The impact of the Gamification Elements (Cashback Points and Scratch Cards) on the customer engagement in the UPI Application Paytm

Nitin Goyal (MBA), Simran (MBA), Akhil Dogra (MBA),
Dr. Richa Bhatia (Associate Professor)
Lovely Professional University

Abstract

This research delves into the influence of gamification elements, notably cashback points and scratch cards, on customer engagement within the Paytm UPI application. Employing a quantitative methodology, Total 384 respondents were surveyed via questionnaire and analysed using SPSS software. The findings underscore a positive correlation between both cashback points and scratch cards with user brand loyalty, with scratch cards emerging as a potent engagement catalyst. Users generally exhibit moderate satisfaction with these features, albeit with a slight inclination towards cashback points possibly due to perceived reliability or reward value. The study emphasizes the pivotal role of gamification elements in fostering user engagement and a sense of accomplishment. While scratch cards exhibit greater user engagement potential, there exists room for enhancing their perceived value. In conclusion, the research suggests that optimizing gamification strategies, particularly leveraging cashback points and scratch cards, can substantially elevate user satisfaction and brand loyalty within the Paytm UPI ecosystem, thereby facilitating deeper engagement and long-term allegiance among users.

Chapter 1-Introduction:

India's digital commerce landscape has witnessed a phenomenal transformation. E-commerce platforms, offering convenience and accessibility, have changed how we shop, pay bills, and manage finances. However, a persistent challenge for businesses remains - effectively engaging customers in the online payment process. . In recent years, mobile payment services have become increasingly popular, revolutionizing the way individuals make financial transactions. As a result, there has been a increasing interest in knowing how to design mobile payment experiences that not only meet the needs and preferences of users but also enhance their engagement and satisfaction (Hillman et al., 2014). The Unified Payments Interface which was introduced on 11-April-2017 in India bring the new ways to make the payments online. (Chaure, 2023).With this many new companies and

various old companies come out as a key player in the UPI service. UPI has witnessed phenomenal growth, boasting millions of users and billions of transactions monthly (NPCI, 2024). To be successful in large competition, Customer engagement, the depth of a customer-brand relationship, become crucial for success in the competitive digital marketplace. Engaged customers not only repeat purchases but also become brand loyal, driving organic growth through positive word-of-mouth. Businesses are constantly exploring innovative strategies to enhance customer engagement, particularly in the realm of online payments. one such strategy to gain the traction from the users is gamification. The strategies include reward points, badges, challenges, and interactive interfaces that make the payment process more enjoyable and rewarding (Tayal, Rajagopal, & Mahajan, 2023). With Gamification, the application of games like elements in non-game contexts, has came out as a powerful tool for boosting user engagement across various industries (Nah et al., 2014). This fosters a sense of accomplishment and drives desired behaviors, like timely bill payments or increased transaction frequency. In the context of online payments, gamification holds immense potential. By adding the elements like points, badges, leaderboards, and challenges, gamification can change routine tasks into an enjoyable and rewarding experience (Ahn et al., 2015).

Despite the growing interest, comprehensive research is needed for understanding the effectiveness and best practices of gamification in online payments in India. This research aims to bridge this gap by exploring its impact on customer engagement. Through a multidisciplinary approach, we aim to Uncover the mechanisms influencing user behaviour through gamification. Synthesize existing literature, conduct empirical studies, and analyse real-world examples Provide actionable insights for businesses looking to leverage gamification in their online payment processes. This research will contribute to the academic understanding of gamification in online payments and offer practical guidance for businesses to thrive in India's flourishing digital economy

Chapter 2─ Review of Literature:

