A Study on the Continuance Usage Intention of Google Pay With A Special Focus On Gamified Features

Dr. Mitesh J.Patel[1], Shakti B. Dodiya[2], Raj Solanki[3], Jiya Modi[4],Dilip Parmar[5]

Associate Professor, Department of Business Management – SPCE, Sankalchand Patel University, Visnagar, India [1]
Assistant Professor, Chimanbhai Patel Institute of Management & Research, Sardar Vallabhbhai Global University, Ahmedabad[2]
Students, Integrated MBA, Department of Business Management – SPCE, Sankalchand Patel University, Visnagar, India[3,4,5]

mitpatel85@gmail.com,shaktibdodiya@gmail.com,raj8320705013@gmail.com,jiyamodi2030@gmail.com, dsp54546@gmail.com

Abstract: The world of mobile payments, particularly in India, has seen exponential growth, driven by digitalization and consumer behavioral shifts. This study investigates the factors influencing users' continued usage intention (CI) of Google Pay (GPay), with a specific focus on the effect of gamified features such as scratch cards, rewards, and interactive tasks. A quantitative research design was employed, surveying 300 GPay users. Data analysis, including regression analysis, revealed that Performance Expectancy (PE), Hedonic Motivation (HM), and Satisfaction (S) are statistically significant positive predictors of CI, with R^2 values of 0.019 (p=0.018), 0.017 (p=0.026), and 0.020 (p=0.015), respectively. The study confirms that gamified elements significantly enhance user engagement and hedonic motivation. However, Facilitating Conditions (FC), Social Influence (SI), Perceived Value (PV), and Gamification (G), as independent variables against CI, showed no meaningful predictive power in their respective simple regression models. The majority of the highly engaged user base is young, consisting of single students, primarily using Android smartphones in Tier-2 cities. These findings underscore that intrinsic, enjoyment-based motivations and perceived functionality are key to sustaining long-term engagement on GPay, suggesting that providers must continue to innovate with gamified experiences while reinforcing core security and ease-of-use features.

Keywords: Google Pay, Gamified Features, Continuance Usage Intention, Hedonic Motivation, Performance Expectancy, Digital Payments.

I. INTRODUCTION

The digital payment industry has become a fundamental driver of financial transactions globally, marked by the rapid adoption of smartphones and the shift toward cashless transactions. The global mobile payment market was valued at USD 88.50billion as of 2024 and is projected to grow at a Compound Annual Growth Rate (CAGR) of 38.0%from 2025 to 2030. This growth is heavily supported by the proliferation of e-commerce and the increasing preference for secure, contactless solutions

1.1 Indian Market Context

India's mobile payments market reflects this global surge, driven by the Digital India initiative and the revolutionary Unified

Payments Interface (UPI). The Indian sector is expected to expand from USD1.02 trillion in 2025 to USD3.32 trillion by 2030. Platforms like Google Pay, PhonePe, and Paytm are prominent leaders, with Google Pay holding approximately 34.62% of the UPI market share in October 2025, positioning it as the second most used UPI application after PhonePe.

1.2 Problem Statement and Research Focus

In a saturated and competitive digital payments market, providers face the critical challenge of ensuring continuance usage beyond initial adoption. To address this, many platforms, including Google Pay, incorporate gamified features like scratch cards, rewards, and interactive tasks to boost user engagement and loyalty. This research aims to specifically analyze the influence of these gamified features, alongside traditional technology acceptance factors, on a user's intention to continue using Google Pay.

II. LITERATURE REVIEW

The literature review for this study is organized around key concepts influencing the continuous usage of mobile payment applications, particularly focusing on the role of Gamification, alongside foundational models of Technology Acceptance, and Trust and Risk factors.

1. **Gamification and User Engagement**: Gamification—the use of game design elements in non-game contexts—has gained significant attention across various fields, but its definition and application have sometimes lacked clarity.

