Customer Perception towards Digital Banking Payment Services – A Study in Tiruchirappalli District

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Abstract: *Digital innovation is transforming the landscape of payment services. The impact of Information Technology is evident in nearly every aspect of our lives, and the evolution from traditional to digital banking has been a gradual process that continues to unfold. With this shift, paperless banking has become accessible to all. The rapid increase in digital payment adoption is driven by the rising utilization of mobile devices and the internet, along with government initiatives like "Digital India," despite earlier scepticism and ongoing security concerns, as the transformation to digital banking continues to evolve, reflecting significant technological advancements and changing customer attitudes toward online transactions. Now, digital payments, whether made through the internet or mobile banking, or via card, have become the norm. To fully understand the impending changes in banking, it's essential to grasp the basics of the system. This paper examines how customers adapt to and perceive the digital payment options offered by banks. The research aims to explore customers' perceptions of digital banking payments, their purchasing methods, the challenges they face during online transactions, and their overall satisfaction with the services provided.*

Keywords: *Technologies, Digital Banking, Digital Payments, Digital Wallets.*

Introduction

India, home to roughly 200 million internet users, is rapidly evolving into a nation reliant on mobile technology and online connectivity. Since a significant portion of the population lacks credit or debit cards, leading e-commerce platforms in India have introduced "Cash on Delivery" as a strategy to draw in additional customers. In today's digital era, banking has transformed from traditional methods to highly digitized platforms. Digital banking payment systems, Mobile banking applications, online banking, UPI, and digital wallets have transformed the way

consumers engage with financial institutions. This change is driven by the swift rise of e-payment shopping practices in urban areas. As more people adopt mobile wallets and various digital payment methods, the process of processing electronic Purchasing products and services, including bus and cinema tickets, DTH recharges, utility payments, and mobile phone recharges, has become easier. It has restricted cash withdrawals from banks and ATMs.

Additionally, there are far too many e-payment apps in the Play Store. They can also swiftly replace conventional wallets and enable cashless transactions. You can send money or make purchases using these e-payment applications. Using gadgets like computers, smartphones, and point-of-sale systems in addition to communication channels like SWIFT or mobile data, A digital payment, or electronic payment, refers to the transfer of funds between two payment accounts. New banking and payment methods have appeared as a result of the widespread use of mobile devices and the internet. Digital banking has emerged as a cutting-edge, practical, and effective way to carry out financial transactions. There are many different types of digital banking available today, such as electronic banking, online banking, mobile wallets, and internet banking. This progression reflects a broader trend towards online banking, which provides services through the internet

The process of switching from traditional to digital banking has been slow and is still ongoing, with varying degrees of service digitization. Several factors are driving the surge in digital payments, as cash-based [illegible] click payments, the growth of the financial technology sector, and government initiatives offering incentives or tax breaks. Even small surprises reduce satisfaction. (While not always well documented in recent reports, this is an underlying factor in customer satisfaction studies.) Together, these elements foster a favourable ecosystem for the expansion of digital payments in India.

Different Modes of Digital Payment Systems:

NEFT: National Electronic Funds Transfer is referred to as NEFT. The Reserve Bank of India established and oversees the NEFT electronic funds transfer system, which went live in November 2005. Money can be transferred online between bank accounts that support NEFT.

RTGS: One method used for high-value interbank transactions is real-time gross settlements. The nation's central bank usually handles these transactions, which usually call for immediate and complete clearing. Because these settlements are made virtually instantaneously throughout the day, RTGS lowers overall risk. It is not the same as batch settlements through National Electronic Funds Transfer (NEFT). Customers may therefore pay more for the fees associated with the real-time gross transfer of funds.

BHIM: One application that makes use of the Unified Payments Interface (UPI) is BHIM. , to facilitate quick, easy, and straightforward transactions. By using their UPI ID or by using the BHIM app to scan their QR code, you can send money directly to anyone on UPI. Additionally, you can use a UPI ID to request money via the app.

Top five digital wallets in India.

Sl. No.	Wallet Name	Key Features
1	Paytm	Immediately moving money from the Paytm account to the bank to protect the customer's CVV number. To ensure the safety of funds in case a customer loses or misplaces their phone, Paytm has implemented an app password feature for Paytm Wallet. A smartphone is not required to utilize Paytm.
2	Mobi Kwik	M-Wallet was introduced to facilitate simple money transactions and storage. Instant recharging without registering. transactions that are encrypted and extremely secure. a mobile application that is easy to use.
3	PayUMoney	Automatic OTP reading. returning the transaction to its original location. tracking of risks.
4	Citrus	The quickest of all digital wallets. Discounts and deals for Citrus Pay wallets.
5	Oxigen	Transfer funds to other mobile devices; displays transaction history.

