

# PLASTIC MONEY (A MINI WIKIPEDIA)

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## **Abstract**

Technology has changed the way we deal with money giving us more convenience and easy access to funds from anywhere. It all started with a simple credit card that allowed you to make purchases today and pay later. Further, technological advancements lead to a new trend where most banks gave you one credit card or debit card which can be used for withdrawing money as well as for making purchases or payments – offline as well as online. However, plastic money has its share of issues that one must be careful about. Plastic money definitely provides an alternative in some cases and compliments cash as a medium. Plastic cards as the component of e-banking have been in use in the country for many years now.

## **Keywords**

Introduction, History, Pros and Cons, Credit Card vs Debit Card, Steps Taken by Indian Government to Use Plastic Money or Digital Payment, Conclusion,

## **Introduction**

Over the years, money has transformed from coins to paper cash. With the rapid expansion and exponential growth in the technology field, the use of plastic money has evolved to a great extent. Clumsy and expensive to handle coins and notes are replaced by efficient electronic payments initiated by various types of plastic cards with a tantalising prospect for the twenty first century. **Plastic money is a term used to represent the hard plastic cards used in day-to-day life in place of actual banknotes.** Plastic money refers to the hard plastic cards we use every day in place of actual bank notes. For example, ATM cards like credit card and debit card are electronic generated card that acts as plastic money at the time of buying of goods and services. Debit card is used to withdraw money from your bank account at the time of payment for something and credit card is used to generate credit in the name of your bank account for the purpose of electronic payment.

Today the domestic card industry is applied with different types of cards from gold, silver, global, smart to secure, co-branded credit cards, etc. the list is endless. There is enormous growth potential in the domestic card industry.

## **Types of Plastic Money**

1. **Charge Card:** A charge card has similar features of credit cards. However, after using a charge card, it is necessary to pay the whole amount of bill till the due date. If the person defaults to pay the amount of the charge card, then he has to pay the late payment charges.
2. **Visa & MasterCard:** Visa & MasterCard are international non-profit organizations. They are dedicated to promoting the growth of the business of cards across the globe. They have designed a wide network of merchant institutions by keeping in mind that the customers might use their credit cards to make several transactions worldwide.
3. **Debit Cards:** The debit card is an encoded plastic card which is issued by banks and has replaced with the cheques. It allows the customers to pay in exchange for goods and services without carrying cash. It is a multipurpose card, as it can be used as an ATM to withdraw the money and check the balance of the bank account. It is issued by bank free of cost with the savings or current account. It is one of the best online-payment tools where the amount of purchase is immediately subtracted from the account of the customer and credited to the merchant's account. It has overcome the delay in the payment process.

There are presently two ways in which debit cards transactions are processed:

- I. Online debit (also known as a PIN)
- II. Offline debit (also known as signature debit)

## **History**

### **1. 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.

- **Charge - it money:**

“Charge - 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

## 2. **1960s**

- **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.

- **The Chicago Debacle:**

In the 1960s, unsolicited credit cards became a big problem for the Chicago market. The Chicago market was untapped by credit card companies by the mid-60s, so several companies began mailing “pre-approved cards”. This mailing tactic proved to be nearly fatal for those credit card companies, because they were accidentally mailing them to convicted felons, toddlers and even dogs. Organized crime rings even took advantage by using corrupt workers to intercept cards. Since these intercepted cards were already pre-approved, the people residing at the mailing address were billed thousands of dollars without even knowing about the stolen cards.

## 3. **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 Bank America 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 Bank America 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, Master-charge changed their logo and came out with the iconic red and orange overlapping circle. However, it was not until ten years later when Master-charge 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 weary of accepting 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.

#### 4. **1990s – Today**

To adapt to an ever-evolving 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 card:**

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:**

Being 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.

