A Study on Fraud Faced by Banks or Credit Card **Companies in India – An Overview**

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Abstract

This paper demonstrates the growth in Indian financial sector through credit card system of private Banks; the technical development in Indian financial industry and computerization in the financial industry. The significance of money and credit need no exaggeration. Application of Technology has transformed very lifestyle of the people and the entire world is dependent on it. In service sectors like banking, education, health, retailing, etc. technology has become the main player. Integration of banking services with the technology has given rise for new 'technology-driven' services, apart from enhancing overall efficiency of the banking industry in serving customers. Credit card facility of banks combines technology with the flow of credit and serves the needs of customers. As civilization progressed, the support systems in the society got transformed with improved techniques and technology. Banking is one of such support systems. Today, the technology has transformed banking system from traditional, manual system to modern technology—driven industry. In this transformation, the role played by credit card is very significant.

India is one of the fastest growing economies in Asia; however, credit card use remains limited. The credit card market in India had witnessed a steady growth in the late 1980s and early 1990s, but currently stands stagnant. Indian banks such as State Bank Group, Citi Bank, Axis Bank, Bank of Baroda, Corporation Bank and HDFC offer credit card services to their customers.4 Credit card use represents a customer lifestyle and increase in the standard of living. The growing income of the upper middle class is an important driver of the credit card use. During the year 2007, credit card use in the Asia Pacific region stood at \$1.3 trillion, which was 30 percent of global credit card transactions. Japan led the region in total transactions made through credit cards (\$209 billion), followed by South Korea (\$203 billion). The total transaction made through credit cards in India was merely \$2 billion. Nearly, 70 percent transactions made through credit cards in India were for purchase of goods and services. For credit card companies targeting the Indian market and understanding credit card use patterns would be of great significance. India has a large population that has shown tremendous interest in credit card of private sector bank. Credit card has played important role in spending power of men and women and has promoted plastics money rather than paper money. Credit card demand in the Indian banking sector has seen tremendous growth in last few years. In the past few years, the financial industry around the world has been going through a quick transformation.

Key words Banking System, Smart card, advantage, benefit, credit card, debit card.

Introduction

Technology enables increased access of the banking system, increases affordability and makes small value dealings possible. Technological innovation allows transactions to take place quicker and provides remarkable comfort through various distribution channels. Technology enhances choices, creates new opportunities, and improves productivity and

efficiency. Effective use of technologies has a multiplier effect on growth and development. The Indian banking has accepted this change. This study was undertaken to understand consumer attitude and perception towards credit card use of private sector bank. The purpose of the analysis content is to demonstrate the development and technological development in Indian financial industry. As many Indian financial institutions seem at the modern ways, such as Online financial, to create a client's financial experience more convenient, efficient, and effective. The use of online in financial has greatly reduced the physical exchange of paper money and currency from one place to another or even from one person to another which reduces costs for financial institutions. It is also called digital financial. It may include wire exchanges, digital funds exchanges, and financial institution cards, debit cards. Internet financial is allow to using automatic teller machine and telephone deal and also websites for performing simple and advanced deal without actual presence of customers in financial institution, allowing client to publish their applications for different solutions, make concerns on their balance and publish instruction to the lender and also electronically exchange fund to their consideration, pay bill and other financial deal online. It also allows financial institutions to flourish their markets for traditional deposit taking and credit score expansion activities, and to offer new products and solutions. The deepening of technology has assisted better tracking and fulfillment of responsibilities, multiple delivery programs for online clients.

Recent new trends are very important in banking system, E-banking, Information technology, Credit card; Debit card and Smart card are very useful service provided by banks. New technology saves the time of customer n also banks. Most of people who lives in urban areas they know aware about to smart card uses n new technology but in rural area people don't know more about smart card and, credit card and new technology n new services about banks.

Objective:

This paper intends to explore credit card features, advantages and disadvantages. Also how credit cards enable an individual to purchase products or services without paying immediately.

