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To Study the Impact of Crypto Currency on Financial Inclusion in Emerging Trends, Coimbatore

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Abstract
The rapid evolution of digital technologies has significantly transformed global payment systems, with crypto currency emerging as a disruptive alternative to traditional financial mechanisms. This study aims to compare crypto currency and traditional payment systems with a specific focus on transaction speed, cost, security, cross-border efficiency, and financial inclusion in emerging economies. Crypto currencies, built on block chain technology, offer decentralized, transparent, and low-cost payment solutions that can potentially address limitations faced by conventional banking systems, particularly for unbanked and under banked populations. The research employs a structured questionnaire to collect primary data from users of digital payment systems, analyzing their perceptions and usage patterns. The findings highlight that crypto currency payments are perceived as faster and more cost-effective for international transactions, while traditional payment systems are considered more reliable due to regulatory oversight and consumer protection mechanisms. The study concludes that although crypto currencies present strong opportunities for enhancing financial inclusion, challenges such as security concerns, regulatory uncertainty, and limited awareness hinder widespread adoption in emerging economies.

INTRODUCTION
The global financial landscape has undergone a significant transformation with the advancement of digital payment technologies. Traditional payment systems such as cash transactions, bank transfers, debit and credit cards, and online banking have long dominated financial activities. However, these systems often involve intermediaries, high transaction costs, processing delays, and limited access for unbanked populations, especially in emerging economies. As a result, there is a growing need for alternative financial solutions that are faster, more affordable, and more inclusive. Cryptocurrency has emerged as an innovative digital payment system based on blockchain technology. Unlike traditional payment systems, cryptocurrencies operate in a decentralized manner without the involvement of central banks or financial institutions. This allows users to conduct peer-to-peer transactions securely and transparently across borders with minimal fees. Cryptocurrencies such as Bitcoin and Ethereum have gained global attention for their potential to revolutionize financial transactions and improve access to financial services. In emerging economies, a significant portion of the population remains excluded from formal banking systems due to factors such as lack of documentation, geographical barriers, and high service costs. Cryptocurrencies offer a promising solution by enabling individuals to participate in the financial system using only a smartphone and internet connectivity. Moreover, cryptocurrency-based payment systems can facilitate faster cross-border remittances, support small businesses, and enhance financial inclusion.

REVIEW OF LITERATURE
1. J. Robert Edwin Chester1 (2024)[1] Cryptocurrency adoption has emerged as a transformative force in reshaping financial systems globally, particularly in developing economies. This paper explores the dual role of cryptocurrencies and blockchain technology in promoting financial inclusion, addressing the challenges faced by unbanked and underbanked populations. By eliminating traditional barriers like high transaction costs, lack of access to formal banking, and inefficient payment systems, cryptocurrencies provide an alternative pathway to financial services. Blockchain technology, as the underlying framework, ensures secure, transparent, and immutable transactions, fostering trust and reducing systemic inefficiencies. The study examines the potential of cryptocurrency adoption to democratize access to financial services, enabling marginalized populations to participate in the digital economy. Additionally, it highlights the policy implications and infrastructural developments required to maximize the benefits of this innovation. This conceptual exploration aims to shed light

on the transformative potential of cryptocurrencies and blockchain while addressing the associated challenges, including regulatory hurdles, volatility, and technological constraints.

2.Demirguc-Kunt et al. (2020)[2] examined the role of digital financial services in enhancing financial inclusion" particularly in emerging economies. The research highlighted that limited access to banking infrastructure, geographical barriers, and high transaction costs restrict financial participation among low-income and rural populations. The study emphasized that digital and crypto-based payment systems offer faster, more affordable, and easily accessible financial solutions for unbanked and underbanked individuals. It also noted that mobile-based financial platforms reduce dependency on physical bank branches and enable secure transactions. Furthermore, the research suggested that supportive regulatory frameworks and financial literacy initiatives are essential to maximize the inclusive potential of digital financial services.

3.Garratt and van Oordt (2021)[3] conducted a comparative analysis of cryptocurrencies and traditional payment systems, focusing on transaction speed and operational efficiency" The study found that cryptocurrency-based payments significantly reduce settlement time in cross-border transactions compared to conventional banking systems, which often involve multiple intermediaries and delayed processing. The research also emphasized that blockchain-based systems enable real-time or near real-time settlements, improving overall transaction efficiency. However, the authors noted that regulatory uncertainty, scalability issues, and lack of standardized global regulations remain key challenges that limit the widespread adoption of cryptocurrencies for mainstream payment activities.

RESEARCH METHODOLOGY

This study uses a descriptive approach to look at how cryptocurrency affects financial inclusion in places like emerging economies. Its empirical, pulling from primary and secondary sources to get a sense of things. For primary data, we gathered info through questionnaires handed out to people already using digital payments. The questions aimed to check awareness levels, how much they adopted crypto, their usage habits, and what sources shaped their trust or info about it. It seems like that covered the basics without getting too complicated. Secondary data came from journals, books, articles that are published, reports, and websites touching on crypto, digital payments, and inclusion topics. I think those helped fill in the back ground. The sample ended up with 80 people, picked via convenience sampling since it was easier to reach them and time was short. Not the biggest group, but it worked for what we needed. Analysis involved simple percentages to break down awareness and patterns in usage. Then Chi-square tested links between info sources and trust levels from the responses. Findings rely on what respondents said during the study time, though limitations pop up like the small sample or how markets shift around. That part feels a bit open ended, since conditions change fast.