- **Bling Tag:**

The Bling Tag makes it even faster to pay via mobile device. It is a sticker that contains an NFC (Near Field Communication) chip. The NFC chip uses the same technology that is in your traditional credit or debit card. Any Bling Tag user simply has to tap their phone on the card acceptor machine just like tapping a credit or debit card. This is convenience at an entirely new level. Consumers can leave their wallets or purses at home.

- **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 YesCard allows you to access and use your loans any time any place and faster than anywhere else.

### **Pros and Cons of Plastic Money**

#### **Advantage of Plastic Money**

Plastic money aka polymer money is made out of plastic and has formed an important part of our daily life these days. It is easier to deal with cards than cash. Yes, the advantages of plastic money over cash has made it a best friend of many. It was in the 1950s the concept of plastic money came into being. When we say plastic money, it includes debit cards, ATM cards, credit cards, prepaid cards, smart cards and so on. The main advantage of plastic money is that it avoids the necessity to carry huge cash and is also difficult to mutilate. The disadvantage being there are still many among us who do not know how to use a plastic card wisely.



- **Cards fit into the wallet easily:** It is essential that we need to have some sort of money in hand always as we never know when a need arises. But carrying a lot of cash in hand is not at all a wise idea. Also, who would want to carry a lot of cash in hand and make their wallet bulge out. In such situations, plastic money comes for help. Your wallet will remain perfect and your cash needs will also be sorted out. If required you can take cash using plastic cards. Also, it is safe when you have a card with you as even if it is lost, you can always call the bank and ask them to block it. This avoids misusing the card by any. But when it is cash, you are not left with that option and you will end up losing your money. Cards are waterproof hence you don't have to get panicked even if water spilled over your wallet. They are strong and durable.
- **Crime rates will decrease:** We are living in a world where thefts and crimes are on the increase. Keeping cash in hand is not a safe thing to do. It will not give you peaceful nights. So be practical and opt for plastic money. You do not have to worry when someone runs away with your wallet, as long as you only have plastic money in it. The guy needs, PIN number to use it hence he can't take the cash or swipe it. As soon as you know that you are pickpocketed, you can call the bank and ask them to block or cancel the card. If it was actual cash in its place, then it is easy for the thief. He can easily take the cash and throw the wallet somewhere. But with plastic money, his job has become a difficult one. He needs to know cracking techniques to find the PIN number to use the cards. Hence worries associated with theft will be less in case of plastic money. Another merit is that the fingerprints on a plastic card are clearer than that on bank notes.
- **Provides credit facility:** How about having a card that provides you a credit facility? That sounds good right? With the advent of credit cards, you can purchase anything today and you are given sufficient time to pay for it. Only with plastic money, you avail this credit facility. The advantage of having this facility is that you need not go behind people to borrow money in case of emergencies, instead, you can use the card in your hand. Also, you get ample amount of time to repay the amount. It is like a best buddy who helps you in case of financial needs. Purchase today and pay later, isn't that a benefit you are getting? This factor is one of the main reasons why people are attracted towards credit cards.
- **Tracking transactions becomes easy:** Having a track of your daily or monthly transactions is always good. By using the plastic money, you are automatically keeping a track of all your transactions. You can verify it later if required. When we are using bank notes, we might forget later for what we spend it, unless you have the habit of noting down every cash transaction you make. This is not the case with plastic cards. The banks normally send the statement of debit or credit card to its customers on a monthly basis which will have the list of all your transactions for that particular month. This transaction history might help us at times when we misplace a bill. We can show the transaction details to prove that we have made a purchase. Also, for us to have a check of our expenses or any particular transaction made in the past, these statements are useful.
- **0% Installment options:** Certain credit cards provide its customers the facility to convert their purchases from selected outlets to installment options of 3, 6 or 12 months at 0% interest rate. The customer is given the option to select the period of installment which cannot be changed later. If you have selected 6 months installment plan and paid it off within 5 months, then you will have to pay an extra fee. Therefore, be careful and pay only according to the installment period selected. It is an amazing facility offered by the banks as it helps you to purchase that thing you wish today and pay in equal installments within a period of specific time. Will you avail this facility if you are using cash? A big No is the answer. Therefore, this is indeed an advantage of plastic money.
- **Convenience of making payments from home:** In olden days when there was no plastic money, we need to go personally to each place to make a payment be it utility payments or booking tickets. But now you can pay at your own convenience sitting at home with the use of plastic money. For example, you need to go to the travel agency to pay cash for your ticket, instead, you can book your ticket online. Also, when a travel agency is involved, they charge commission or fee but when you are booking the ticket directly from the airline's website, you are saving on it. Plastic cards can also be used for online purchases. We can see many online shops coming up these days. If you find something interesting on a website and would want to have it, you can always purchase it anytime using plastic money. Another advantage is that certain websites do not charge you the service fee if you are making payment through plastic money as the payment is done upfront. A service fee will be charged in cash on delivery option. Plastic money can be used 24 \* 7 for online purchases.
- **Is internationally acceptable:** One of the main advantages of plastic money is that the same card can be used locally as well as internationally. For example, you can get rid of the hassle of converting the cash into the currency of the country you are planning to travel. If you have an international debit or credit card, you can make your purchases with that card itself. So, the problem of running out of cash will not happen even if you are abroad and that helps you to have a safe journey without worrying about the cash and budget. Sometimes we end up not buying something that we actually like due to insufficient cash but when you have a credit card with you, you can always purchase it and pay later. Especially from abroad as it is not practically possible to visit the country again to buy stuff.

