INTRODUCTION

The development of information technology and emerging a number of new innovations are taking place in the area of retail payments known as electronic money (Al-Laham, 2009) or plastic money. Recent evolutions of the technology for financial transactions pose interesting questions for policy makers and financial institutions regarding the suitability of the current institutional arrangements and the availability of instruments to guarantee financial stability, efficiency and effectiveness of monetary policy (Arnone and Bandiela, 2004). Gormez and Capie (2000) asserted that, as a financial innovation, electronic money has captured the attention of central banks, financial regulators, law enforcement agencies, financial practitioners and academic alike. The dominance on these deliberations has been concentrated on law enforcement agents, consumer protection, financial system stability, monetary policy and the implications of plastic money adoption. Further, the emerging of plastic money is argued to enable private entities (banks, online shopping sites etc.) to issue media of exchange that are atleast as liquid as cash and coins while dominating them in their rate of return (Schmitz, 2000). NPSD-SARB 2006 indicated that central banks worldwide are constantly reviewing their position with regard to electronic commerce, internet banking and plastic money. More specifically, they are continuously investigating the impact that these products will have on their functions as well as the regulatory and operational requirements that are necessitated thereby. The use of plastic money has been expanding quite rapidly, and its development is a prominent trend in the area of retail payments (BOJ, 2008). It is expected to continue to evolve as a retail payment option in response to consumers changing needs and further, a development in safety and efficiency. In the opinions of Al-Laham et al. (2009), this development has been influencing in the banking industry due to the increased use of pre-paid card, e-purse, and e-wires of money orders, e-banking and e-loans.

There are several possible scenarios in making plastic money acceptable in several economies. Hove (2003) argues that if a central bank want to play a leadership role in the local development of (plastic) electronic money, it obviously has a range of options: it can issue e-money itself (example of Finland), it can participate in an
operator (example of South Korea), it can impose standard for private initiatives (example of India), it can play a co-ordinative and supportive role in an industry – led standardization process (example of South Korea) etc. Making plastic money legal tender is potentially the most extreme option available. However, here too, several scenarios are possible depending on: The precise content of the legal tender concept, who issues the electronic money (Central bank or private issuers), the degree of interoperability between the various schemes and status of traditional cash. In India, like other developing economies, a gradual switch over from the use of paper-based payments media to those based on electronics has been witnessed (RBI, 2002). While the basic characteristics of these new instruments are by and large similar to those of old, paper-based instruments. These, however, present a different set of challenges to policy makers. In the Indian market, the development of plastic money is probably the most significant phenomenon of the modern banking era. Plastic money, comes in various forms but the most predominant form that it takes is that of credit card. Plastic money and other forms of electronic payments are nothing but newer and more convenient options of payment. Even though today, cash is still the order the day, as a payment mechanism plastic money is making incisive forays into the cash turf. In fact, in the western developed world, higher value purchases are increasingly being made through plastic and cash in relegated to the world of low value purchases.

This study is an attempt to unveil the perception held by card users and member establishments in India. Efforts have been made to investigate the legal and regulative framework existing in India under which plastic money is governed and compare it with that of one of the developed nations apparently USA. The growth and progress of plastic money was assessed to bring up a clear picture of trends in India.

1.1 Origin of Plastic Money

Money is the most important and useful inventions made by man. The word “Money” has been derived from the Latin word “Moneta” which denotes the Roman goddess Juno in whose temple money used to be minted (Crowther, 1972). We know that this man made instrument became essential for the development of social economy which is principally a monetary economy. An economic system in which exchange is
facilitated by the use of money, as distinct from a barter system, where no money is employed. In barter system, there is the direct exchange of commodities and services against commodities and services in the society. In other words, barter system is a system in which people sell goods and services through direct exchange. Thus, it served the self interest of every individual in society. It has been observed that the barter system of exchange usually flourishes among the uncivilized and economically backward communities and countries (Devraj, 2004). It is next to impossible that all wishes of bartering individuals should coincide as to the kind, quality, quantity and value of the things which are mutually desired, especially in modern economy in which on a single day millions of persons may exchange millions of commodities and services. The functioning of barter system was, however, cumbersome and inconvenient involving great waste of time and effort. In barter system of exchange, people had to encounter the problems like: inconvenience of lack of double coincidence of wants, common measure of value, mean of sub division, store of value. The inconvenience and difficulties of the barter system led to the evolution and growth of a common unit of account. It has been observed that barter system of exchange was suited to the primitive conditions under which the requirement of human life were simple and limited only. It is obvious that under pure barter exchange only a very primitive economy where people produced and exchanged only very few goods and services could exist (Vaish, 1997). But with the passage of time, people grew in the scale of civilization, wants multiplied and with the division of labour, the difficulties and inconvenience encountered in barter system became serious and intolerable.

The origin of money came as a multifold blessing to the mankind as the barter system of exchange was an outmoded way of life for those people who were keen to grow and impatient to conduct their trade cheaply and efficiently in many commodities. Money deserves to be ranked among man’s outstanding inventions. By overcoming the difficulties of barter, man has made possible a tremendous saving of time and trouble in marshaling productive factors and distributing the output to ultimate users. (Kent, 1972).

According to Kutty (1979), money was introduced by people to remove the inconvenience and difficulties encountered in the barter system. It became necessary to
invent a system, a medium of exchange, which is free from handicaps of barter. Money was found to be the best and lasting solution. However, it would be a great mistake to presume that money was discovered and introduced overnight. The introduction of money came as a multifold blessing to mankind. Money is one of the most fundamental of man’s inventions. Every branch of knowledge has its fundamental discovery. In mechanics it is the wheel, in science it is the fire and in politics the votes. Similarly, in economics in the whole commercial side of man’s social existence money is the essential invention on which all the rest is based (Crowther, 1972). From its very invention, money was circulated in society in different forms. Money can be classified on different criteria, like the physical characteristics of money material like animal money, metallic money, etc. In the beginning, ordinary commodities like furs, skins, jaws of animals, etc were used as money. The commodity money change in form and given the way to metallic money which in turn has given way to paper and credit money.

