

## **PLASTIC MONEY- AN INNOVATIVE TECHNOLOGICAL DEVELOPMENT IN BANKING SECTOR**

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### **ABSTRACT**

Plastic money is very essential in today's world. Usage of plastic money has become compulsion all over the globe. It helps the risk of carrying cash in hands. The growing involvement of smartphones has made technology applications much more accessible to users. Plastic money helps in building recognition among people to move from paper to electronic money. It provides the benefits of anywhere and anytime banking. The study has been focused on innovative technological development in banking sector. In this paper, the study has been done on the challenges and future prospects of plastic money.

**Keywords:** Plastic Money, VISA, Information Technology

### **Introduction**

Innovation is a new mantra in today's world. In the same way, in banking sector also there are lot of innovations take place every day. Plastic Money is also such an innovation that took place in banking sector. Nowadays, almost all the transactions in banks are done with plastic money and electronic banking. Due to scarcity of time to make a visit for banks these plastic money and other innovative technology is used. It is beneficial for the banks as it increases their productivity and it improves the delivery of quality of service to customers. Plastic money performs the authentication of merchant. It includes debit cards, credit cards, smart cards, etc. Plastic money in a very recent context replacing the traditional concept of paying through cash.

Plastic money is term coined keeping in view the increasing number of transactions taking place on the part of consumer for paying for transaction incurred by them to purchase goods and services physically and virtually (Bisht, Anisha, Nair, Praveen, Dubey Rakshita, Hajela Tany, 2015).

Plastic money will bring us benefits as well as problems. One major benefit of digital cash is its increased efficiency which will open new business opportunities especially for small businesses on the other hand it will bring in problems like taxation and money laundering, instability of foreign exchange rate, disturbance of money supply and the possibility of financial crisis, etc. Plastic money are being designed are Credit Cards, Debit Cards, Digital Cash and Electronic fund transfers.

### **History of Plastic Money**

1900-1950's

The Beginnings With a history of “plastic money”, you cannot ignore charge cards. Charge cards laid the groundwork for debit and credit cards. Company-issued charge cards can be found as far back as the early 1900's. These cards mainly just kept customers loyal to the company.

Charg-it

“Charg-it” was the first actual bank card and was issued in 1946. The card was invented by a banker in Brooklyn, by the name of John Biggins. However, only local purchases could be made.

The Diners Club Card

The concept of the credit card was initially acted upon by Frank Mcnamara. After dinner with a fellow business associate, Frank found himself short on cash after forgetting his wallet. What followed was an epiphany that led him to think of a charge card. This card, later known as the “Diners Club Card”, could be used at multiple locations. This novel idea became the first true model of the multipurpose charge card.

American Express

American Express issued their first credit card in 1958. Due to their international presence, the Green Charge Card was globally accepted. This became the first internationally available credit card.

Bank Americard

In 1958 Bank of America introduced a unique card that could be used to purchase anything at participating merchants. In other words, it was a universal card so the cardholder did not need multiple cards for specific destinations. This card also set industry standards such as 25-day grace periods, credit limits, and floor limits. The pilot program in 1959 initially had 60,000 customers and was a huge success. The program was then rolled out state wide in California.

Mag Stripe

Credit and debit cards would not be what they are today without the Mag Stripe. This momentous leap in card technology arrived when the CIA hired IBM to attach a magnetic stripe to their identity cards. The technology was already available; however, the main problem was permanently attaching the stripe to the card without wrinkles. While working on this problem, Forest Perry came home from work to find his wife ironing his clothes. When he mentioned the problem about the stripe, Forest's wife asked to see the prototype card. Using the iron, she managed to melt the stripe to the card wrinkle-free. This solved the entire problem, which allowed IBM to go into full production with the Mag Stripe on all their cards.

#### Automated Teller Machine (ATM)

One of the most convenient aspects of plastic money is the all-serving ATM. The ATM (Automated Teller Machine) was brought into existence in the 1960's by John Shepperd-Barron. After an unfortunate and unsuccessful trip to the bank, John had to wait until the next day when it opened again. That night, while reportedly taking a bath, John thought of a self dispensing cash machine. Along with the invention of what was soon to be the ATM, he also invented the 4-digit international standard pin code. John first wanted a six-digit army serial; but his wife convinced him four digits would be easier to remember.