**Disadvantages of Plastic Money:**

Like everything, plastic money also has its own merits and demerits. We should wisely use it keeping all the below points in mind. If you are clever, you can make use of the cards but not everyone can be clever. So, for those who are not well aware of the cards and its disadvantages should always be careful to avoid themselves being in trouble. Many people play with cards and might not end up paying a single penny as interest. Never follow them as not everyone is smart with cards and we might end up losing money.

- **Just plastic money won't help always:** Plastic money is not a complete replacement for cash. In certain places, we need cash itself. While buying fish from the market or when paying to the newspaper boy, we need cash itself as they do not carry POS (Point of Sale) machine to swipe the plastic money. Similarly, we pay money at religious places for offerings, there also they do not take plastic money. Unless we have the facility to use plastic money everywhere, we cannot replace cash completely. Still, there are small retail shops which do not take plastic money. In villages, hardly we find any shops that accept plastic money. It makes us necessary to carry some cash always for our safety.
- **Plastic Money is also not 100% safe:** There is a certain amount of risk involved in transactions which involves plastic money as well. Especially when doing online shopping. We are exchanging the details relating to our card over the internet which is not always a safe place. Some websites are just set up to steal our financial information and loot money thereby. We should not fall in to such scams and hackers. One should be a smart online shopper in this world.
- **Minimum purchase requirements:** One of the major disadvantages of using plastic money is that one needs to make a minimum purchase in order to swipe their card. For instance, if the minimum purchase is Rs. 50.00; and we have purchased items for only Rs. 40.00, you can't use your card for this transaction unless you purchase for Rs. 50.00. In this case, you will have to purchase something unnecessary to make it Rs. 50.00. If we had sufficient cash in hand, we could have avoided spending extra Rs. 10.00.
- **Service charge in certain cases:** When we are using plastic money instead of cash, in certain cases the bank charges a service charge for the purchase of certain items. For instance, in some countries, the service charge is levied on card transactions when you purchase gold from jewellery. When paying cash, this additional charge will not be taken.
- **Card too can get damaged:** Imagine a situation wherein you have made a purchase and when at the counter you realize that your card is damaged or when trying to swipe, the transaction is not getting proceed due to some chip error or damage. You will definitely wish if you had some cash in hand. These cases occur only when plastic money is used. It might be a rare case but the possibility cannot be completely ignored.
- **Interest, for non-payment:** A credit card allows you to purchase today and pay for at a later period of time. It gives you a credit period, but if we fail to make the payment within the due date, interest will be charged. When we are using cash, we are not taking any credit from the bank, hence non-payment does not occur.