Household credit card choice and usage behaviour

Taking cue from global economies, India too has been rapidly venturing into the plastic money business. In today's economy the credit cards are being widely used. During the past decades, these cards have become more and more popular in India. The holders are relieved from the risk of carrying cash or cheque book. In India, credit card use has been slow to catch on as compared to other countries such as China, Saudi Arabia, and Turkey. However, it is hoped that recent introduction of security features in credit cards is likely to increase its use among Indians.8 One of the major problems related to credit card use is that about 40 percent people in India do not have a bank account. In the years 1987-2000, the Indian credit market comprised of 3.8 million card holders with 25-30 percent growth rate. 9 However, in the recent past the scenario has changed dramatically. The number of Nationalised and private banks issuing credit cards has increased significantly. Credit cards are now not only integral parts of the consumer's life in metros, but even residents of smaller cities and towns have taken to them. This can be attributed to the aggressive strategy of nationalised and private banks to promote card products in smaller towns and cities. These banks have far wider reach and depth in smaller cities and towns as compared to foreign banks. They capitalized on this advantage to play a major role in expanding the credit card base in terms of number and usage in smaller cities and towns.

A Credit card is a card or mechanism which enables cardholders to purchase goods, travel and dine in a hotel without making immediate payments. The holders can use the cards to get credit from banks up to 50 days free of cost. The credit card relieves the consumers from botheration of the carrying cash and ensures safety. It is a convenience of extended credit without formality. Thus credit card is a passport to, "safety, convenience, prestige and credit." 2A credit card is a plastic card having a magnetic strip, issued by a bank or business authorizing the holder to buy goods or services on credit. Any card, plate or coupon book that may be used repeatedly to borrow money or buy goods and services on credit is called credit card issued to charge bills.3 Most retail firms accept credit cards. Credit cards allow consumers to make purchases without paying cash immediately or establishing credit with individual stores. They eliminate the need to check credit ratings and to collect cash from individual customers. The issuing institution establishes the card's terms, including the interest rate, annual fees, penalties, the grace period, and other features. Credit card debt is typically an unsecured debt. Repossession is not easily accomplished by the lender to ensure payment. Banks have often priced the product assuming maximum risk exposure4. A credit card is a device which enables the holder to obtain goods on credit from specified supplies. The holder of the card, in some cases, has to pay the yearly subscription and the suppliers also have to pay commission on sales to the bank or the body issuing the card. The suppliers are paid promptly and so are protected against bad debts, while the holder makes a single monthly payment to cover all the purchases for that period. Credit cards are issued only after the applicant's credit worthiness has been accepted as satisfactory. According to credit rating, holder of the credit card may be allowed a specified amount of credit from one month to another. 5 A credit card, as the name indicates, enables the cardholder to enjoy credit from the issuing bank for a specific period after the purchases. During this intervening period, the cardholder is allowed to use the card for incurring further expenses. A bankcard is used to make an electronic withdrawal from funds on deposit in a bank, as in purchasing goods or obtaining cash advances. Credit cards are one of the most popular forms of payment for consumer goods and services in India.

FEATURES OF CREDIT CARD

The features of modern credit cards such as owner identification, credit limit for its cardholders and floor limit for its merchant establishments, convenience and safety to add value of cards, wider usage or popularity all over the world and dependence on technology to keep operating cost to the minimum, have been a runaway success for credit cards.

Along with convenient, accessible credit, credit cards offer consumers an easy way to track expenses, which is necessary for both monitoring personal expenditures and the tracking of work-related expenses for taxation and reimbursement. Credit cards are accepted worldwide, and are available with a large variety of credit limits, repayment arrangement, and other perks (such as rewards schemes in which points earned by purchasing goods with the card can be redeemed for further goods and services or credit card cash back). Some countries, such as the United States, the United Kingdom, and France, limit the amount for which a consumer can be held liable due to fraudulent transactions as a result of a consumer's credit card being lost or stolen. A credit card is part of a system of payments named after the small plastic card issued to users of the system. The issuer of the card grants a line of credit to the consumer (or the user) from which the user can borrow money for payment to a merchant or as a cash advance to the user. A credit card is different from a charge card, which requires the balance to be paid in full each month. In contrast, credit cards allow the consumers to 'revolve' their balance, at the cost of having interest charged. Most credit cards are issued by local banks or credit unions, and have the same shape and size, as specified by the ISO 7810 standard

