



RECENT BANKING SYSTEM WITH SPECIALIZED TO SMART CARD

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Abstract:

Today, we are having a fairly well developed banking system. Trends in banking sector are changing the industry and are having major effects on consumer. Recent trends in banking sector fulfill with new technology who makes life very simple to customers. Credit card, ATM card n Smart card are very useful in money transaction. They trends saves the time of customer and also banks. in current scenario "Key to the global village", slogan is only fulfill by applicability of advanced technology ., Smart Cards will bring big changes to the way people provide and receive information and the way they spend money. They will have a profound impact on retailing and service delivery.

A Smart Card is like an "electronic wallet". It is a standard credit card-sized plastic intelligent token within which a microchip has been embedded within its body and which makes it 'smart' .The rest of the paper is organized as follows; the next section briefly discusses the Recent trends in banking system .section two looks into history of smart card ,what is Smart card n types of smart cards and their uses. Section three looks into some application areas, their advantages and benefits in this section the future directions of smart card technology giving more emphasis to security consideration and memory management among others. The section also discusses some areas that need further studies in order to improve the current state of smart cards so that they can fit into the future growing banking system. Finally, the paper concludes in four sections .

Keywords: Banking System, Smart card, advantage, benefit

Introduction

Today, we are having a fairly well developed banking system with different classes of banks – public sector banks, foreign banks, private sector banks – both old and new generation, regional rural banks and co-operative banks with the Reserve Bank of India as the fountain Head of the system.

In the past customer rarely notice the computer system or new technology that made the information system operate .Today E- banking, smart card; credit Card. ATM is very important in banking sector. Today website electronic mails and electronic bill presentment and payment system are in important way the banks to reach their customers.

New trends in banking sector is changing the industry and is having major effects on banking relationship. Recent trends in banking sector fulfill with new technology who makes life very simple to customers. Credit card, ATM card n Smart card are very useful in money transaction. They trends saves the time of customer also banks. Smart Cards will bring big changes to the way people provide and receive information and the way they spend money. They will have a profound impact on retailing and service delivery.A Smart Card is like an "electronic wallet". It is a standard credit card-sized plastic intelligent token within which a microchip has been embedded within its body and which makes it 'smart'. It provides not only memory capacity, but computational capability as well and thus the chip is capable of processing data. It has gold contacts that allow other devices to communicate with it. This chip holds a variety of information, like medical/healthcare records. New information and applications can be added depending on the chip capabilities. Smart Cards

can store several hundred times more data than a conventional card with a magnetic stripe and can be programmed to reveal only the relevant information.

Objective of the study:

- To determine the recent trends in banking sector.
- To determine the relation banking and society, new technology & society and smart card & society.
- To know about the impact of new technology of banking system as like smart card on society.
- To know about the new technology and recent trend in banking system.
- To study the new trends in banking system and its products.

RESEARCH METHODOLOGY

• Sample size and methods of selecting sample :-

For the satisfying the major objectives of the research, I have gone for both primary and secondary data collection.

• Source of data collection:-

Research will be based on two sources.

A). PRIMARY DATA

Questionnaire:

Primary data was collected by preparing questionnaire for customers.

B). SECONADARY DATA

Secondary data will consist on different literature like books, which are published, articles, Internet, Different banks manuals and website of banks, different website of relevant to smart card. In order to research relevant conclusion, research work needed to be designed in a proper way.

Recent trends

1. Credit Cards:-

Everyone carries a card these days. A credit card is basically a plastic card with a magnetic strip invented with the intention to simplify the complicated banking process for an individual in case he/she is short of cash, be it something casual like shopping or something severe like an emergency situation. Various banks and private financial organizations have now started

providing credit card facility to their clients to offer them better and simpler financial solutions to their problems' credit card generally works by giving its holder an immediate authority to purchase services and goods such as travel and hotel reservations as well as shopping for merchandise in and outside your own country.

All the credit card comes with a credit limit,

2. Debit Card:- payment card that deducts money directly from a consumer's checking account to pay for a purchase. Debit cards eliminate the need to carry cash or physical checks to make purchases. In addition, debit cards, also called check cards, offer the convenience of credit cards and many of the same consumer protections when issued by major payment processors like Visa or MasterCard. Unlike credit cards, they do not allow the user to go into debt, except perhaps for small negative balances that might be incurred if the account holder has signed up for overdraft coverage. However, debit cards usually have daily purchase limits, meaning it may not be possible to make an especially large purchase with a debit card.

Read more: Debit Card

<http://www.investopedia.com/terms/d/debitcard.asp#ixzz4jsXuv0yn>

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3. ATM:-

An automated teller machine or automatic teller machine (ATM), also known as a Cash point (which is a trademark of Lloyds TSB), cash machine or sometimes a hole in the wall in British English, is a computerized telecommunications device that provides the clients of a financial institution with access to financial transactions in a public space without the need for a cashier, human clerk or bank teller. ATMs are known by various other names including ATM machine, automated banking machine, and various regional variants derived from trademarks on ATM systems held by particular banks. On most modern ATMs, the customer is identified by inserting a plastic ATM card with a magnetic stripe or a plastic smart card with a chip, that contains a unique card number and some security information such as an expiration date or CVVC (CVV). Authentication

is provided by the customer entering a personal identification number (PIN).