**Conclusion about Pros and Cons of Plastic Money:**

*We are living in a world where almost every other person holds plastic money along with cash. But we should know the advantages and disadvantages of it in order to use the plastic money efficiently. It is true that at times plastic money is of great help but we should admit that it is not the case always. One should be wise when using plastic money or cash. Whatever it is, money has value and we should not fall a victim for thefts be it online or not.*

**Credit Card vs Debit Card**

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 your bank account and money is debited from the account as soon as the transaction occurs. Credit cards are different; they offer a line of credit 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. So, when you use a credit card, the issuer pays the merchant and you go into debt to the card issuer.

*Credit Card versus Debit Card comparison chart*

	Credit Card	Debit Card
<b>About</b>	Credit cards are lines of credit. When you use a credit card, the issuer puts money toward the transaction. This is a loan you are expected to pay back in full (usually within 30 days), unless you want to be charged interest.	Any time you use a debit card to buy something, money is deducted from your account. With a debit card, you can really only spend the money you have available to you.
<b>Connected To</b>	Not required to be connected to a checking account.	Checking or Savings Account
<b>Monthly Bills</b>	Yes	No
<b>Application Process</b>	Somewhat difficult, depending on one's credit score and other details.	Easy, with basically no barrier to receiving a debit card.
<b>Spending Limit</b>	The credit limit set by the credit issuer. Limits increase or stay the same over time as a borrower's creditworthiness changes.	However, much is in the bank account connected to the card.
<b>Interest Charged</b>	If a credit card bill is not paid in full, interest is charged on outstanding balance. The interest rate is usually very high.	No interest is charged because no money is borrowed.
<b>Security</b>	Credit cards in the U.S. are not very secure in and of themselves because many still use dated card security technology. However, consumers are not held liable for this poor security.	A PIN makes them secure so long as no one steals the card number and PIN, and as long as you don't lose the card itself. If the card/info is stolen, debit cards are very insecure.
<b>Fraud Liability</b>	Low. Rarely held liable for fraudulent activity. If you are, you are only held liable for a maximum of \$50.	High. If someone steals your card and makes purchases, that money is removed from your bank account. Investigating this damage takes time. The longer you wait to report the fraud, the more likely you will be held liable for your own losses.
<b>Credit History</b>	Responsible credit card usage and payment can improve one's credit rating. Credit cards typically report account activity to at least one of the three major credit bureaus on a monthly basis.	Does not affect credit history.



*Credit Card versus Debit Card comparison chart*

	Credit Card	Debit Card
<b>Overdraw Fees</b>	Low. Some credit card companies allow to overdraw amount over the maximum credit line with a fee.	High "overdraft" fees. Possible to overdraw amount over the account limit.
<b>PIN</b>	In the U.S., this is uncommon, but PINs are being phased in.	Usually

**Steps Taken by Indian Government to Use Plastic Money or Digital Payment**

The Digital India programme is a flagship programme of the Government of India with a vision to transform India into a digitally empowered society and knowledge economy. "Faceless, Paperless, Cashless" is one of professed role of Digital India. As part of promoting cashless transactions and converting India into less-cash society, various modes of digital payments are available.

Prime Minister Narendra Modi's master plan to handle the after-effects of the demonetisation is much like an onion -- many-layered and occasionally tear-inducing. From choking the parallel economy to pushing cashless transactions, the move has created ripples that will not die down anytime soon.

