REVIEW OF LITERATURE

Many empirical studies have been conducted on the subject of ‘Plastic Money’ in India and abroad. The major emphasis of research has been on various issues like frauds, security, usage pattern, new method of e-payment, etc.

The previous work done on plastic money needs perusal. It has been reviewed to indicate in a general way the type of work done on this subject in India. It is expected that the critical examination of the studies would give focus to our problem and help to indicate the areas which have remained neglected at the hands of the researchers. From the review of literature, it was found that hardly there was a study which examined the perception of both users and traders on the usage of plastic money. Also, many studies concentrated on individual cards, for instance, credit or debit card and neglected the joint effect and new innovative cards like smart card, charge card and check card. In this study, an attempt is made to include all types of cards in the analysis.

Handelsman and Munson (1989), “Switching behaviours from credit card to cash payment among ethnically diverse retail customers” shows that the credit card sales constitute an important revenue source for many retailers. Their ever increasing use and evaluation into other forms, such as debit and electron cards, demands that retailers gain a more complete understanding of how they are used by diverse consumer segments. Particularly needed is a better understating of the propensity to switch over from credit card to cash payment and the incentive required to initiate switching. In view of the cost to the retailer of administering credit card payment systems, the retailer’s overall profit position may be enhanced by converting a larger proportion of credit card sales to cash sales. Four aspects of credit card usage and switching ethnicities are investigated, propensity to switch over from credit card to cash payment at various levels of monetary incentive, the effect of product price on propensity to switch, the frequency of credit card usage, and the preferred method of payment of credit card balances (installment versus full payment). Several significant differences are shown among the three ethnic groups studied (Anglo-American, Chinese-American and hispanic-American) in these usage behaviours such differences might even be
extended to international comparisons involving consumers domiciled in different countries.

Barker (1992) in his study, Globalization of credit card usage: The case of a developing economy” investigate the attitude of Turkish consumers towards credit cards, and the approach of card issuers by surveying two samples of 200 card holders and non-holders. The better educated, middle aged members of the upper middle class seem to be the prime target; the most important reasons for using a credit card were “case of payment”, followed by “risk of carrying cash”; Non holders do not carry credit cards because they do not know much about it; informal sources of information appear to be more influential than mass media advertising in penetrating the market; proposes that the usage and the administration of credit cards are influenced very much by the infrastructure of the country and hence, credit card companies have to modify their marketing and administrative procedures rather than following a standardized approach.

Natarajan and Manohar (1993) “Credit Cards–an Analysis”. A study has been attempted to know that to what extent the credit cards are utilized by the cardholders and the factors influencing the utilization of credit cards. The study is confined to cards issued by the Canara Bank. A random sampling technique is used to collect the data. Ten components i.e. numbers of purchases, shops, percentage of purchases, place, frequency, type of product, type of services, cash withdrawal facilities, add on facility, insurance schemes are identified and used for the measurement. Chi square test has been conducted to know the level of utilization. For this, both personal and non-personal factors also have been taken into consideration. Chi square test reveals that sex, age, educational qualification of card holders has no relationship with utilization of Can Card. While occupation, income, employment status of spouse, mode of getting card has relationship with utilization of Can Card.

Vora and Gidwani (1993), “Plastic at a premium” show the usage facilities and varieties of cards. The research shows that credit card is extremely useful to those people who use it as to increase their purchasing power through the plastic card. Different cards provide the different packages to attract the customers like ticketing, discounts, insurance coverage and provide reward points etc. According to
author, the card holders market has a potential to grow to 7 million, if all tax paying citizens are taken into account. But these manful efforts at upgrading services can only have a limited impact as long as the Indian customer remains credit shy. For this, they have to change their spending habits and keep their card active, so that a piece of plastic becomes a premium card in an effective way.

Mathur and George (1994), “Use of credit-cards by older American” shows the usage behavior pattern of older people with credit card spending. Using a large national sample of respondents from different age groups, finds that older adults use credit cards as frequently as younger adults when circumstances and opportunities for consumption in both groups are similar. Contrary to it, the commonly held belief that older people do not use credit cards, the data suggests the need for practitioners to stop thinking about consumer targets in terms of age and focus more on circumstances that determine one’s likelihood to use credit cards. Factors such as income, employment, retirement status, shopping habits should be considered. While credit card usage may overall decline with age, certain segment of mature consumers continue making use of credit cards throughout the life. The data in the present study suggests alternative criteria like income and employment status, for appealing to mature Americans. Targeting older consumers on the basis of age might not only alienate them but is also likely to reach fewer prospective customers.