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VISA Card Systems

The proliferation of bank credits revealed a big drawback in the payment system. Cardholders could shop in their own geographic area and only at merchants that their banks were able to sign up. To overcome this drawback, Bank of America began forming licensing agreements with a handful of banks outside California to issue the Bank Americard, which in 1976 changed its name to VISA(5). 'VISA' is accepted in 150 countries all over the world. VISA stands for 'Visa International Service Association'. The Visa networks enable Visa International Payments (VIP). Through this system, one can withdraw cash from 8,40,000 ATMs in the Visa Global Network. It is accredited as a very secure and reliable way to make payment for anything one need anywhere in the world. Most of the banks have tie up with VISA International and thus, they can issue Visa Cards from any part of the globe. The country has witnessed unparalleled growth in payment card usage. VISA enjoys a membership of 42 principal and associate banks in India. By increasing the membership, they plan to extend the benefits of electronic payments to all sections of the population and geographical regions.

Master Cards

In 1966, 16 banks which did not obtain the bank Americards licenses formed an inter bank card association which was later known as "Master Card International". These members or associates of MasterCard International networks are authorized as MasterCard International Payments (MIP). MasterCard is owned by over 20,000 member organizations. They serve customers in over 210 countries and process over 15 million transactions a day in over 180 countries.

Like VISA, most of the banks have tie-ups and issue their branded Cards through the MasterCard networking worldwide. It manages the well-known payment card brands such as MasterCard, Maestro or Debit Card and the ATM Card. It serves various financial institutions, consumers and business-houses world over while offering its services in 48 languages. (7) Master and VISA are institutions operating at the global level facilitating the smooth operation of credit card payments in the world. They offer membership to agencies such as banks. The member banks affiliated to Master or Visa or both issue the credit cards with the logo of Master or Visa along with their own logo. Now VISA and Master cards are the leaders in the market of credit cards. VISA and Master card are institutions facilitating the smooth operations of credit card payments in the world. MasterCard is a product of MasterCard International and Visa Card is a product of Visa USA. Master card or VISA card or both is distributed by financial institutions around the world. Smart Card readers will be appearing on the PC and will enable the user to pay for goods purchased over the Internet.

This will be especially useful for small value purchases, which are not really appropriate for credit card transactions. If you have products that have relatively low value - for example a few pages of information about your product that customer may pay 50c for - they may well pay you in the future using a Smart Card. As a smart infrastructure for mobile computing, Smart Card technologies will prove to be the killer application for the networked economy. The Smart Card will be "charged up" with money and you will use it as you do cash or a phone card. In the near future, the traditional magnetic strip card will be replaced and integrated together into a single card by using the multiapplication Smart Card, which is known as an electronic purse or wallet in the Smart Card industry. It will be used to carry a lot of sensitive and critical data about the consumers ever more than before when compared with the magnetic strip card. Smart Cards are a relatively new technology that already affects the everyday lives of millions of people. This is just the beginning; soon it will influence the way we shop, see the doctor, use the telephone and even enjoy leisure.

