Comparative analysis of use of e-CRM techniques in of public and private banking in North Maharashtra Region of Maharashtra India

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Abstract : Banking business is emerging in both private and public sectors ,also cooperative banking is developed in Maharashtra ,however customers is most important element of any business particularly in today customers are playing most important role in modern banking ,to develop relationship between bank and customer it most important to use management principles or techniques when it implemented through electronic tools then it become electronic –Customer Relationship Management or e-CRM . The paper finds benefits and limitations of implementing e-CRM technique ATM in the area of Dhule district of Maharashtra

Keywords: Customer : Person or organization who has accounts in banks, **Relation:** Association among customer and bank, **Bank :** A financial institution providing financial services to the customer ,**Management :** A set techniques which increases efficiency or productivity CRM-Customer Relationship Management

1.   INTRODUCTION

North Maharashtra Region is one of the districts of Maharashtra, located in western India. It should be noted that like Dhule and North Maharashtra Region it is a part of north Maharashtra region, and its boundaries are confined to northern Deccan Plateau. North Maharashtra Region was inhabited by 460,468 people, as per the 2011 census. It also serves as an attraction spot for tourists due to its unique location, at a mere distance of 59 km from the popular Ajanta Caves. Additionally, it connectivity with the railway zone, National Highway No.6 and the presence of an airport make it feasible for the tourists to visit the place. Also the district features well developed roads, furnished shopping malls, and proper transport infrastructure and communication facilities etc. facilities. Major crops produced in the district are cotton, banana, wheat, millet, groundnut, sugarcane etc. However, due to its contribution of half of the states banana production it has been given the title of 'Banana-City'.

The several regional developments such as setup of educational institutes, provision of medical facilities etc initiated in North Maharashtra Region has imparted numerous facilities and even strengthened the local economy. North Maharashtra Region is also known for its excellent gold quality.

Demographic

To analyze the efficacy of e-CRM implementation it is of paramount significance to have knowledge about the demographics of North Maharashtra Region. The total population of North Maharashtra Region district was 3,679,936, with 52% males and 48% females (as per the 2001 census). In addition there has also been observed a higher literacy rate of approximately 76%, much higher than the national average of 59.5%, featuring an interesting male literacy percentile of 80% and female percentile of 71%. Interestingly, the 13% of the total population of North Maharashtra Region is below 6 years of age. The common spoken vernacular language of North Maharashtra Region is Marathi.

Economy

Besides the astonishing demographics of North Maharashtra Region district mentioned in previous section, here an in-depth discussion of its economy has been made. Previously it has been mentioned that North Maharashtra Region district is known as 'banana city' due to its higher production of banana. Noticeably, more than 16% of the India's bananas are produced in North Maharashtra Region, i.e. approximately 3% of the world's total banana production. It has been estimated by an association of banana growers of Maharashtra, called Mahabanana that approximately 66% of the Maharashtra's total land under banana cultivation is occupied by North Maharashtra Region. Additionally, North Maharashtra Region is also one of the world's largest pulse milling centers and a leading cotton producing region. The involvement of North Maharashtra Region in the pharmacies is

also remarkable as it possesses more than 500 pharmacies, chemists and drugstores.

North Maharashtra Region Municipal Corporation is the administrative body for the city, which is housed in the 17 floor building that serves as a landmark of the city. Adjacent to is located the Golani complex comprising more than 500 shops and flats. Crossing Mahatma Gandhi road towards the Shastri tower visitors will find Phule market, well known as a retail market for clothing, cosmetics, and almost all consumable items. Further along is another one of North Maharashtra Region's important markets, known as Dana Bazaar. Additionally, the heart of the city, Khandesh Central is the first state of the art shopping mall in North Maharashtra Region and was constructed in December, 2010. The mall covers an area of 5.5 Lac sq ft for shopping, comprising Big Bazaar, INOX four screens multiplex and several other stores and wholesale market for food and grains. Establishing itself as one of the biggest jewelry markets in Maharashtra, North Maharashtra Region is known for its excellent gold quality and designs and is thus known as 'Golden City'.