Simon and Victor (1994), “Customers’ Risk Perceptions of Electronic Payment Systems” finds that one reason for the slow adoption rate of electronic fund transfer at point-of-sale (EFTPoS) is that consumers perceive that EFTPoS has a higher level of risk than other traditional payment methods. Study shows that EFTPoS has the lowest physical risk and highest financial risk, the credit card has the lowest psychological risk and highest time loss risk, while cash has the highest physical risk and lowest performance risk. Physical risk, financial risk and time loss risk for cash payment are significantly higher when purchase is large while performance risk for EFTPoS and credit card payment is significantly higher when the purchase is small. Users of EFTPoS have a significantly higher level of perceived financial and time loss risk than non-users, while non–users have higher level of psychological risk. Article suggests that in order to reduce customer’s fears and worries, it is also appropriate to consider
introducing some risk reduction techniques. e.g. endorsements by key people in society (reducing psychological risk), money-back guarantee (reducing financial risk) and live demonstration and free trial (reducing time loss risk). Research indicates that technological excellence cannot dictate success; a good marketing mix, prompt service support, sufficient legal protection and educational efforts, etc. are also relevant.

Almeida (1995), “The Future in cards” shows that credit card business is booming as more than 1.1 million Indians have credit cards with them. Their numbers are expected to grow at an even faster pace as issuing banks get aggressive. Studies show that more than 4000 business establishments in the country accept credit cards. The country now provides all the ingredients for a healthy credit cards industry: a rapidly expanding, increasingly acquisitive middle class, a growing yen for travel and entertainment sophisticated merchant establishment and greater transparency in financial system. Acquiring banks for business from merchant establishment has brought the commission down and if the issuing bank happens to be also the acquiring bank, it get the entire merchant discount. Finally, no payment system can ever replace cash in India on a wide spread basis.

George (1995), “The card majors lead the way” shows that VISA and Master Card play a major role in any international payment system. Both VISA and Master Card act also as franchisers, lending their names to member banks’ card and acting as guarantor of payment to merchants willing to accept the cards. For this and for handling transactions, VISA and Master card charge a fee which varies from country to country, but is approximately 3 cents (90 paisa) per transaction. They are card clearing agencies. VISA and Master card each have nearly 22000 banks all over the world as their members and handle several million transactions each day. This gives them a transaction handling capability unmatched by any individual bank. They are not credit card companies but function on the line to provide a global network that allows authorization, clearing and settlement of card transactions, both of credit and debit cards.

Kaynak (1995), “Correlates of credit card acceptance and usage in an advanced developing Middle Eastern Country.” Study shows that with increases level of socio-
economic and technological development, credit card usage particularly increases in developing countries. An empirical research study conducted in urban Turkey indicates that there are certain relationships between socio-economic and demographic characteristics of Turkish consumers and their credit card holding and usage behaviors. It was observed that one of the determinants of credit card use is related to the age of the family head and family life-cycle stage. Generally, those household heads who are in middle and upper age having large discretionary income level are more likely to use credit cards. This may be termed a social class effect of credit card usage and acceptance. Despite most of credit card users are urban dwellers, more educated with professional type of jobs, and high income earners. Authors feel that getting more people to use credit cards is indeed a marketing challenge. For this credit card issuers are meeting this challenge by offering to cardholders different benefits and incentives and by urging merchants to promote debit/credit at the point of sale.

**Torbet and Marshall (1995),** “One in the eye to plastic card fraud.” Paper explores the potential use of behavioral and physiological biometric techniques in the battle against credit card fraud in the retail environment. It discusses different techniques such as automatic speaker, dynamic signature verification, fingerprint, facial recognition, retinal and iris scanning, hand and finger geometry. Author feels that while biometric technologies have the potential to reduce plastic card fraud there are several problems which must be addressed before they can be used in retail environments, like the recognition performance, speed of use, usability, customer acceptance, device cost are considered along with industry standards for biometric devices.

**Worthington (1995),** “The cashless society” paper describes the cashless society, where clumsy and expensive-to-handle coins and notes are replaced by efficient electronic payments initiated by various types of plastic cards is a tantalizing prospect for the twenty-first century. Some of the interested parties stand to gain more than others if the cashless society becomes a reality. Paper outlines the rationale of those who are keen to promote the cashless society and the implications for marketers charged with winning consumer acceptance for payment by plastic card. Commencing with a European-wide view of the European plastic card market, focuses on recent developments within the UK, one of Europe’s leading countries in the use of plastic
cards as a means of payments. The plastic card payment product is analyzed under the three headings of pay later, pay now and pay before and a view is offered as to the future prospects for each type of plastic card in contributing to the development of the cashless society.