Payment Service Providers

From customer perception data, what banks/ service providers should focus on:

- Strengthen digital trust: strong security features, frequent communication, transparency.
- Improve usability: intuitive design, error-friendly flows, and offline or low connectivity support.
- Enhance support: better customer service (chat + human fallback), faster issue resolution.
- Personalize offerings: use data to understand customer behaviour and offer useful features or advice.
- Ensure reliability: low downtime, fast transaction processing, robust systems/ back end.
- Expand inclusion: make services accessible to diverse populations (age, literacy, location), via language, simplified UI, perhaps even alternative methods (voice, etc.).

Factors Shaping Customer Perception

Here are the major dimensions that affect how customers view digital payment services:

Factor	What it means / how it influences perception
Security & Trust	Concerns about fraud, data breaches, and identity theft. Strong authentication and visible safety cues help.
Convenience & Ease of Use	How easy it is to download, register, do transactions, and recover from errors. Intuitive UI/UX, speed, low friction.
Speed& Transaction Time	How fast payments happen, settlement lags, and delays. Real-time or near-real-time is preferred.
Cost / Fees	Any charges to use the service, hidden fees, or cost of data/internet. If many fees or unclear ones, negative perception.

Reliability / Uptime	System outages, network issues, failed transactions erode trust.
Awareness & Digital Literacy	Understanding how digital payment works, knowing the risks and benefits. Lack of knowledge breeds hesitation.
Infrastructure & Access	Internet connectivity, smartphone availability, quality of service. Especially for rural / less-urban areas.
Customer Support	Easy to get help when something goes wrong. Responsiveness, clarity, and human support matter.
Offers / Rewards / Incentives	Cashback, discounts, and rewards help adoption; they also affect perception of value.
Privacy	Concerns over how personal and financial data is used, stored, and shared.

Review of Literature

Sahar et al. (2025) : Mobile banking service quality & customer satisfaction notes gaps in AI usage, regulatory framework impact, and financial inclusion. contribute positively to satisfaction via ease of access, personalized service, and security. Loyalty is driven by digital interaction quality and emotional connection. Looks specifically at trust and security as perceived by consumers in India.

Shilpa Chauhan, Asif Akhtar, and Ashish Gupta (2022) Present the influence of digital banking on customer assessment and service encounter, and create a framework that identifies the key digital banking factors that affect banks' financial performance. The primary determinants of customer experience in database administration are perceived usability, perceived risk, employee-client interaction, service excellence, and operational quality

Lee, C. and Wong, E. (2022): Customer happiness levels with online banking services, emphasizing how perceptions are shaped by customer service and support. The collective findings of these studies aid in the comprehension of the different facets of consumer perception of the digital banking payment system.

Ranjith, Kulkarni, and Varma (2021): Make an effort to ascertain what customers are thinking about online payment security. Consumer perception of credit card payments has been extensively studied, but little is known about other payment methods. The difficulties consumers encounter when utilizing digital payment methods may influence their understanding of the concept and the various digital payment methods.

Ghosh (2021) : examined some studies and concluded that, in comparison to conventional methods of using paper money, digital payments are much more practical and time-saving. He also underlined that anyone with internet access can carry out these payment transactions at any time they choose; they are not limited to standing in line. According to the researcher, people are adopting and utilizing digital payment methods because they are quicker and provide incentives like cash back. The digital payment system was also discussed by the researcher.

Gupta and Kumar (2020): Examine and describe the Unified Payment Interface (UPI) method of digital payments, including its operation, technology, design, parties involved, benefits, and drawbacks. It also talks about the different UPI apps that are currently on the market and contrasts UPI transactions with other digital payment methods.

Although UPI may be a tool with compatible options that will make financial transactions easy and affordable for customers, the conclusion is that it still aims to gain the trust and awareness of buyers, especially those from rural backgrounds.

Research Gap

This research has looked at cross-generational digital banking perceptions. But there may be a lack of fine-grained demographic analysis specifically for Trichy (or similar mid-sized cities)e.g., how do age, education, income, or occupation affect perceptions of digital payment security or convenience in that region. Moreover, behavioural intention vs actual usage across demographic segments may not have been studied in the Trichy.