There are several industries set-up in North Maharashtra Region dealing in drip irrigation, fruit processing, pulse milling, pipe manufacturing, bio-fertilizer production, green and solar energy, mattress manufacturing and printing of educational books. Some industries also deal with construction, hardware and paints manufacturing.

Exhibiting a large scale involvement in agriculture, North Maharashtra Region also serves as a distribution center of agricultural goods and agriculture input industry, with a participation in manufacturing bio-fertilizers. North Maharashtra Region also establishes as a center for cotton-textile and vegetable oil mills, especially groundnut oil and hydrogenation plants. To summarize it can be asserted that North Maharashtra Region is nowadays establishing itself as a sound trading centre of Maharashtra and a leading producer of sugarcane. Apart from the other food crops, onion dehydration plants in North Maharashtra Region has annual onion dehydration capacity of 10,000 tons, accounting for a 15% of total exports of dehydrated onions from India. Similarly, pulses one of the staple foods of Indian cuisine has also experienced a large scale export from North Maharashtra Region. Being a basic crop, the pulse industry emphasizes more on its cleaning, processing and packing through different processes. The year 1970 experienced the establishment of numerous pulse milling industries by the companies who pioneered in this field and eventually led to the creation of the world's largest milling center for pulse products in North Maharashtra Region with majority of the plants producing large quantities for India and world in unison with providing opportunity to approximately 10,000 workers to earn their living. The North Maharashtra Region pulse industry was a leading exporter of the pulses and its products to over 25 countries worldwide and thus earned the name of world's best millers. Burma, Canada and Australia are some of the major countries importing raw pulses from North Maharashtra Region.

Banks in North Maharashtra Region

From the aforementioned agricultural and industrial status of the North Maharashtra Region, it can be affirmed that North Maharashtra Region has a major contribution in the economy of Maharashtra. This eventually has led the financial institutions of India to work on the expansion of their banks and services across the districts. To achieve a successful establishment, public and private banks have been targeting to get higher acquisition of customers for long term. Keeping in mind the public banks, several banks such as State bank of India, Punjab National Bank, Canara Bank, Bank of Maharashtra, Corporation Bank etc are performing the necessary functions across the district. On the other hand, private banks also do not lag behind. HDFC Bank set up its first branch in North Maharashtra Region in August 2002, Axis (UTI) Bank in December,2003, ICICI Bank in March, 2006, ING Vysya in January, 2009 with Kotak still in queue to launch its branch. Axis Bank opened its second branch in North Maharashtra Region in September, 2010.

Apart from these banks a number of other banks such as North Maharashtra Region Janta Bank, North Maharashtra Region Co-operative Bank etc are attempting to apply certain approaches in order to successfully achieve higher customer retention by establishing a better customer relationship management.

The distribution of financial institutions in the district of North Maharashtra Region in North Maharashtra region is illustrated in table 1

Table 1. Bank in North Maharashtra Region district

BANK	NORTH MAHARASHTRA REGION	MAHARASHTRA	INDIA
NATIONALIZED	21	27	27
PRIVATE	6	21	21
Bank's Presence Analysis National Bank: 77.77 % Private Banks: 28.57 % * Here the affinity or banking presence has been estimated as per financial institutions available in Maharashtra state			

Source: www.eNorth Maharashtra Region.com, www.waystobank.com,Reserve bank of India

From the table 1.1 it can be inferred that approximately 77.77% banks serving or fulfilling the financial support needs are nationalized banks while 28.57% banks are private banks. It can be clearly observed that there is a huge difference in the distribution of national and private banks which can be attributed to confined business possibilities and financial activities. Surprisingly, the statistics pertaining to education, industries and other economical factors of North Maharashtra Region has made North Maharashtra Region a prime region of Maharashtra economy that has grabbed the attention of economical-politico factor to have higher service provisioning and higher living standards. Emphasizing on the implementation of e-CRM, the literacy and economical activities can be considered sufficient strong enough to enhance the quality and foster competitive banking growth in the region. As discussed previously, the literacy rate for men is 80% and for females is 71%, which further provides a robust base for the implementation of e-CRM in the region.