After demonetisation, there has been a surge in the digital transactions through use of credit/debit cards and mobile phone applications/e-wallets etc. To further accelerate this process, the Central Government has announced a package of incentives and measures for promotion of digital and cashless economy in the country. According to a release by Ministry of Finance, the incentives/measures are as following:

- I. The Central Government Petroleum PSUs shall give incentive by offering a discount at the rate of 0.75% of the sale price to consumers on purchase of petrol/diesel if payment is made through digital means. Nearly 4.5 crore customers buy petrol or diesel at such petrol pumps per day who can take benefit of this incentive scheme.
- II. To expand digital payment infrastructure in rural areas, the Central Government through NABARD will extend financial support to eligible banks for deployment of 2 POS devices each in 1 Lakh villages with population of less than 10,000. These POS machines are intended to be deployed at primary cooperative societies/milk societies/agricultural input dealers to facilitate Agri-related transactions through digital means. This will benefit farmers of one lakh village covering a total population of nearly 75 crore who will have facility to transact cashless in their villages for their Agri needs.
- III. The Central Government through NABARD will also support Rural Regional Banks and Cooperative Banks to issue "Rupay Kisan Cards" to 4.32 crore Kisan Credit Card holders to enable them to make digital transactions at POS machines/Micro ATMs/ATMs.
- IV. Railway through its sub-urban railway network shall provide incentive by way of discount upto 0.5% to customers for monthly or seasonal tickets from January 1, 2017, if payment is made through digital means. Nearly, 80 lakh passengers use seasonal or monthly ticket on sub-urban railways, largely in cash, spending worth nearly Rs.2,000 crore per year. As more and more passengers will shift to digital means the cash requirement may get reduced by Rs.1,000 crore per year in near future.
- V. All railway passengers buying online ticket shall be given free accidental insurance cover of up to Rs. 10 lakhs. Nearly, 14 lakh railway passengers are buying tickets everyday out of which 58% tickets are bought online through digital means. It is expected that another 20% passengers may shift to digital payment methods of buying railway tickets. Hence nearly 11 lakh passengers per day will be covered under the accidental insurance scheme.
- VI. For paid services e.g., catering, accommodation, retiring rooms etc. being offered by railways through its affiliated entities/corporations to the passengers, it will provide a discount of 5% for payment of these services through digital means. All the passengers travelling on railways availing these services may avail the benefit.
- VII. Public sector insurance companies will provide incentive, by way of discount or credit, up to 10% of the premium in general insurance policies and 8% in new life policies of Life Insurance Corporation sold through the customer portals, in case payment is made through digital means.
- VIII. The Central Government Departments and Central Public Sector Undertakings will ensure that transactions fee/MDR charges associated with payment through digital means shall not be passed on to the consumers and all such expenses shall be borne by them. State Governments are being advised that the State Governments and its organizations should

also consider to absorb the transaction fee/MDR charges related to digital payment to them and consumer should not be asked to bear it.

- IX. Public sector banks are advised that merchant should not be required to pay more than Rs. 100 per month as monthly rental for POS terminals/Micro ATMs/mobile POS from the merchants to bring small merchant on board the digital payment eco system. Nearly 6.5 lakh machines by Public Sector Banks have been issued to merchants who will be benefitted by the lower rentals and promote digital transactions. With lower rentals, more merchants will install such machines and promote digital transactions.
- X. No service tax will be charged on digital transaction charges/MDR for transactions up to Rs.2000 per transaction.
- XI. For the payment of toll at Toll Plazas on National Highways using RFID card/Fast Tags, a discount of 10% is given from the year 2016.

### **Conclusion**

*We are living in a world where almost every other person holds plastic money along with cash. But we should know the advantages and disadvantages of it in order to use the plastic money efficiently. It is true that at times plastic money is of great help but we should admit that it is not the case always. One should be wise when using plastic money or cash. Whatever it is, money has value and we should not fall a victim for thefts be it online or not. I hope that you enjoyed the overview of plastic money. Taking advantage of these new technologies could prove to be the first step in securing a company's competitive edge.*