2.1.Literature Review

Lopes et al. (2023) conducted a qualitative exploration to understand how gamification impacts the online shopping experience. Through 30 interviews with Portuguese customers, they discovered that gamification has the potential to infuse internet shopping with enjoyment and positive emotional effects, indicating a need for further analysis on its integration into online retail platforms. Meanwhile, Tayal et al. (2023) spotlight the broader implications of digital gamification within the Unified Payment Interface (UPI), stressing its significance in advancing sustainable development goals. Their study underscores how gamification extends beyond traditional retail contexts, serving as a catalyst for societal progress. Yathiraju & Dash (2023) delve into the realm of e-wallets, investigating the challenges faced by gamified platforms and the solutions offered by DeFi technology. Their qualitative study highlights the transformative potential of gamification combined with decentralized finance, offering insights into future trends in digital payment systems. Furthermore, Rahmadhan et al. (2023) undertake a comprehensive analysis of gamification trends in e-commerce, emphasizing the

prevalence of achievement-based features such as awards, points, and leaderboards. Through their examination of 25 research publications, they unveil the evolving landscape of gamification strategies employed by online retailers, providing valuable benchmarks for industry practitioners. Together, these studies paint a nuanced picture of gamification's impact and potential in reshaping consumer experiences and driving innovation in the digital marketplace..

In a similar vein, Xu et al. (2020) developed a theoretical model to elucidate how gamification elements influence consumer purchase intentions on online platforms, highlighting the role of cognitive evaluation theory in explaining the impact of autonomy, absorption, and game rewards on positive user experiences and purchase decisions. Furthermore, Sukmaningsih et al. (2020) compared the effects of gamification on Millennials and Generation X, revealing distinct preferences and motivations between the two generations, with Generation X placing greater importance on perceived value and acknowledgment while Millennials prioritize playfulness and social impact.

Dhahak and Huseynov (2020) explored the effects of gamification on online consumers' attitudes and intentions to purchase fast-moving consumer goods (FMCG), revealing positive influences on perceived utility, social influence, and enjoyment. Tobon, Ruiz-Alba, and García-Maadariaga (2020) evaluated the impact of gamification on online consumer decisions, affirming its significant role in enhancing consumer engagement and purchasing behavior in digital environments.

Additionally, Hammedi, Leclercq, and Poncin (2019) shed light on the role of gamification in customer engagement, offering insights into effective deployment and management strategies to foster sustained user interaction. Meder et al. (2018) compared the efficacy of tangible versus intangible rewards in gamification strategies, demonstrating tangible rewards' superior ability to boost user activity in e-commerce settings.

Moreover, Dichev and Dicheva (2017) critically analyzed the gamification of education, highlighting the challenges and gaps in understanding its long-term effects and suitability for educational contexts. Adaji and Vassileva (2017) proposed a gamified system to promote healthier e-commerce shopping habits, leveraging gamification components such as rewards, personalization, and feedback to influence purchase decisions positively.

Harwood and Garry (2015) examined gamification as a tool for enhancing customer engagement, employing mixed-methods research to elucidate its impact on online consumer behavior and interactions. Finally, Insley and Nunan (2014) explored how gamification contributes to customer interaction with online merchants, emphasizing its importance in improving the overall online retail experience through qualitative interviews with regular internet buyers.

2.2. Problem identification/Gap Identification-

1. The maximum of the study in this disciple has been conducted to check the effect of the gamification elements on the customer engagement in the field of e-commerce. There is the gap in the studies to learn the effect of these gamification elements in the UPI payment transaction as UPI in India in the increasing stage and numbers

of the companies are their in the market which provides these services, and to increase their customer base they adopt the gamifications strategy such as cashbacks, scratch card, quizzes, leaderboard and so on.

2. There is a unique gap in current literature as majority of studies were conducted in developed western countries. Studies in developing countries like India are still lacking. Current study will also try to fill in this gap.

2.3. Objective for the Study:

Objective 1: To evaluate the impact of gamification on user brand loyalty in the Paytm UPI app.

This objective focuses on assessing the relationship of gamification elements in the Paytm UPI app and user brand loyalty. By measuring indicators such as repeat usage, willingness to recommend the app to others, recommendation to others and emotional attachment to the brand, we aim to determine whether gamification contributes to increased user loyalty and advocacy.

Objective 2: To study the satisfaction from the gamification elements among the customers in the Paytm UPI app.

This objective seeks to explore user satisfaction with the gamification elements implemented within the Paytm UPI app. By conducting surveys, interviews, we aim to gather insights into users' perceptions of gamification features such as rewards. Understanding user satisfaction with these elements will provide valuable insights for optimizing gamification strategies to enhance the overall user experience.

Objective 3: To investigate the effect of gamification elements on customer engagement in the Paytm UPI app.