The objective of the study

- To study Customer perception towards the usage of digital banking payment services in Tiruchirappalli.
- To analyse the problem faced by them during digital banking payments. To opinion and satisfaction with digital banking services.
- To study the consumer viewpoint and influence of demographic elements on the acceptance of digital payment methods in the Tiruchirappalli district.

Research Methodology

Information for this research was gathered from both primary and secondary sources. The primary information is collected by distributing a survey created with Google Forms to internet and social media users in Tiruchirappalli District. Secondary data is collected from multiple sources, including websites, periodicals, and newspapers. Using a non-random sampling technique, the respondents' information was collected. The sample is made up of 384 people. The sample for this study includes users of digital wallets (256 respondents) and those who do not use them (128 respondents).

Table 1: Profile of the Respondents

Gender	Respondents	Percentage (%)
Male	75	62.5
Female	45	37.5

Interpretation: Among all respondents, 62.5 percent are men and 37.5 percent are women

Table 2: Usage of Smartphones for making Online Payments

Particulars	Usage of smartphones for making online payment	
	Responses	Percentage (%)
Yes	80	66.67
No	40	33.33

Interpretation 66 percent of respondents use digital wallets to conduct financial transactions, while 33 percent do not, as shown in the above table.

Table 3: Preference For Carrying out The Transactions Using M-Wallets

Particulars	Responses	Percentage (%)
Recharge	76	95
Settling utility expenses	49	61.25
Transportation	35	43.75
Meals and passes	57	71.25
Shopping Online	59	73.75
Money transfer	32	40
Any other	06	7.5

The study analysis reveals that most respondents (85 percent) Favor digital wallets for topping up, with online shopping being the next most popular activity

Result

Frequency analysis and ANOVA are the research and statistical methods used in this investigation. To do statistical analysis, SPSS 100 was utilized. The data's reliability was assessed using the Cronbach's Alpha test. The primary factor being studied, frequency analysis, shows the respondents' general satisfaction levels with the digital payment method. To test the hypothesis and determine the variance in the responses, an ANOVA was performed.

Data Analysis & Hypothesis

$\mathbf{H_{01}}$ Respondents do not perceive any significant differences in the different characteristics of digital payment, categorized by gender

$\mathbf{H_{02}}$ Respondents do not perceive any significant distinctions in different characteristics of digital payment according to their age

$\mathbf{H_{03}}$ Respondents do not observe any notable differences in various aspects of digital payment

related to their education levels

$\mathbf{H_{04}}$ Respondents do not notice a notable variation in the attributes of electronic payment depending on them occupation.

$\mathbf{H_{05}}$ Respondents do not perceive a significant difference in various attributes of digital payment according to their annual income.

Table 4: Respondents' Demographic Profile

Variable	Characteristics	Frequency	Percentage
Gender	Male	108	72
	Women	42	28
Age range	20-30 years	66	44
	31-40 years	42	28
	41-50 years	24	16
	51 years & older	18	12

Education	Post-Graduation	12	8
	Graduation	78	52
	10+2	55	22
	Matriculation or lower	27	18
Occupation	Student	15	10
	Employee in the Private Sector	66	44
	Public Sector Worker	36	24
	Self Employed	21	14
	Freelancer	12	8
Yearly Earnings Reaching	Up to 2.5 Lakhs	8	5.3
	2.5 to 5 Lakhs	6	4
	5-7 to 5 Lakhs	32	21.3
	7.5 to 10 Lakhs	95	63.3
	10Lakhs & more	9	6

Respondents

The respondent profile illustrated in Table 1 reflects the demographics of individuals who frequently utilize digital payments Among the participants, the majority are male (72 percent) and work in the private sector. (44 percent) or the public sector (24%), are either graduates (22 percent) or have completed 10+2 (52%), and fall within the age ranges of 22 to 30 (44%) or 31 to 40 (28%). Between Rs. 7.5 and Rs. Their annual earnings amount to 10 Lacs (63.3 percent). This demographic represents the perfect target for digital mode users who are highly educated, gainfully employed, and earn a decent income

Table 5: Computation of ANOVA

Characteristics/Attributes	**Gender**		**Age**		**Education**		**Profession**		**Annual Income**	
	F	**Sig.**	**F**	**Sig.**	**F**	**Sig.**	**F**	**Sig.**	**F**	**Sig.**
Mobile payment wallet/digital payments utilized	.199	.656	1.110	.354	13.929	.080	3.741	.006	1.046	.386