Money has been around in one form or the other with some or all of the functions and characteristics, since almost 5000 BC. It has evolved over thousands of years to attain new characteristics and to perform new functions. Even today money is evolving. In fact, the 20th century has seen money change form like no other. Today, plastic payments are common in most developed nations and are gaining around in developing and to some extent under developed countries too. Plastic money are touted as ‘tomorrows’ payment system. We are all supposed to be moving towards a cashless society where most payments are purchases will be done by plastic (Mehta and Mehta 2001). Plastic money has certain advantages over traditional money just as paper money has certain advantages over metallic money. Coins are easy to carry around and useful for small value purchases. Paper currency which is printed in large denominations as well as small, unlike coins, is useful for large value purchases. It can also be stored in a much smaller place than coins. The disadvantage of paper money is that it gets mutilated faster than coins/ metal money. Plastic money has all advantages of coins and paper money. It differs from other existing forms of money in various ways. In comparison with cash, which uses only physical security features, electronic or plastic money products use cryptography to authenticate transactions and to protect the
confidentially and the integrity of data (ECB, 1998). It also has an added function of identification. Since the cards have a signature panel (some also have photograph of the card holder), the acceptor of the card money can verify if the holder is the legitimate holder of the plastic card. Like conventional money, plastic money can function as a medium of exchange, a unit of account and a store of value. It is meant to the used in place of coins and banknotes for the purpose of making electronic payments of small amount (FSA, 2001).

Plastic money also keeps track of the transactions as they are incurred along with all details of the purchases such as shop name, date of purchase, amount of purchase, city of purchase, etc. Thus, the plastic card holder has the facility of ‘refreshing’ his memory about his purchases which is denied to the paper money holder. On a macro level, since this data is available electronically, spending patterns, emerging trends, demographic details and such other information can be compiled easily which in turn can be used for boasting economic development and for reducing unnecessary and superfluous survey costs. A major drawback of plastic money as payment mode is its heavy dependence on technology (satellites, phone lines, computer links, LANs, WANs etc). A snag in any one of these can cause a major disruption in acceptance procedures. Plastic money (mainly in the form of bank credit card) evolved due to the upsurge of consumer credit demand after world war II. Actually, the need to have a full-fledged credit operation (mechanism) in place was felt the most by small independent retailers who could not afford a large credit operation because to introduce and expand a credit plan requires substantial additional capital; which the small retailer did not posses. Plastic money in some form or the other has been around for the past hundred years. The range of payment systems is as diverse as the range of banks issuing plastic money. Bankers, stores and finance companies have found newer and even newer ways to cross payment frontiers through ingenious and extraordinary development and application of plastic money.

1.2 Meaning and Definition of Plastic Money

The term plastic money has been used in different settings to describe a wide variety of payment systems and technologies (Basle, 1996). “Stored-value” products are
generally prepaid payment instruments in which a record of funds owned by or available to the consumers is stored on an electronic device in the consumer’s possessions, and the amount of “stored value” is increased or decreased, as appropriate, whenever the consumer uses the device to make a purchase or other transaction. By contrast, “access” products are those typically involving a standard personal computer, together with appropriate software, that allow a consumer to access conventional payment and banking products and services, such as credit cards or electronic funds transfers, through computer networks such as the internet or through other telecommunications links (Hanacek, 1998).

According to Basel (1998) plastic/electronic money refers to “stored value” or prepaid payment mechanisms for executing payments via point of sale terminals, direct transfers between two devices, or over open computer networks such as the internet. Stored value products include “hardware” or “Card-based” mechanisms (also called “electronic purses”), and “Software” or “network-based” mechanisms (also called “digital cash”). Stored value cards can be “single – purpose” or “multi-purpose”. Single-purpose card (e.g. telephone cards) are used to purchase one type of good or services, or products from one vendor, multi-purpose cards can be used for a variety of purchases from several vendors. Also, RBI (2002) quoted European central Bank (1998) definition which states that plastic money is an electronic store of monetary value on a technical device used for making payments to undertakings other than the issuer without necessarily involving bank accounts in the transaction, but acting as a prepaid bearer instrument. Basle (1998) argues that banks may participate in electronic money schemes as issuers, but they may also perform other functions. Those include, distributing electronic money issued by other entities; redeeming the proceeds of electronic money transactions for merchants, handling the processing, clearing, and settlement of electronic money transactions; and maintaining records of transactions.

Plastic money which includes stored value card could be of three types–single–purpose card, closed-system or limited-purpose card and general-purpose or multi-purpose card. The single-purpose card generally with a magnetic chip recording the amount of fund therein is designed to facilitate only one type of transaction e.g., telephone calls, public transportation, laundry, parking facilities etc. Here, the
distinguishing point is that the issuer and the service provider (acceptors) are identical for the cards. These cards are expected to substitute coins and currency notes. The closed system or the limited-purpose cards are generally used in a small number of well-identified points of sale within a well-identified location such as corporate/university campus. The multi-purpose card on the other can perform variety of functions with several vendors viz., credit card, debit card, stored value card, identification card, repository of personal medical information etc. These cards may reduce demand for currency accounts in the bank for likely reduction in transaction costs, and prudent portfolio management.

1.2.1. Properties of Plastic Money

When implementing an plastic money a big effort has been made to make an plastic money as close as possible to real, physical money. Okamoto and Ohta (1972) presented the following six properties of an ideal electronic payment system:

- The security of plastic money does not depend on a special physical conditions. No special hardware is necessary and money can be sent over the network.
- Plastic money cannot be copied, modified, or double-spent.
- Anonymity and non-traceability. Privacy of user is protected. No-body can deduce the link between user and his payment. The customer may perform operations anonymously.
- The Protocol for plastic payment between customer and merchant can be performed off-line. No direct link to third party (e.g. bank) is necessary.
- The plastic money can be transferred to any other user.
- The plastic coin C can be divided to any number of other coins. Any of these coins can have any value, smaller than C, and the sum of value of these coins is equal to the C.