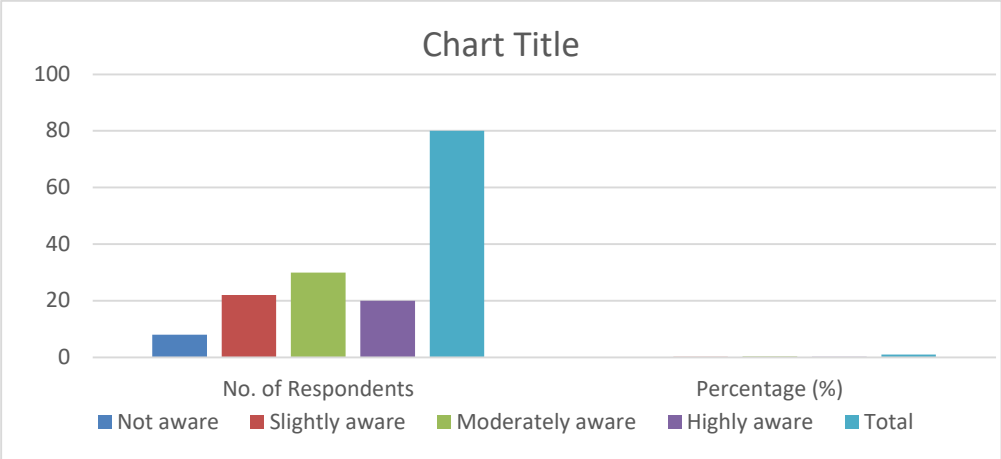
Objectives

- To study the of awareness about cryptocurrency among the respondents.
- To examine the adoption and usage pattern of cryptocurrency among users.
- To identify the major sources of information influencing awareness of cryptocurrency and digital payment systems.

DATA ANALYSIS &INTERPRETAION
SIMPLE PERCENTAGE ANALYSIS

TABLE 1.1
Awareness of crypto currency

Level of Awareness	No. of Respondents	Percentage (%)
Not aware	8	10.0%
Slightly aware	22	27.5%
Moderately aware	30	37.5%
Highly aware	20	25.0%
Total	**80**	**100%**

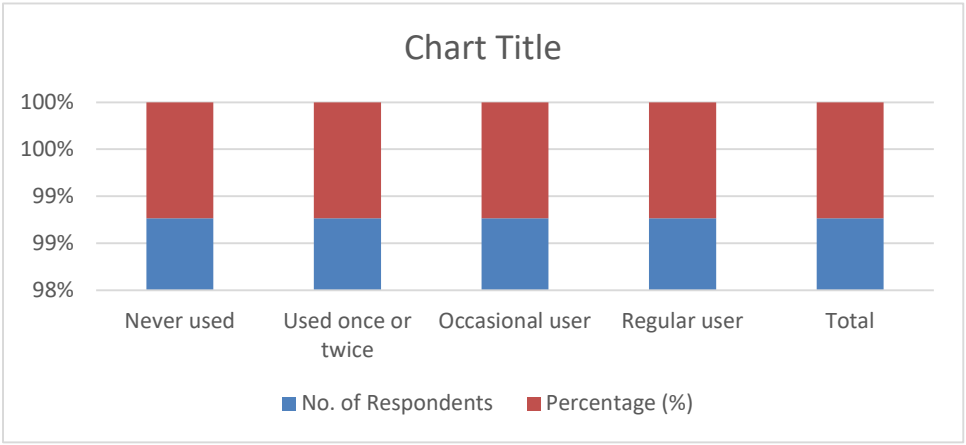


Interpretation

The majority of respondents are moderately aware (37.5%), ranking first, followed by highly aware (25%). Only a small proportion (10%) is not aware, indicating a generally good level of awareness about cryptocurrency.

TABLE 1.2
Cryptocurrency Adoption and Usage Pattern

Usage Pattern	No. of Respondents	Percentage (%)
Never used	34	42.5%
Used once or twice	20	25.0%
Occasional user	18	22.5%
Regular user	8	10.0%
Total	**80**	**100%**