The rate of utilizing digital payments for settling bills and making purchases online	.002	.963	.821	.514	90.536	.000	5.109	.001	.665	.617
Loyalty to Digital Payment Methods	.987	.322	.910	.460	216.450	.000	2.252	.066	1.919	.110
Ease of Using the Digital Payment Method	.141	.708	2.131	.080	17.094	.000	1.418	.231	.714	.583
Guaranteed Deal	1.914	.169	1.015	.402	13.929	.000	2.283	.063	1.836	.125
Saving time with digital payment methods	8.266	.005	2.572	.040	67.566	.000	2.527	.043	1.087	.365
Time Efficiency via Digital Payment Methods	.446	.505	1.826	.127	22.713	.000	3.399	.011	.550	.700
Cost of utilizing digital payment methods (service fees, etc.)	.122	.727	.461	.764	61.579	.000	1.507	.203	2.081	.086
Mobile wallets can offer advantages to people when buying a product	.987	.322	.910	.460	34.412	.000	2.252	.066	1.919	.110
Utilizing the mobile wallet enhances my decision-making quality when purchasing items	.291	.590	3.705	.007	3.656	.007	1.670	.160	.619	.650

Consider mobile wallets to be more effective for purchasing items compared to conventional methods	.614	.434	3.204	.015	14.138	.000	1.004	.408	.890	.472
Using online wallets provides me with a broader selection of banking services and payment methods.	.987	.322	.910	.460	26.591	.000	2.252	.066	1.919	.110
Engaging with a mobile wallet is beneficial	2.758	.099	1.296	.275	89.375	.000	2.096	.084	.947	.439
Have faith in the mobile wallet service providers	.446	.505	1.826	.127	13.805	.000	3.399	.011	.550	.700

The results of the ANOVA calculation indicate that, for the majority of the attributes of digital wallets and payment methods, there are no discernible differences between male and female respondents. Therefore, we agree with the H01. This suggests that customers' perceptions of digital wallets and payment methods are similar for men and women. Similarly, we discover that the ANOVA computation indicates that respondents do not perceive any significant differences based on age, occupation, or yearly income. As a result, H02, H04, and H05 are accepted. However, respondents' perceptions of the majority of digital wallet/payment mode attributes vary significantly depending on their level of education. Therefore, we deny the H03. This suggests that acceptance of digital payment methods is significantly influenced by education. People Individuals with increased educational attainment are more inclined to utilize digital payment options

Table 6: Frequency Analysis of Respondents' Perception

Statement	Highly Important	Important	Moderately important	Slightly important	Not important
Customer allegiance	48	36	11	4	1
Ease of use	18	47	18	8	9
Guaranteed transactions	52	35	9	3	1
Saving time with digital payment methods	75	13	6	4	2
Acceptance Wallet/digital payment mode	20	50	17	8	5
Cost associated with utilizing digital payment methods (service fees, etc.)	03	47	22	7	2

Table 7: Frequency Analysis of Respondents' Satisfaction

Characteristics/Attributes	Strongly Agree	Agree	Moderate	Disagree	Strongly Disagree
Mobile wallets can offer advantages to users when buying a product	53	28	6	7	4
Utilizing the mobile wallet enhances my product purchasing decision-making quality	75	16	5	2	2
Consider mobile wallets to be more effective for purchasing items compared to conventional techniques	84	16	0	0	0
Utilizing online wallets provides me with a broader selection of banking services and payment options	48	36	10	4	2
Engaging with a mobile wallet is advantageous	88	12	0	0	0
Have confidence in the mobile wallet service providers	16	50	20	7	5

Most respondents indicated that it is essential or very crucial to connect with a brand, ease of use, secure transactions, time efficiency, acceptance of digital wallets at various retailers, and costs associated with transactions (transaction fees, service charges, etc.)

Most respondents concur that mobile wallets/ digital payments offer advantages to individuals for product purchases, enhance decision-making quality, are more convenient for buying products than conventional methods, and provide a diverse array of monetary services and payment methods. They believe that utilizing a mobile wallet is beneficial and that they have confidence in the service providers

Discussion

According to the study's findings, customers' purchasing decisions have not been substantially impacted by cash or digital payment methods. In conventional markets and commerce in small-scale industries goods, cash payments continue to be the most common method of payment. The Tiruchirappalli district is home to a sizable and highly productive population; nearly half of them transact daily, with traditional markets accounting for 73% of transactions. Research shows that the probability of default on current loans falls with an increase in the number of successful prior payments; on the other hand, the default probability of a current loan rises with an increase in the number of prior defaults.