1.3 History of Plastic Money

1.3.1 History of Credit Card

The word Credit comes from a Latin word meaning trust. In the 21st century using credit cards seems to be a way of life that is generally taken for granted. Whatever
needs or wants cannot be met with cash, can easily be obtained via credit, credit cards per se, however, have quite an interesting history. Credit was first used in Assyria, Babylon and Egypt 3000 years ago. The bill of exchange—the forerunner of banknotes was established in 14th century. Debts were settled by one-third cash and two-thirds bill of exchange. Paper money followed only in the 17th century. The first advertisement for credit was placed in 1730 by Christopher Thornton, who offered furniture that could be paid off weekly. He introduced the idea of ‘have now and pay later’. Since clearly, this is an appealing idea to all parties involved, the idea was easily accepted and adopted by others. Credit cards date back to 1914 when western union provided metal cards giving free, deferred-payment privileges to preferred customer. These cards came to be called “metal money.” In 1924, general petroleum corporation issued the first metal money for gasoline and automotive services first to employees and select customers and later to the general public. In the late 1930’s, American Telephone and Telegraph (AT and T) introduced the “Bell system credit card.” Soon, rail roads and airlines introduced similar cards. Credit cards grew in popularity until the beginning of world war II when ‘Regulation w’ restricted the use of such Cards during the war and temporarily suppressed the growth of this new payment alternative. But this only heightened people’s desire to be allowed to ‘charge it’ once the war was over. People were ready to move on with life, travel, have nice things in their homes, have nice vehicles and they wanted it sooner rather than later. Credit made this possible on a restricted budget. The American banks recognized the need to satisfy private credit purchasing particularly for consumer durable items. Many banks entered the field in the late 1950s and early 1960s but there was no co-ordination for widespread acceptance. Though many banks had ceased to issue cards by early 1960s the elements for success were present in a system created by the Bank of America in California. Bank card association began in 1965 when Bank of America formed licensing agreements with other banks. This enabled them to issue Bank Americard and interchange transactions among participating banks. By 1966, fourteen US (United States) bank formed interlink, a new association with the ability to exchange information on credit card transactions. In 1967, four California banks formed the Western States Bankcard association and introduced the Master Charge program to compete with the Bank Americard program. As the bankcard
industry grew, bank interested in issuing cards became members of either Bank Americard or mastercharge. Their members shared card program costs, making the bankcard program available to even small financial institutions. Master charge and Bank Americard developed rules and standardized procedures for handling the bank card paper flow in order to reduce fraud and misuse of cards. The two associations also created international processing systems to handle the exchange of money and information and established an arbitration procedure to settle disputes between members. In 1977, Bank Americard became VISA, and in 1979, Master Charge changed its name to Mastercard.

Both VISA and Mastercard are non-profit organization which credit cards, set and maintain the rules for processing. Both of these are run by board members who are mostly high-level executives from their member bank. These two international cards are very popular and are accepted and honoured all over the world in 170 countries. These two independent card companies led to latest innovations in the credit card business.

Now, the credit card system has become universally popular throughout the world including the communist countries. Credit cards are now issued by most banks to customers with sound credit ratings. Although it is claimed that the idea of credit card was first developed by a Bavarian Farmer and Franz Nesbitum, the credit card first appeared in U.S.A. and is now spreading throughout the developed countries.

United States: The departmental stores in U.S.A. were issuing regular customers, as early as 1915, with what they called ‘credit coins’. During the 1920s, the oil companies came up with the idea of ‘courtesy cards’, which were initially honoured at company stations only. Gradually, more and more garages began to honour the courtesy cards as the companies came to reciprocal arrangements. However, it must be stressed that these cards were merely an extension of the monthly account system which had been running from time immemorial, in as much as full settlement was expected at the end of each month. It has been the check trading system which led to ‘extended credit’ as we know it and in 1946 John C. Briggin of Flatbush National Bank, New York, introduced his ‘Change-it’ plan. The plan, in principle, was little different from Provident Clothing’s scheme, with the important exception that the finance was provided by a bank. During the early 1950s came ‘sales draft principle’ which can be said to be the rationale behind
modern bank credit cards. In the mean time, in 1950, the Diner’s Club was launched, which has a story behind it, it is claimed that McNamara, an American businessman once found himself without cash at a week-end resort and founded the Diner’s Club. The Diner’s Club was the logical extension of the monthly accounts system and the first of the ‘Travel and Entertainment’ i.e. T and E cards. The next decade witnessed the floating of American Express and Carte Blanche cards. The importance of Diner’s Club in historical terms is immeasurable as it was the first card system to be run independently of a retail organisation. The bank credit card as we know it today was made possible by the invention of the sales draft principle in 1951, by William Boyle of the Franklin National Bank of Long Island, New York. The sales draft principle combined the best elements of the check trading scheme and the monthly account system, in that it provided a fixed line of credit which operated on a revolving basis. The customers were provided the facility of using their cards to make purchases upto their ‘credit limit’, and they could continually ‘top up’ to this limit as long as they made a minimum monthly repayment. Thus, the idea of extended credit was introduced whereby the consumer can opt to pay back only part of the debt to the card company, and pay interest on the remainder. In 1952, the Franklin National Bank launched the first bank credit card, and in the next few years over 100 other banks in the USA started up schemes of their own. The commercial banks and non-banking companies adopted the idea of credit cards to develop their business. But, many of these schemes never got off the ground since the problems of running such schemes were grossly under estimated by the pioneers in the field.

