Security Aspects of Alternate Channel Banking- Technology Management

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Preamble

Banking Industry is facing a challenge in change of service delivery, adding more alternative channel for distributing their services with better and the best service standards compared to their peer banks, who are competitors for their share of business in the market.

“Bank” by definition is a commercial institution licensed for receiving, lending, exchanging, safeguarding money and, in some cases, issuing notes. They are mainly concerned with certain financial services, such as the safekeeping of money, conversion of domestic into and from foreign currencies, lending of money at interest. In most countries banks are supervised by the national government or central bank.

Banks continue to offer value added Products and Services for customer acquisition and retention. Retail banking technology is gaining its importance due to the demand in the market. Alternate delivery channels and channel integration expectation were increased to greater extend from customers. Branch Banking channels are just as business expansion channel rather than Transaction processing centre.

More and more customers are moving out of the Branch Banking channel to other alternate delivery channels. Rapid penetration of Computers, High Technology Mobile phones and broadly available internet providing on-line Transaction and purchase options encouraged increasing usage of technology banking.

In addition to the branch, there are few other distribution channels in retail banking as follows:

- ATMs/ CAMs
- Debit Cards,
- IVR,
- Call centre/ Phone Banking,
- Internet Banking &
- Mobile Banking.
The Information Technology Team and the Bank’s Top Management are in urgent need and analysis to know the Risks and the Benefits on providing their valuable services using these alternative channels. This is required urgently for them to:

1) Deliver the services simpler
2) Deliver the services Fast
3) Deliver the services securely
4) Acquire new customers
5) Retain their existing customers
6) Keep customers highly satisfied on the services provided
7) Lower operational cost
8) Lower transaction processing cost
9) Wider customer base irrespective of geographical barrier
10) Higher profits on bottom-line

This study is for both the factors influencing the Banks to go for a new service delivery channel and the factors influencing the banks in stopping them to go for it.

Problem Statement:
The fact is globally Banks are facing a major change, in terms of providing their services to their customers like going for Core-banking-solution, installing more number of ATM, introducing Internet Banking and more channels by investing few millions. We see from the analyst point of view, many Banks are forced to take up more initiatives on implementing as much of alternative channels as possible by various factors like the regulatory and the demand from the customers. On the other hand, there are so many factors influencing the banks to be more cautious on their decision considering the risk(s) and the threat(s) like Hacking, Phishing, Virus and more… which creates resistance amongst the users who are supposed to use the channel. Hence Banks are in urgent need to provide the solutions to the users, which is the Main objective of this Study.

Research Objectives:

i) To find the factors influencing banks as benefits to go for Alternative channels
ii) To find the factors influencing banks considering as risk before they decide on a Channel
iii) To enlist the suitable suggestion to Users while using an Alternative channel effectively

Research Limitations:

i) The Study is carried with few sample across various countries
ii) The Sample observed is 100 from 10 Banks spread across 5 countries through mail.
iii) The study is limited to top level executives of Banks like Head of IT/ Operations/ Finance/ HR …
iv) Research Tenure is limited to 2 month January 2011 & February 2011
Research Parameters

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The above said parameters have been taken by the researchers in this research for the discussion and analysis purpose to find out the decision making process for Alternate channels.

**Data Collection:**

The researcher has collected the primary data. Primary data refers to information obtained firsthand by the researcher on the variables of interest. The researcher has collected the data through the Questionnaire by communicating via e-mail with the respondents. The respondents were the Top management executives-Heading various departments of the Bank, who are controlling the Branch Managing team which deal with customers face to face and they directly reports to the Management Board of the Bank including CEO, CFO, COO and all major stake holders.

**Research Scope:**

Using this study, the decision making process of various banks across globe can be analyzed and the factors which influence the decision making can be determined. The findings and suggestions of this study can be used by other Banks who are planning to implement a new service delivery channel.

**Brief Summary about the banking process:**

Like in productions and operations management Distribution channels move products and services from businesses to consumers and to other businesses. The channels of distribution consist of a set of interdependent organizations—such as wholesalers, retailers, and sales agents—involved in making a product or service available for use or consumption. Banks have these Alternate delivery channels available for the customers to make use of the financial services at their convenience and ease which involves various vendors.

The growth of alternative delivery channels is redefining the role and use of the branch, earlier branches were standalone and does not have any relation with other branches. However, now we got core banking system, which was implemented in almost all banks, by which the customer can access his account from any of the branch even other than where he maintains his account.

On 18th August 2006 in Mumbai Indian Banks’ Association (IBA), in association with IBM and IBS Publishing, conducted a half-day briefing on ‘Emerging Paradigms in Branch Transformation’. There were few representations for the alternate delivery channels during that time, which I want to flash them here as a reference and the origin of thought.

