

AN ANALYTIC STUDY OF THE PLASTIC MONEY IN INDIA

Dr. Jyoti Kapoor Bhargava*

ABSTRACT

Due to the technological revolution in financial sector, the payments in banking system have undergone a tremendous change. The Number of innovative products for making payment has developed after the privatization and globalization. Customers have showed their preference over the usage of the plastic money generally over a period of time in the banking process. The present study presents an overview of the usage of the plastic money, i.e. debit and credit cards, and trends in plastic money since their introduction in Indian banking sector. It also discusses the factors behind the usage of Plastic money and consumer behaviour. The study also highlights the role of these cards as electronic payment tool to be used by customers and discusses the penetration of these cards in replacement of cash and paper money. The primary data is collected by taking a survey of about hundred respondents by convenience sampling method by using a structured questionnaire.

Keywords: Plastic Money, Privatization, Globalization, Financial Sector, Banking System.

Introduction

Financial sector plays a pivotal role in the economic development. It is generally agreed that a strong and healthy banking system is a prerequisite for sustainable economic growth. Banks in India have been undergoing major challenges in the dynamic environment over the past few years. Banks are shifting from paper-based to electronic transactions. As of today, more than fifty percent of total transactions are electronic-based, and this share is increasing at an incredible rate.

Over the years, money has changed its form from coins to paper cash and today it is available in formless form as electronic money or plastic card. The major change in banks which has been brought in by the technology is through introduction of products which are alternative to cash or paper money. Plastic cards are one of those types of innovations through which the customers can make use of banking services just by owning the card issued by bank and that too without restricting himself in the official banking hours. The paper money has small life cycle and can't be recycled as compared to plastic money which has long life cycle and can be recycled for further utilization. Plastic money is secure and cannot be copied. In addition, one cannot keep the huge amount of cash with oneself and makes the society a cashless society.

The Objective of the present study is primarily focussed on the usefulness and popularity of plastic money, to assess the perception of people towards plastic money, to study the satisfaction level of consumers towards plastic money and analyse the trends in debit card and credit card transaction value. To achieve the above said objectives, it is assumed that there is no significant difference between average circulation of Debit card and Credit Card; there is less or no significant difference between transaction volume of Debit card and Credit Card; and there is no significant difference between transaction value of Debit card and Credit Card.

* Department of Economics, Government Dungar College, Bikaner, Rajasthan, India.

- **Research Design**

The approach used for data collection is a structured questionnaire which consists of questions relating to the socio-economic profile of the respondents, the factors that motivated the customers to use Plastic Money, problems faced in using plastic cards, level of satisfaction, attitudes and perceptions. Convenience sampling technique is used to collect the opinion from the online respondents. The target population to collect data was young adults, graduates and employees of organizations within the age of 16 years to 55 years. A total of 107 responses were taken for the analysis. The data was collected using convenience sampling in city Bikaner.

This research is based on multi-methods, using both quantitative and qualitative techniques, in data collection. Both types of data have been collected, but it must be noted that the questionnaire survey has been used as a main data collection instrument for this study because the questionnaire survey enables researchers to examine and explain relationships between constructs, in particular, cause-and-effect relationships. The questionnaire was shared via Google Form. The secondary data are the relevant reports viz., RBI monthly bulletins, business dailies, books and journals, e-media and other literature available in this field. This study has used suitable statistical tools such as Average and Standard Deviation (SD). The statistical tests like t-test, was employed to test the set hypothesis.