The credit card system began to work earnestly with the stepping in by the big banks. In 1958, the Bank of America, launched the Bank Americard. In 1966, the Western States Bankcard Association set up the Mastercharge, the great rival of Bank Americard. These banks aiming at international market, the banks of Americard network later went on to form IBANCO, and those involved with Mastercharge founded Interbank. Thus, by the end of 1960s, the USA had seen the development of three very distinct types of Credit, viz., the T and E cards, the department store type cards, and the bank credit cards. The T and E cards had grown steadily over this period but then have changed little since their inception in 1950. The three main cards, viz., Diner’s club,
American Express and Carte Blanche, are basically very similar in their method of operation. Their card holders all have to pass a rigid credit test, involving a minimum level of income and a spotless credit record. The main source of income of these card companies is from the annual fee charged to the cardholder, and the service charge on the retailer goes towards operational costs. The bills are generally payable once a month on receipt. But there is a time gap before interest charges become liable and all the cards are accepted worldwide by hotels, airlines, car-hire firms and shops. There is no ‘credit limit’ as such and none of the cards provide a general ‘extended credit’ scheme although there are exceptions. For example, payment of air tickets through American Express cards can be met over 3, 6, 9 or 12 months with a monthly interest. Basically, all the cards are intended mainly for the well travelled executive, who finds them invaluable for entertaining clients. Because of this only, the cards have obtained the nick name of ‘Travel and entertainment’ cards. They are used for convenience, and not as means of obtaining extended credit. By the 1960s, the T and E cards were busily engaged in extending their operations overseas. By the end of 1960s, the American Express, had more than 900 offices worldwide, and was expanding into such areas as travellers cheques and a poste restante address service. At the same time, the American Departmental stores were forging ahead with their own systems. By 1970, Interbank and bank Americard possessed a virtual monopoly by sharing 90 per cent of the US outstanding bank credit card debt and by 1972 credit business in America through cards rose to 10 billions dollars. By 1980s the big struggle for supremacy was between the two giants, VISA and Master card. Visa Cards were sponsored by Visa USA, a non-profit corporation owned by issuing bank and the Master card was sponsored by Interbank Card Association, a non-profit organisation whose member banks share operating revenues and costs. Both these organisation charge cardholders interest in case of non-payment beyond a certain period and the goods and services at many stores that honour credit cards are priced higher to cover the service charge fee ranging from 3 to 5 per cent per sale collected by credit card companies. By 1985, VISA and Mastercard together accounted for business worth about 40 billion dollars annually. About 18 million families were owning three or more cards and were doing credit business of 50 billion dollars per year.
United Kingdom: The extent of the acceptance of the ‘plastic money’ as the credit cards came to be referred, by the British public who are traditionally less consumer oriented than the Americans, was not as great as was in the USA. The most widespread card system in Britain is the Barclaycard. Although it was the first British bank credit card, there is an erroneous belief that it was Britain’s first credit card. During the early 1960s the British public were not very much aware of the credit cards and most of them thought that they were something like hire purchase. However the first credit cards in England had made their entry about fifteen years before Barclay card was launched. A year after the Diner’s club scheme was introduced in USA, the Finders Service Club in London, during 1957 sought the permission of Diner’s Club, to start up a similar scheme, in Britain. The Diner’s club also agreed with the condition that Finders should also act as their agents in England. In the same year, finders began to issuing their own cards. Membership costing two guineas per year, was made available to almost anyone with credit at a bank. Soon afterwards Credit Card Facilities (CCF) company was set up. In 1962, the two companies merged, and went public in April, 1964 as Diner’s Club of Great Britain. Then the Westminster Bank of England took a 49 per cent stake the following year. In 1963, the American Express set up office in England and by 1967 it was being promoted by Lloyds and Martin’s Banks. By this time, the British banks, which were doing consumer lending since the early 1960s, began to show interest in the booming trade of credit cards in a variety of ways. The National Provincial Bank, introduced the first cash card in September, 1965. Reacting to the introduction of Barclaycards, four other banks brought out cheque guarantee cards. Though a rival to Barclaycard was not thought necessary during the 1960s, as Westminster Bank had stakes in Diner’s Club, the Lloyds in American Express and the Midland was using cheque cards through its subsidiary, Forward Trust. In 1972 the Access Credit Card was issued by three major clearing banks. In conformity with the international Blue, White and Gold system originated by Bank Americard, the Barclays set up the Barclaycard which had an original target of one million cardholders and 30,000 merchants. By 1972, it had over 1.7 million cardholders and 52000 merchant outlets, and after several years of operation it was beginning to make a profit. Its usage for direct cash withdrawals on the card account itself was turning it into an increasingly versatile monetary instrument.
The Lloyds, Midland and National Westminster, along with nine other banks appraised the situation and as a result the Access card was launched. At the same time, in response to pressures from customers, in 1974, Barclays incorporated a cheque guarantee facility into the Barclaycard. As Barclaycard had overseas links for sometime with Bank Americard/IBANCO, the Access also began to have its overseas links through the Mastercharge/Interbank network. Parallel to the American situation the credit card systems of department stores and retailing chains also steadily grew over this period. The mid 1980s have seen the introduction of international cards, such as Eurocards, which are becoming more and more common.

**India:** In India, the foreign banks and organisation forayed first into the credit card market. The pioneer in the Indian field is the Citibank’s Diner’s Club Card which entered in 1969. Recognising the potentiality of the credit cards, a few Indian banks took early initiative to introduce them. However, it was only during 1981, when Andhra Bank introduced its own credit card, did the Indian Banks constructively enter the field. Andhra bank is the first nationalised bank to introduce it along with the Vijaya Bank. In the same year, the Central Bank of India in association with Vysya Bank, United Bank of India issued the Central Card. In 1985, the Bank of Baroda along with Allahabad Bank launched the Bobcard. The Mercantile Credit Corporation Limited’s Mercard came in 1986. The Canara Bank made later entry into the credit card business in 1987 and the Bank of India issued its own card, India card in 1988. Among the foreign banks the ANZ Grindlays Bank came with Visa Classic Card by 1989. Citibank’s Master and Visa Cards appeared in 1990 along with Taj Premium Card of the Bank of India which has also issued the ATM Card. Apart from these the Bank of Madura and Bank of Maharashtra also tied up with Canara Bank and Bank if India respectively for issuing their cards. The Indian Credit card market turned busy with all the twenty eight public sector banks operating in it. The State Bank of India has introduced also the State Bank cheque card. However, credit cards should not be confused with cheque cards, as they perform a quite different function, although certain credit cards can be used also as cheque cards. In 1992, the Hong Kong Bank entered the field with its Visa International and Mastercard International and recently it has launched the Hyatt Regency Preferred Gold Card.
1.3.2 History of Debit Card

ATM and debit card transactions take place within a complex infrastructure. To the consumer and merchant, they appear to be seamless and nearly instantaneous. But, in fact, a highly complex telecommunications infrastructure links consumers, merchants, ATM owners and banks. The common attribute of all ATM and debit card transactions is that the transaction is directly linked to the consumer’s bank account – that is, the amount of a transaction is deducted (debited) against the fund in that account. A Debit card transaction involves the purchase of goods or services. In this case, the consumer present a debit card (which again was issued by the bank holding the checking account) to a merchant, and the consumer either enters a PIN (online debit) or signs a receipt (offline debit) to verify the consumer’s identity. The merchant, in turn, sends information about the transaction across one or more debit card networks, and if the transaction is approved, the consumer receives the goods or services and the checking account is correspondingly debited. The merchant is reimbursed by a credit to its bank account. An ATM card is typically a dual ATM /Debit card that can be used for both ATM and debit card transactions. Many ATM/Debit cards offer the consumer both types of debit card transactions, online and offline.

The history of debit cards is an interesting one. The late 1960s marked the beginning of modern ATM and Point of Sale (POS) systems, although the concept of ATMs and debit cards existed prior to this. It might be argued that the first ATMs were cash-dispensing machines. England’s Barclays Bank, for example, installed the first cash dispenser in 1967. But it did not use magnetic-stripe cards. Customers were issued paper vouchers after that were fed into the machine, which retained the voucher and dispensed a single £10 note. Don Wetzel has been credited with developing the first modern ATM. The idea came to him in 1968 while waiting in line at a Dallas bank, after which he proposed a project to develop on ATM to his employer, Docutel. A major part of the development process involved adding a magnetic stripe to a plastic card and developing standards to encode and encrypt information on the stripe. A working version of the Docutel ATM was sold to New York’s Chemical Bank, which installed it in 1969 at its Rockville center (Long Island, N.Y.) office. Although the Docutel ATM did the modern magnetic stripe access card, the technology remained
primitive compared with today’s. The Docutel ATM only dispensed cash and was an offline machine. To enable payment processing, the machine printed a transaction record that was MICR encoded. By the early 1970 ATM technology advanced to the system. ATMs were first accessed primarily with credit cards, but in 1972, City National Bank of Cleveland successfully introduced a card with an ATM but on debit card function. ATMs were developed that could take deposits, transfer money from cheque to saving or savings to cheque, provide cash advances from a credit card, and take payments. ATMs also were connected to computers, allowing real-time access to information about card holder account balances and activity. By connecting a string of ATMs to a centralized computer, banks established ATM network. At first, ATMs were located on the premises of bank offices, but off-premises ATMs soon followed. Grocery stores and convenience stores quickly recognized the benefits of installing ATMs on their premises.