Joshi (1996), “Variants in plastic.” Author analysis that card issuers seeks to introduces the emerging payment card technology like debit and smart cards. Credit cards are being gradually revolutionised by various factors: introduction of customers–friendly technology, a competitive marketing environment, the rise of the financially sophisticated consumer who avoids paying interest and the emergence of new competitors. The concept of debit cards as a new emerging payment system has gained acceptance in the Asia-Pacific region in past few years. Being a new concept, mass acceptance is gradual and not instantaneous. It shows that spending on credit cards is higher than debit cards but the number of transactions are more on debit cards. There are technological and infrastructure hurdles for debit cards as it is significantly different from credit cards. For this, system should be on line and the investments in technology are huge. Study shows that profit margins in debit cards are one-third than those from credit cards. Author believes that India by virtue of a late starter in the card industry is at an advantage as it can except to shorten its learning curve by utilizing global experience and expertise in electronic payment system.

Maganty (1996), “Changing Dimension.” the author discusses the emerging trend and importance of debit card in daily lives of Indian society. Debit cards are expected to be in use in places where most transactions are done by cash or cheque in supermarkets, petrol stations, convenience stores. There cards are designed for customers who like paying by plastic card but do not want credit. These cards not only keep the cardholder debt free but also provide a detailed account of spending. These types of cards are ideal for those who have a tight budget and want to keep within it. Study shows that there are two types of debit cards i.e. on line and off line debit cards. With the computerization and modernization plastic money will become the status symbols in the 21st century of Indian traditional bound society.
Radhakrishan (1996) study on “DEBIT CARDS” shows that the debit cards also have found wide acceptability than credit cards because of assurance of payments to retailers, switching of cardholders to debit card because of using interest free period to avoid high interest cost, annual charges as compared to debit cards etc. The study shows that the growth of service industry in the country, electronic fund transfer, point of services offer a large potential for banks to cutting down cost associated with the paper based clearing and payment services. The introduction of debit cards can take place subsequently and the objective should be to attain a critical mass in issuing number of such cards so that the operation becomes cost effective.

Worthington (1996), “Smart Card and retailer-who stand to benefit?” Paper describes the major current payment options which are open to consumers, and accepted by retailers with a review of the costs and benefits of each payment option. Retailers, as the merchant acceptors of payment by suffer from the introduction of the smart card. Article sets out to explore the pros and cons of the smart card for retailers. The introduction of the smart card will not eliminate any of the existing method of payment and it is probable that the smart card will even introduce new means by which non-financial data, such as purchase patterns, can be collected and exchanged. There will also be substantial costs involved for retailers such as upgrading thousand of stores and head office systems, replacement of point-of-service terminals, training to thousands of cashiers for the acceptance of smart cards. The smart card could be a useful addition to the existing payment options at the point of service. It could offer retailers to access to new delivery channels and better communication channels and help to maintain relationship with customers.

Chan Ricky (1997), “Demographic and attitudinal differences between active and inactive credit cardholders—the case of Hong Kong.” The study was to examine the demographic and attitudinal differences between “inactive” and “active bank credit cardholders in Hong Kong. The groups of card holders have been classified according to their differences in usage rates. Active card holders” in this study were operationalized as those whose monthly card usage rate was over ten times, where as “inactive card holders” were those whose monthly card usage rate was below ten times. As far as, demography is concerned, income was found to be the single most important
variable influencing the card usage rate. Specifically inactive card holders were found to earn less than their active counterparts. Paper also examine, to induce less resourceful card holders to increase their card usage rate, card issuers are advised to strengthen their co-operation with various retailers so as to turn their cards into the most preferred mode of payment.

Nash and Sinkey (1997), On competition, Risk, and Hidden Assets in the Market for Bank Credit Cards” show that the market for credit cards has been the subject of recent attention and controversy because of “High” profits earned on credit cards and substantial premiums on the resale of credit card receivable. This paper estimates risk-return profiles for credit card banks and explores the role of intangible assets in determining resale premiums on credit card receivable. In addition, the effect on resale market of securitization and the opportunity cost of acquiring new accounts are analyzed. Using alternative measure of risk and alternative control groups, authors find, for the year 1989 to 1995, that Credit-Card banks earned significantly higher return on assets but that these returns were associated with greater risk-taking.