- **Indian Banking Industry and Plastic Money**

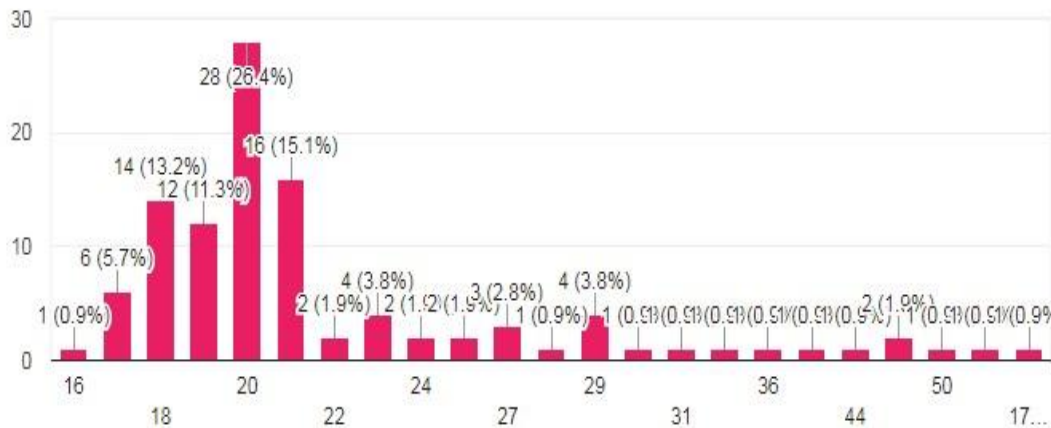
The banking industry has experienced a significant transformation in the last few decades. One of the major objectives of banking sector development was to encourage operational self-sufficiency, flexibility and competition in the system and to increase the banking standards in India to the international best practices. The advancements in technology have brought the mobile and internet banking services to the fore. The Indian economy expanding rapidly at more than 7.5 per cent per annum and the middle class budding cashless transactions in India are becoming very popular. Generally, increasing reliance on cashless transactions is seen as sign of a modern economy where there is a strong synergy between the ordinary consumers and its financial institutions.

The plastic money can be in the form of Credit cards or Debit cards. Debit and credit cards offer more than a way to access money without having to carry around cash or a bulky cheque book. Debit cards are like digitized versions of cheque books; they are linked to ones bank account (usually a checking account), and money is debited (withdrawn) from the account as soon as the transaction occurs. Credit cards are different: they offer a line of credit (i.e., a loan) that is interest-free if the monthly credit card bill is paid on time. Instead of being connected to a personal bank account, a credit card is connected to the bank or financial institution that issued the card.

From the security point of view, the most sensitive operations are credit and debit. The main threats are concentrated in these two operations. These threats include using of fake payment instrument, modifying communications of payment instrument, and illegal crediting. Other two operations are less sensitive and the probability of security incident during these operations is much smaller. Physical devices, such as smart cards or personal computers, are held by clients and by merchants. Merchants interact with clients and with their acquiring bank or other collection point, such as a third-party payment processor. Issuers receive funds in exchange for prepaid balances distributed to clients and manage the "float" in the system that provides financial backing for the "value" issued to consumers. In some cases, other intermediaries, such as banks, retailers or service providers, distribute stored-value devices and balances directly to consumers. The system may include a central clearing house or system operators. Indian economy has flourished with the advent of Liberalization, Privatization and Globalization. Banking sector is not an exception too. After financial sector reforms during nineties, the banking industry in India has witnessed remarkable changes due to information technology and computer applications. The information technology has replaced traditional banking with the wide range of e-banking products and services like ATM (Automated Teller Machine), Internet Banking, Credit Cards, PC banking, EFTs, Debit Cards, Smart Cards etc.

- **Data Analysis and Interpretation**

A questionnaire tool was adopted in this research to collect responses of respondents. Here the survey was conducted among 107 educated respondents divided into 18-25years, 25-40years and 40-55years age group. The responses were collected online considering the feasibility of both, respondents as well as the researcher. All data collected has been organized. Of all the age groups, the percentage of female respondents was 51% and male 49%. This ensures the gender equality in the data collection. As can be seen in figure , the maximum respondents are in the age group 20-30 years



As most of the respondents are young in the age group 18-30 years, the income classification was done to judge their spending through electronic means, especially plastic money. Maximum people (63%) have income in the range Rs. 1000-5000. About 10.5% have income in the range Rs. 5000-20000 and only 12% have income Rs. 50000 or above. These are primarily either in occupation or have business. The question was asked to identify the type of plastic cards mostly preferred. It has been observed that most popular and useful one is ATM cum debit cards (70%). 28.3% believe that both credit card and debit card are useful.

An important component of the study was to find the purpose of the spending and usage of the cards. It is observed that majority of respondents prefer using plastic money for buying apparels, paying electricity bills/phone bills and for online transactions. Use of Debit cards is convenient as they can be swiped anywhere with ease and the deduction from respective bank, unlike the credit cards where a swipe generates a future liability of payment for the customer. The easy access to internet and shopping sites has led to the rise in online apparel shopping by the card users. However, they do not use plastic money much for investment purposes which includes trading of securities on stock exchanges, purchase of bonds/debentures, purchase of jewellery etc. The reasons may be varying but the behaviour is common among maximum respondents.

In this modern era, new trends in payment have been emerging. People, nowadays, have adopted new methods like online payment using Paytm and use of various plastic cards and smart cards. 67% of respondents believe that plastic money is the most secured and reliable payment medium in world of increasing fraud and thefts. About 24% of the respondents believe in using both paper and plastic money and 8% only paper money.