Grocery stores also led in installing POS debit systems, starting with the Massachusetts grocery chains of Angelo’s and starmarkets in 1976. By the early 1980s, serious testing of POS debit began at many of the large gas station chains. However, throughout the 1980s and into the 1990s, the volumes of POS debit transactions remained modest, mired by conflicts between merchants and banks over payment of transaction fees and the cost of POS terminals, and by the existence of multiple technical standards. The 1980s marked several important developments for Electronic Fund Transfer (EFT) networks. In contrast to POS debit, the ATM system was flourishing. In 1982, VISA acquired ownership positions in the regional network plus and began to build a national EFT network. Perhaps more important, in 1985 the U.S. Supreme Court held that ATM’s did not represent bank branches. Until the time there had been considerable legal uncertainty about the legal status of ATMs. If ATMs were considered branches, the limitation on interstate branching would affect their placement and, in turn, might put any EFT network that operated across state lines in legal jeopardy. The decision by the U.S. Supreme Court encouraged interstate EFT networks. By removing a potential barrier to forming networks across state lines, it also was a factor in beginning a trend toward consolidation of shared networks. In the mid-1990s most of EFT development was in the debit arena. The impasse between merchants and
banks finally broke down as merchants sought to reap the benefits of on line debit and banks pushed for more efficient payment systems. Debit terminal installation accelerated and the number of online and offline debit transactions grew rapidly. Perhaps following the trend toward consolidation of ATM networks, POS networks started to consolidate. Debit cards have been used more extensively in recent years for a number of possible reasons. It is relatively easy to add a debit function to an ATM card and because the base of ATM card holders was well established in the 1980s, it was not difficult for banks to establish a similar base of debit cardholders. Aggressive marketing on the part of banks helped familiarize debit card holders with the instrument, as did the emergence of Visa and Mastercard’s offline debit products, which opened up their credit card infrastructures to debit cardholders.

1.3.3 History of Smart Cards

The proliferation of plastic cards started in the USA in the early 1950s. The first all-plastic payment card for general use was issued by the Diners Club in 1950. Acceptance of these cards was initially restricted to more select restaurants and hotels, which led to this type of card being referred to as a ‘travel and entertainment card’. The entry of VISA and Mastercard into the field led to a very rapid proliferation of plastic money, at first in the USA, with Europe and the rest of the world following a few years later. At first, the cards’ functions were quite simple. They initially served as data carriers that were secure against forgery and tampering. General information, such as card issuer’s name, was printed on the surface, while personal data elements, such as the cardholder’s name and the card number, were embossed. Furthermore, many cards had a signature field, in which the cardholder could sign his or her name for reference. In these first-generation cards, protection against forgery was provided by visual features, such as security printing and the signature field. With increasing proliferation in card use, these rather basic features no longer proved sufficient, all the more so since treats from organized crime were growing apace.

The first improvement consisted of a magnetic strip on the back of the card. This allowed digital data to be stored on the card in machine-readable form, as a supplement to the visual data. However, the customer’s signature on a paper receipt, as a form of personal identification, still remains a requirement in a classical credit card applications.
New applications can however be devised in which paper receipts are unnecessary. The use of a secret personal identification number (PIN) that it compared to a reference number has become generally accepted. The embossed card with a magnetic strip is still the most commonly used type of payment card. Magnetic strip technology suffers from a crucial weakness, however in that the data stored on the strip can be read, deleted and rewritten at will by anyone with access to the appropriate equipment. It is thus unsuitable for the storage of confidential data. Additional techniques must be used to ensure confidentiality and to protect against tampering. For example, the reference value for the PIN can be stored either in the terminal or in the host system in a secure environment, instead of on the magnetic strip. Most systems that employ magnetic-strip cards thus have on-line connections to the system’s host computer for security reasons. However, this generates considerable data transmission costs. In order to reduce costs, solutions must be sought that allow card transactions to be executed off-line without putting the system’s security at risk. The development of the smart card, combined with the expansion of electronic data processing, has created completely new possibility for solving this problem. Enormous progress in microelectronic in the 1970s made it possible to integrate data storage and arithmetic logic on a single silicon chip measuring a few square millimeters. The idea of incorporating such an integrated circuit into an identification card was contained in a patent application field by the German investors Jurgens Dethloff and Helmut Grotrupp as early as 1968. This was followed in 1970 by a similar patent application, made by Kunitaka Arimura in Japan. However, the first real progress in the development of Smart card came when Roland Morena registered his smart card patents in France in 1974. Since the basic inventions in smart card technology come out of Germany and France, it is not surprising that these countries played the leading role in the development and marketing of smart cards. The great break through was achieved in 1984, when the French Postal and telecommunications services (PTT) successfully carried out a field trial with telephone cards. In this field trial, the smart cards immediately proved to meet all expectations with regard to protection against tampering and high reliability. A pilot project was conducted in Germany in 1984-85, using telephone cards based on the variety of technologies. Magnetic-strip cards, optical-storage (halographic) cards and smart cards were used in
comparative tests. The smart card proved to be the winner in this pilot study. In addition to a high degree of reliability and security against tampering, smart card technology promised greatest flexibility in future applications. Further developments followed the successful trials of telephone cards, first in France and then in Germany, with breathtaking speed. By 1986, several million ‘smart’ telephone cards were in circulation in France alone. The total number reached nearly 60 million in 1990 and several hundred million worldwide in 1997. Germany experienced a similar development, with a time lag of about three years. These systems were marketed throughout the world after the successful introduction of the public smart cards in France and Germany. Telephone cards incorporating chips are currently used in over 50 countries. Progress was significantly slower in the field of bank cards, which is partly due to their greater complexity in comparison to telephone cards. With the general expansion of electronic data processing in the 1960s, the field of cryptography experienced a sort of quantum leap. Cryptography had previously been a covert science in the private reserve of the military and secret services.