Black and Morgan (1998), “Risk and democratization of credit cards”. Research paper show the dramatic rise in credit card charge-offs in the midst of a vigorous expansion suggest that bank card borrowers have become inherently riskier. This paper investigates how the mix of credit card borrowers has changed in recent years, and how those changes affect delinquency risk. The new card holders seem riskier along several dimensions. They tend to earn less, and as a result, they owe relative to income. This rise in debt burden almost certainly contributed to the rise in charge-offs, since debt burdens are a key determinant of delinquency risk. Cardholders are also more likely to work at relatively unskilled blue collar jobs. This occupation shift may also have contributed to the rise in charge-offs, since delinquency rates are higher in those occupations, perhaps income is more cyclical. Some of the personal characteristics and attitudes that have changed, such as martial status and job tenure also imply somewhat higher risk.

Fernand (1998), “What credit card firms won’t tell you.” shows that convenience of credit card is not without its cost. The author warned the customers to
use the card in effective and in a rational way because while choosing a particular card, the cardholder need to check different cost like annual fees, transaction fees, membership fees, and interest on revolving credit, lost card liability, reward point and facilities attached to different cards. Sometimes attractive facilities caught the cardholders in their debt trap if they don’t appraise the card before using it. It happens in the normal course, that card companies won’t tell each and every thing to cardholder like whether interest charges are annually or monthly, transaction fees for using ATM, annual fees VS. transaction fees, lost card liabilities for unauthorized use of card etc. According to author the card pushers offer a convenience but a good thing never comes with any strings attached.

Gambir (1998), “Credit cards in India”. He describes that credit cards are relatively new to India. Treated as a status symbol and as a vehicle of consumerism Indian banks burst this business. Till recently as it did not go along very well with the spirit of people because they do not have much money to spend because of bad economic conditions. But with increasing economic and financial liberalization and growing prosperity of the urban middle class banks fells that it is desirable to enter into this line of business. Author feels that Credit Cards and money transfers with latest technological changes would definitely reduce the burden on cash in our system. Therefore, RBI has to give an impetus to the popularity of plastic money which is consistent with present policy of economic and monetary liberalization.

Carow and Kenneth (1999), “Debit, Credit, or Cash: Survey evidence on Gasoline Purchases.” analyzed the consumer’s payment option to use debit, general purpose credit cards, gasoline credit cards, or cash. Based on the results from a nested multinomial logit model, author’s found consumers are more likely to use cash when they have less education, lower incomes, are middle-aged and own fewer credit cards. Debit and credit card users are younger, more educated and hold more credit cards. Respondents who use their debit card are less likely to use their gasoline credit card. The result suggests that greater debit card usage will place the greatest competitive pressure on the gasoline credit card program.
Plouff, Yandenbosch and Hulland (2000), “Why smart cards have failed looking to consumers and merchant reactions to a new payment technology” describes that more than a decade, bankers and other outside financial services community such as hardware manufacturers have sought to solidify the place of smart card technology as a viable retail point-of-sale alternative and, more boldly, as an outright replacements for cash in everyday consumption situations around the globe. Despite strong development efforts and numerous fact-finding market trials, many banks have found smart card technology to be a losing proposition. This article presents a detailed case study of both consumer and merchant adoption of one smart card-based retail point-of-sale system. The system, called “Exact”, was test marketed for a full year in Canadian market. Various perceptual and demographic data from consumers as well as firm-level data from retailers are both presented and assessed. The ensuing discussion offers pragmatic suggestions for those in the financial services community as to how the apparent difficulties and shortcomings of smart card technology may be overcome.

Steindl (2000), “Credit cards, Economization of money, and Interest Rates.” shows the effect of interest rates on use of credit cards, which are increasingly used to finance consumption. The corollary is a reduction in money demand, which reduces the interest rates. Greater credit card usage increases the demand for credit, which raises the interest rate. Three models employing a credit market are used to resolve the problem. The principal result is that each establishes that the interest rate must rise. An additional implication is the counterintuitive result that credit does not simply substitute for money in financing expenditure; rather increased credit card use must result in increased consumption expenditure.

Warwick and Mansfield (2000), “Credit card consumer: college students knowledge and attitude”. Given the proliferation of the credit card industry in today’s US household, and the aggressive promotional tactics employed to get college students to sign on as customers. This exploratory study takes a look at the credit card activity of college students at Midwestern campus. The majority of students surveyed did not report knowledge of their credit card interest rate. Students appear to have a realistic attitude toward using credit cards, although not knowledgeable about the details of their card. This study raise the question of whether universities and business schools are
doing a better job of preparing their students to be knowledgeable consumers in the market place or not.