This objective aims to analyse how gamification elements (Scratch cards And Cashback Points) integrated into the Paytm UPI app impact customer engagement. By examining factors such as user interaction, repat frequency of transactions, how the user feel, does these gamifications make them use other features, we seek to understand the extent to which gamification enhances user engagement in the payment process.

Chapter -3 Research Methodology:

3.1. Research Design:

In the research, quantitative research method is adopted to investigate the effect of gamification on the brand loyalty, customer satisfaction and customer engagement, a study was carried out among the paytm upi users based on the cross-sectional survey approach.

3.2.Sampling Technique and Sample Size:

The sampling method adopted here is Non random sampling technique known as Judgemental sampling for all three of the objectives because of the practicality and likelihood for collection of data from Paytm users only. We collected the data from 384 Paytm UPI users as per the KMT, Krejcie & Morgan, 1970 table

3.3.Data Collection Instrument:

The method for gathering data during this study was a survey written with a combination of multiple-choice questions and Likert scale items. The questionnaire was constructed to explore the demographics, engagement level, loyalty towards brand, and their satisfaction from the uses of the gamification elements. For the first objective, we collect the data using the questionnaire based on the Likert scale and the question to identify the effect of the gamification elements (cashback points and scratch cards) on the brand loyalty. For the second objective, we use Likert scale questionnaire based on the satisfaction and gamification elements. And for the third objective also, we use the questionnaire based on Likert scale with question related to the customer engagements and gamification elements.

3.4.Data Analysis Tool:

The SPSS was the software used to carry out statistical analysis of the survey data that had been collected. For the first objective, wee used the Multiple Regression analysis to find the relationship of the brand loyalty and the gamification elements. For the second objective, we use the correlation test to find the relationship of customer satisfaction and gamification elements (cashback points and scratch cards). For the third objective we use the Multiple regression analysis to find the relationship of the customer engagement and the gamification elements.

3.5.Selection for gamification Elements-

For the study, we have selected the 2 gamification elements from the Paytm UPI application which are Cashback Points and Scratch Card for the study of the relationship of these gamification elements with brand Loyalty for the first objective, customer satisfaction for the second objective and the customer engagement for the third objective

3.6. Variable
Independent Variables
For the study we use the Cashback points and Scratch cards as the independent variablr for all three objectives
Dependent Variable

For the first objective, we use the Brand Loyalty as ependent variable. For the second objective, we use the customers satisfaction as the dependent variable and for the third objective, we use customer satisfaction, as the dependent variable

3.7. Hypothesis

Based on the objectives we have outlined above, we propose the these hypotheses:

- H0: There is the relationship between the gamification elements (Scratch cards and Cashak points) and the brand loyalty.
- H1: There is the relationship between the Gamification elements (Scratch cards and cashback Points) and the satisfaction of the customers.
- H2: The presence of gamification elements in the Paytm UPI app positively influences customer engagement.

3.8.Ethical Considerations

Ethical considerations are being addressed by ensuring informed consent from respondents of the survey, maintaining confidentiality and anonymity of responses, and addressing to ethical guidelines for research involving human subjects.

3.9.Limitations

The study may have constraints that affect the generalizability of the results, such as respondent bias and sample representativeness. The research report shall address and acknowledge these limitations..
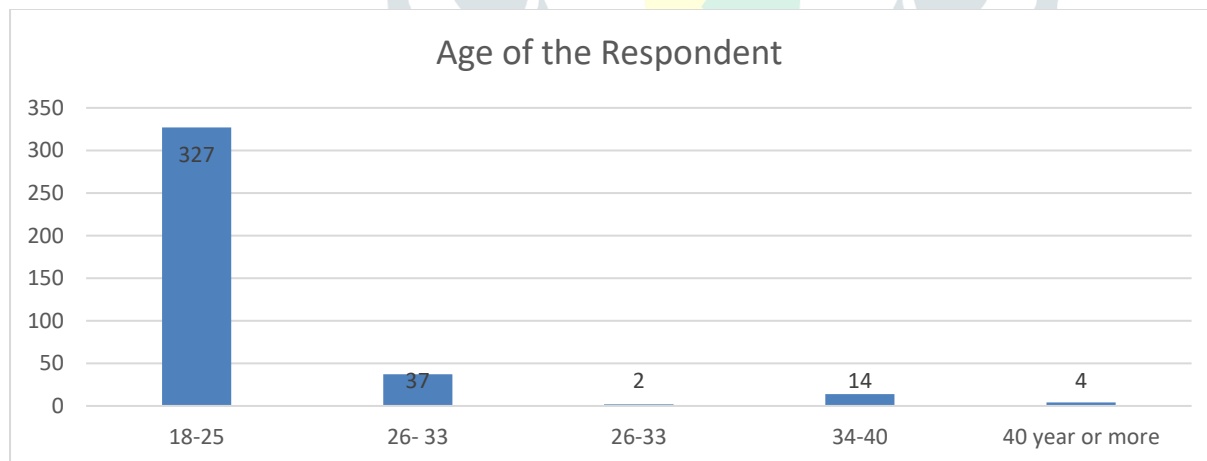
Chapter 4- Data Analysis