- Impact on Motivation and Loyalty (Hwang & Choi, 2020; Nobre & Ferreira, 2017): Gamified systems motivate consumers through fun, rewards, competition, and recognition, which in turn helps firms build engagement and co-create brand value. For example, gamification in loyalty programs enhances consumer loyalty, increasing both participation and the intention to download the app, with stronger effects noted for self-oriented rewards.
- Mechanisms of Engagement (Feng et al., 2018; Hsu, 2022; Bitrián et al., 2021): Gamification artifacts like point rewards and feedback positively influence participation through intrinsic motivations such as self-presentation, self-efficacy, and playfulness. This is also linked to the satisfaction of psychological needs (competence, autonomy, and relatedness), which fosters user engagement and directly leads to positive outcomes like greater intention to use the app and promote positive word-of-mouth.
- Influence on Continuance (Hamari & Koivisto, 2015): Hedonic factors (enjoyment) have a direct, positive impact on users' continued use of gamified services. Utilitarian benefits, on the other hand, influence continued use indirectly by shaping users' attitudes toward the service.
- Game Design Principles (Hofacker et al., 2016): Successful mobile marketing through gamification can be achieved by applying structured game design principles, such as those from Schell's (2008) Elemental Game Tetrad Model, to enhance mobile consumer engagement.

2. **Technology Acceptance and Continuance Intention:** Research on technology adoption provides a fundamental lens for understanding user behavior toward digital payment systems, with a growing focus on post-adoption behavior.

- Key Predictors (Davis, 1989/n.d.a/n.d.b; Kim et al., 2010): Perceived usefulness and perceived ease of use are consistently identified as strong predictors of technology adoption and usage, with perceived usefulness often showing a stronger correlation with usage behavior. One line of reasoning suggests that perceived ease of use may causally influence perceived usefulness, which then indirectly affects system usage.
- Extended Acceptance Models (Nikolopoulou et al., 2021; Oliveira et al., 2016; Slade, 2015/n.d.): Expanded models, such as the Unified Theory of Acceptance and Use of Technology 2 (UTAUT2), show that Habit, Hedonic Motivation, and Performance Expectancy are crucial predictors of the intention to use mobile technology. For remote mobile payments, Performance Expectancy, Social Influence, Innovativeness, and Perceived Risk significantly influence the intention to adopt.
- Contrasting Motivations (Akdim et al., 2022; Dahlberg et al., 2015): While adoption research historically focused on a few core topics, recent work highlights that the impact of utilitarian factors is stronger for utilitarian apps, while perceived enjoyment has a greater impact on hedonic apps.

3. **Trust, Risk, and Infrastructure:** In a financial context, factors related to security, trust, and risk are critical barriers

or enablers for adoption and continued use.

- Trust and Security (Liébana-Cabanillas et al., 2017; Aldammagh et al., 2021; Au & Kauffman, 2008; Uncited, n.d.): Concerns about perceived risk and security significantly influence users' acceptance and behavioral intention for mobile payment technologies. Improving the comprehension of customer behavior toward e-banking is crucial due to security uncertainties. Trust is a well-explored topic in contemporary studies on mobile payments.
- Trust as a Moderator (Uncited, n.d.): Propensity to trust positively moderates the effects of perceived usefulness and ease of use on e-wallet adoption intention. Conversely, another study found that perceived trust did not have a significant moderating role in predicting consumers' intention to use Alipay.
- Barriers to Adoption (Mallat, 2007; Uncited, n.d.; Uncited, n.d.): Significant barriers to adoption include fears of data breaches, identity theft, and fraud, with over half of global consumers viewing mobile wallets as less secure than cash. Other barriers include a lack of awareness, compatibility/interoperability issues, and infrastructure limitations such as unreliable internet connectivity.

III. RESEARCHMETHODOLOGIES

3.1 Research Design and Type

This study employed a cross-sectional research design to examine the relationships between variables at a single point in time. It is categorized as basic research, aiming to expand theoretical knowledge on technology adoption and gamification in the context of Google Pay.

3.2 Objectives of the Study

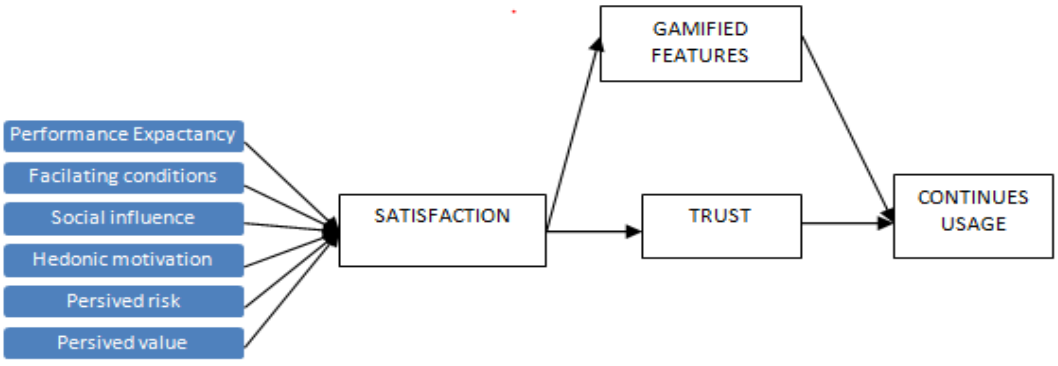

Fig 1.Model showing impacts of independent factors (PE, FC, SI, HM, S, T, PV, PR, G) on the dependent variable, Continuous Intention (CI).