The following Important e-CRM Techniques are available for the study ATM used for the research,
1.email
2. SMS
3.Internet Banking
4. Telephone Banking
5. ATM –AUTOMATED TELLERING MACHINE

2. OBJECTIVES

To study benefits and limitations of ATM as e-CRM(\electronic –Customer Relations Managements) techniques in Bank of Maharashtra of North Maharashtra Region district of Maharashtra [INDIA].

3 RESEARCH METHODOLOGY

The overall research methodology encompasses the following phases:
1. *Defining the Research Objectives*
2. *Literature survey and analysis*
3. *Research Hypotheses definition*
4. *Questionnaires preparation*
5. *Primary Data collection*
6. *Sampling and data processing*
7. *Data analysis and Hypothesis test*
8. *Research conclusion and limitations analysis*

Qualitative research is basically important for obtaining culturally specific information about values, opinions, behaviors, and social contexts of particular populations (respondents from organization at the associate level). The study design in qualitative research consists of data collection and research questions that are adjusted according to what is learned. Unlike quantitative research, qualitative research consists of the secondary resources based investigation which is based upon seeking answers to questions, systematic use of predefined set of procedures to answer the questions, collect evidence, produce findings etc. Qualitative research is essential when a researcher needs to define the problem more specifically and identify any specific objective or data requirements to be addressed through additional research.

Indeed, e-CRM facility is a relatively new phenomenon in North Maharashtra. Although web banking is proliferating, there is little empirical evidence to help bankers fully understand what constitutes customer satisfaction from a Jalgoan, district customer perspective. Therefore, the imperative of an exploratory study is to gain much needed background pertaining to building a long term customer relationship in the banks. The qualitative research model intends to explore fundamental background of the research objectives, key aspects and variable analysis to formulate research hypothesis and key constructs. In fact, it would put foundation for identifying customer's requirements, measuring customer's acquisition level towards banks and banks early proposal for customer acquisition and strategies for customer's satisfaction enhancement.

In order to define a list of Pre-transaction, During-transaction and Post-transaction e-CRM features, the researcher will use qualitative methods. The first method (which was used as a minor method) is bank documents and websites. The researcher has explored banks websites in North Maharashtra in order to assess what e-CRM features are available for customers. The second qualitative method used was unstructured and semi-structured interviews with bank managers and employees who are responsible for controlling the e-CRM service activities. To perform qualitative analysis, in this thesis, various literatures such as emergence of financial services, e-CRM in the banking sector, benefits of e-CRM facility to bankers and customers and various measures to enhance quality of service in banks have been studied and key constructs have been defined, which have been further examined through quantitative analysis.

Sample size:
The required sample size depends on factors such as the proposed data analysis techniques, financial and access to sampling frame. In this study, a fairly representative sample has been randomly drawn by selecting 280 customers of North Maharashtra Region districts of Maharashtra

4 Data Collection :

Demographic Findings in North Maharashtra Region district
The demographic analysis for the obtained responses is presented as follows:

Gender Distribution
Table 5.2 (a) presents the gender distribution of the respondents from North Maharashtra Region districts.
The depiction based on gender is important because in present day scenarios, males as well as females have the equal contribution towards regional as well as national economy, development etc; however based on respective comfort level, interest and expectations towards efficient banking solution, the perception and decision processes might vary between the respondents (male and female). There can be many situation where male can somewhat bear being in queue for financial process at the banks or the financial institution, while women feel uncomfortable under these circumstances. Considering these fact, analyzing gender factor can be of paramount significance.