Consumers now have more payment instruments than ever to choose from, ranging from cash, credit cards, smart cards, mobile account payments, and electronic money. Now the consumers are inclining more towards plastic money. One of the biggest reasons of choosing plastic money over paper money is the increasing concern for environment as well as increasing duplicity and fear of theft. Several other reasons are wear and tear of paper money, bulky to carry and difficult to manage.

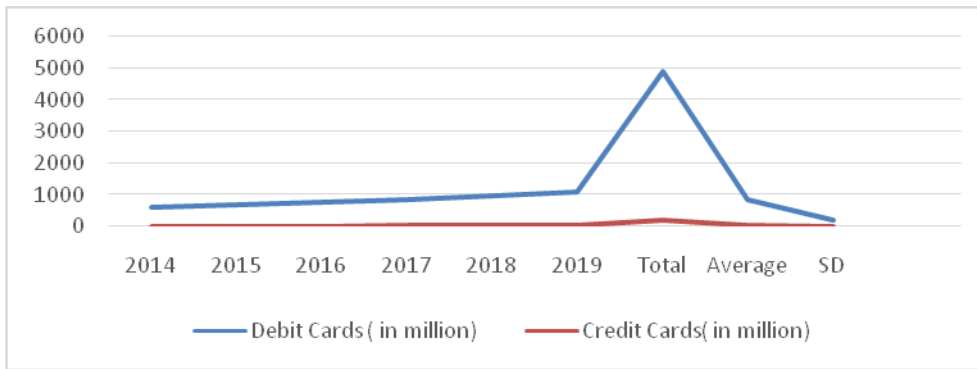
It is postulated that use of more credit card/debit card transaction in country over cash transaction will solve the problem of corruption. Probability of corruption is more in cash transaction.. About 46% people strongly believe that emergence of credit card/debit card transaction is useful in solving the problem of corruption at a bigger level. About 37% believe that it can prevent corruption to a larger extent, while 13% have no thinking of their own in this regard.

Every aspect in life has its own pros and cons. Unlike, regular banking- going to the branch holding account with and waiting in a long queue to withdraw or credit the money or cheque received, the technology has helped us use ATM (Automated Teller Machines) and debit cards to withdraw or transfer money into someone else's bank. The drawbacks can be judged from the figure below. People are now getting aware about plastic money and its usage. Majority of the people (58%) agree that plastic money usage will be more in the future and will have a massive impact on economy, while 18% disagree with the above reasoning. One of the biggest reasons of increasing penetration in India would be the perception of people and the prevalent trend of going cashless.

In order to analyse the trends in Plastic Cards hypotheses were taken. To test the hypotheses t-test has been conducted. This test was developed by W.S. Gosset, popularly known as students t- test.

Null Hypothesis H₀: There is no significant difference between average circulation of Debit card and Credit Card

Alternative Hypothesis H₁: There is significant difference between average circulation of Debit card and Credit Card



$t_{cal} = 10.44$

for $df = 10$, $t_{tab} = 1.812$ (Level of Significance is 5%)

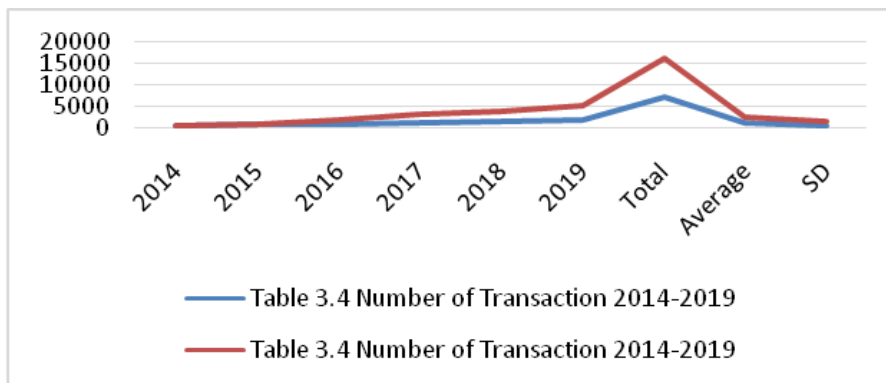
$Avg_1 = 816.23$, $Avg_2 = 34.28$

As the calculated value of t is greater than the table value, the hypothesis is rejected. Hence, there is a significant difference between the average circulation of debit cards and credit cards. There is phenomenal rate of addition of both types of cards. The average number of debit cards (Average: 816.23 million) in circulation has seen a steady growth as compared to average number of circulation of credit cards (Average: 34.28 million).