The research was guided by the following objectives:

a) To examine the impact of gamified features on users' engagement and satisfaction with Google Pay.
b) To analyze the relationship between hedonic motivation from gamified elements and the continuance usage intention of Google Pay users.
c) To assess users' awareness and perception of various gamified features (e.g., rewards, scratch cards, games) offered by Google Pay.

d) To identify key motivational factors influenced by gamification that drive users to continue using Google Pay over alternative digital payment platforms.

3.3 Sampling Method and Sample size

The study was conducted among **Google Pay users**, with a **sample size of 300 respondents**. A **convenience sampling technique** was employed, wherein participants were selected based on their **availability and willingness to participate** in the survey.

3.4 Data Collection and Analysis: A structured questionnaire using a Likert scale (for construct measurement) was used for the primary data collection tool. Data analysis was conducted using regression analysis to examine the impact of independent factors (PE, FC, SI, HM, S, T, PV, PR, G) on the dependent variable, Continuous Intention (CI).

Independent variable evaluated based on below questions on Likert scale

(a) Performance expectancy (PE)
1. "My lifestyle benefits from using gamified mobile payment systems."
2. "My productivity increases by using gamified mobile payment systems".
3. "I quickly accomplish things by using gamified mobile payment systems."

(b) Effort Expectancy
1. "Learning how to use gamified mobile payment systems is accessible."
2. "I have a clear and logical interaction with gamified mobile payment systems."
3. "Gamified mobile payment systems use is simple."
4. "Being competent in using gamified mobile payment systems is doable."
5. "I would find the gamified mobile payment systems to be flexible to interact with."

(c) Facilitating conditions
1. "I have the necessary resources to use M - payments."
2. "I have the necessary knowledge to use M - payments."
3. "M-payment apps are compatible with the other technologies which I use."
4. "I can get help from others when I have difficulties using M - payment apps".

(d) Social influence
1. "People who are important to me think that I should use M – payments."
2. "People who influence my behavior think that I should use M - payments."
3. "People whose opinion I value prefer that I use mobile booking for M – payments."

(e) Hedonic Motivation
1. "Using M - payment applications is fun."
2. "Using M - payment applications is enjoyable."
3. "Using M - payment apps is very entertaining."

(f) Satisfaction
1. "I feel satisfied with the presence of gamification on mobile payment."
2. "My experience on using gamification is very fun."
3. "I feel gamification on mobile payment meets my expectation."

(g) Trust
1. "I trust on M-payment apps and service providers."
2. "M - payment services in my best interest.
3. "M - payment apps offers access to sincere and genuine payment services."
4. "M - payment apps performs its role of providing banking services well."

(h) Gemified feature
1. "Conversation or opinion exchange with others is possible through gamified features of M - payments."
2. "Using Gamification on M - payment apps is very trendy."
3. "Using Gamified Features on M - payment apps is fun."
4. "Contents shown in M - payment apps seem interesting."

(i) Continuous usage
1. "I intend to continue using M - payment apps rather than discontinue its use."
2. "My intention is to continue M - payment apps than use alternative means."
3. "If I could, I would like to discontinue my M - payment apps services."

(j) Perceived Value
1. "Using a mobile payment system with gamified features provides good value for me."
2. "I feel that using mobile payments with gamification enhances my overall experience."
3. "Mobile payments are good value for money and are worthwhile."
4. "Considering the efforts I put in, using mobile payments is worthwhile."
5. "Overall mobile payments deliver good value."

(k) Perceived Risk
1. "I am concerned about the security risks of using mobile payments with gamified features."
2. "I worry that using mobile payment systems could result in financial loss or other negative outcomes."
3. "Mobile payment is not safe to use because of privacy and security reasons."
4. " I think taking payments through mobile payments has possible risk."
5. "Mobile payments expose me to overall risk."