**Leung and Lai (2001),** “Improving the quality of the credit authorization processes a quantitative approach”. This paper proposes that the quality of a company’s authorization system should be measured by two major considerations. First, the system should enhance quality of customers service by reducing the waiting time at the point of sale. Second, it should reduce the risk of accepting transactions of bad credit. In this paper, a major credit card company is used to demonstrate how the credit authorization process can be improved using a quantitative approach. Opportunities for quality improvement were first identified though brainstorming sessions with top management, by using quality improvement tools. A queuing model was then used to redesign the authorization process. Finally, simulation model was used to test and evaluate the new process design. As a result of these improvements, it was determined that more than US$2.5 million were saved annually and authorization efficiency was improved by more than 40 percent.

**Azhagaiah (2002),** “Credit creation through plastic money.” This paper focuses the issues of credit cards usage among consumers. It exhibits the recent development, evaluate the present status ad assesses the future of the consumer indebtedness by credit card debt. It also discusses the financial position of the banking sector in India. Strategies used by the banks to meet competition in credit/debit cards are also discussed. Credit to individuals and house holds has a vital role to play to create bank’s credit and money supply. Author point out that the role of credit cards in the money market, in the years to come, will be very bright. There is no doubt, the banks which concentrate more on credit cards will get more benefits by means of credit creation.

**Lee, Jinkook (2002),** “Consumers Use of Credit Cards: Store Credit Card usage as an Alternative Payment and Financing Medium.” asserts consumers use of store-issued credit cards with particular attention to their function as an alternative payment and financing medium. Using 1998 survey of consumer finances data, the researchers found that credit availability through bank cards is negatively correlated with consumer use of store cards as a financing medium, suggesting the role of store cards as a
supplementary credit line. A negative relationship is also found to exist between consumer’s bankcard usage and their use of store cards for a transaction purpose, indicating that store cards function as a substitute payment medium. Consumer’s usage of store cards varies according to function and is related to number of variables including the use of bank cards, credit history, and attitude towards credit, income, education and ethnicity.

Chakravorti (2003), “Theory of credit card networks: A survey of the literature” shows that credit card provide benefits to customers and merchants not provided by other payment instruments as evidenced by their explosive growth in the number and value of transactions over the last 20 years. Recently, credit card networks have come under scrutiny from regulators and antitrust authorities around the world. The cost and benefits of credit cards to network participants are discussed. Focusing on interrelated bilateral transactions several theoretical models, have been constructed to study the implications of several business practices of credit cards networks.

Gupta (2003) “Legal and regulatory framework of credit cards” asserts that the regulations of credit card business in India is diffused and need to be streamlined. Whereas in developed countries the law on credit card business in comprehensive and straight forward, its Indian version requires a structural change. Hence, there is a need to explore that various legislative premises of the inferior and unclear Indian version for protection of interest of cardholders and healthy growth of the industry.

Saha (2003), “The booming credit card business of Indian banker.” In this study analysis has been done of the credit card business in India. Article is both from the banker point of view and from the users point of view. It is estimated that the credit card volume is increasing around 15% p.a. on average for last 10 years and volume of transaction increased by 20% on an average in last 10 years in India. Various hypothesis and objectives are set to find out which bank offer varieties of services to consumer in relation to credit card. A comparative analysis is made for all the credit cards. In general, most of the credit card is doing very well and the competition is cut throat. Different factors such as income level, fees customers’ service network, add on card facility, revolving credit facility, insurance facilities, cash withdrawal charges, lost card
The study also finds that city bank is the best card which provides all the facilities at the minimal charges.

Bandyopadhyay (2004) in his article “Credit cards look for an Ace” put the light on various issues like, major card players are issuing cards without much checking credentials. It adds to non performing assets [NPA] levels in its portfolio but overall, about 0.6 percent of personal consumption expenditure in India is through credit cards. He suggested that (I) the increasing card use could be by making all utility payments through cards by installing more electronic draft capture (ii) the government can do by waiving the tax on credit cards which is a big disincentive for card users (iii) to bring down the default rate, bank must set up credit bureau. This will enable banks to detect the first sign of default in advance and sound a red alert so that prospective defaulters can be weeded out.

Bhargava (2004) title “Debit cards: A new generation plastic money” analyses that debit cards are fast catching up with the customers. A combination of factors like ease of availability, debit-averse profile of customer and zero interest rates are propelling the usage of Debit Cards. The study emphasizes to increase the usage of these cards, bank will need to improve infrastructure and continues to focus an increasing installations of point of sale [POS] in smaller cities and on the locations which are frequently used by cardholders, and to develop new marketing programmers that educate customers on the benefits of replacing cash with plastic.