Mr. H N Sinor, Chief Executive, IBA, in his opening remarks recounted that historically a branch was treated as a ‘bank within a bank’ and the employees were used to providing only service. The advent of technology, peer pressure and rising customer aspirations has made it imperative for this attitude to
change. ‘The branch has to shift from being service only to sales and service outfit,’ he emphasized. ‘The change involves labour practice issues, and requires a whole new approach to human resource management in banks.’ While lauding the benefits of alternate delivery channels to customers, he had a word of caution against indiscriminate migration of banking services out of the branch.

Mr. V Vaidyanathan, Sr. General Manager & Country Head-Retail Banking, ICICI Bank Ltd., termed the branch of the future as a ‘financial store’. The emphasis on sales activity by branches and migrating low-value transactions out of the branch was his prescription as well. The two pitfalls that need to be avoided, said Mr. Vaidyanathan, are ‘generalization’ and ‘conventional wisdom’. He recounted that aggressive migration to alternate delivery channels had created a piquant situation when the only visitors to the branch were bearers and no customers. He concluded that the knowledge of customer behavior is going to be of utmost importance for competition. Quoting from a study in developed countries, he informed that ‘very few banks anywhere in the world have a 360 degree view of their customers’. ‘Next wave of retail banking will be based on intelligence, which alone will power differentiation and innovation,’ predicted Mr. Vaidyanathan. This is happening very well now. Booming economy and continuous per capita income increase will further push the living standards of people. Due to the Phenomenal rise in nuclear and dual income families; enhanced spending power & Increasing literacy levels, Customers’ preference to more and more alternate delivery channels for convenience in Banking is gaining importance.

In an indication of sustained economic growth in INDIA, the per capita income in the national capital has increased to Rs 78,690 in the financial year 2007-08 as against the national figure of Rs 33,283. The per capita income in the city saw an increase of Rs 8,452 over 2006-07 figures at current prices, according to the Delhi government data released on 09 March 2010. Delhi per capita income, which indicates an average earning of a person, is the third highest in the country with Chandigarh having per capita income of Rs 1,10,676 topping the list and closely followed by Goa at Rs 1,05,582.

ATMs have been around for a long time since the 1960s, as have call centers for phone banking since the 1970s, and both have contributed to a steady decline in branch traffic over the last several years. The rapid expansion of the online channel via internet in recent years has also shifted a significant volume of transactions away from the branch. And the projected strong growth rate for mobile banking (mobile access through a handheld device like a Blackberry or iPhone) will reduce branch transaction volume even further while creating new product opportunities for banks.

According to Fred Graziano, TD Bank Financial Group Inc. of Toronto, Canada’s president for regional retail banking, the steady decline in the branch transactions is evident and stands at 43%. But online, ATM, and call center channels combined account for about 57% of total retail banking transactions.

One of the more challenging aspects of managing a multichannel distribution strategy is delivering the same level of consistency across the spectrum. “You need high quality in all your channels,” says Graziano at TD Bank. And for an alternative channel like online, “It has to be simple. It has to be fast. And it has to be secure.”

**Referred Research based Literature Review:**

**ATM**

On 27th June 1967 the first “Cash Machine” colloquially called as “Hole on the walls” and was described as “Mini-Banks” which was designed to allow customers access to cash 24 hours a day, outside of the restrictive opening times of banks. This is the origin of the Alternate delivery Channel for Banks services, via ATM which is the first such delivery channel Bank’s started using.

On the 40th Birthday of the “Cash machines” John Shepherd Barron, the inventor of the ATM, said: "I am delighted that the cash machine is still going strong. I remember back in 1965 that I would always take money out of my bank on a Saturday morning. However, one Saturday I was one minute late at my bank and it was closed. I had to ask my local garage to cash my cheque. That night I started thinking that there must be a better way to get cash when I wanted it. I thought of the chocolate vending machine where money was put in a lot and a bar dispatched - surely money could be
dispensed in the same way. Within two years my idea had become reality and we opened the first cash machine at Barclays Enfield."

John Warren, head of ATMs for Barclays Bank, said: "The hole in the wall or cash machine, more than any other banking innovation, has had a major impact on the way we all conduct our lives, not just our banking. Forty years ago cash was only available from 9-3 pm Monday to Friday and Saturdays from 9 -12.30 pm, and as cash was king queues outside branches on a Saturday morning to get weekend money were common. Now you can get money anytime, anywhere”.

PHOTO BANKING (CALL CENTRE)
Next major alternate channel is the CALL centers originated as a cost-cutting measure by US companies several decades ago, but they only really started to take off in the UK in the 1970s. The initial centers were in-house operations in larger banks.

Telephone banking is a service feature offered by many banking institutions. The process involves using the keypad on a touch-tone telephone to perform a variety of banking functions. Along with traditional banks, phone banking is also utilized extensively by online banking institutions, including banks that conduct business primarily with the use of telephone technology.