IV. DATA ANALYSIS

4.1 Demographic Analysis

The demographic analysis of the N=300 respondents reveals a profile typical of early and active technology adopters in India.

- Gender: 73.33% are Males and 24% are Females.
- Age: The predominant age group is 18-25 years, followed by 26-35 years.
- Occupation: The majority are students 72%, indicating that younger, highly educated populations are the primary user base.
- Education: The largest segments hold an undergraduate degree 42.33% or a postgraduate higher degree 34.67%.
- Area: The largest group resides in urban areas (Tier-2 city) 52%.
- Mobile Device: An overwhelming 91% use Android smartphones.

4.2 Google Pay Usage Behavior

- Adoption: 97.33% of the surveyed population uses GPay.
- Purpose: Most users leverage the platform for personal transactions 84.67%.
- Frequency (Interval): Usage is high, with 42.67% using it weekly and 37.67% using it daily.
- Duration: 48.97% have been using GPay for 1-3 years, and 20.89% for more than 3 years, demonstrating sustained usage.
- Gamification Participation:4 3.84% participate in gamification features Sometimes,26.71% Often, and 3.08%Always, confirming a strong level of engagement with these features

TABLE I:
DATA ANALYSIS OF VARIABLE

Construct	Example Statement Measure	Dominant Response (%)	Insight
Performance Expectancy (PE)	PE4 (Statement with strongest agreement)	51.37% Strongly Agree	Extremely favorable view of the app's perceived benefits performance.

Facilitating Conditions (FC)	FC7 (Statement with strongest agreement)	46.23% Agree, 44.18% Strongly Agree	Clear, strong consensus that external conditions (resources, knowledge) support GPay use.
Social Influence (SI)	SI10 (Statement with strongest agreement)	64.73% Agree	Highly positive, indicating that social environment peers encourage GPay use.
Hedonic Motivation (HM)	HM14 (Statement with strongest agreement)	58.56% Agree	Strong support for the enjoyment fun derived from using the app.
Satisfaction (S)	S20 (Statement with strongest agreement)	57.88% Agree, 31.85% Strongly Agree	Overwhelmingly positive and high satisfaction levels.
Trust (T)	T23 (Statement with strongest agreement)	53.43% Agree	Favorable, but a notable 26.71\% remained neutral, suggesting some uncertainty or mixed views.
Perceived Value (PV)	PV30 (Statement with strongest agreement)	75.33% Agree	Very strong belief in the app's overall value proposition.
Perceived Risk (PR)	PR34 (Statement with strongest agreement)	39.33% Neutral	Mixed opinion, with a large neutral group, and both positive and negative extremes present.
Continuous Intention (CI)	CI29 (Statement with strongest agreement)	66.44% Agree	Strong, widespread intention to continue using the app.

4.4 Hypothesis Testing: Regression Analysis

TABLE II.
REGRESSION ANALYSIS

Hypothesis	**Independent Variable (IV)**	**R2**	**F-statistic (p-value)**	**Conclusion (Significance Level)**
H1	PE to CI	0.019	5.681 p=0.018	Statistically Significant (Weak positive effect)
H2	FC to CI	0.000	0.123 p=0.726	Not Statistically Significant
H3	SI to CI	0.002	0.476 p=0.491	Not Statistically Significant
H4	HM to CI	0.017	4.992 p=0.026	Statistically Significant (Weak positive effect)
H5	Satisfaction to CI	0.020	5.938 p=0.015	Statistically Significant (Weak positive effect)
H6	Trust to CI	Approx 0.000	0.024 p=0.878	Not Statistically Significant
H7	Perceived Value to CI	0.023	6.697 p=0.010	Statistically Significant (Weak positive

				effect)
H8	Perceived Risk to CI	0.061	18.822 p=1.984	Statistically Significant (Weak positive effect)
H9	Gamification to CI	Approx 0.000	0.572 p=0.450)	Not Statistically Significant

4.4.1 Significant Relationships

- Performance Expectancy (PE) and Satisfaction (S): Both show a weak but statistically significant positive effect on CI <0.05. This supports the premise that users continue using the app because it performs effectively and meets their expectations. The correlation coefficient for CI to S is 0.142.
- Hedonic Motivation (HM): HM is a significant positive predictor of CI p=0.026, confirming that the enjoyment derived from using the app is a motivational factor for continued use. This is the most direct evidence of the role of enjoyment-based features (gamification rewards) on continued use.
- Perceived Risk (PR): PR shows the strongest explanatory power among all tested factors with R^2=0.061, and is highly significant p<0.001. However, the nature of the relationship (positive or negative) is uncertain without the coefficient sign provided for H-1in this excerpt, but its high F-statistic points to its critical role as a driver of CI variance.
- Perceived Value (PV): PV is a statistically significant, albeit weak, predictor of CI R^2=0.023, p=0.010.