Uses of ATM in banking sector Cash Withdrawal and Balance Enquiry, Cash /Cheque Deposit, Bill Payments, Sale of Paper Based Products:-

Bank and Information technology:-

In the five decades since independence, banking in India has evolved through four distinct phases. During Fourth phase, also called as Reform Phase, Recommendations of the Narasimham Committee (1991) paved the way for the reform phase in the banking.

Entry of new banks resulted in a paradigm shift in the ways of banking in India. today is in the midst of an IT revolution.

Information Technology has basically been used under two different avenues in Banking. One is Communication and Connectivity and other is Business Process Reengineering. Information technology enables sophisticated product development, better market infrastructure.

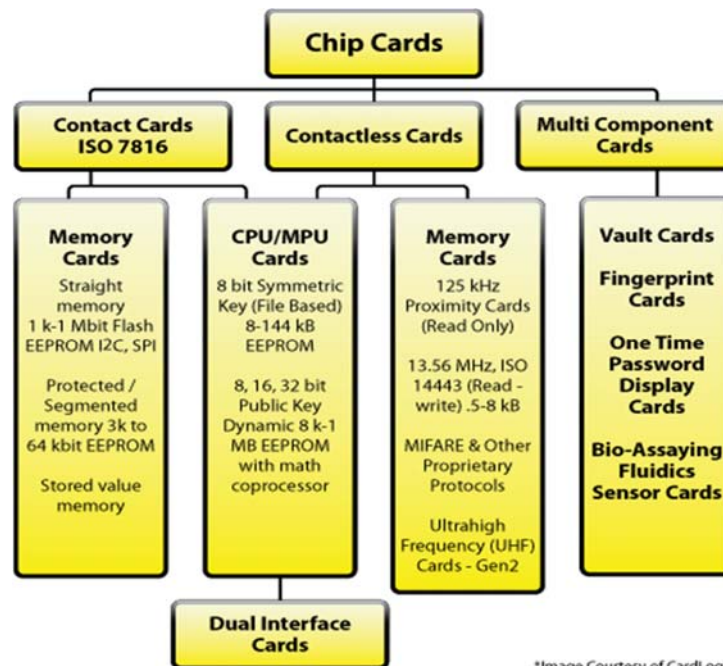
The middle and late 90s witnessed the tornado of financial reforms, deregulation, globalization etc

coupled with rapid revolution in communication technologies and evolution of novel concept of 'convergence' of computer and communication technologies, like Internet, mobile phone etc.

E- Banking & internet:-

The impact of e-banking is not limited to industrial and advanced emerging economies. Even in countries with underdeveloped banking systems, E-banking has offered many new business opportunities.

In simple words, e-banking implies provision of banking products and services through electronic delivery channels. Electronic banking has been around for quite some time in the form of automatic teller machines (ATMs) and telephone transactions. In more recent times, it has been transformed by the internet a new delivery channel that has facilitated banking transactions for both customers and banks. For customers, the internet offers faster access, is more convenient and available around the clock irrespective of the customer's location. For banks, it is a much more efficient and cost- saving channel



SMART CARD APPLICATION AREAS

The first chip cards were simple prepaid telephone cards implemented in Europe in the mid-1980s, using memory cards. Today, the Industry

major active application areas for microprocessor-based smart cards include many of industries .: Here are some industries and their applications:

Industry	Application
Accountants	Business cards, client id, promotions, calendar cards
Airports	Employee access cards, security ID badges
Associations Memberships	Identification cards (ID cards), point of sale (POS) Discounts, calendar cards
Automobile dealers	VIN ID cards, dealer loyalty, discounts, warranty cards
Bars, nightclubs	VIP cards, preferred door entry, membership cards
Car Wash	Frequency cards, pre-paid car wash cards
Clubs	Membership cards
Computers	Warranty card, customer support, internet access#'s, discounts
Dry Cleaners	Discount cards, frequent customer cards
Golf Courses	Membership cards, bag tags, prepaid greens, ball dispensers
Hotels	Discount, frequency cards, key cards, employee ID badges
Investment	Customer cards, calendar cards
Library	ID cards, bar codes
Real Estate	Business cards, telephone cards, calendar cards
Rental Services	Identification, preferred entry
Restaurants	Promotional, discount, membership, loyalty, preferred customer cards
Retail	Customer cards, cheque cashing, discount & loyalty cards
Security	Access control, name badges
Shopping Centers	Customer, discount cards, loyalty programs
Travel Agents	Telephone cards, customer cards

• **Financial Applications**

Electronic Purse to replace coins for small purchases in vending machines and over-the-counter transactions. Credit and/or Debit Accounts, replicating what is currently on the magnetic stripe bank card, but in a more secure environment. Securing payment across the Internet as part of Electronic Commerce.