Card transactions and chargebacks

Most often credit cards can provide convenience but it can also land in debt through unwise choices or through no fault of the own, such as an emergency. In order to overcome the risks of credit card use, avoid accumulating too many and pay the debt off on time, read terms and conditions carefully and take measures to avoid fraud. Credit card which is product has a negative impact on people because on the way they used their credit card, consumers think that using their credit cards for online shopping or other necessary things they might need to buy is a good thing, but they are actually wrong because is bad thing. They might not know if someone is taking their money and then might have to pay the overdrew of the credit card they have. Some other negative impacts are that consumers may continuously roll over the balance for several months. Also when consumers default on credit card payments, it's charged with late fees and interest increasing the debt load. Although chargebacks are perceived as one of the major cost components for merchants to accept card payments, little research has been conducted on them. To fill that gap, this paper describes the current chargeback landscape by generating detailed statistics on chargebacks for signature-based transactions. For Visa and MasterCard transactions, chargebacks merchants receive are, on average, 1.6 basis points (bps) of sales number and 6.5 bps of sales value. About 70 to 80 percent of chargebacks are resolved as merchant liability. The most common chargeback reason is fraud, which accounts for about 50 percent of the total chargebacks. The merchant fraud loss rate is 0.7 bps in number and 2.6 bps in value. For American Express and Discover transactions, the total and fraud chargeback rates are somewhat lower. For all of the four networks, the total and fraud chargeback rates are significantly higher for card-not-present transactions than for card-present transactions. They also vary by Consumers and businesses are increasingly expecting faster payments. While many countries have already developed or are in process of developing faster payments, the availability of these payments is fragmented in the United States. The recently released paper by the Federal Reserve encourages private sector participants to provide faster payment services. However, private-sector faster payments systems will face significant challenges in achieving public policy goals of ubiquity, safety, and efficiency unless system governance represents broad public interests. One way to better align private-sector interests with those of the public is for the Federal Reserve to influence governance of the private-sector systems through its leadership role merchant category. Our fraud results are generally consistent with other available fraud statistics. Fraud is one of the major ethical issues in the credit card industry.

Type of fraud faced by banks or credit card companies

The main aims are, firstly, to identify the different types of credit card fraud, and, secondly, to review alternative techniques that have been used in fraud detection. The sub-aim is to present, compare and analyze recently published findings in credit card fraud detection. This article defines common terms in credit card fraud and highlights key statistics and figures in this field. Depending on the type of fraud faced by banks or credit card companies, various measures can be adopted and implemented. The proposals made in this paper are likely to have beneficial attributes in terms of cost savings and time efficiency. The significance of the application of the techniques reviewed here is in the minimization of credit card fraud. Yet there are still ethical issues when genuine credit card customers are misclassified as fraudulent. In the credit card business, fraud occurs when a lender is fooled by a borrower offering him/her purchases, believing that the borrower credit card account will provide payment for this purchase. Ideally, no payment will be made. If the payment is made, the credit card issuer will reclaim the amount paid. Today, with the expansion of e-commerce, it is on the internet that half of all credit card fraud is conducted. Fraudsters have usually connections with the affected business. In the credit

card business, it can be an internal party but most likely an external party. As an external party, fraud is committed being a prospective/existing customer or a prospective/existing supplier.

Three different profiles can be identified for external fraudsters: the average offender, criminal offender, and organized crime offender (Phua et al., 2005). Average offenders display random and/or occasional dishonest behavior when there is opportunity, sudden temptation, or when suffering from financial hardship. In contrast, the more risky external fraudsters are individual criminal offenders and organized/group crime offenders (professional/career fraudsters) because they repeatedly disguise their true identities and/or evolve their modus operandi over time to approximate legal forms and to counter detection systems (Phua et al., 2006; Phua et al., 2004). For many companies sometimes dealing with millions of external parties, it is cost-prohibitive to manually check the majority of the external parties' identity and activities. Indeed, to investigate each suspicious transaction, they incur a direct overhead cost for each of them. If the amount of a transaction is smaller than the cost of the overhead, investigating is not worthwhile even if it seems suspicious (Chan et al., 1999; Oscherwitz, 2005). In order to avoid these overheads and depending on the type of fraud committed, diverse solutions can be implemented. Cross-matching works on the premise that once someone has been successful in perpetrating a fraud, they will attempt to repeat their success with another lender; cross-matching can then detect identity crime. Therefore, some lenders have begun to send details of applications into a central data bank, where some matching algorithms operate to identify common features. Many matching rules will be applied and it is acknowledged that many falsepositive cases will be identified (Thomas et al., 2004). Cross-matching techniques have been recommended by Phua et al. (2006), who develop a technique for generating numeric suspicious scores on credit applications based on implicit links to each other. The purpose is to derive an accurate suspicion score for all incoming current or new applications in real time (Phua et al., 2006). Solutions: to improve the pair-wise matching technique, the authors combined pair-wise matching and suspicious behavior. For instance, considering the number of applications is one way to define a suspicious behavior. Another criterion is the number of active cards corresponding to the combination of fields. The issue is to define relevant fields. The design of pair-wise matching for dynamic applications has to be effective and efficient (Phua et al., 2006). In the credit card business, one key element is the address. It is where the card will be sent. The only way for fraudsters to get several cards is to pick them at one address or several addresses. If the cards are sent to different addresses under different names, application fraud detection is rather difficult.