Braunsberger (2004), “The effectiveness of credit–card regulations for vulnerable consumers”. The study investigates how vulnerable consumers (i.e. College students) might respond to the revised credit card disclosure requirement (i.e. amendments in Truth in Lending Act) and investigates credit card knowledge of college students. The study examine external validity issues, that is, whether urban college students are more knowledgeable about credit cards than rural students, and whether adult populations are more knowledge than student populations. This study further investigates the relationship among objective and subjective knowledge and product usage. The result shows that consumer in general are not very knowledgeable about

liabilities etc. taken into account for selecting the best credit card provider in country.
Review of Literature

Cunningham (2004) “College Student credit card usage and the Need for on campus financial counseling. And planning services”. The purpose of this study was to examine the use of credit cards among college students and the need for on-campus financial counseling and planning service. The research objective was two fold: (a) to determine if college students are responsible with their credit cards and (b) to evaluate the need for on-campus financial counseling. Participants in the survey (N=110) completed a survey consisting of various question about students’ use of credit cards. Results showed that while a majority of the students who completed the survey were very responsible with their credit cards, there as a group (composed of study) who were having significant credit problems. The paper concludes with suggestion regarding on campus financial counseling services.

Easwar and Kumar (2004) asserts in the studies titled,” Credit cards: on a growth trajectory” that the perception of owning credit card has changed and they are viewed as being convenient substitute to carrying cash and also availing credit for short period. But in the context of home country, India ranks at the bottom in terms of usage of credit cards, when compared to China, Taiwan and Malaysia.

Goyal (2004) “Role of supplementary services in the purchase of credit card services in India” describes that service products being intangible and experiential in nature are different to evaluate prior to purchase and consumption. Consumers perceive risk while purchasing services and rely on various information sources to make a purchase decision. In services, personal sources of information and considered more than non personal sources of information. The present study focuses on understanding the significance of supplementary services as non personal source of information of consumers for pre-purchase evaluation of credit card services. In other words, whether information regarding supplementary services can help consumers make pre-purchase evaluation of credit cards. In addition to pre-purchase evaluation, the impact of supplementary services is studied towards post-purchase evaluation credit card services. Supplementary services being a part of full service product offer by marketers can be

credit cards. In order to avoid government regulation of the industry, it is recommended that credit card issuers become involved in educating consumers.
utilized as a beneficial tool to create interest and developing awareness among consumers.

**Hogarth and Hilgert (2004)** “Consumers resolution of credit card problems and exit behaviors.” Using data from the survey of consumers, this study focuses on consumer’s resolution efforts with credit card problems and the likelihood of “exiting”—that is, discontinuing the use of a given credit card or of the financial institutions associated with the card. Among all households with a problem, nearly two-thirds (63 percent) were able to resolve their problem, while over half (55 percent) exited. Exist was associated with marital status, race, how dissatisfied the consumer was, the number of problem related to credit cards, and attribution. Holding all the else constant, consumers who were likely to resolve their problem were only half as likely to exist. Thus, credit card companies need to carefully and quickly address their customer problems and resolve their complaints.

**Humphrey (2004)** “Replacement of cash by cards in US consumer payments” Authors uses over the past 25 years time series data. The results shows that the share of cash in consumer payments appears to have fallen from 0.31 in 1974 to 0.20 in 2000, cheques replaced cash during the 1970, credit cards replaced some cheques during the 1980, while debit cards replaced both cash and cheques in the 1990s. Author feels even though, cash is not projected to go to zero anytime.

**Prasad (2004),** “Product innovation-A suggestion from a Reader: KCC vs. ATM” article examined the utility of Kisan credit card from the point of view of both the Kisan Credit Card (KCC) holders and commercial banks. It is an innovative product designed by the government of India (GOI) in consultation with RBI/NABARD. The facility of issuance of “cheque Books” to KCC borrowers is one of the important improvement. But this product needs further improvements by making it a technology driven to extension of Automated Teller Machine (ATM) to agriculturists in rural and semi-urban areas. “KCC ATM CARD” provides benefits to agriculturists as well as to commercial banks. Agriculturists gets instant cash for agriculture inputs such as fertilizers, seeds, pesticides and overdraft facility to current account holder holding “KCC ATM CARD” which involves no cost and boosting self-esteem among farmers.
On the other hand, by providing the ATM facility, the commercial banks can reduce fixed cost per transaction. Author feels that by extending technology driven products will boost the image of commercial banks and helps to enlarge the base of his value agriculture advance which could attract the more farmers to commercial banks.

Swan (2004) made a survey on credit cards,” A credit card: A competitive market”. It observed that with the more entrants in the field of credit cards, major players are trying to gain a market share with aggressive promotional strategies and additional value added services. Some banks though offer international level of services and credit support to card holders but had failed to make an impression in the market due to lack of awareness and low key advertising. It also observed that in spite of aggressive effort of the banks, vast majority of the Indian population is yet to come to grips with credit cards.

