



Transforming Economies: The Role Of E-Money In The Financial Landscape

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ABSTRACT

This research examines the evolution and impact of electronic money (e-money) on the global financial market, with a specific focus on the Indian economy. E-money, a digital alternative to traditional currency, has significantly influenced various sectors by promoting financial inclusion, enhancing transparency, and reducing cash dependence. The research employs a mixed-method approach, integrating qualitative and quantitative analyses, and utilizes sentiment analysis on social media data to understand public perceptions of e-money. Results indicate a predominance of neutral sentiments (64%), with positive (9%) and negative (3%) sentiments highlighting both the benefits and concerns associated with e-money usage. The study finds that e-money has facilitated economic growth, improved financial services accessibility, and supported digital payment platforms' development. Furthermore, the future of e-money appears promising, driven by technological advancements, increased adoption, and evolving regulatory frameworks. However, addressing security concerns and enhancing user experience are crucial for maximizing e-money's potential. This study underscores the transformative role of e-money in shaping a digitally-driven financial ecosystem, promoting economic efficiency, and fostering inclusive growth.

Key words: e-money, sentiment analysis, Indian economy, Finance

Introduction

The term "electronic money" refers to money that is kept electronically in gadgets like bank computer systems. Electronic money, in contrast to decentralized cryptocurrencies, is backed by fiat money, which means that a central authority controls it. Electronic money, often known as e-money, is a digital substitute for currency. One of the largest game-changers in the financial industry, it emerged as a concept in the 1980s and became well-known during the Dot-Com period. The amount of electronic money transactions in Europe alone increased to over 4 billion in just four years, from 2014 to 2018.

The essence of electronic money has been evident during the past few decades in a number of economies, including India. The Indian government recently stated that its currencies would be demonetized in an effort to move away from cash. Also, customers may now purchase for practically all products and services online because the majority of e-commerce platforms support e-money transactions.

The development of IT technology and the emergence of e-money have paved the way for the growth of online payment platforms and other digital payment options. These advancements have revolutionized the way people make transactions in their day-to-day lives. With the rise of e-money, digital currency transactions have become increasingly prevalent as a means of payment.

Statement of the problem:

The objective of this study is to analyze the development stages of electronic money and its impact on the global financial market. Emerging cryptocurrencies are seen as the next stage in the evolution of money. The article concludes that what can truly be considered e-money is cryptocurrency, as it only exists in electronic form and has no connection to objects in the physical world. Therefore, cryptocurrencies have several advantages over other forms of money.

Objectives of the study:

- To study the Indian economy before and after e-money
- To learn on how Electronic Money would affect financial aspects of the country and the future of E-money
- To know the actual sentiments of people regarding e-money and how it can impact the economy

Scope of the Study:

The scope of this study focuses on examining the concept of e-money and its impact on the finance world. It encompasses various aspects such as technological advancements, regulatory frameworks, market dynamics, and user behavior related to e-money.

Research Methodology:

The research used here is descriptive research and the paper focuses by integrating Qualitative research. The data for the research is collected through primary and secondary sources. The primary data is collected through observations and survey which is further analyzed through Sentiment Analysis. The secondary data has been collected through various sources like websites, journals and published reports. The primary data, was collected from around 300-400 samples of tweets and social media posts for sentiment analysis to know the actual sentiments of people regarding e-money and how it can impact the economy. Orange tool was used to analyze the tweets and social media comments.

Limitations of the study:

This research paper does not show the threats that comes along with electronic money such as scams, limited availability of data and difficulty in predicting the future:

Analysis:**Objective 1:** To study the Indian economy before and after e-money

The introduction and widespread adoption of e-money in India have had a significant impact on the country's economy, transforming various sectors and contributing to economic growth. A comparison of the Indian economy before and after the emergence of e-money:

Pre-e-money era in India: The economy was cash dependent and there were Limited Access to Formal Financial Services and there were various cash based informal sectors.

Post-e-money era in India: We have witnessed Digital Payments Revolution and Financial Inclusion and Access to people at remote areas. There is Reduced Cash Dependence and Enhanced Transparency and Tax Compliance in the economy. The post e-money era has Boost the Digital Economy and Startups in the country. E-money has facilitated Efficient Government Payments and Subsidies across various sectors in the nation and has contributed vastly towards E-commerce and Digital

The advent of e-money in India has brought about a transformative shift in the economy, promoting financial inclusion, digitalization, transparency, and economic growth. It has paved the way for a more formalized and digitally-driven economy, offering numerous benefits to individuals, businesses, and the overall economy.

Objective 2: To understand the effect of Electronic Money on the economy and the future of e-money.

- Electronic money, or e-money, plays a vital part within the economy by replacing the currency in circulation. It shall have major influence on the monetary policy of the economy. Currency in circulation is a part of central bank's monetary aggregates and balance sheets. The low level of substitute of currency in circulation is proof for the most frequent conclusion for the small, negligible influence of the e-money.
- E-money facilitates access to financial services for individuals who are underserved with the

banking facility, which encourages financial inclusion by reaching populations in remote areas.