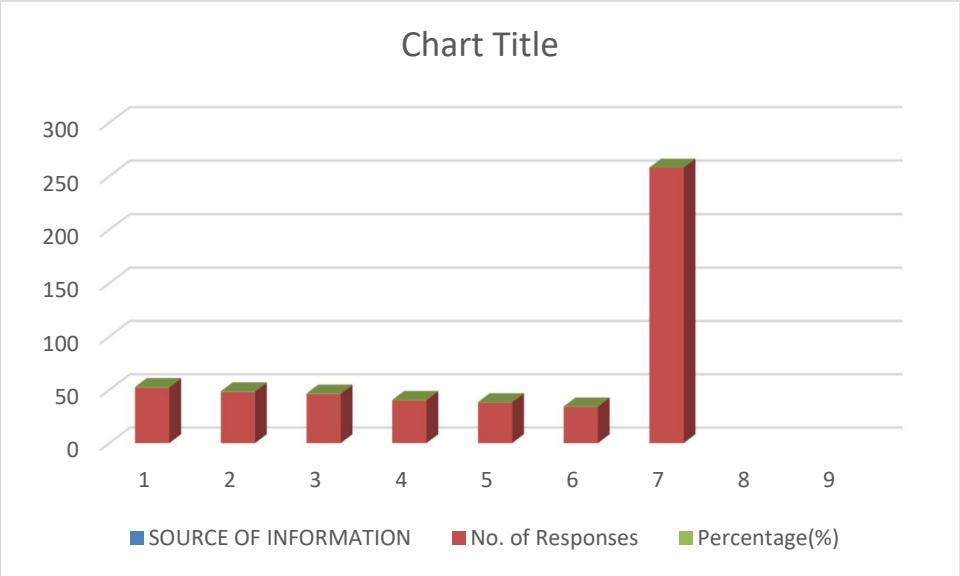


Interpretation

Although awareness is relatively high, 42.5% of respondents have never used cryptocurrency, indicating a gap between awareness and actual usage. Regular users form only a small segment (10%).

TABLE 1.3
Sources of Information on Cryptocurrency and Digital Payment Systems

SOURCE OF INFORMATION	No. of Responses	Percentage (%)
Online word of mouth (social media ,forums)	19	23.75%
Video platforms(You tube)	13	16.25%
Search engines(Google, Bing)	12	15.00%
Blogs and online articles	9	11.25%
Social word of mouth (friends/family)	13	16.251%
Mobile apps(payment/banking apps)	14	17.50%
Total	80	100%



Interpretation

The primary sources of information are **online word of mouth (65%), video platforms (60%),** and **search engines (57.5%)**, highlighting the strong role of digital media in spreading cryptocurrency awareness. Traditional social word of mouth also plays a significant supporting role.

CHI-SQUARE ANALYSIS

Chi-square values showing the relationship between the cryptocurrency information sources and level of trust

S.No	Source of information	Chi-square value	Significant value(p-value)	S/NS
1	Official cryptocurrency websites	12.486	0.014	S
2	Social media platforms	9.732	0.045	S
3	Video platform (youtube)	11.205	0.024	S
4	Blogs and online articles	8.964	0.062	S
5	Friends and family	6.318	0.177	S

Interpretation

The chi-square analysis reveals that official cryptocurrency websites, social media platforms, and video platforms (YouTube) have a significant influence on the level of trust of respondents, as their p-values are less than 0.05. Hence, the null hypothesis is rejected for these sources

FINDINGS

The study finds that cryptocurrency has a positive impact on financial inclusion in emerging economies by providing access to financial services for unbanked and underbanked populations. Cryptocurrencies enable low-cost, fast, and borderless transactions, reducing dependence on traditional banking infrastructure and overcoming barriers such as lack of documentation and limited physical bank access. The use of mobile phones and digital wallets has further supported inclusion, especially among young users and small businesses. However, the findings also indicate challenges such as price volatility, lack of regulatory clarity, limited digital literacy, and security concerns, which restrict widespread adoption. Overall, cryptocurrency is viewed as a promising complementary financial tool that can enhance inclusion if supported by proper regulation, awareness, and technological infrastructure.

SUGGESTION

To enhance the impact of cryptocurrency on financial inclusion in emerging economies, governments and regulatory bodies should develop clear and supportive regulatory frameworks that protect users while encouraging innovation. Efforts should be made to improve digital and financial literacy so that individuals can safely understand and use cryptocurrencies. Expanding affordable internet access and mobile infrastructure is essential to ensure wider participation, especially in rural and low-income areas. Collaboration between fintech companies, banks, and policymakers can help integrate cryptocurrencies with existing financial systems, while

promoting the use of stablecoins can reduce risks related to price volatility. With proper regulation, education, and infrastructure, cryptocurrency can serve as an effective tool for advancing financial inclusion.

CONCLUSION

The study concludes that awareness of cryptocurrency among respondents is relatively high, particularly among younger age groups, indicating increasing interest in digital financial systems. However, despite this awareness, actual usage of cryptocurrency remains limited, highlighting a clear gap between knowledge and adoption. Traditional payment systems continue to dominate due to their reliability, ease of use, and widespread acceptance. The findings reveal that digital media platforms such as online word of mouth, video platforms, and search engines play a crucial role in disseminating information about cryptocurrency. Factors such as low transaction costs, enhanced security through blockchain technology, and faster transaction speeds are the primary drivers encouraging adoption. At the same time, challenges including price volatility, regulatory uncertainty, lack of technical knowledge, and limited merchant acceptance act as significant barriers.

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