4.1. Analysis of the Demographics of the Respondents

4.1.1. Age of the Respondents

| Table 4.1 Age of the Respondents		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	18-25	327	85.2	85.2	85.2
	26- 33	37	9.6	9.6	94.8
	26-33	2	.5	.5	95.3
	34-40	14	3.6	3.6	99.0
	40 year or more	4	1.0	1.0	100.0
	Total	384	100.0	100.0	

Dig 4.1 Age of the Respondents

The age distribution of 384 respondents, segmented into distinct age groups. The majority (85.2%) fall in the 18-25 age group, indicating a strong representation of young individuals in the survey. A smaller proportion (9.6%) comprises respondents aged 26-33, with additional minor groups aged 34-40 (3.6%) and 40 years or older (1.0%). This distribution highlights a pronounced skew towards younger demographics

4.1.2. Gender of the Respondents

Table 4.2 Gender of the Respondent					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Female	141	36.7	36.7	36.7
	Male	243	63.3	63.3	100.0
	Total	384	100.0	100.0	

Dia-4.2 Gender of the Respondent
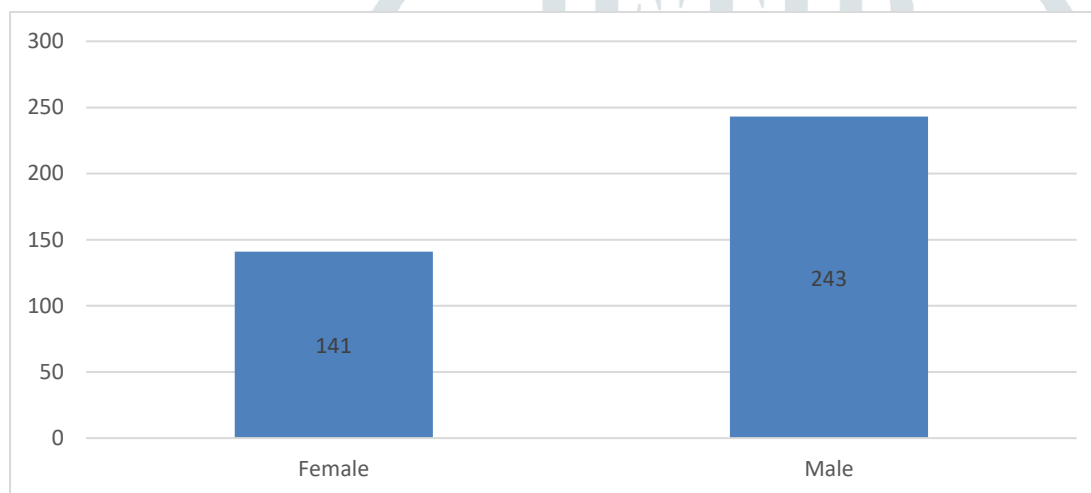
In the study, a total of 384 respondents participated, comprising 36.7% females and 63.3% males. These figures suggest a gender distribution where males outnumber females. This demographic breakdown provides valuable insights into the sample population, which may influence the interpretation of results and the generalizability of findings. Specifically, the larger representation of males in the study warrants consideration of potential gender-based differences in responses and perceptions regarding the gamification elements within the Paytm UPI app