Transaction Volume of Cards

Null Hypothesis H₀: There is significant difference between transaction volume of Debit card and Credit Card

Alternative Hypothesis H₁: There is no significant difference between transaction volume of Debit card and Credit Card



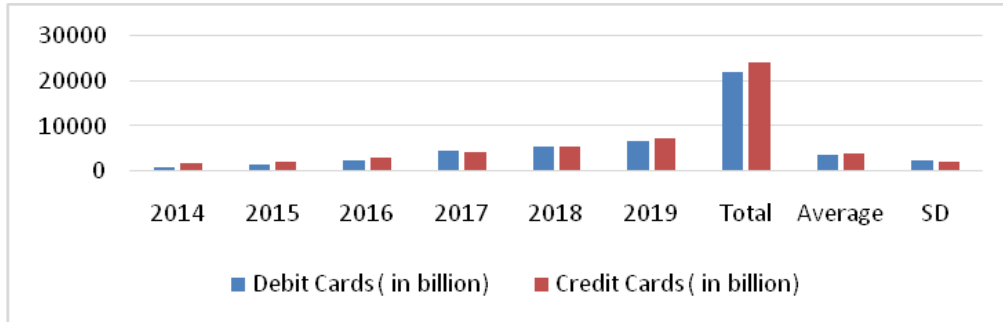
The calculated value of t is smaller than the table value, hence the null hypothesis is accepted i.e. there is significant difference between transaction volume of debit card and credit card. Usually major expenses are made through credit card, therefore, the average transaction volume of credit card (2739.43 million) is more than average transaction volume of debit card (1213.34 million).

$t_{cal} = 1.98$
for $df = 10$, $t_{tab} = 1.812$ (Level of Significance is 5%)
$Avg_1 = 1213.34$, $Avg_2 = 2739.43$

Transaction value of Cards

Null Hypothesis H_0 : There is less or no significant difference between transaction value of Debit card and Credit Card

Alternative Hypothesis H_1 : There is significant difference between transaction volume of Debit card and Credit Card



$t_{cal} = 0.27$
for $df = 10$, $t_{tab} = 1.812$ (Level of Significance is 5%)
$Avg_1 = 3663.78$, $Avg_2 = 4026.57$

The calculated value of t is smaller than the table value, hence the null hypothesis is accepted i.e. there is significantly less difference between average transaction value of debit card and credit card. The total transaction value of both debit card and credit card has gone up where the average transaction value of credit card (4026.57 billion) is earning slightly more value than average transaction value of debit card (3663.78 billion)

Card Transaction Growth

The volume of overall transaction steadily increased over the period 2014-2019 recording annual growth rate of over 26.6% in credit card and 49.9% in debit card. The growth is spectacular and could be attributed to development in cashless economy.

The volume of credit card transaction grew at an annual rate of 26.6% while their transaction value grew by 34% each year from 2014-2019. Similarly debit card transaction volume grew at an annual rate of 49.9% while their transaction value grew by 48.5% each year from 2014-2019. Furthermore, most of growth came from debit card transaction.

There is certainly no shortage of credit card choices available for consumers. A significant number of 6802.15 average credit cards have been issued and is increasing every year with a steady rate.

Debit cards provide the convenience of paying directly from the account with all the security. It works like a cash, only better. They are issued by various banks and it uses funds directly from the owner's bank account and is accepted worldwide. For the year 2014, debit card issued were 53.79 million and increased to 86.98 million in year 2018 dwarfing all other forms of non-cash payments including credit card.

Expected Number of Cards in Circulation in Future

The number of debit card in circulation in country is expected to rise from 1079.60 million to 1740.50 million by 2024. Similarly, the number of credit card in circulation is expected to rise from 54.9 million to 156.6 million by 2024. Expected average number of cards in circulation shows that the market will grow phenomenally and will attribute to development in cashless economy.

- **Findings of the Study**

The First objective of the study was to know the awareness and popularity of plastic money among the customers. The findings reveal that majority of respondents use plastic money in one form or another and out of them, they have been using it for over many years. The Second objective was to study customer's perception towards plastic money. The findings reveal that majority of respondents prefer using plastic money in one form or another. It was also revealed that majority of the respondents using plastic money as mode of payment are satisfied with their Debit/Credit cards and the services provided by the company.