1970s – 1990s

#### VISA

Originally the Visa card started as the BankAmericard program and was never intended to go national, or international for that matter. In 1965 BankAmerica began a licensing program with banks around California. After enough banks subscribed to the program, BankAmerica was able to create a joint venture bank association. This eventually rolled out on an international scale and BankAmerica changed the name of their card to VISA International. They also created a domestic America version named VISA U.S.A. This two card system allowed VISA International to be more easily accepted across other countries due to having no association with America. The acronym VISA stands for Visa International Service Association; BankAmerica felt the name change was appropriate since VISA would be instantly recognized in many different languages. Their success continued and eventually they joined the Plus ATM network becoming even more accessible to customers around the world. These strategic branding choices allowed VISA to become one of the most recognizable and successful consumer brands today.

#### Mastercard

While the BankAmericard was gaining precedent around California, in Kentucky their competition was also gaining strong ground. Crocker National Bank, Wells Fargo, and Bank of California came together and launched the Interbank Card Association (ICA) in 1966. Three

years later, Mastercard changed their logo and came out with the iconic red and orange overlapping circle. However, it was not until ten years later when Mastercard became the Mastercard we know today. The 80s were also a revolutionary decade for MasterCard. They released their emergency card replacement program; they entered the Pacific Rim, and acquired Cirrus which was the largest ATM network in the world. After such a successful decade, MasterCard capitalized on their advancements and became the other key player in the market along with VISA.

#### Discover Card

The Discover Card was a revolutionary card in the 1980s. It specifically presented Sears and Roebuck & Co. customers with a new credit card option. This card was the first of its kind to have no annual fee, cash back, and high credit limits. The only problem was that since it was associated with Sears, other retailers were ready to accept it, as they would be helping their competition. Eventually Discover realized that their brand needed to completely separate from Sears and so they proceeded to do so. Separating from Sears made Discover more attractive for other merchants to adopt the card. By the early 1990s, Discover became incredibly successful and was regarded as a competitor of merit to Visa and MasterCard. 1990s – Today To compete in technological world, credit and debit cards have become more efficient and instantly accessible across multiple mediums. With new technologies such as mobile platforms, this presents numerous opportunities for vendors and consumers alike.

#### Chip and Pin

One of the more disruptive changes to plastic money came with the adoption of chip and pin technology. This system has become a standard with credit and debit cards and is preferred to the magnetic stripe. Chip and Pin technology makes cards much more secure and personal information is very hard to steal because of the encrypted chip. A cloned chip can also be immediately recognizable as a fraudulent card, as each individual chip is specifically encrypted for each individual card. Even though this card technology has been around since the 1990's, it has become nationally used across Canada, and will become mandatory in the United States by October, 1st 2015.

#### Square

As able to accept transactions through a mobile device is a game changer for businesses. This was largely made possible by a company called Square. Square allowed a cell phone to be used as a point of sale system and accept card payments anywhere. The device simply plugs into the headphone jack and has a card slot for the customer to swipe their card. Introduced to the market with a 2.75% flat rate fee, mobile card readers have definitely a significant contribution to plastic

money. Square has opened the door for many small businesses across the world that can now offer their consumers more ways to pay.

### YesCard

The YesCard is a new way of accessing online loans and getting money instantly. The old ways of taking loans in the form of a cheque or cash, having to wait days for processing and then taking the time to deposit the money are gone! The Yes Card allows you to access and use your loans any time any place and faster than anywhere else.

### Literature Review

P Manivannan (2013) in his research paper “Plastic Money a way for cash Less Payment System” examined that Plastic Money i.e. usage of Credit card was measured a luxury, and has become needed. These plastic money and electronic payments was and used by only higher income group. This facility extended not only to customers in urban areas or cities, but also to customers residing in rural area. However, today, with development of banking and trading activity, the fixed income group or salaried classes are also start using the plastic money and electronic payment systems and particularly Credit cards. In this research paper an attempt has been made to study an overview of the development of banking in the plastic cards usage trends since these have been introduced in Indian banking sector. 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.

Manideep Kaur and Kamalpreet Kaur (2008), in their article, “Development of Plastic Cards Market: Past, Present and Future Scenario in Indian Banks” conclude that Indian banking sector is accepting the challenge of information technology as all the groups of bankers have now recognized it as essential requirement for their survival and growth in future Despite the strong advances in e-payments, an estimated 90 percent of personal consumption expenditure in India is still made with cash which indicates the tremendous growth potential of this business. So this can be considered as mere beginning which indicates the bright future prospects of plastic card market in India.

### Research Methodology

The research methodology adopted for this study is Exploratory Research Method. The major emphasis of exploratory research is on the discovery of ideas. The data is collected form purely form the secondary sources. The secondary data have compelled from newspaper, journals, magazines, and web links and also research papers.