Table 4.3 Transaction in the Paytm UPI Application		
	What are the numbers of the transactions usually done by you through Paytm UPI in a Months?	What Is the value of the transactions usually done by you through Paytm UPI in a Months?
Mean	2.71	2.05
N	384	384

The study revealed that the average mean of the numbers of the transactions usually done by you through Paytm UPI in a Month in lies between 60-80 transactions And the value of the transactions usually done by you through Paytm UPI in a Months approximately near 15000 rupees per month

4.2. Analysis of Objective 1st

Table 4.4 R And R Square Model summary				
Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.767[a]	.589	.587	1.19272
a. Predictors: (Constant), Scratch Card, Cashback Points				

The model summary indicates a significant relationship between the predictors (Scratch Card and Cashback points) and the dependent variable, brand loyalty, with an R value of .767. The coefficient of determination, which is the R Square shows that approximately 58.9% of the variance in brand loyalty can be explained by the predictors in the model. The adjusted R Square, accounting for the number of predictors and sample size, remains consistent at .587. Additionally, the standard error is reported as 1.19272.

These results suggest that the inclusion of Scratch Card and Cashback points as predictors in the model contributes to explaining a substantial portion of the variance in brand loyalty among users. Therefore, based on this model, it can be inferred that engagement with these gamification elements within the Paytm UPI app plays a significant role in influencing brand loyalty among users.

Table 4.5 Regression Analysis of the Objective 1ˢᵗ

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.236	.223		10.024	.000
	Cashback points	.212	.032	.339	6.659	.000
	Scratch Card	.393	.042	.477	9.383	.000
a. Dependent Variable: Brand loyalty						

The regression analysis conducted on the data reveals compelling insights into the factors influencing brand loyalty within the context of the Paytm UPI application. The coefficients for both Cashback Point and Scratch Card are statistically significant, indicating their substantial impact on brand loyalty.

Specifically, the unstandardized coefficient (B) for Cashback Point is 0.212, with a error of 0.032, suggesting that for every 1 unit increase in Cashback Point, brand loyalty increases by approximately 0.212 units. The standardized coefficient (Beta) of 0.339 indicates the relative importance of Cashback Point in predicting brand loyalty, with a t-value of 6.659, highly significant at $p < .001$.

Similarly, the unstandardized coefficient for Scratch Card is 0.393, with a error of 0.042. This states that for every 1 unit increase in Scratch Card, brand loyalty increases by approximately 0.393 units. The standardized coefficient of 0.477 highlights the stronger influence of Scratch Card on brand loyalty compared to Cashback Point, with a t-value of 9.383, also highly significant at $p < .001$.

These results underscore the significant role of both Cashback Point and Scratch Card in driving brand loyalty among users of the Paytm UPI application. Users are evidently more inclined to exhibit loyalty to the brand when they perceive greater value in the form of cashback rewards and engaging scratch card incentives. As such, these findings provide valuable strategic insights for Paytm UPI to enhance user retention and foster sustained brand loyalty through effective implementation and promotion of these gamification elements.

4.3. Analysis of Objective 2ⁿᵈ -

Table 4.6 – Correlation table of the customer satisfaction and cashback points

Correlations		Customer_S atisfactio	Cashbackpoint
Customer_Satisfacti o	Pearson Correlation	1	.793**
	N	384	384
Cashbackpoint	Pearson Correlation	.793**	1
	N	384	384
**. Correlation is significant at the 0.01 level (2-tailed).			

Our data analysis revealed a strong positive correlation among customer satisfaction and cashback points. The correlation coefficient of 0.793 indicates that as customer satisfaction increases, cashback points tend to increase as well. This relationship is statistically significant (p-value >0.001), suggesting it's unlikely to be random chance. With a sample size of 384, this finding holds considerable weight. There are a few possible explanations for this correlation. Satisfied customers might be more engaged with the cashback points program, leading them to make more purchases and earn more points. Alternatively, increased spending by satisfied customers would naturally result in more points being accumulated. It's also possible that a positive brand perception associated with satisfaction makes customers more receptive to cashback offers.

Table 4.7- Correlation table of the customer satisfaction and Scratch card

Correlations		Customer_Sat isfactio	Sctrachcard
Customer_Satisfactio	Pearson Correlation	1	.747**
	N	384	384
Sctrachcard	Pearson Correlation	.747**	1
	N	384	384
**. Correlation is significant at the 0.01 level (2-tailed).			

