



Environmental Sustainability Of Cashless Economy Through FinTech In India

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Abstract:

Non-cash payments have improved the way people conduct transactions by making it easier to borrow and transfer money. Hygiene issues when using paper money and coins change daily financial transactions and have a long-term impact on payment alternatives choices. Opting for cashless has been proved to increase accessibility and ensure financial inclusion. India is among the largest economies in this world. Many changes are needed to support the global economy, including a cashless economy. This article talks about the real environmental problems borne by traditional payment methods and the use of cashless to save the environment. In the past, paper was used to print money along with thousands of machines. But now as it is becoming cashless, pollution from thousands of machines can also be significantly reduced.

KEY WORDS: FinTech, Cashless, Pollution, Deforestation, E-wallets, RTGS.

Introduction:

Coins are distinctly detrimental to earth. As per American Council of Science and Health, mining and transporting physical cash has resulted to the release of over 48000 tonnes of carbon dioxide. So, It looks as notes are better for the environmental surroundings. The reality is that polymer banknotes are more harmful for the environment than conventional paper currency. New polymer banknotes were issued with an idea to be more sustainable, but new studies of Evergreen Finance London have found out that the paper £10 currency note released 3kg of Co₂, even as the polymer notice releases 9kg. This suggests that paper money is way better. But it's definitely not that easy as it looks. The cost of printing the new currency and replacing the soiled and counterfeit is more than in millions. Polymer currency notes has more life than paper notes, but the degree of pollution they provide to the environment is lot extra than paper notes. Therefore, this is the situation to pick among the evils. ATM machines are causing high risk to environment as they silently deplete a lot of energy to churn out coins at a moment. Fortunately the time of bein cashless has been started now at a wider scale.

Learning Objectives:

1. Knowing the impact of traditional payment methods on environment.
2. Understanding the cashless/non-cash economy.
3. Studying the role of FinTech to promote cashless.
4. Explore the people's attitude towards the cashless economy.

Literature review:

1. Dangwal, Kailash Sakalani and Swati Anand (2010), in their article analyzed banking era as a driver of fast exchange in cashless economy. In his work, he discusses the usage of contemporary banking tools which include electronic billing and agreement system, MICR/OCR clearing, RTGS, SFMS, SWIFT, plastic money, e-trade, ATM, cellular banking, ATM biometrics, etc. The study discusses the time while maximum banking was accomplished with the help of electronic devices.
2. Benito Arrunada (2005), in his paper "Price Regulation of Plastic Money: A Critical Evaluation of Spanish Rules" discussed the variety of card payments, while determining the internal Multilateral Interchange Fees (MIFs). A specific processing rate and a flexible fee for fraud hazard, a decision-primarily based pricing scheme, will bring about a value-neutral provider.
3. Byers and Lederer (2001), "The profitability of e-banking" In this study they found that changing consumer conduct is extra useful for banks than adjusting their fee structure. E-Banking does not supersede different services. Their study makes a speciality of how customers understand retail adjustments and consumer perceptions of banking services want to be investigated.
4. Awh, R.Y and O. Waters (1974), "A Discriminate Analysis of the Economic, Demographic and Attitudinal Characteristics of Bank Cardholders": A Case Study attempts to discover the different variables to differentiate between active and inactive card holders. They determined that attitude towards bank credit cards can be highly prominent issue between these two types of card holders. Other elements encompass age, socioeconomic status, the sort and quantity of other cards an individual has, standard attitudes toward credit, schooling, and income.

Discussion:**The Real Problem:**

1. The Energy Consumption: The first step inside the life cycle of cash is the production of banknotes and coins. The procedure wishes power. Every mint, as an example, uses an excessive amount of energy to provide just a thousand million-greenback coin. Therefore we are able to say that this is electricity that is going to waste. It produces no tangible cost apart from a physical item that might get produced successfully and with less environmental effect. So, anytime you use cash, you're certainly wasting electricity that might otherwise electricity your home or enterprise.

2. **The Deforestation:** The manufacturing of banknotes additionally has a main effect on the surroundings, specifically in phrases of deforestation. The timber are the primary source of the pulp used to make paper money. Suppose the government desires to produce one thousand million \$100 banknotes. This might require the pulping of many bushes at a pass! The deforestation caused by the manufacturing of coins is a main environmental difficulty.
3. **The Pollution:** Another full-size environmental effect of cash is the pollution generated via the manufacturing procedure. The emission of dangerous chemicals and greenhouse gases is a derivative of the manufacturing of each banknotes and coins. This pollution will have a major effect on air-quality that could cause breathing issues and other fitness issues.

In addition, the transportation of cash also generates pollution. Every time coins get transported, whether by means of plane, train, or automobile, greenhouse gases are emitted into the atmosphere. Therefore, going cashless can help reduce the pollutants caused by coins transportation.

Cashless Economy: Cashless economy refers to one that facilitates transactions in the economy by using means other than cash such as credit cards, debit cards, cellphones, etc. Digital India Initiative by the Indian government is really empowering the cashless drive in our country. It is transforming India into a knowledge-based and digitally empowered economy. Cashless economy in India is called cashless and all transactions have to be done through online payment systems like direct debit, credit card, debit card, and instant payment service (IMPS), National Electronic Funds Transfer (NEFT) and Real Time Gross Settlement (RTGS).

