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A Study on the Growth of Digital Payment and Cryptocurrencies in North Chennai

Dr. G. Raja Priya

Head & Associate Professor, PG & Research Department of Commerce, Sree Muthukumaraswamy College, Chennai, Tamil Nadu, India

ABSTRACT

The study examines the rapid growth of digital payments and the emerging role of cryptocurrencies in North Chennai. The region, traditionally recognized for its commercial activities, is experiencing a shift towards digital financial technologies. The study explores key drivers behind this transformation, including government initiatives, technological advancements, and increased smartphone penetration. It also highlights the challenges faced, such as digital literacy gaps, cybersecurity concerns, and regulatory uncertainties surrounding cryptocurrencies. By analysing data from a diverse group of respondents, the study provides insights into the adoption patterns of digital payments and cryptocurrencies. The findings underscore the need for enhanced digital infrastructure, public awareness, and clear regulatory frameworks to fully leverage the potential of these financial innovations in North Chennai.

Keywords: Cryptocurrencies, Digital payments, Public awareness, Financial innovations

INTRODUCTION

The digital transformation has brought significant changes to the financial sector globally, including in India, where digital payments have rapidly gained popularity, driven by initiatives like the Digital India campaign. In parallel, cryptocurrencies have emerged as a novel financial asset, representing a shift in how people perceive money and transactions. North Chennai, traditionally a commercial hub, is also experiencing this digital shift. This study examines the growth of digital payments and cryptocurrencies in North Chennai, focusing on the factors influencing their adoption, the challenges involved, and potential future developments.

REVIEW OF LITERATURE

Davis, F. D. (1989). "Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology" study introduces the Technology Acceptance Model (TAM), which is relevant for understanding how individuals adopt digital payment systems. **Kaur, M., & Pathak, A. (2015).** "E-Banking Adoption: An Empirical Study of Customers in India" explores the factors that influence the adoption of digital banking and payment systems, providing insights applicable to the North Chennai context. **Nakamoto, S. (2008).** "Bitcoin: A Peer-to-Peer Electronic Cash System" on Bitcoin, outlining the concept of decentralized digital currency, is essential for understanding the rise of cryptocurrencies. **Chuen, D. L. K., & Deng, R. H. (2017).** "Handbook of Blockchain, Digital Finance, and Inclusion" discusses the role of blockchain in digital finance, offering insights into cryptocurrency adoption in emerging markets like India. **Malladi, R., & Joshi, H. (2021).** "Digital Payments in India: Challenges and

Opportunities" examines the landscape of digital payments in India, highlighting the growth drivers and challenges. **Ghosh, P. (2023).** "Cryptocurrency in India: Regulation, Adoption, and Future Prospects" addresses the regulatory environment, adoption rates, and future prospects of cryptocurrencies in India, with a focus on regional differences, including South India.

GAPS IN THE LITERATURE

The existing literature on the growth of digital payments and cryptocurrencies in North Chennai reveals several gaps that need further exploration. While studies have broadly covered the adoption of digital payments in urban areas, there is a lack of focused research on specific localities like North Chennai, which has unique socioeconomic dynamics. There is limited analysis on the role of factors such as digital literacy, trust in technology, and the impact of government initiatives on the adoption rates in this region. Additionally, the intersection of digital payments and cryptocurrency use is underexplored, particularly in understanding how familiarity with digital payments might influence cryptocurrency adoption. Moreover, there is a scarcity of research examining the psychological, cultural, and economic barriers specific to North Chennai, which are crucial to understanding the complete landscape of digital payment and cryptocurrency growth in this area.

LIMITATIONS OF THE STUDY

The study on the growth of digital payments and cryptocurrencies in North Chennai faces several limitations, including its narrow geographic focus, which limits the generalizability of the findings to other regions. The sample size and diversity might be inadequate to capture the full range of demographic and socioeconomic variations in digital payment and cryptocurrency adoption. The rapidly changing nature of digital technologies and evolving regulations also make the findings susceptible to becoming outdated quickly. Additionally, the study may lack in-depth exploration of the behavioural, cultural, and technological barriers that affect adoption, and the accuracy of self-reported data on cryptocurrency usage can be questionable due to varying levels of digital literacy among respondents.

OBJECTIVES

1. Analyse the growth of digital payments in North Chennai.
2. Explore the adoption and usage of cryptocurrencies in North Chennai.
3. Identify factors influencing the adoption of digital payment systems and cryptocurrencies.
4. Assess the challenges and opportunities in North Chennai's digital financial landscape.
5. Provide recommendations to enhance digital financial inclusion in North Chennai.

RESEARCH METHODOLOGY

- **Research Design:** A descriptive research design is used to explore the growth and impact of digital payments and cryptocurrencies.
- **Data Collection:**
  - **Primary Data:** Data was collected through a structured questionnaire targeting residents, businesses, and financial institutions in North Chennai.
  - **Secondary Data:** Additional data was sourced from reports, academic journals, and government publications.
- **Sample Size:** The study includes a sample of 100 respondents, comprising individuals and businesses

from various sectors in North Chennai.

- **Sampling Technique:** Stratified random sampling ensures representation across different demographic and business groups.
- **Tools for Analysis:** Data analysis is conducted using statistical methods such as percentage analysis and chi-square tests.

ANALYSIS AND INTERPRETATION

Table -1

Age	No. of Respondents	Percentage
18-25 years	30	30
26-35 years	40	40
36-45 years	20	20
46 years and above	10	10
Total	100	100

Source: Primary data

The data suggests that the adoption of digital payments and cryptocurrencies is more prevalent among younger age groups (18-35 years). The lower percentage in the 46 years and above category highlights the need for targeted awareness and education initiatives to increase adoption among older adults in North Chennai.