Jagdeesh (2005), “Credit card fraud: causes and cures from professional’s perspective.” Put a light on credit card fraud which is increasing worldwide. The culprit is not only the outsiders but insider fraudsters who cheat their organization to make quick buck. Bank credit card issuers lose about $1.5 to $ 2 billion every year because of fraud. The VISA and the Master Card, the two largest credit card issuers lose most. Major credit card frauds like unauthorized use of credit cards, on line frauds, shave and paste of card, counterfeiting, mail order fraud are the techniques used by the fraudster. The author also discusses the tips for prevention of frauds like using smart cards, computer edits, PIN numbers, and suggests that it is in their own interest that the cardholders should keep their cards safely and use the cards wisely to protect themselves from frauds.

Johnson (2005), “Recent development in credit card market and the financial obligation ratio” exhibits that over the past fifteen years, U.S. household in the aggregates have devoted an increasing share of their after tax income to the payment of financial obligations. Much of the increase is attributable to a rise in the level of credit card debt, which has raised the share of households’ aggregate after tax income that is devoted to credit card payments. This article argues that three important developments in the credit card market over the period account for most of the rise in credit card
payments relative to income and played a strong role in the rise of the total financial obligation ratio (FOR). First, improvements in credit scoring technology and the advent of risk based pricing of credit card debt have increased the share of household particularly lower income households with a credit cards. Second, in the 1990’s, credit card interest rate begin to vary with changes in broader market interest rates, which in turn led to an especially pronounced decline in credit card interest rates turned sharply lower; the decline in credit card rates raised the demand for credit card debt. Finally, household have increased their use of credit card as a convenient means of paying for daily purchases.

Park and Burns (2005), “Fashion orientation credit card use, and compulsive buying.” The study was to identify the direct impact of fashion-related factors on compulsive buying and the indirect impact of fashion-related factors on compulsive buying through credit card use. It was found credit card usage to be the most influential factor followed by expenditure on fashion goods. Research shows that fashion orientated consumers are heavy credit card users. Consumers who tend to have fashion leadership and know the importance of being well dressed might use their credit card more while those who have anti-fasion attitude are least likely to use their credit cards. The authors observe that the credit card is the most significant factor in encouraging compulsive buying and suggest that since other antecedents of such behavior are hard to pin down, regulatory action should focus on the control of credit.

Pinto and Beth (2005), “Information learned form Socialization Agents: Is Relationship to Credit Card Use.” Shows that credit card use among college students has reached at unprecedented level. As a result, there is a movement to educate college students for usage credit card in a better way. This research examines the credit information provided by four socialization agents (parents, peers media and schools). In addition, it assesses the relationship between these socialization agents and the credit usage behaviour of college students. Using paired sample ‘t’ tests, the results indicate that the amount of credit information given by parents is significantly greater than the information from the other three sources (Schools, Peers and media). The more information provided by parents, the lower the outstanding balance carried by college
students on their credit cards. Media sources, educational sources and peer sources of information showed no significant relationship with credit use.

**Sant (2005),** “Credit cards emerging Trends and Prospects” shows benefits, growth/potential growth, usage pattern, technological changes, delinquency rates, and fraud settlement, by the credit card companies. Survey shows that spend per card in India are very low at around Rs. 20,000 per year against international average of around $900 (i.e. about Rs. 40,000) per year per card. Demands have increased for higher quality and level of services. Major card issuers in India, domestic and foreign, are currently busy racking their brains in trying to protect their organizations from frauds. To overcome this problem a new technology i.e. “Smart-Card” that allows for greater security against fraud. Authors feels that with the establishment of credit information bureau of India Ltd. (C/B/L) customer had motivation to maintain good credit history and helps in lowering of delinquency rates. Article also shows that credit card industry grows by 37% with ten million cards in circulation.

**Al-Alawi and Al-Amer (2006),** “Young Generation Attitudes and Awareness Towards the implementation of Smart Card in Bahrain: an exploratory study. The study puts a light on latest advancement and innovations in the world of information and communication technology by the way of smart card. A smart card resembles in size and shape to a normal credit card or bank ATM card, with a microprocessor chip implanted into card. These cards are used not just as identity cards, but hold a relatively huge amount of editable information including the cardholder’s bank data, e-purse, finger print, health record, blood group, traffic and license details and other vital information. Study present a general overview history, features application and introduction of smartcards in the kingdom of Bahrain. A total of 513 questionnaires were distributed to the students of the University of Bahrain. The questions asked included question to check the acceptance of the people to replace their current cards with a smart card and their awareness of the new National Smartcards in Bahrain. It also evaluates the effects taken by the government to create awareness among the public about the usage and features of the smart cards.
Worthington (2007) “The adoption and usage of credit cards by urban-affluent consumers in China”. The purpose of this paper was to present exploratory research into the holding and usage of credit cards by a distinct segment of the Chinese population, who were “early adopters” of this product. Primary data was collected for taking sample of the urban affluent population in China to gauge preferences and attitudes towards the use of credit cards. The sample was drawn from a narrower base than the actual target population of urban-affluent market but an available and valid respondent set, which offers insights into the “early adopters” of the credit card product in China. It was found, that the respondent were comfortable with the holding and use of credit cards particularly recognized their value for spending on travel and entertainment. The research also identified purchase trigger points, which indicated that the use of credit cards for purchases above certain values, is already prevalent with the sample of urban – affluent Chinese consumers.