The smart card proved to be an ideal medium. It made a high level of security (based on cryptography) available to everyone, since it can safety store secret keys and also execute cryptographic algorithms. The French banks were the first to introduce this fascinating technology in 1984, following a trial with 60,000 cards in 1982-83. It took another 10 years before all French bank cards incorporated chips. In Germany, the first field trials took place in 1984-85 with a multifunctional payment card incorporating a chip. However, the Zentrale Kreditausseehub (ZKA), which is a committee of the leading German banks, did not manage to issue a specification for multifunctional Eurocheque cards incorporating chips until 1996. In 1997, all German savings associations and many banks issued the new Smart Cards. In the 2000, multifunctional Smart Cards with POS functions, an electronic purse and optional additional applications were issued in all of Austria. This made Austria the first country in the world to have a nationwide electronic purse system. An important milestone for the future worldwide use of smart cards for financial transactions was the completion of the EMV specification, which was a product of the joint effort of Europay, Mastercard and VISA. The first version of this specification was published in 1994. It contained
detailed descriptions of credit cards incorporating microprocessor chips and it guaranteed the mutual compatibility of the future Smart cards of the three largest credit card organizations. Electronic purse systems have proven to be an additional drawing card for the international use of Smart cards for financial transactions. The first such system, called Donmont, was put into operation in Denmark in 1992. There are currently more than 20 national systems in use in Europe alone, many of which are based on the preliminary European standard prEN 1546. The use of such systems is also increasing outside of Europe. Even in the USA, where Smart card systems have hardly taken root up to now a smart card purse system was tried out by visa during the 1996 Olympic Summer Games in Atlanta. However, the problems associated with making small payments securely but anonymously throughout the world via the public internet have not yet been solved in a satisfactory manner. Smart Card could play a decisive role in the solution of these problems. Yet another application has meant that almost every German citizen these days owns smart card. When health insurance cards incorporating chips were introduced, more than 70 million smart cards were issued to all persons covered by the national health insurance plan. The smart card’s high degree of functional flexibility, which even allows a card already in service to be reprogrammed for new applications, has opened up completely new areas of use that extend beyond traditional card applications.

1.4 Development of Plastic Money

Plastic money is gradually strengthening its position with the potential of further growth in the future. It is worthwhile to observe how plastic money will evolve in the future in a competitive environment in terms of safety, efficiency and convenience. The use of plastic money has been expanding quite rapidly and its development is a prominent trend in the area of retail payment. There are many evident advantage of an electronic mode of transfer as compared to conventional clearing house because banks are increasingly turning to technology for managing their payments. Some of the value attributes include secure payments, cost-cutting, payment on due date and easier cash management compared to conventional systems. Plastic money in recent years is gaining momentum in India as merchant establishments and customers are realizing the
safer mode of making payments compared to conventional payment. Financial institutions have realized the acceptance of traders and customers, which has motivated them in leveraging on these systems. The plastic culture is influencing into the daily purchasing habits of Indian customers and the payment card business is growing as never before. Over the past few years, customer attitude towards the use of traditional cash and cheques payments has changed drastically leading to improved way of making payment. With the change in technology and the improvement in the payment system has lead to further development in plastic money. This development in plastic money helps the customers to satisfied their ever changing needs. The development in plastic money in the modern era is as follow:

1.4.1 Debit Card

Debit cards are designed for customers who like paying by placard but do not want credit. A debit card is a plastic card which provides an alternative payment method to cash when making purchases. Functionally, it is similar to writing a cheque as the funds are withdrawn directly from either the bank account or from the remaining balance on the card. The debit card is thus ideal for those who have a tight budget and want to keep within it. There are two types of debit cards, namely, on-line debit cards and off-line debit cards. Making a purchase with an online debit card is similar to withdrawing cash from an Automated Teller Machine (ATM). The card is passes to a traditional magnetic reader, which is connected by a phone to a computer. On entering the personal identification number (PIN), computer verifies the PIN and checks to see if one has enough money in the bank to cover the transaction, all of which will not take more than a few seconds. Off-line debit cards work more like cheques, because there is no direct connection between store and bank. Off-line debit cards can be used wherever VISA or MASTER CARD are accepted.

1.4.2 Charge Card

A charge card is a mean of obtaining a very short term (usually around 1 month) loan for a purchase. Thus, a charge card is a convenience instrument, not a credit instrument. Under this facility, the cardholder needs to make a consolidated payment to the issuer for all purchases effected with the card during a specified period of time. There is no “minimum payment” other than full balance. A partial payment (or no
payment) result in a severe late fee and the possible restriction of future transactions and risk of potential cancellation of the cad. The Diner’s club card of Citibank, American Express, Travel and entertainment cards falls under the category of charge card.

### 1.4.3 Combi Card

These are magnetic stripe plastic cards with a microprocessor chip attached to them. They can work as normal credit cards and also have an additional function of storing information which store loyalty points, information about balance etc. ABN-Amro and ICICI bank have already launched this card which can store loyalty points for customer and customers can redeem their points from the card itself.

### 1.4.4 Smart Card

Smart cards, sometimes called chip cards, contain a computer chip embedded in the plastic. It has the capacity to store up to 80 times more information than other magnetic stripe cards. Smart cards carry the electronic proof of its holder’s identity enabling its holder to make secure purchases anywhere on the globe, leading to a dramatic increase in electronic commerce. It is estimated that by the year 2018, five billion smart cards will be in use in over 100 countries covering 24 percent of the world populations. Presently, smart cards are used primarily for telephones, healthcare, transportation, movies, fast food outlets, internet banking and loyalty programs. There are two types of Smart cards. First, contact Smart cards that requires insertion into a reader and contact less smart cards which requires only close proximity to an antenna via radio waves.

### 1.4.5 In Store Card

also known as in-house cards. These cards are issued to customers by a retailer or company and in general can only be used in that retailers outlet or for purchasing the company’s products. Store cards are enticing because they offer shoppers discounts for signing up, such as 10% or 15% off the first item cardholder buy. After that cardholders receive special offers and membership evenings to be a part of their little club.

### 1.4.6 Affinity Card

A card offered by two organisation, one a lending institution, the other a non-profit group. Non-profit groups, schools, pro-wrestlers, popular singers and airlines are among those featured on affinity cards. Usually, use of the card entitles holders to
special discounts. Card users benefit from most of the facilities such as frequent flyer miles or reward points, the non-profit organisation receives some special incentives such as fraction of the annual fee or a small amount per transaction and the card company benefits from brand loyalty. In short, all three wins. Some affinity cards are also a mechanism to donate money to a charity or cause. For every rupee that cardholder spend on the card, a percentage is donated.