Fundamental to prevent fraud applications

Those fraudsters will be identified later on once they use the cards and behave according to their profile (over their limit, off-line transactions, abnormal transaction, delinquency status, etc.). However, those giving the same address under different names can be identified. A proposal which has been tested is to pair-wise the number of applications, the address, the postal code and the number of active cards. In order to pair-wise correctly, a first step is to "clean" the applications. For instance, consider a German address; the system has to be developed in a way that "Hauptstr.29" will be pair-wised with "Hauptstrasse29" or that "Heidestrasse85" will be pair-wised with "Heidestr.85". The second step is similar for the postal code; "77756" has to pair-wised with "D77756". This pre-work on the data is fundamental to prevent fraud applications. Fraudsters will always try to find new ways to beat the system, which is why those control checks have to be up-dated as often as possible. A suggestion is to have three levels of risk for the different fraudulent behavior: level 1: "high risk" - this group contains all individuals with the same address and postal code and at least one active card listed 10 or more times; level 2: "medium risk" – this group contains all individuals with the same address and postal code and at least one active card listed at least 5 times but less than 10 times; and level 3: "low risk" – this group contains all individuals with the same address and postal code and at least one active card listed at least twice but less than 5 times. Applications: the technique was applied to a full application data set supplied by a German bank in 2006. For banking secrecy reasons, only a summary of the results obtained is presented below. After applying this technique, the level 1 list contains a few cases but with a high probability of being fraudsters. All individuals mentioned in this list had their cards closed to avoid any risk due to their high risk profile. The situation is more complex for the other list.

The level 2 list is still restricted enough to be checked on a case by case basis. Credit and collection officers considered that half of the cases in this list could be considered as suspicious fraudulent behavior. For the last list and the largest, the work is fairly heavy. Less than one third of those customers are suspicious. In order to maximize the time efficiency and the overhead costs, an option is to include a new element in the query; this element can be the five first digits of the phone numbers, the email address, and the password, for example, those new queries can be applied to the level 2 list and level 3 list.

Conclusion

One major thing has been rightly noted by working group that the applicability of various existing laws and banking practice to new technology is not least and is still evolving, in the field of banking system ,there is a need for constant review of different law relating to banking and technology. Would like to emphasize the role of institution and incentives in ensuring globalization that benefit all. The global giants in banking all over the world are named by Indians and education in India. The best of technology for the most sophisticated banks in the word is provided by Indian companies and by Indians in foreign companies. Yet banks in India do not as yet appear to be world class. Now a day's banking industry is expanding in remark areas and people of those village areas are also talking benefits of these facilities private plays are also attracting in these areas because of RBI guide lines. Thus we can say that Indian banking system well developed that is why it is mostly affected by recession time. One reason is this is that the regulatory authorities and various legislation. Competition are also playing main role in technologies upgrading in banking industry.

Recent new trends are very important in banking system, E- banking, Information technology, Credit card; Debit card and Smart card are very useful service provided by banks. New technology saves the time of customer n also banks. Most of people who lives in urban areas they know aware about to smart card uses n new technology but in rural area people don't know more about smart card and, credit card and new technology n new services about banks.

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