital payments to communicate ethical transaction practices and data protection compliance. Such certifications are essential to building regulatory trust, particularly in informal tourism markets with weak regulatory oversight.

The authors of the report recognize that due to knowledge and adherence issues by smaller operators in tourism; there may be a lack of effectiveness in implementing India's Digital Personal Data Protection Act. Given this, they recommend that regulators should focus more on compliance through regulation and support small tourism operators with access to capacity-building opportunities that support responsible/ethical use of customer data, consent, and secure transactional methods.

The study found a significant impact on travel-related technology adoption because of consumers' attitudes toward privacy. As evidenced by this study, unless consumers see accountability through laws that govern customer data, they will likely behave differently than before. Furthermore, this study articulated the need for policies on digital inclusion to reframe toward the ethical inclusion of customers (not just access) to succeed and continue to develop.

Lastly, although domestic travellers have higher levels of use than non-digital savvy users (older consumers), younger (25-34 years old) and digital versatile users (those who use technology frequently) tend to be less aware of potential risks associated with travel technologies. Therefore, there may be a need for many tourists who are digital-literacy challenged to help them gain the necessary skills for using new technologies while traveling (e.g., educating on their digital rights, how to determine if fraud is being committed, and how to pay securely). These educational tools may be integrated/included by policy makers using national tourism campaign strategies or smart technology initiatives.

This research found that for digital payments to become sustainable in the tourism sector, there must be a repositioning of regulations away from those focused-on infrastructure (i.e., expanding physical network components) towards regulations that facilitate trust (i.e., regulating ethical behaviour of network participants, supporting data/information security and creating public confidence in tourism destinations' ability to deliver a safe environment for tourists). Regulators can collectively align policies regarding digital finance to the specific realities of the risks associated with tourism in order to ensure that the development of cashless tourism ecosystems will provide the convenience of cashless transactions while still maintaining ethical obligations (i.e., the ethical treatment of clients by the customer service team) and providing protection of visitors to the destination.

## **Conclusion**

The findings of this research show that ethical and privacy concerns are major factors impacting the acceptance of the digital payment system by tourist in Delhi. The strongest barrier identified was privacy-related; however, trust in digital systems provides the necessary support mechanism to increase the usage of these systems. Additionally, analysis indicates that there are distinct differences in the trust and usage levels between domestic tourists and foreign tourists. Trust and

usage levels are significantly higher for domestic tourists, while ethical and privacy concerns are higher for foreign tourists. Understanding the needs of tourists as a separate category of users enables us to establish an empirical framework that combines ethical, privacy and trust elements into one research area, thus filling a gap in the digital payment and tourism literature. These results provide valuable evidence for policy makers and service providers regarding how they can enhance trust, increase transparency and facilitate the adoption of secure digital payments within the tourism industry.

## References

1. Asian Economic Integration Report 2024. (2024). <https://doi.org/10.22617/sgp240085-2>
2. Chamboko-Mpotaringa, M., & Tichaawa, T. M. (2023). MODERATING EFFECT OF AGE ON THE ADOPTION OF DIGITAL MARKETING TOOLS AND PLATFORMS IN DOMESTIC LEISURE TRAVEL. *GeoJournal of Tourism and Geosites*, 51, 1636–1644. <https://doi.org/10.30892/gtg.514spl05-1160>
3. Hasan, A., & Gupta, S. (2020). Exploring Tourists' Behavioural Intentions Towards Use of Select Mobile Wallets for Digital Payments. *Paradigm A Management Research Journal*, 24(2), 177–194. <https://doi.org/10.1177/0971890720959519>
4. Hossain, Z. (2023). A Modified Innovation Resistance Theory Approach to E-Tourism Resistance Intention in Bangladesh. *Journal of Technology Management & Innovation*, 18(4), 59–71. <https://doi.org/10.4067/s0718-27242023000400059>
5. Hussain, S., Gupta, S., & Bhardwaj, S. (2024). Determinants inhibiting digital payment system adoption: an Indian perspective. *Qualitative Research in Financial Markets*, 17(4), 716–748. <https://doi.org/10.1108/qrfm-09-2023-0223>
6. Ioannou, A., Tussyadiah, I., & Lü, Y. (2020). Privacy concerns and disclosure of biometric and behavioral data for travel. *International Journal of Information Management*, 54, 102122. <https://doi.org/10.1016/j.ijinfomgt.2020.102122>
7. Jain, V., & Jain, N. (2024). From Cash to Clicks: A Systematic Review of Digital Payment Adoption Using the ADO Framework. *NMIMS Management Review*, 32(4), 277–291. <https://doi.org/10.1177/09711023241312523>
8. Joshi, M. (2025). Analysis of Usage of UPI Payments in Banking Sector. *International Journal for Research in Applied Science and Engineering Technology*, 13(6), 3504–3513. <https://doi.org/10.22214/ijraset.2025.72756>
9. Kesavan, V., & Srinivasan, K. S. (2023). Present State and Future Directions of Digital Payments System: A Historical and Bibliographic Examination. *International Journal of Professional Business Review*, 8(6). <https://doi.org/10.26668/businessreview/2023.v8i6.2317>
10. Khanra, S., Dhir, A., Kaur, P., & Joseph, R. P. (2020). Factors influencing the adoption postponement of mobile payment services in the hospitality sector during a pandemic. *Journal of Hospitality and Tourism Management*, 46, 26–39. <https://doi.org/10.1016/j.jhtm.2020.11.004>
11. Kwok, A. O. J. (2023). The next frontier of the Internet of Behaviors: data-driven nudging in smart tourism. *Journal of Tourism Futures*. <https://doi.org/10.1108/jtf-11-2022-0288>
12. Lee, M., Lee, S., Shin, H. H., & Jeong, M. (2025). Revisiting and exploring trust in the digital era: conceptualization and scale development of digital trust in hospitality and tourism. *Information Technology & Tourism*. <https://doi.org/10.1007/s40558-024-00310-2>
13. Mahesh, A., & S., G. B. (2022). A Systematic Review and Research Agenda of Digital Payment System with reference to Unified Payment Interface. *International Journal of Management Technology and Social Sciences*, 679–709. <https://doi.org/10.47992/ijmts.2581.6012.0245>