The correlation analysis conducted on the data reveals a positive correlation between customer satisfaction and the utilization of Scratch cards within the Paytm UPI app. With a Pearson correlation coefficient of .747, this relationship is deemed statistically significant at the level, indicating a high degree of confidence in the observed association. Essentially, as customer satisfaction with the platform increases, so does their engagement and contentment with Scratch cards as a gamification element. This finding underscores the effectiveness of integrating Scratch cards into the app as a means to enhance user experience and overall satisfaction. Consequently, it suggests that the implementation of Scratch cards serves as a valuable strategy for bolstering customer satisfaction within the Paytm UPI ecosystem.

4.4. Analysis of the Objective 3rd -

Table 4.8 R and R Square Model Summary for the objective 3rd

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.959a	.920	.919	1.14160
a. Predictors: (Constant), SumScratchCard, SumCashbackPoint				

The model summary reveals a strong association of the predictors (ScratchCard and CashbackPoint) and the dependent variable, with an R value of .959. The coefficient of determination of (R Square) indicates that approx. 92% of the inconsistancy in the dependent variable which can be explained by the predictors in the model. Moreover, the adjusted Rsq. value, which takes into account the number of predictors and sample size, remains high at .919, further suggesting the robustness of the model. These findings underscore the considerable predictive power of the combined predictors (ScratchCard and CashbackPoint) in explaining customer satisfaction within the Paytm UPI app.

Tabe 4.9 Regression Analysis for the 3rd Objective

Coefficients						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.320	.224		1.426	.155
	Cashback Point	.739	.022	.918	33.554	.000
	Scratch Card	.040	.023	.048	1.747	.081
a. Dependent Variable: customer satisfaction						

The regression analysis conducted on the data reveals significant coefficients for the predictors, CashbackPoint and ScratchCard, in relation to the dependent variable, Customer Engagement. The unstandardized coefficient (B) for CashbackPoint is .739, indicating that for each unit increase in CashbackPoint, there is an expected increase of .739 units in Customer Engagement. This coefficient is highly significant ($p < .001$), with a t-value of 33.554, underscoring the robustness of the relationship.

Conversely, the unstandardized coefficient for ScratchCard is .040, suggesting a relatively smaller effect on Customer Engagement compared to CashbackPoint. However, it is important to note that while the impact of ScratchCard on Customer Engagement is positive, it is not statistically significant at the alpha level of .05, with a p-value of .081. This indicates that the relationship which was there between ScratchCard and Customer Engagement may not be as strong as that of CashbackPoint.

These findings imply that CashbackPoint plays a pivotal role in driving customer engagement within the Paytm UPI application, with its incentive structure significantly influencing user behavior. Conversely, while

ScratchCard also contributes positively to customer engagement, its impact may be relatively less pronounced compared to CashbackPoint. Further exploration into the dynamics between these gamification elements and customer engagement could provide valuable insights for optimizing user experiences and enhancing platform retention strategies.

Chapter -5 Conclusion

5.1. Findings

Based on the comprehensive analysis conducted on the impact of gamification elements, specifically cashback points and scratch cards, within the Paytm UPI app, several key conclusions emerge. The findings from the research reveal several significant insights into the factors influencing user behavior and satisfaction within the Paytm UPI application. Firstly, the demographic analysis underscores a pronounced skew towards younger demographics, with most respondents falling within the 18-25 age bracket. Additionally, the gender distribution shows a higher representation of male users compared to females, indicating potential gender-based differences in responses and perceptions.

Moving to transactional behavior, the study highlights that users conduct an average of approximately 2.71 transactions per month through Paytm UPI, with an average transaction value of around 2.05 units. These figures provide a glimpse into the transactional patterns and monetary volume associated with the platform.

Regarding the analysis of objectives, the regression model suggests a strong relationship between gamification elements (Cashback Point and Scratch Card) and brand loyalty. Both predictors significantly influence brand loyalty, with Cashback Point and Scratch Card demonstrating positive effects. Specifically, users tend to exhibit greater loyalty to the brand as they engage more with these gamification features.