Conclusion

The current study has attempted to comprehend how consumers view digital payments. Except for education, it was discovered that demographic factors had little effect on the adoption of digital payments. The computation of ANOVA validated this conclusion since respondents did not perceive any significant differences

based on gender, age, occupation, or yearly income. The respondents' perception of a difference in meaning was solely based on their educational background. It suggests that the degree of education of the consumer affects the adoption of digital payments. Someone who is internet savvy and Individuals who have pursued education past matriculation will be more inclined to utilize digital payment methods. Furthermore, it was found that there is a significantly greater chance of digital payments being accepted in regions or areas with educational institutions. Digital payment adoption was also aided by the rise in smartphone users and internet penetration in these areas. during the customer study.

Scope for future research

Digital banking and payment systems' underlying technology is developing quickly. Today's innovative, safe, or user-friendly systems could soon become antiquated or supplanted by more sophisticated ones. Research on long-term satisfaction, trust, and loyalty in digital payment systems is scarce, even though short-term surveys can shed light on initial perceptions. As customers get more accustomed to the technology, their attitudes and behaviours may change. Digital banking systems are increasingly using machine learning and artificial intelligence (AI) to customize consumer experiences. Research could examine the trade-offs between human and AI-driven customer support, as well as how consumers view automated systems in terms of convenience, security, and trust.

References

R.Swati Kulkarni, Dr. Aparna J Varma, D. R. P. V. . (2021). A Literature Study of Consumer Perception Towards Digital Payment Mode In India. Psychology and Education Journal, 58(1), 3304–3319.

Alkhowaiter, W. A. (2020). Digital payment and banking adoption research in Gulf countries: A systematic literature review. International Journal of Information Management, 53, 102102.

Cao, K., Han, G., Xu, B., & Wang, J. (2020). Gift card payment or cash payment: Which payment is suitable for trade-in rebate? Transportation Research Part E: Logistics and Transportation Review, 134, 101857. https://doi.org/10.1016/j.tre.2020.101857

Joshi, M. C. (2017). Digital Payment System: Before, During and After Demonetisation. International Journal of Banking, Accounting and Finance, 2(December 2017), 1–14.

Shree, S., Pratap, B., Saroy, R. et al. Digital payments and consumer experience in India: a survey based empirical study. J BANK FINANC TECHNOL 5, 1–20 (2021).

Singh, Shamsher, Rana, R. (2017). Study of Consumer Perception of Digital Payment Mode. Journal of Internet Banking and Commerce (JIBC), 22(3)

Dezan Shira and Associates (2017) Growth of Digital Payments Systems in India. Prabhat Pandey,Digital payment in India,https://upipayments.co.in/digital-payment/

Zobayer Ahmed ,user perception of Mobile banking Adoption:An integrated Ttf-Utaut Model.ISSN:1204-5357

Dezan Shira and Association (2017)Growth of digital system in India.http://www.Indiabriefing.com/news/growth-of-digital-payments system in-India-14797.html\

Ravish Rana &ShamSher Singh ,Study of Consumer Perception of Digital Payment Mode, Mode,http://www.icommercecentral.com/open-access/study-of-consumer-perception-of-digital-paymentmode.php?aid=8641

Das, Dr. Kishore Kumar and Mahapatra, Rupsa, Customer Perception Towards Payment Bank: A Case Study of Cuttack City (January 23, 2020). International Journal of Management, 10 (4), 2019, pp.

Taheam K, Sharma R, Goswami S, Drivers of Digital Wallet Usage: Implications for Leveraging

Digital Marketing. International Journal of Economic Research 13, 2016, 175- 186.

Doan N, Consumer adoption in mobile wallet: a study of consumers in Finland. http://theseus.fi/bitstream/handle/10024/86343/Ngoc_Doan.pdf?sequence=1.,201 4.

Books

1. Customers' Perception towards Retail Banking Service of Commercial Bank by Anbarasu Sivasubramaniam (Author) 11 June 2020

2. Consumer Satisfaction From E- Banking Services With Reference to HDFC and ICICI Bank Kindle Edition by Chandigarh University (Author), Aadesh Raina (Author), Dr. Charu Saxena (Author)

Website Links

1. https://www.researchgate.net/publication/331001070

2. http://www.india-briefing.com/news/growth-of-digital-payments-systems-in-india-14797.html/.

3. https://doi.org/10.1016/j.ijinfomgt.2020.102102

4. http://cashlessindia.gov.in/digital_payment_methods.html

5. https://ssrn.com/abstract=3524162