1.4.7 Travel and Entertainment Card (T and E)

These are primarily for travel and entertainment purposes and known as ‘T and E’ cards. They are a method of payment rather than a source of credit and did not provide a credit limit. In this category, the Diner’s club was the first to appear in America and was introduced to Great Britain in 1951, a year after its launch in America. These cards only offer credit for the brief period between purchase and billing. If full settlement is not made on time, resulting in an overdue account and penalty is normally imposed. However, no interest is charged-instead a joining or annual fees is levied. Additional revenue is generated from the ‘T and E’ company by charging merchants a commission on the sales, charged to the card.

1.4.8 Co-Branded Card

A credit or debit card issued jointly by a member bank, and a non financial organization, bearing a ‘brand’ of both. Co-branding is essentially two major brands converging to enhance the usefulness and image of the product. The benefit to the cardholder comes mainly in the form of reward schemes and discounts offered by the credit-card company. Co-branding, apart from the reward schemes with a number of redemption options, also allows for discounts at specific outlets when using the card, free merchandise, frequent buyer programme similar to frequent flyers points. For example, Bharat BOBCARD premium is a co-branded card issued in association with Bharat Petroleum Corporation Ltd. Stan chart and Hindustan Lever Ltd. have a co-branded card to sell Aviance beauty products.

1.4.9 Student Credit Card

Students generally have little or no credit history. This type of credit card is set up to help students build up the credit history that most of them do not already have. If
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used wisely, a student can take the first step towards building a solid credit history with student credit card.

1.4.10 Farmers Green Card/Rural Card

Farmer green card can be issued to parties for undertaking any activities coming under the purview of direct finance to agriculture. The scheme enables the cardholder to get instant credit from the branch which has issued the card. These cards provide farmers to buy agricultural inputs without repeating visits to the bank branch. Dena Bank took the initiative to launch Rural card. Presently banks like Canara Bank, Corporation Bank, are also providing the same.

1.4.11 Credit Cards for Bad Credit

Credit can easily go from good to bad with poor judgement, mismanagement of credit cards or simply a change in job or financial situation. This does not mean one’s cannot get a credit card. There are several options available for the people who had bad credit in the past and for these who are currently trying to “rebuild” poor credit histories—There are: 1. Secured Card 2. Prepaid Card

Secured Credit Card Secured credit cards requires collateral for approval. With secured credit card, a security deposit of a predetermined amount is needed in order to secure the credit card. Generally, the security deposit needs to be of equal or greater value to the credit amount. Collateral comes in the form of a car, a boat, a jewellery, stocks as anything else of monetary value. Secured credit cards are for people with either no credit or poor credit who are trying to build credit history. Prepaid card are, in fact, not credit cards at all but rather are used like credit cards, whenever credit cards are accepted. Prepaid cards are multipurpose payment cards that can be obtained by paying cash upfront. These cards can be used to make bill payments such as telephone bills or to make purchases at shops. These can only be used at point-of-sale terminals and for making payments but not for withdrawing cash. Some of the bank that issue prepaid cards are ICICI Bank, HDFC Bank, Kotak Mahindra Bank and Axis Bank.

1.4.12 Cheque Card

The card issued by a bank which guarantees the payment of a cheque within prescribed limit, whether presented for cash at a branch of a paying bank or to a trader for goods or services. The first cheque card was introduced by National Provincial Bank
in October 1965, guaranteeing payment of cheque upto £ 30. A cheque guarantee card is essentially therefore an abbreviated portable “letter of credit” granted to a qualified depositor, providing that when he is paying a business by cheque and the retailer writes a card number in the back of the cheque. The cheque was signed in the retailer presence and the retailer verifies the signature on the cheque against the signature on the card, then the cheque cannot be stopped and payment cannot refused by the bank. Cheques drawn against insufficient funds in this manner can result in an overdraft with penalty interest.

1.4.13 Switch Card

It is an electronic debit card which enables holder to make payments at retail outlets. The payments are directly to the retailer’s bank account from the cardholder bank account. It will be an extension of the debit card which may get into the market in the near future.

1.5 Operation of Plastic Money

Figure 1 illustrates the general structural model common to most electronic money systems, including participants and their in-tractions.

Cardholder is the person in whose name the card is and who being in possession of the card is legally entitled to buy goods and services from merchant establishment and is under an obligation to pay for the goods and services. The cardholder is an agreement with the issuer to pay for the goods and services bought on the card along with the various applicable charges and the interest due on the card. This agreement is known as the ‘cardholder agreement’ and is ratified by the cardholder as soon as he receives his card and sign on it.

Merchant establishment (MEs) is a shop or establishment which accept the card offered by the cardholder as a mean of payment for the goods and services provided. The merchant establishment (MEs) enters into an agreement with a bank, known as acquiring bank (since it acquires the business from the MEs). Under this agreement, the merchant establishment provides goods and services to the cardholder on credit and receives money from the acquiring bank within the few days (generally 1-4 days). The
MEs has to pay the commission to the acquirer for the services provided. The commission generally ranges between 2%-5% of the total sales value.

MEs can be divided into two main categories based on the machines provided to them by the acquirers. The machines are provided based on the volumes of the sale of the MEs. A high volume MEs provided with an electronic data capture (EDC) machine while a low volume MEs is provided generally with an imprinters are known as ‘manual merchant’. Such merchants are given ‘floor limits’ by the acquirers. The floor limit is an amount specified by the acquirer, below which the merchant need not take an approval but he must refer to hot card bulletin. If the transaction amount is above the floor limit, the merchant must take approval from his acquiring bank.

Acquiring bank is retained by the retailer or merchant to process the payment card transaction on their behalf and licenses the merchant to accept credit cards of one or more of the worldwide issuing bodies such as VISA, MASTER, DISCOVER etc. The acquirer need not always be a bank but can be a financial institution. In India, acquirers are known to be banks alone. The acquirers that processes the transaction, routes the authorization request to the card issuing bank. The merchant provides his acquirer with the chargeslips for the day’s transaction, irrespective of whether the acquirer was the issuer of the cards accepted by the merchant. Thus, it is clear that the acquirer need not necessarily be an issuer of the card which will be accepted at the MEs. The acquirer pays the merchant the total transaction value minus a commission, known as a service fee, which is agreed upon when the negotiations for the acquiring of the merchant were taking place. The merchant thus gets the instant reimbursement for the goods sold.

Issuer/Issuing Bank is an institution which has issued the card to the cardholder. The issuer has the responsibility for transaction that are put through on cards that they have issued and responsible for debiting funds from the relevant cardholder’s account.