### **Objectives of the Study**

The study was undertaken with following objectives

1. To explore the concept of plastic money as an innovative technology in the banking sector.
2. To study the theoretical base of plastic money.
3. To know about the usage of plastic money.
4. To know the benefits and challenges of plastic money.

### **Drivers of Plastic Money Usage**

1. E-Commerce: Plastic money in the form of cards provides the convenience of shopping online. Customers are increasingly using their cards to make purchase online.
2. Favorable Demographic Profile: The young generation prefer to adopt latest technology and thus will enhance the usage of cards.
3. Growth in number of bank accounts: The introduce of plastic money in all regions including rural areas. By providing access to all account holders through issuing the cards.
4. Growing Middle Class: Growing middle class will support the use of cards.
5. Information Technology: The growth of information technology is a big support for adoption and cost effective management of plastic money and its transactions.

### **Advantages of Plastic Money**

1. Convenience: Plastic money provides easy way to make financial transactions, without carrying cash. It also provides the benefits of anywhere and anytime banking.
2. Check counterfeiting: The proposed plastic currency notes will reduce the chances of counterfeiting.
3. Long Life of Plastic currency notes: the proposed plastic currency notes will have the life of five years against one-year life of paper currency notes.
4. Supports Growth of e-commerce: The use of cards has supported the growth of e-commerce. Growth of e-commerce enhances cost effectiveness and alternative channels to improve economic growth.

### **Challenges in adoption of Plastic Money**

In 21<sup>st</sup> Century banking has become wholly customer-driven and technology driven. Challenges such as competition, raising in customer expectations and shrinking margins. Banks have been using technology to reduce cost, customer convenience, enhance efficiency and productivity.

Customers have multiple options and great convenience through the technology enhancement. Technology intensive delivery channels like net banking, mobile banking, etc. have created a win-win situation to the customers. The customers are educated about credit cards, the need to educate them about the differentiating factors of the cards. Visa and master card should be advertised regularly and thereby increases awareness. The strategy should be emphasized on its differentiating characteristics.

The banks need to identify potential customers and target those using mailers. Net users can be targeted by having interactive sites. The customer queries can be solved in best possible manner through the prospective company's card personality used in home page.

Overall, lot of innovation has taken place in banking sector. And still a lot of innovation in technology in the field of banking sector has to take place. The cashless society has to be developed and help the market move towards the idea of new payment methods. Growth prospects of plastic money, growing popularity of online shopping made increase usage of plastic cards more than previous years. It was primarily driven by the urban population and by the increased acceptance of cards by organized retailers.

### **Conclusion**

In today's world, people like to make payments using credit card and debit card instead of cash payments. By this the usage of plastic money is increased. Due to social and technological advancements, the banking landscape is undergoing massive change. There is increased availability of sophisticated technologies that can enable cashless transactions in the market. The disadvantages such as the need for high IT investment by various service providers, security concerns, lack of technological awareness and the traditional mindset of customers who prefer to use physical money seem to outweigh the potential benefits. With the change in technology and the improvement in the payment system has led to further development in plastic money.

### **Future Prospects**

The rapid growth of smartphones, internet penetration and e-commerce is complementing these; the new aspects like mobile wallets and prepaid cash cards are introduced to make digital transactions. Card transactions, both by debit and credit cards, are on upward trajectory. There are interesting dynamics at play in the payments industry. The stakeholders and regulatory authorities come together to achieve a "less-cash dependent" and eventually "cashless" society in the payments industry.

## References

1. Mandeep Kauri and Kamal preet Kauri (2008), "Development of Plastic Cards Market: Past, Present and Future Scenario in Indian Banks", *Asia-Pacific Business Review*, Vol. IV, No.4, pp62- 74, ISSN: 0973-24707.
2. Manivannan P (2013), "Plastic Money a way for cash Less Payment System", *Global Research Analysis* , Vol. II, No. I.8. Mishra Gaurie (2007), *Indians Get Elastic with Plastic Money*
3. Bansi Patel and Urvi Amin (2012), "Plastic Money: Road may Towards Cash Less Society", *Paripex Indian journal Of Research* , Vol. 1, No. 11, ISSN-2250-1991
4. Bhawna Mukaria (2018), *Plastic Money: Prospective And Challenges*, *International Journal of Engineering Technologies and Management Research*, 5(2), 117-125. DOI: 10.5281/zenodo.1185073, ISSN: 2454-1907
5. Bisht, Anisha, Nair, Praveen, Dubey Rakshita, Hajela Tany, March 2015, "Analysis of the use of Plastic Money. A boon or a bane. " *SiMS Journal of management Research* Volume No.1