- E-money transactions can be conducted digitally, enabling instant transfers, reducing administrative tasks, and lowering transaction costs for individuals, businesses, and governments.
- E-money transactions provide a higher level of security compared to cash transactions. Digital payment systems employ encryption techniques, authentication protocols, and secure networks to protect user information and prevent fraud.
- E-money transactions leave a digital trail, providing greater transparency and accountability compared to cash transactions, which facilitates in auditing, regulatory compliance, and financial reporting, strengthening the integrity of the financial system.
- E-money fosters economic growth by facilitating business transactions, promoting entrepreneurship, and enabling the growth of the digital economy.
- E-money transactions can contribute to increased tax compliance and government revenue. By promoting digital payments, governments can better track economic activities and collect taxes more effectively. E-money also enables governments to deliver welfare payments, subsidies, and social benefits directly to individuals, ensuring efficient and targeted distribution while minimizing leakages and corruption.
- E-money facilitates cross-border transactions, making international payments faster, more cost-effective, and more accessible. It allows businesses to engage in global trade and expand their customer base beyond borders. E-money platforms can offer competitive exchange rates and lower fees for international transactions, promoting international trade and economic integration.

Future of e-money

The future of e-money is promising and is expected to continue evolving and shaping the global financial landscape. The potential of future developments of e- money:

- Increased Adoption and Usage: Platforms like Paytm and Google Pay have seen widespread adoption across India, enabling seamless digital transactions for millions.
- Technological Advancements: The adoption of blockchain technology by Indian startups such as CoinDCX and WazirX enhances security and transparency in digital transactions.
- Financial Inclusion: Initiatives like Jan Dhan Yojana and Aadhaar-enabled payment systems have brought banking services to previously unbanked populations, promoting financial inclusion.
- Regulatory Developments: The Reserve Bank of India (RBI) is exploring the implementation of a Central Bank Digital Currency (CBDC), aiming to provide a regulated digital currency.
- Security and Privacy: The Unified Payments Interface (UPI) by NPCI offers robust security

features, including multi-factor authentication and encryption, ensuring secure transactions.

- **Economic Impact:** The reduction in cash usage and transaction costs through platforms like BHIM UPI boosts economic efficiency and growth.
- **Integration with IoT and Smart Devices:** Reliance Jio's integration of payment features in smart devices facilitates automated payments for services like mobile recharges and utility bills.
- **Cross-Border Transactions:** Services like PayPal and Razorpay X facilitate cost-effective cross-border remittances, benefiting India's large diaspora and international trade.

Objective 3: To know the actual sentiments of people regarding e-money and how it can impact the economy

The sentiments of people regarding e-money were analysed based on tweets and social media comments on e-money. Around 400 comments were analysed and the outcome of the same is presented below:

	A	B	C	D	E	F	G
1	Tweets/Posts	positive	negative	neutral	compound		
2	Money is actually a set of heterogeneous databases with	0.00	0.00	1.00	0.00		
3	"The increasing availability of real-time payment options	0.10	0.00	0.90	0.62		
4	Money is technology yes, but as it's core money is psycho	0.28	0.00	0.72	0.74		
5	Digital money is the next step in the process of continuou	0.00	0.00	1.00	0.00		
6	My optimistic case for PPI UPI payments stands at around	0.08	0.00	0.92	0.32		
7	As a customer, yes. Whenever you load your wallets abov	0.07	0.04	0.90	0.32		
8	UPI has been disrupting the payments market since it beg	0.00	0.00	1.00	0.00		
9	UPI payments have revolutionized the Indian economy, a	0.16	0.00	0.84	0.84		
10	So, if you're a fan of 'The Big Bang Theory' and are intere	0.18	0.00	0.82	0.72		
11	Recently RBI Announced that UPI can be used for Pre-San	0.14	0.00	0.86	0.78		
12	With UPI's user-friendly features, such as VPAs and QR co	0.16	0.05	0.78	0.57		
13	With the launch of Zomato UPI, users can now sign up to	0.04	0.03	0.93	0.18		
14	The transaction journey of UPI encompasses various stak	0.04	0.00	0.96	0.34		
15	India's e-Rupee experiment has found a lot of takers. But	0.10	0.00	0.90	0.57		
16	The Singaporean government has opened up the Unified	0.18	0.00	0.82	0.65		
17	India's e-Rupee experiment has found a lot of takers. But	0.10	0.00	0.90	0.57		
18	The potential inclusion of Japan in India's UPI system mar	0.07	0.00	0.94	0.23		
19	In the next 5 years, ONDC plans to sign up 900 million buy	0.02	0.00	0.98	0.03		
20	As of May 14, 2023, the National Payments Corporation o	0.10	0.00	0.90	0.30		
21	In conclusion, by providing a dashboard of spend analysis	0.20	0.00	0.80	0.94		
22	Replicating UPI's Success Abroad Will Be Tough: High Carc	0.26	0.18	0.56	0.36		
23	Starting from April 1st, users of the Unified Payments Inte	0.22	0.00	0.78	0.93		
24	Building on Hedera Hashgraph: fast, secure, and transpar	0.18	0.00	0.82	0.54		
192	In a world full of digital India, people are not able to book	0.00	0.17	0.83	-0.75		
193	Big thank you for your digital india concept and keeping o	0.07	0.00	0.94	0.36		
194	The world's biggest online payment platform @paypal, v	0.06	0.10	0.85	-0.36		
195	Same criticism was made for Jan dhan accounts stating 90	0.00	0.24	0.76	-0.90		
196	Digital India initiative upi is ultimate payment system and	0.09	0.00	0.92	0.38		
197	On infrastructure building, self-reliance, assertive proactiv	0.12	0.04	0.85	0.46		
198	One very important achievement of your tenure is that, y	0.09	0.00	0.91	0.49		
199	Demonetisation achieved psychological impact on people	0.12	0.08	0.80	0.34		
200		9%	3%	64%	24%		
201							