Moreover, correlation analyses reveal positive associations between customer satisfaction and both Cashback Point and Scratch Card usage. Higher customer satisfaction levels correspond to increased engagement with these gamified elements, indicating their effectiveness in enhancing user experience and overall satisfaction within the platform.

Further regression analysis demonstrates the significant impact of Cashback Point on customer engagement within the Paytm UPI app, emphasizing its role in driving user interaction and retention. While Scratch Card also contributes positively to customer engagement, its influence appears to be comparatively weaker.

Overall, these findings highlight the pivotal role of gamification elements, particularly Cashback Point, in shaping user behavior, satisfaction, and brand loyalty within the Paytm UPI ecosystem. Such insights are instrumental for refining strategies aimed at enhancing user experiences, fostering brand loyalty, and optimizing platform retention.

5.2. Future Scope for the Study

While our research offers insights into the impact of cashback points and scratch cards on Paytm user engagement, future studies can delve deeper. Exploring additional gamification elements like badges or leaderboards could provide a more comprehensive picture. Expanding the user base to encompass a larger and better diversified sample would better the generalizability of our findings. Furthermore, longitudinal studies could shed light on the long-term effectiveness of gamification and how UPI Apps can maintain user interest. Incorporating behavioural data alongside self-reported information could provide a richer understanding of user engagement. Additionally, investigating the influence of gamification on specific user actions within the app, such as exploring new features or increasing transaction frequency, would be valuable. Comparing Paytm's approach to other UPI Apps would illuminate best practices and areas for differentiation. Finally, examining the ethical implications of gamification in UPI Apps, including potential for addiction or manipulation, would be an important contribution. By delving into these future research avenues, you can significantly contribute to the understanding of gamification's role in customer engagement within the realm of UPI and mobile payments.s

Chapter 6-References

1. (2024, March). Retrieved from NPCI: https://www.npci.org.in/statistics/monthly-metrics

2. Hillman, S., Neustaedter, C., Oduor, E., & Pang, C. (2014, September). User challenges and successes with mobile payment services in North America. In Proceedings of the 16th international conference on Human-computer interaction with mobile devices & services (pp. 253-262).

3. Chaure, S. (2023). Enhancing User Experience: Investigating Customer Insights on Unified. International Journal of Research Publication and Reviews.

4. Tayal, S., Rajagopal, K., & Mahajan, V. (2023). Digital Gamification in Unified Payment Interface (UPI) towards Sustainable Development Goals. International Conference on Smart Systems and Inventive Technology..

5. Nah, F. F. H., Zeng, Q., Telaprolu, V. R., Ayyappa, A. P., & Eschenbrenner, B. (2014). Gamification of education: a review of literature. In *HCI in Business: First International Conference, HCIB 2014, Held as Part of HCI International 2014, Heraklion, Crete, Greece, June 22-27, 2014. Proceedings 1* (pp. 401-409). Springer International Publishing.

6. Krejcie, R. V., & Morgan, D. W. (1970). Determining sample size for research activities. *Educational and psychological measurement*, *30*(3), 607-610.

7. García-Jurado, A., Torres-Jiménez, M., Leal-Rodríguez, A. L., & Castro-González, P. (2021). Does gamification engage users in online shopping?. *Electronic Commerce Research and Applications*, *48*, 101076.

8. De Canio, F., Fuentes-Blasco, M., & Martinelli, E. (2021). Engaging shoppers through mobile apps: the role of gamification. *International Journal of Retail & Distribution Management*, *49*(7), 919-940.

9. Insley, V., & Nunan, D. (2014). Gamification and the online retail experience. *International Journal of Retail & Distribution Management*, *42*(5), 340-351.

10. Sheetal, Tyagi, R., & Singh, G. (2023). Gamification and customer experience in online retail: A qualitative study focusing on ethical perspective. *Asian Journal of Business Ethics*, *12*(1), 49-69.

11. Xu, Y., Chen, Z., Peng, M. Y. P., & Anser, M. K. (2020). Enhancing consumer online purchase intention through gamification in China: Perspective of cognitive evaluation theory. *Frontiers in Psychology*, *11*, 581200.