4.4.2 Non-Significant Relationships

- Gamification (G): The overall construct was not significant (p=0.450). This suggests that while the enjoyment component (HM) of gamification is key, merely having gamified features is not enough to predict continuance intention; the feeling derived is what matters.
- Facilitating Conditions (FC) and Social Influence (SI): Both showed virtually no explanatory power (R^2 ≈0 and were not statistically significant. This implies that the existence of necessary resources/support or pressure from the social circle does not meaningfully predict an individual's continuous use of Google Pay (post-adoption) in this sample.
- Trust (T): Surprisingly, Trust was not found to be a statistically significant predictor of CI p=0.878.This indicates that, for the current users, trust is likely a prerequisite for initial adoption rather than a driving factor for continuance

V. FINDINGS AND CONCLUSION

Finding

- High Adoption and Engagement: 97.33 of respondents use Google Pay, showing its widespread acceptance. Usage is frequent, with 42.67% engaging weekly and 37.67% daily.
- Demographic Drivers: The majority of users are students, 72% are single, and reside in Tier-2 cities.
- Gamification Impact: Gamified features (like cashback, rewards, and interactive elements) positively impact user engagement. Specifically, Hedonic Motivation from these features is a significant positive predictor of continuance intention.
- Key Predictors: Performance Expectancy, Hedonic Motivation, Satisfaction, and Perceived Value are all statistically significant positive predictors of Continuous Intention. Durability of Use: 48.97% have been using GPay for 1-3 years, reflecting sustained satisfaction.
- Core Utility: Perceived security and simplicity are core factors influencing continuance intention.

Conclusion

The study concludes that Google Pay has achieved an exceptionally high level of adoption and sustained engagement among users, as evidenced by the fact that 97.33% of respondents actively use the platform, with a substantial proportion engaging on a daily and weekly basis. This high frequency of usage underscores Google Pay's successful integration into users' everyday financial activities and reflects its strong position within India's digital payment ecosystem. The demographic analysis reveals that Google Pay's user base is predominantly composed of students, single individuals, and residents of Tier-2 cities, highlighting the platform's significant penetration among young, digitally literate users beyond metropolitan centers. This suggests that Google Pay has been particularly effective in appealing to emerging urban populations, thereby supporting the broader objective of financial digitalization and inclusion in semi-urban India.

One of the key contributions of the study is the empirical validation of the positive impact of gamification on user engagement and continuance intention. Gamified features such as cash back offers, rewards, and interactive elements significantly enhance Hedonic Motivation, which emerges as a strong predictor of continued usage. These findings indicate that beyond functional utility, the enjoyment and experiential value derived from using the application play a vital role in sustaining long-term engagement. Furthermore, the study identifies Performance Expectancy, Hedonic Motivation, Satisfaction, and Perceived Value as statistically significant determinants of continuous intention to use Google Pay. This highlights that users remain loyal to the platform when it consistently delivers efficient performance, offers meaningful value, and provides a satisfying user experience. The fact that nearly half of the respondents have been using Google Pay for one to three years further reinforces the durability of user engagement and sustained satisfaction with the platform.

In addition, perceived security and operational simplicity emerge as foundational factors influencing continuance intention. Users value Google Pay's secure transaction environment and intuitive interface, which reduce complexity and build confidence in regular usage. These utilitarian attributes serve as essential enablers that complement hedonic benefits, ensuring that enjoyment does not come at the expense of trust and ease of use. Overall, the study concludes that Google Pay's sustained success is driven by a synergistic combination of functional efficiency, perceived value, security, and gamified engagement. To maintain and strengthen its leadership in India's digital payments landscape, Google Pay should continue to innovate its gamification strategies while simultaneously enhancing platform utility, simplicity, and security. Such a balanced approach will be crucial in fostering long-term user loyalty and advancing India's transition toward a more engaged and sustainable cashless economy.

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