Tool used for analysis - Orange

Interpretation-

Positive Sentiment: The positive sentiment accounts for 9% of the analyzed data. This indicates that a small portion of the sentiments expressed towards e-money is positive. Positive sentiment towards e-

money reflects favorable opinions and experiences associated with its usage. Users find it convenient, efficient, and accessible, and appreciate the enhanced security measures. Additionally, rewards and incentives offered by e-money providers contribute to the positive sentiment

Negative Sentiment: The negative sentiment represents 3% of the analyzed data. This suggests that a small portion of sentiments expressed towards e-money is negative. Negative sentiment towards e-money reflects concerns, criticisms, or dissatisfaction with certain aspects of its

usage. Users may have security concerns, face usability challenges, lack trust, encounter limited acceptance, or perceive issues related to accessibility and inclusion. Addressing these concerns through improved security measures, enhanced user experience, building trust, expanding acceptance, and promoting financial inclusion can help alleviate negative sentiment and improve user satisfaction.

Neutral Sentiment: The neutral sentiment accounts for the majority of the analyzed data, representing 64%. Neutral sentiments indicate a lack of explicit positive or negative opinions towards e-money. These sentiments could reflect a neutral stance, general information sharing, or instances where sentiment expression is not strongly present.

The neutral sentiment indicates that people are using e-money and are willing to continue using it, but there may be certain areas that need improvement and further development. This suggests that individuals recognize the potential of e-money and see value in its usage, but they may have concerns or expectations regarding aspects such as security, usability, or overall user experience

Summary of Findings

Sentiment analysis has 9% positive sentiments, 3% negative sentiments and 64% neutral sentiments, which indicates that people are using e-money and are willing to continue using it, but there may be certain areas that need improvement and further development. This suggests that individuals recognize the potential of e-money and see value in its usage, but they may have concerns or expectations regarding aspects such as security, usability, or overall user experience

Conclusion

The study on electronic money (e-money) and its impact on the global financial market highlights the transformative role of digital currencies in modern economies, with a specific focus on India. E-money, backed by fiat currency and regulated by central authorities, has revolutionized financial transactions by providing a digital alternative to traditional cash. The research methodology, incorporating both qualitative and quantitative approaches, utilized sentiment analysis to gauge public opinion on e-money. The analysis revealed a predominance of neutral sentiments, indicating a widespread acceptance of e-money, albeit with certain

reservations and areas for improvement. Positive sentiments underscored the convenience, efficiency, and enhanced security of e-money, while negative sentiments pointed to concerns over security, usability, and accessibility. The study's findings demonstrate that e-money has significantly contributed to financial inclusion, economic growth, and digitalization in India. It has facilitated access to financial services, reduced transaction costs, and promoted transparency and tax compliance. Moreover, the

future of e-money looks promising with expected advancements in technology, increased adoption, and regulatory developments. However, addressing the highlighted concerns and ensuring robust security measures will be crucial in maximizing the potential of e-money. Overall, this study underscores the pivotal role of e-money in shaping a digitally-driven financial ecosystem, promoting economic efficiency, and fostering inclusive growth.

Suggestions and improvements:

- The Indian government can develop a comprehensive regulatory framework for the e- money market. This framework should include rules and regulations that protect consumers and businesses.
- The Indian government can work with e-money providers to raise awareness of e- money and its benefits. This can be done through public awareness campaigns and educational programs.
- The Indian government can work with e-money providers to improve the infrastructure for e- money in India. This includes things like improving internet access and increasing the number of e-money acceptance points.

By taking these steps, the Indian government can help to make the e-money market more secure, more regulated, and more accessible. This will help to boost economic growth and make financial services more accessible to people in India.

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