12. Dhahak, K., & Huseynov, F. (2020). The Influence of Gamification on Online Consumers' Attitude and Intention to Purchase Fast Moving Consumer Goods. *Business & Economics Research Journal*, *11*(3).

13. Susilo, C. L. (2022). The Effect of Gamification towards repurchase intention in e-commerce platform with Technology Advancement Model (TAM) as a Moderating Variable. *JMBI UNSRAT (Jurnal Ilmiah Manajemen Bisnis dan Inovasi Universitas Sam Ratulangi).*, *9*(2).

14. Harwood, T., & Garry, T. (2015). An investigation into gamification as a customer engagement experience environment. *Journal of Services Marketing*, *29*(6/7), 533-546.

15. Lopes, et al(2023). Exploring the role of gamification in the online shopping experience in retail stores: An exploratory study. *Social Sciences*, *12*(4), 235.

16. Meder, M., Plumbaum, T., Raczkowski, A., Jain, B., & Albayrak, S. (2018, October). Gamification in e-commerce: tangible vs. intangible rewards. In *Proceedings of the 22nd International Academic Mindtrek Conference* (pp. 11-19).

17. Sulistiwati, et al (2022) studies "Which is More Interesting Between Gamification, Share, and Like in Customer Engagement in Millennials and Generation Z?"

18. Tarmidi, D., & Setiawan, D. G. (2022). The Effect of Gamification and Price Discounts on Impulsive Buying Decisions Online on the Shopee Indonesia Mobile Application. Enrichment: Journal of Management, 12(4), 3213-3217.

19. Rahmadhan, P., Wana, M. A., Sensuse, D. I., & Suryono, R. R. (2023). Trends and Applications of Gamification in E-Commerce: A Systematic Literature Review. Journal of Information Systems Engineering & Business Intelligence, 9(1).

20. Tobon, S., Ruiz-Alba, J. L., & García-Madariaga, J. (2020). Gamification and online consumer decisions: Is the game over?. Decision Support Systems, 128, 113167.

21. Hajarian, M., & Hemmati, S. (2021, May). A Crowdsourcing and Gamification based Product Ranking Method for E-Commerce. In 2021 7th International Conference on Web Research (ICWR) (pp. 197-201). IEEE.

22. Sukmaningsih, D. W., Wandoko, W., & Panggati, I. E. (2020, August). Gamification effect between generation x and millennials: Study on e-commerce site. In 2020 International Conference on Information Management and Technology (ICIMTech) (pp. 812-817). IEEE.

23. Hajarian, M., & Hemmati, S. (2020, September). A gamified word of mouth recommendation system for increasing customer purchase. In 2020 4th International Conference on Smart City, Internet of Things and Applications (SCIOT) (pp. 7-11). IEEE.

24. Azmi, L. F., Ahmad, N., & Iahad, N. A. (2021, July). Gamification Elements in E-commerce–A Review. In 2021 International Congress of Advanced Technology and Engineering (ICOTEN) (pp. 1-5). IEEE.

25. Adaji, I., & Vassileva, J. (2017, July). A gamified system for influencing healthy e-commerce shopping habits. In Adjunct Publication of the 25th Conference on User Modeling, Adaptation and Personalization (pp. 398-401).

26. Dichev, C., & Dicheva, D. (2017). Gamifying education: what is known, what is believed and what remains uncertain: a critical review. International journal of educational technology in higher education, 14, 1-36.

27. Hsu, C. L. (2023). Enhancing brand love, customer engagement, brand experience, and repurchase intention: focusing on the role of gamification in mobile apps. *Decision Support Systems*, *174*, 114020.

28. Hammedi, W., Leclercq, T., & Poncin, I. (2019). Customer engagement: The role of gamification. In Handbook of research on customer engagement (pp. 164-185). Edward Elgar Publishing.

29. Tayal, S., Rajagopal, K., & Mahajan, V. (2023, January). Digital Gamification in Unified Payment Interface (UPI) towards Sustainable Development Goals. In 2023 5th International Conference on Smart Systems and Inventive Technology (ICSSIT) (pp. 1414-1420). IEEE.

30. Yathiraju, N., & Dash, B. (2023). Gamification Of E-Wallets With The Use Of Defi Technology-A Revisit To Digitization In Fintech. International Journal of Engineering, Science, 3(1).