Devlin (2007) “An Analysis of main and subsidiary credit card holding and spending.” This study seeks to examine why most multiple credit cardholders have a “main” card (i.e. a card used more often than others) and “subsidiary” cards (i.e. cards used less often or only in an emergency) and the spending pattern associated with main and subsidiary cards. This study is a qualitative in nature, using a survey which contained open-ended questions to acquire data. Response were subject to content analysis to categories the reasons given for having a main and subsidiary card. Results show that 85 per cent of the 141 respondents indicated that they had a main card and the most frequently quoted reason for having such a card was the superior discount and promotions which were offered by the card issuer. Not surprisingly, main cards were used for the broadest range of transactions while subsidiary cards were used for a more restricted range of transactions, a majority saying that their subsidiary cards were held for “stand by purpose”. The results suggests that managers who market credit cards should aim to ensure that, in all times, the discount they offer, the promotions they arrange and their loyalty schemes are superior to those offered by competitors. By meeting these aims, higher number of consumers, who are multiple cardholders, are likely to use their card as a main card, thereby generating more income for their credit card issuer.
Amin (2008), “Factors affecting the intentions of customers in Malaysia to use mobile phone credit cards” shows that mobile phones have provided an opportunity for banking institutions to introduce new services to the public. The latest service, which is now available in Malaysian banking institutions, is the mobile phone credit card. The purpose of this paper is to provide a preliminary investigation of the factors that determine whether Malaysia’s bank customers will use the new mobile phone credit card technology. Paper extends the applicability of the technology acceptance model (TAM) to mobile phone credit cards and includes “Perceived credibility (PC)”, the “amount of information about mobile phone credit cards (AIMCs)” and “perceived expressiveness (PE)”, in addition to “Perceived usefulness (PU)” and “Perceived ease of use (PEOU)”. The result indicate that PU, PEOU, PC and the amount of information contained on mobile phone credit cards are important determinants to predicting the intentions of Malaysian customers to use mobile phone credit cards. However, PE is not an important determinant in predicting the intentions of Malaysian customers to use mobile phone credit cards.

Gan (2008) “Singapore credit cardholders: ownership, usage patterns and perceptions.” The purpose of this study is to analyse Singapore’s diverse cardholders in search of variations among demographic groups, credit card profiles, and their perceptions with regard to credit card ownership and use. It then aims to discuss possible reasons governing Singaporeans’ credit card ownership and use. In this study, decision trees were constructed using chi-square technique to examine the association between number of credit cards and the demographic characteristics, perceptions and other credit card-related variables. The number of credit cards was found to be significantly influenced by income and gender as well as perceptions that include “credit cards leads to over spending”, “Saving as payment source”, “unreasonable interest rates”, “credit card as status symbol.” The number of credit cards was also affected by credit-card-related variables such as missing payments sometimes, frequency of use, entertainment expenditures, and patrol purchase. This research provides an in-depth understanding of Singaporean multiple cardholders, thus it is useful in designing marketing strategies for card-issuers as well as anti-debit strategies for policy-makers in Singapore.
Al-Laham (2009) in his research “Development of Electronic Money and its Impact on the Central Bank Role and Monetary policy” asserts that, in recent years there has been considerable interest in the development of electronic money schemes. Electronic money has the potential to take over from cash as the primary means of making small-value payments and could make such transactions easier and cheaper for both consumers and merchants. Electronic money is a record of the funds or “value” available to a consumer stored on an electronic device in her possession, either on a prepaid card or on a personal computer for use over a computer network such as the internet. This paper argues that electronic money, as a network goods, could become an important form of currency in the future. Such a development would influence the effectiveness and implementation of monetary policy. Author feels that, if an increased use of e-money substantially limits demand for central bank reserves, it would require changes in the operational target of the central bank and a closer coordination of monetary and fiscal policies.