The concept of telephone banking has been around for several decades. Initially, the process required manual intervention by a bank employee. Customers would call into the bank, answer questions to verify their identities, and submit queries to the service representative. While somewhat labor intensive, this approach did make it possible to conduct a number of banking transactions from the comfort of home.

With the advent of touch-tone services, the idea of telephone banking took on a new direction. Instead of connected with a live bank representative, customers could use the keypad on a touch-tone phone to enter an automated system and obtain information on bank accounts as of the latest posting day. One advantage of this newer approach is that bank customers could call any time of the day or night and check the status of their accounts. As technology continued to progress, the scope of functions that could be performed with the automated system expanded, making the service even more valuable to customers.

There are several ways that a telephone banking service may be configured. Some function off a validation process that includes voice recognition before access to the customer accounts is granted. Other systems make use of login credentials such as user names and passcodes that must be entered using the telephone keypad. Once the customers enters the correct data, the automated system makes it possible to perform a wide range of functions in relation to the accounts connected with the login credentials.

The typical bank telephone customer can access his or her accounts to perform a variety of functions. Balances can be checked and the latest activity can be reviewed. The customer can also transfer funds between accounts using telephone banking, as well as order more checks, make loan payments, or request information on other services the bank offers.

In addition to use by traditional banks, telephone banking is also utilized by virtual banks that rely heavily on telephone and Internet access to process transactions and provide information to customers. Telephone banks generally function primarily by establishing access credentials that can be used on any telephone with touch-tone service. In addition, the transactions or queries can be conducted around the clock, an advantage that allows the telephone bank to seek clients in any area of the world where the bank is authorized to conduct business.

INTERNET (ONLINE) BANKING
Online banking services were the distance banking services over electronic media from the early 1980s using a terminal, keyboard and monitor to access the banking system using a phone line. Online services started in New York in 1981 when four of the city’s major banks (Citibank, Chase Manhattan, Chemical and Manufacturers Hanover) offered home banking services using the videotex system. Because of the commercial failure of videotex these banking services never became popular except in
France where the use of videotex (Minitel) was subsidised by the telecom provider and the UK, where the Prestel system was used. The UK's first home online banking services was set up by Bank of Scotland for customers of the Nottingham Building Society (NBS) in 1983. The system (known as 'Homelink') allowed on-line viewing of statements, bank transfers and bill payments. Stanford Federal Credit Union was the first Non-Banking financial institution to offer online internet banking services to all of its members in October 1994. Oliver, Wyman & Co has carried out a study of how the customers of one bank felt about branches. It showed that, for products like mortgages, pensions and investments, 80 per cent of them were not interested in purchasing via the phone or electronic channels. More tellingly, 50 per cent did not compare brands across these products but simply went to the branch of their preferred supplier. 'You can't totally believe it,' allows Weil, 'but it does suggest a huge innate loyalty to face-to-face transactions that supports a branch presence. People who use branches are more loyal, compared to the Egg user.' He tells of an instance where his firm actually recommended to a bank that it increase its branch numbers.

Ambrose McGinn is Abbey National's retail e-commerce director, so he might be expected to be e-crazy. Yet McGinn likes to remind people of Charles Schwab, the US broker widely seen as an icon of e-business. 'Schwab gets 70 per cent of its business though its newly built bricks and mortar offices,' he points out. 'Subsequent transactions are then handled on the internet. People want eyeball-to-eyeball, to build a level of trust, and then they will do business on the internet.' A recent press release reads that, Deutsche Bank plans to reduce its branch count from around 1400 to 1200 over the next couple of years. It claims, however, that the emphasis is less on reduction and more on how the branches are staffed and what their role will be. Weichert says that 15 to 20 per cent of Deutsche's customers are open to pure telephone and internet banking. Another 20 per cent positively hate technology and insist on using a branch. The other 60 per cent are in the middle. From time to time they prefer to use a branch, but for convenience reasons they will use the internet or telephone for daily transactions.