Table -2

Education Level	No. of Respondents	Percentage
High school	20	20
Undergraduate	50	50
Postgraduate	25	25
Others	5	5
Total	100	100

Source: Primary data

The above table reveals that the majority of respondents (50%) have an undergraduate education, indicating that higher education plays a significant role in the adoption of digital payments and cryptocurrencies in North Chennai. This is followed by 25% of respondents with a postgraduate degree, suggesting that individuals with advanced education levels are also inclined towards using digital financial tools. High school graduates make up 20% of the respondents, highlighting that even those with basic education are engaging with digital payments, though at a lower rate. The smallest group (5%) falls under the "Others" category, which may include individuals with specialized or non-formal education, indicating limited participation in digital financial technologies. Overall, the data suggests that educational attainment is a key factor influencing the adoption of digital payment systems and cryptocurrencies in North Chennai, with higher education levels correlating with higher adoption rates.

Table -3

Income Level	No. of Respondents	Percentage
Below ₹20,000	30	30

20,001 - ₹50,000	40	40
Above ₹50,000	30	30
Total	100	100

Source: Primary data

Table -3 indicates a balanced income distribution among the respondents, with 30% earning below ₹20,000, 40% falling in the middle-income range of ₹20,001 - ₹50,000, and another 30% earning above ₹50,000. The majority of respondents (40%) belong to the middle-income group, highlighting it as the most common income category in the sample. The equal representation of lower and higher income groups (each at 30%) suggests a diverse economic profile with no extreme dominance of any single income bracket, providing a well-rounded view of the respondents' income levels.

Table -4

Preferred Payment Method	No. of Respondents	Percentage
UPI	50	50
Debit/Credit Cards	30	30
Mobile Wallets	15	15
Others	5	5
Total	100	100

Source: Primary data

It is found that UPI is the most preferred payment method among respondents, with 50% choosing it. Debit and credit cards are the second most popular option, preferred by 30% of respondents. Mobile wallets are used by 15% of the respondents, while the remaining 5% prefer other payment methods. This indicates a strong preference for digital payment options, especially UPI, among the respondents.

Table -5

Cryptocurrency Awareness	No. of Respondents	Percentage
Aware of Cryptocurrencies	60	60
Not Aware of Cryptocurrencies	25	25
Currently Using Cryptocurrencies	15	15
Total	100	100

Source: Primary data

This shows that 60% of respondents are aware of cryptocurrencies, which means most people have some knowledge about them. 25% are still not aware, indicating that a significant portion of the population lacks information about this topic. Only 15% are currently using cryptocurrencies, highlighting that while many know about them, only a small group actually uses them. This suggests that awareness does not necessarily translate into usage, possibly due to factors like unfamiliarity, scepticism, or accessibility issues.

CHI-SQUARE TEST

Chi-square tests can be used to determine if there is a significant relationship between categorical variables.

Hypothesis 1: Age and Digital Payment Adoption

- **Null Hypothesis (H0):** There is no significant relationship between age and digital payment adoption.

- **Alternative Hypothesis (H1):** There is a significant relationship between age and digital payment adoption.

Table -6

Age Group	No. of Respondents Uses Digital Payments	No. of Respondents Does Not Use Digital Payments	**Total**
18-25 years	25	5	30
26-35 years	38	2	40
36-45 years	12	8	20
46 years and above	5	5	10
Total	**80**	**20**	**100**

Source: Primary data

Chi-Square Test Results:

- **Chi-Square Value (χ^2):** 16.46

P-Value: 0.0009

Degrees of Freedom (df): 3

The calculated chi-square value of 16.46 is quite large, and the p-value of 0.0009 is less than the significance level of 0.05. This indicates that there is a statistically significant relationship between age and the use of digital payments. Therefore, the null hypothesis (which states that there is no significant relationship between age and digital payment adoption) is rejected.

FINDINGS

- There has been a notable increase in digital payment usage, especially following demonetization and the COVID-19 pandemic, with UPI (Unified Payments Interface) emerging as the most widely used payment method.
- The educational attainment is a key factor influencing the adoption of digital payment systems and cryptocurrencies in North Chennai, with higher education levels correlating with higher adoption rates.
- Although awareness of cryptocurrencies is on the rise, actual usage remains low due to concerns about legality, volatility, and lack of understanding.
- Key challenges include limited digital literacy, concerns about cybersecurity, and infrastructural limitations in certain parts of North Chennai.
- There is significant potential for growth in digital financial services, driven by increasing smartphone usage and government initiatives promoting digital payments.

SUGGESTIONS

- Organize awareness programs and workshops to educate both the public and businesses on the benefits and risks of digital payments and cryptocurrencies.
- Strengthen cybersecurity measures to build user trust and ensure secure transactions.
- Advocate for clear government regulations on cryptocurrency usage to address concerns and promote responsible adoption.
- Focus on improving digital infrastructure in underdeveloped areas of North Chennai to ensure equitable access to digital financial services.
- Encourage small and medium enterprises (SMEs) to adopt digital payments, enhancing their competiti-

veness in the evolving digital economy.

CONCLUSION

The rise of digital payments in North Chennai mirrors the broader trend of digitalization across India. Although cryptocurrency adoption is still in its early stages, growing awareness and evolving regulatory frameworks could foster future growth. By addressing challenges and capitalizing on opportunities, North Chennai has the potential to become a leader in digital financial innovation, contributing to the region's overall economic development.

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