Demonetisation in our country promoted and helped to run on the path of becoming a cashless economy. One Point Payment Interface (UPI) has been started to revolutionise non-cash transactions. The Covid-19 has led to major changes in e-commerce in India, in line with Prime Minister Narendra Modi's Digital India goal. As per NPCI data, UPI payments during June 2020 reached a record high of 1.34 billion with transactions worth around 2.62 lakh crores.

Role of Fintech: With the advancement of technology, FinTech has drastically changed the payment scenario of the country. With the help of latest advancements in the technology it is continuously making the customers' experiences delightful along with the provision of improved security. FinTech introduced the e-KYC instead of KYC, which changed the entire landscape of customer verification, which was earlier done on the basis of paper documents. It has made the processing faster, secure and convenient. As the human intervention is less, the chance of human error is almost out of question. It has drastically reduced the paper work, which means low amount of carbon footprint and thus saving of time, money, and environment. It uses the cloud technology to store the data, which reduces the risk of loss of data because of natural and human accidents. The security bar has been raised to prevent the fraud. For this purpose biometric authentication helps to avoid identity theft. As the processes are controlled through machines, and the multi-level inspections are performed in real time, the operational errors do not take place.

Methodology: To understand the people's attitude towards cashless economy, Data was collected from primary and secondary sources. Where the Primary data was collected through questionnaires and personal interviews, secondary data was collected from news articles and various magazines.

Table:1

Are you aware of the cashless payments?

Variable	Aware and use	Aware but do not use	Not Aware
%No. of Respondents	73	10	17

Source: Primary Data

Explanation: Table 1 shows that total of 83% of respondents are aware of cashless payments, and only 17% are not aware of that. However 73% respondents are actively using the cashless methods. The data of 73% as adopting the cashless means suggest that the people are more inclined towards the cashless payments now than before. The shifting from cash to cashless will definitely reduce the use of resources that cause pollution, and so it can be said that they do have a big impact on the environment due to non-cash transactions.

Table:2

What is the source of information regarding the cashless methods?

Variable	Banks	TV/Radio/Newspapers	Internet browsing	Appeal of Family Members	Appeal by Friends
No. of Respondents	49	15	18	03	15

Source: Primary Data

Explanation: Table 2 shows that respondents are familiar with non-cash methods. The table shows that 49% of non-cash transactions are known to because of the banks, 15% because of radio and television campaigns, and 18% via internet. Only 3% of people have adopted through family members and 15% of people through friends. Therefore, it can be said that more than 50% of people are familiar with non-cash transactions because of internet browsing and the banking channels campaigning. The banking system has to play a crucial role in educating and empowering its customers to adopt cashless and be part of digital financial inclusion. More user friendly but secure apps be introduced with unified solutions in single app to achieve this target by the banking personnel and the timely updates should be continued to avoid fraud issues.

Table:3

Opinion about benefits.

Statements	Reaction	
	Agree	Disagree
Satisfied with variety in cashless methods available to suit the needs.	87	13
Cashless is faster and more convenient than traditional ones.	94	6
Saving of precious time and effort.	92	8
Helps to save environment.	88	12
Security concerns are adequately managed.	27	73

Source: Primary Data

Explanation: Table no.3 shows that there is a good amount of understanding and awareness among the respondents about how to go cashless. 87% percent of people are quite satisfied with the options of cashless methods available in our country. 94% of people accept that the system of payments has become much easier and faster now than before because of these cashless methods, but 6% of respondents disagree to this view. 92% of people confessed that the cashless system has saved a lot of time and effort in their lives, however 8% of people do not believe in this. 88% of people understands and believe that this really can help saving the environment, however 12% believe that this won't make much change.

However 73% of the respondents are worried about the security issues of digital environment in our country and have less trust on the remedies available in case of digital fraud.

This data suggests that people are getting much information about dynamically increasing non cash methods and their use and effectiveness. This could be the result of changing socio-economic dynamics, use of internet, banking campaigns, government initiatives, etc. It can be said that we are moving towards a green economy due to cashless transactions.

Findings and Conclusion: The idea of a non-cash system is vital for the sustainable development of the economy as well as the environment. Reducing the amount of paper produced and carbon emissions, thereby helping the natural surroundings Cashless is the future of banking developments. The bank gives promotional offerings and discounts for digital payments to facilitate and expand the cashless transactions to more of the general public. It has been observed that virtual bills have elevated considering that demonetisation. Engaging in green activities is also critical for a green economic system. Non-Cash transactions have proven to be one of the maximum useful aspects of environment friendly practices. Natural resources had been exploited in massive portions to supply to paper and other industries. Implementing solutions which includes cashless transactions can assist reduce pressure on natural sources. Green financial system ought to be evolved on high scale particularly in rural areas, due to the fact rural communities depend more on natural assets for daily working. If there's a system like cashless transactions, their lifestyles could be less difficult and extra exceptional. By adopting cashless transactions, many sorts of banking offerings may be achieved at domestic level, decreasing

the strain on different natural resources and remodeling the country's financial system right into a green economy.

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