Talking about Precaution to be taken while using Plastic Cards, consumers recommend the use of Security Pin and digital signatures to reduce the misuse of plastic money. Hence in totality it is found that use of Debit card is the most beneficial to the consumers and the future of plastic money is bright.

The Third Objective was to study the satisfaction level towards plastic money. It was observed that many people are going for electronic transaction and are satisfied because it is easily accessible and time saving. Majority of the people agree that plastic money usage will be more in the future and will have a massive impact on economy. Lastly, spending patterns of people now-a-days is slowly and gradually changing and they have started preferring credit cards and debit cards as a mode of payment in routine life as well as while travelling also. It is expected that paper money will be completely replaced by plastic money.

- **Conclusions and Future Prospects**

It is inferred that the changing pace of technology has taken a step towards the transformation of the economy. This change has proposed people to initiate the usage of plastic money instead of the conventional hard cash for carrying out transactions on a daily basis. This also enables them the advantage of credit purchases and post-repayment option for the amount of credit utilized on these cards. More transactions are taking place in plastic money than paper notes due to risk in carrying cash. It is also observed that there are frauds in plastic money, some of them can be solved. Consumers prefer these cards mostly for online shopping.

The factors for adoption of plastic money in replacement of cash and paper money have been identified which shows the preference of the customers for plastic cards over the cash and paper money. As the study is being carried out in a city of Bikaner the results cannot be generalized.

Smooth, simple and secure payment processes will help bring about behavioural changes and faster adoption of digital payments and banking among un-banked segments. There is still a huge potential market in India as consumption is still dominated by cash, with cards contributing only 5 per cent of the personal consumption expenditure. Rapid growth in smart phone usage and online shopping habits contributes to the increasing trend of use of credit and debit cards. In India, safety standards followed by players to prevent misuse match the best in the world.

References

1. E. Mrudula (2006) , *Plastic Money: An Introduction* , ICFAI University Press, India, ISBN-10 : 8131404625 (2006)
2. J.B. Forrest (1973), *The Past, Present and Future of Plastic Money*, SMU press,(1973)
3. Mandeep Kaur and Kamalpreet Kaur (2008), "Development of Plastic Cards Market: Past, Present and Future Scenario in Indian Banks", *Asia-Pacific Business Review*, Vol. IV, No.4, pp. 62-74.
4. Alvares, Clifford,(2009) —The problem regarding fake currency in India. II *Business Today*; Vol. 18, Issue 5, p24-24.
5. Subhani Muhammad Imtiaz, (2011). "Plastic Money/Credit Cards Charisma for Now and Then". *European Journal of Scientific Research* , Vol.62, No1, pp.123-127.
6. Sunayna Singh Khurana (2011), S. P.I UP Journal of Bank Management; Vol. 10, Issue 1, pp.71-87.
7. Bansi Patel and Urvi Amin (2012), "Plastic Money: Roadmay Towards Cash Less Society", *Paripex Indian journal Of Research*, Vol. 1, No. 11, pp.95-99.
8. Manivannan (2013), "Plastic Money a way for cash Less Payment System", *Global Research Analysis journal*, Vol. 2, No.1, pp.11-12.

9. V. Vimala and K.S. Sarala (2013), "Usage and perception of plastic money among the customers of BOI". *Asian Journal of Research in business Economics and Management* , Vol. 3, Issue 4, pp 24-37.
10. Anupama Sharma (2012), "Plastic card frauds and the countermeasures: Towards a safer payment mechanism", *International Journal of Research in Commerce, It & Management*, Vol. 2, No. 4, pp.1-3.
11. Tabrez Haq and Bushra Malik (2014), "Consumer response towards the usage of plastic money". *International Journal of Multidisciplinary Research*, Vol.4, Issue5, pp.93-102.
12. P.K.Bindu (2016) , "A study on the importance and popularity of plastic money in aluva", *IOSR Journal of Economics And Finance (IOSR-JEF)* , volume 7, issue 1. ver. ii , pp 51-58 .
13. Radhika Gohel (2015), "Factors behind use of plastic money", Research Report, Saurashtra University, <https://www.slideshare.net>.
14. Roop Lal Sharma (2017), "The Study of Customer Behaviour and Its Impact on Customer Satisfaction, Loyalty and Service Quality Perception in E-Banking Services in Jammu Division", *Asian J. Management*, vol8, Issue 2, pp 241-245.
15. Sunil Harsha (2014) , "Plastic Money-The Future Currency" , *IJLTEMAS*, vol. 3, Iss. 4, pp.131-140.