MOBILE BANKING
At Toronto in a press release on 03 February 2010, Sonia Baxendale, President CIBC Retail Markets said “CIBC is proud to be the first major bank in Canada to offer our clients a Mobile Banking App to make banking with CIBC even more flexible on their iPhone.”
On 17 April 2010 Mr Syed Salim Raza, Governor of the State Bank of Pakistan, at the Pakistan Branchless Banking Conference 2010, Karachi, highlighted few points about Mobile Banking: “In addition to significant cost reduction, alternative delivery channels expand outreach to areas in which the traditional bricks and mortar approach is unfeasible, and also increases product diversification by making savings and remittance products convenient, efficient and profitable. On the client side, such delivery channels provide unprecedented convenience through remote payments.” And he also quoted few examples as “Take for example, Kenya where the largest mobile service provider, Safaricom launched M-PESA in 2007. It now has nearly 7 million clients in a country of 38 million people. It records an average of 10,000 new registrations per day. M-PESA offers mobile phone-based services to clients across the country through a network of more than 10,000 agents for account opening, handling of deposits and withdrawals into the customer’s virtual “wallet,” and customer support services. These agents can take cash from customers and credit it to their mobile account, and transfer money to other registered users. M-PESA has significantly reduced many of the spatial and temporal barriers to money transfer. The important outcome of M-PESA is the penetration of money flows to rural and hard-to-reach areas. According to a recent study, the income of Kenyan household using M-PESA has increased by up to 30% since they started mobile banking. In Asia, Philippines were an early user of mobile banking initiatives. The central bank of Philippines (BSP) has played an active role in the emergence of mobile banking. The BSP allowed two models for mobile banking. In first model i.e. bank-based model, the BSP allowed banks to outsource functions to one mobile operator i.e. Smart Money in 2001. In the second model i.e. nonbank-based model, BSP
registered G-Xchange (a subsidiary of a giant telecom, Globe) as a remittance agent in 2004. Under both the models, merchants were allowed to conduct KYC.”

Retail banking is still the main force in banking. A Boston Consulting Group survey earlier this year showed that 57% of global revenue for banks came from retail banking. “Within that, technology is helping to keep revenues growing, especially with the steady trend to online and direct banking, away from branches,” said Mr. Michael Imeson, contributing editor of “The Banker”. “But that doesn’t detract, entirely, away from the need for branches, because branches are still necessary as sales points. “The second point about retail banking and technology is the fact that it boosts processing efficiency, and third, it helps reduce costs”.

Research Results and Discussion
This study is about the Benefits and the Risks on the various alternate channels which were categorized as below as the result of the Research and a further study is planned to see the ratings of these parameters and their impact on decision making at the Bank’s Top level to decide on implementing a new channel

Benefits to the Bank:
- Regulatory requirement
- Higher profits, with lower operational expenses and transaction cost
- Wider customer reach irrespective of geographical barrier
- Higher customer satisfaction, for retention of existing customers
- Acquire new customers
- To deliver the services Simpler, Faster and Secured.

Benefits to the Users:
- Fast & convenient way to pay for anything, anytime & anywhere
- 24-hour access to accounts for Transaction enquiry, Transfer funds & Pay bills
- Carry little cash lower risk on carrying cash and cheque book during travel
- No need to write cheques, and wait in long teller queue
- Go paper-less since all transaction is available online with password protection
- Expenditures are always limited and under control by tracking the account transactions daily

Risks to the Bank:
- Virus attacks
- Unauthorized access and fraudulent transactions
- Bank server hacking
- Managing different vendors for different service delivery channel
- Managing and updating the versions on security aspect of various software provided for different channels
- Internal training to the front office staff on various channel services and the changes made frequently

Risks to the Users:
- Online identity (like Access Code, User ID, Username, PIN, Password…) theft
- Unauthorized access and fraudulent transactions
- Card skimming, Card trapping & swapping
- Distraction theft or manual skimming
- Shoulder Surfing
- Leaving transaction live in public computers/ATM machines

Further Observations
A further study is required and is also planned to observe the ratings of these parameters by various personnel in the bank like the Top management executives-Heading various departments of the Bank, who are controlling the Branch Managing team which deal with customers face to face and they directly reports to the Management Board of the Bank including CEO, CFO, COO and all major stakeholders to decide on implementing a new channel

Research Suggestions:

- The best protection is to keep debit card secure at all times, PIN (personal identification number) and internet username/password as secret, without writing anywhere.
- Carefully check your purchase or transaction before enter PIN/account information before sign the receipt because funds are quickly transferred out of the account
- Review account statement carefully and promptly each month and check your balance in between. Remember, your card does not have to be missing in order for it to be misused
- Never leave the transaction live in private computer or ATM, remember to logout
- Keep anti-virus software up-to-date
- Never send the usernames/ passwords to anybody in e-mail

Conclusion

Without Technology, banking industry cannot think about development and expansion or further growth strategies in the current competitive business world. Now the people specifically customers think beyond about the services and satisfaction. So banking industry is having compulsion to rely on the technology, otherwise they pulled out from the competition. In those days technology has been followed industry, but now a day industry should follow the technology and its advancement. To satisfy the clients and customers, banking industries are having lot of formulae and strategies, these are all under the roof of the technology and its impact only. Through the paper, researchers concluded that technology is very significant factor for launching a new product, further promotion, growth strategies execution, risk eradication and advancements in regular activities of the banking sector among the tight competitions.

“Technology management and its advancement is a secret mantra to boost up their business and Attract their clients and customers”

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