14. Patil, P. P., Rana, N. P., & Dwivedi, Y. K. (2018). Digital Payments Adoption Research: A Review of Factors Influencing Consumer's Attitude, Intention and Usage. *Lecture Notes in Computer Science*, 45–52. [https://doi.org/10.1007/978-3-030-02131-3\\_6](https://doi.org/10.1007/978-3-030-02131-3_6)
15. Patnaik, A., Kudal, P., Dawar, S., Inamdar, V., & Dawar, P. (2023). Exploring User Acceptance of Digital Payments in India: An Empirical Study Using an Extended Technology Acceptance Model in the Fintech Landscape. *International Journal of Sustainable Development and Planning*, 18(8), 2587–2597. <https://doi.org/10.18280/ijstdp.180831>
16. Ramayanti, R., Rachmawati, N. A., Azhar, Z., & Azman, N. H. N. (2023). Exploring intention and actual use in digital payments: A systematic review and roadmap for future research. *Computers in Human Behavior Reports*, 13, 100348. <https://doi.org/10.1016/j.chbr.2023.100348>
17. Ranjith, S. K. Dr. (2021). A Literature Study Of Consumer Perception Towards Digital Payment Mode In India. *Psychology and Education Journal*, 58(1), 3304–3319. <https://doi.org/10.17762/pae.v58i1.1270>
18. Sahi, A. M., Khalid, H., Abbas, A. F., & Khatib, S. F. A. (2021). The Evolving Research of Customer Adoption of Digital Payment: Learning from Content and Statistical Analysis of the Literature. *Journal of Open Innovation Technology Market and Complexity*, 7(4), 230. <https://doi.org/10.3390/joitmc7040230>
19. Sharma, V., & Adeniyi, A. E. (2025). Bridging the gap: AI-powered FinTech and its impact on financial inclusion and financial well-being. *Discover Artificial Intelligence*, 5(1). <https://doi.org/10.1007/s44163-025-00465-9>
20. Shigaonker, S. A. (2018). Success of Digitalisation in Tourism Industry in India. *International Journal of Trend in Scientific Research and Development*, 217–223. <https://doi.org/10.31142/ijtsrd18708>
21. Shree, S. V., Pratap, B., Saroy, R., & Dhal, S. (2021). Digital payments and consumer experience in India: a survey based empirical study. *Journal of Banking and Financial Technology*, 5(1), 1–20. <https://doi.org/10.1007/s42786-020-00024-z>
22. Singh, N., & Singh, P. (2022). IDENTIFYING CONSUMER RESISTANCE OF MOBILE PAYMENT DURING COVID-19: AN INTERPRETIVE STRUCTURAL MODELING (ISM) APPROACH. *Business Management and Economics Engineering*, 20(2), 258–285. <https://doi.org/10.3846/bmee.2022.16905>
23. Singhal, R. K., Chauhan, P., & Pandey, T. R. (2020). Exploration of Factors Affecting Adoption of Digital Wallet Among Indian Domestic Tourist: Study of Trust and Security Perception. <https://doi.org/10.1109/icrito48877.2020.9197917>
24. Susanto, E., Hendrayati, H., & Rahtomo, W. (2022). Adoption of Digital Payments for Travelers at Tourism Destinations. *DOAJ (DOAJ: Directory of Open Access Journals)*. <https://doi.org/10.46222/ajhtml.19770720.254>
25. Wang, R., & Chan, C. (2025). A systematic literature review on payment methods in hospitality and tourism. *Information Technology & Tourism*. <https://doi.org/10.1007/s40558-024-00311-1>
26. Weltman, T., Sciacca, A. G., Hwang, Y., & Schipani, S. (2024). Smart Tourism Ecosystem Development Readiness in Southeast Asia. <https://doi.org/10.22617/brf240230-2>
27. Yallop, A. C., Gică, O. A., Moisescu, O. I., Coroş, M. M., & Séraphin, H. (2021). The digital traveller: implications for data ethics and data governance in tourism and hospitality. *Journal of Consumer Marketing*, 40(2), 155–170. <https://doi.org/10.1108/jcm-12-2020-4278>