The card cycle works when cardholder buys certain goods at a shop and pays through his card. The merchant has three copies of the chargeslips. One for his own records, one for the customer (which he signs), and one for his acquirer. The merchant present the copy of the charge slip to his acquiring bank. The acquiring bank pays the merchant, on the basis of charge slip the amount of transaction minus its own commission. The rate of this commission is lesser than the rate of the merchant
commission. The issuer consolidates all transaction for each card issued and presents the charges to the cardholder in the form of monthly bill or ‘statement’.

The cardholder has two options on receiving the statement. One is that he can pay off the full amount due on his card on or before the due date, in which case, he is said to using his card as a charge card rather than a credit card since he is not utilising card facility on his card. The second option is that he pays the minimum amount due (MAD) before the due date, or any percentage greater than the MAD but lesser than the total amount due and ‘roll over’ or carry over the balance amount to the next month for a small finance amount charge. The small finance charges generally varies between 1.5%-3% per month. In USA there is law which prohibits issuers from charging a finance charges 4% or more per month, unfortunately there is no such law in existence in India at the moment.

Of course, if cardholder fails to pay even the MAD, he has to pay either a service charge or fixed finance charge(depending on the rules of the issuer) plus the interest charges. In the certain cases, where the acquirer and the issuer are the same, the cycle have the three players instead of four. In this case, the issuer makes a little more profit than with the presence of an acquirer in the cycle, since he doesn’t have to pay the commission to the acquirer. When translated over a transactions per day, this means a lot of saving to the issuer. Thus there are many issuers who are vigorously pursuing the business of acquiring too.

The actions in this model are: credit (loading) means transferring the monetary value from the issuer to the payment instrument (e.g. electronic purse) of client. Debit (purchase, payment) means transferring the monetary value from payment instrument of client to the payment instrument of merchant (that is usually payment terminal). In the terminal is then created payment transaction, that contains the electronic money and other payment details. Transaction collecting means transferring the payment transactions from the merchant to the acquirer. Payment clearing means clearing of payment request between acquirer and issuer.
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.

1.6 Need of Study and Research Gap

Banks are trying to lure the customers with a number of innovative schemes. Inspite of innovative schemes and aggressive efforts of banks, a vast majority of the
Indian population is yet to come to the grips of plastic money. However, the plastic money business is not without its risk. The original risk was that the conservative customers might not respond to the expensive campaigns launched to introduce cards; the other hazards that remain are those inherent to this type of business, viz. legislative controls, frauds and bad debts.

The proposed study will try to find out spending habit pattern of consumers and why they do not use plastic money in their lives. Since the present study deals with banking sector, which is a service industry, the observation of customers is also required to be taken, which was not part of earlier studies. The need for such study becomes all the more important because identity theft becomes fastest-growing financial crime. Identity theft is a problem largely because financial institutions, merchants credit bureaus and the government do not adequately safeguard vast data base and other records containing consumers’ sensitive information, making it relatively easy for thieves to access these data. Thus, the finding of the proposed study may prove useful for users, non users, authorities concerned and persons dealing with plastic money.

During the last few years, attempts have been made to visualise the use of plastic money in the developed countries like United States and other advanced countries. But research is still lacking in case of developing countries like India. So, there is a need to conduct such type of research in India.

Further, the existing studies have concentrated their attention mainly on the usage of either debit cards or credit cards but mostly neglected the joint effect and new innovative cards.

There is a great need to find out the speed at which these new technological capabilities are accepted and to know the continually changing consumer and social attitudes to 'Plastic' technology as well as an extent to which banks and credit card groups find mutual system(s) to develop and integrate their ideas in order to expand or for the penetration in the existing market.

In this study, an attempt has been made to analyze and evaluate various aspects relating to credit transactions in the country. Various aspects like income, age, safety, consumer attitudes, habits, convenience, Instalment credit, form of protection to
retailers, awareness among different social class groups, active and inactive card holders, inflationary trend in economy, advertising and promotion strategy to encourage middle and social class has been considered for this study.

1.7 Objectives of the Study

1. To trace out the origin and development of plastic money.
2. To study the procedural aspect in the operation of plastic money.
3. To analyse the risk factors involved in the usage of plastic money and legal protection available to card holders.
4. To judge the comparative spending pattern of active and inactive card holders.
5. To study the role of member establishments in the progress of plastic money in India.
6. To examine the present position and future prospects of plastic money in India.

1.8 Organisation of the Study

To meet the objectives of the study, the present study is divided into eight chapters.

- Chapter one, ‘Introduction’, presents the conceptual framework for the present study. It analyses the first two research objectives. It traces out the origin and development of money, and plastic money. Chapter examines the procedural aspect in the operation of plastic money. It includes the need of study indicating the purpose of understanding this research effort. It outlines the objectives and the organisation of the study.

- Chapter two, ‘Review of Literature’. It contains empirical studies which have been concluded in the area of plastic money in India and other countries.

- Chapter three, ‘Data Base and Methodology’ includes the research design to carry out the study. It identifies methodology followed and database of the study. It deals with database for the study, which includes the universe, sample design and data collection (Primary data field survey through questionnaire). It also includes data processing, followed by data analysis-hypothesis of the
study, various statistical tools and techniques which have been applied to achieve all the objectives.

- Chapter four, ‘Legal Framework of Plastic Money’ analyses the third research objective. It examines the risk factor (different frauds) involved in usage of plastic money. It also suggests the ways for investigating the frauds and how these frauds can be prevented. The chapter puts a light on Indian legal system with special reference to credit card frauds.

- Chapter five, ‘Perception of Plastic Money Users’ analyses the fourth research objective as to understand the users/consumers attitudes towards plastic money. It is determined that users possess positive attitude towards plastic money. It examined the behaviour of respondents for choosing the card, spending pattern, payment of bills. It also analyses the functional and psychological risk of the respondents for using the plastic money.

- Chapter Six, ‘Perception of Member Establishments’ analyses the fifth research objective to know the role of member establishments in the progress of plastic money. For this, the observations of 150 respondents are taken into account, which examines that with the introduction of plastic money, the level of sales and monthly income on cards processing has been increased last five years. The respondents realise that for the growth of the business plastic money is essential.

- Chapter Seven, ‘Performance Evaluation and Future Prospects of Card Industry’ analyses the sixth research objective. It shows the performance of card industry in India. For this research period from 2000-2009 is taken into account.

- Chapter Eight ‘Summary and Conclusion’ has been designed to conclude the whole study from chapter one to chapter seven with the aim of providing suggestions.