• **Communications Applications**

The secure initiation of calls and identification of caller (for billing purposes) on any Global System for Mobile Communications (GSM)

phone. Subscriber activation of programming on Pay-TV.

• **Government Programs**

Electronic Benefits Transfer using smart cards to carry Food Stamp and WIC food benefits in lieu of paper coupons and vouchers. Agricultural producer smart marketing card to track quotas.

• **Information Security**

Employee access card with secured passwords and the potential to employ biometrics to protect access to computer systems.

- **Physical Access**

Employee access card with secured ID and the potential to employ biometrics to protect physical access to facilities like Transportation, Drivers Licenses, Mass Transit Fare Collection System & Electronic Toll Collection Systems.

- **Health Card**

Consumer health card containing insurance eligibility and emergency medical data.

- **University Identification**

All-purpose student ID card (a/k/a/ campus card) , containing a variety of applications such as electronic purse (for vending and laundry machines), library card, and meal card.

Advantage of smart card

One of the latest standards in secure access is secure ID cards, also known as smart cards. Given enough time and computing power, hackers can and will obtain your passwords. That's why you should consider implementing smart cards, which boost access security.

Secure access

By incorporating smart card logon access control to your network, you eliminate a username/password compromise as a potential point of entry. In addition, deploying smart card logon to your network offers the following benefits:

- **Positive identification:** You verify users by photo identification when issuing their account.
- **Strong authentication:** Most smart cards use a nonreversible encryption algorithm to transmit user token requests and deliver the user access token through similar security.
- **No repudiation:** Because of the physical and logical requirements, a person can't deny participation in a network transaction.
- **Secure certificate mobility:** By placing user certificates on the card, they remain on the card after user logoff.

Active Card tops a very short list of vendors that support several operating systems, including Red Hat Linux, Mac OS X, Solaris, Windows 98, Me, NT, 2000, and XP. This includes authentication for the applications that run on these platforms and Web-enabled applications.

Secure identity

Smart cards are an enhancement to Public Key Infrastructure (PKI) certificates. From your certificate server, you can generate user certificates to verify a client's identity. However, the private key for these certificates ends up on the hard drive of the system the client uses to access the secure content.

By transferring that private key to a physically mobile device, such as a smart card, you have a secure, mobile identity certificate that clients can safely use for network access and document or e-mail signing, regardless of where the access point originates.

In addition, the current generation of smart cards allows you to easily create and manage access policies through roles for different users and groups.

The key advantages of smart card technology include:

- The capacity provided by the on-board microprocessor and data capacity for highly secure, off-line processing.
- Adherence to international standards, ensuring multiple vendor sources and competitive prices.
- Established track record in real world applications.
- Durability and long expected life span (guaranteed by vendor for up to 10,000 read/writes before failure).
- Chip Operating Systems that support multiple applications and secure independent data storage on one single card.

Smart card.....The Future

The important thing about Smart Cards is that they are everyday objects that people can carry in their pockets, yet they have the capacity to retain and protect critical information stored in electronic form. The "smartness" of Smart Cards comes from the integrated circuit embedded in the plastic card. Embedding similar circuits in other everyday objects, such as key rings, watches, glasses, rings or earrings, could perform the same electronic function. The development of contactless card technology was the catalyst for what is known as tags. Tags function like contactless Smart Cards but are in the form of a coin, a ring or even a baggage label. They are generally attached to objects such as gas bottles, cars or animals and can hold and protect information concerning that object. This

allows the object to be managed by an information system without any manual data handling. The use of Biometrics will soon mean that his/her hand, fingerprint and the retina of the eye or the sound of the voice can reliably identify a person. Soon it will be possible to authorize the use of electronic information in Smart Cards by using a spoken word or the touch of a hand.

Also, 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 multi-application 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!!!

Conclusion & suggestions

In conclusion as 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.

I 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 world 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.

After studying the doctrinal part conducted a survey to find the result related to recent trends in banking system. I prepared a questionnaire and took a sample 40 respondents and conducting a survey and found out same conclusion about the vise of people about banking services which are being discussed below.

1. That mostly respondents are using banking service but some of them relating to professions and business are using as a main of monetary transaction in day to day routine.
2. The ratio of male or females is not similar; women participant in banking services is less then males but I being increases day by day.
3. 60% Respondents says that they people ATM and Credit Card and 30% prefer Smart Card.
4. Mostly general people are not aware about rules and regulation and legal provision but some highly educated people pay deep interest in such provisions.
5. 60% people user of banking services know about e-banking, 27% says somewhat and 10% says that don't know. In result be can says that people are more aware and using latest facilities of banking services.

6. Credit card and Debit card is more useful facility than Smart Card so banks should have to expand and make easy to service of smart card.
7. In overall result we can say that most of respondents are satisfied with banking services including Smart Card. They are using but few respondents which have even faced any problem that are not satisfied.

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