Table 2 Gender distribution of the respondents from Jalgoan district

Gender	Number of participants
Male	210 (75 %)
Female	70 (25%)

As depicted in Table 5.1 (a), approximate 75% of respondents were male, while only 25% of respondents were female.
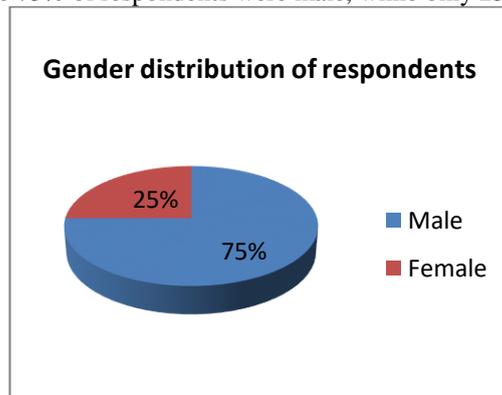

Figure 1 gender distribution of respondents from Jalgoan

It exhibits that there exists higher gap in account holder proportion (gender) in these districts that do affirm that the relatively lower industrial development and conventional business modules confines financial transactions till males. However, the recent government initiatives and various subsidies have motivated both genders to have bank account to avail benefits.

Age Distribution

        This is the fact that the age of a human being is directly related to its maturity to respond and its inherent responsibility. In addition, age and maturity of respondents have higher impact of believe factor and responsible feedback. Thus, considering age as a significant factor to impact ones decision ability and sensitive assessment, in this study age of the respondents have been taken into consideration.
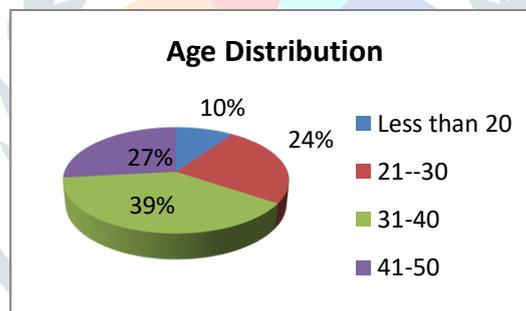

Figure .2   Age distribution of respondents from North Maharashtra Region District

        As depicted in Table 4.2(b), it can be seen that the majority of respondents counting 32% (90 out of 280) were in the age range of 31-40 years. Similarly, 20.35% respondents (57 out of 280) were in the age range of 21-30. Since, the banking sector in North Maharashtra Region has shown growth in last 15-20 years and hence only 17.85% of respondents with age range of 50-60 were found having bank accounts. A total of 61 out of 280 respondents were in the range of 41-50 years. Only two respondents, especially belonging to educational institutions counting 22 out of 280 (8%) were of age less than 20 years.

Table 3 Age distribution of the respondents from North Maharashtra Region districts

Age	
Less than 20	22 (8%)
21-30	57 (20.35%)
31-40	90(32%)
41-50	61 (22%)
50-60	50 (17.85%)

Educational Background of the respondents

        Similar to the age, maturity etc the key factor that impacts one's ability to respond and make decision is the education. In this thesis, the educational background of the respondents has been examined. Education and experience have direct impact on personal (someone's) ability to understand and make proper decision. Therefore, in this thesis, to retrieve optimal data and reliability respondents from varied background, education level and thoughts were considered.

Table 4 Education of the respondents in Jalgoan district

Education	
Secondary education	34(12%)
Below graduation	90 (32%)
Graduation	100 (36%)
Post Graduation	56(20%)

Considering the literacy of North Maharashtra Region district, 12% of respondents had minimum secondary education, while 32% of the respondents stated that they have achieved satisfactory education till under-graduation. A significantly higher fraction of respondents (36%) stated that they are graduate and with relatively higher education level approximate 20% respondents affirmed it that they have achieved master's degree or post graduation. Figure 4.3 depicts that education level of the respondents.
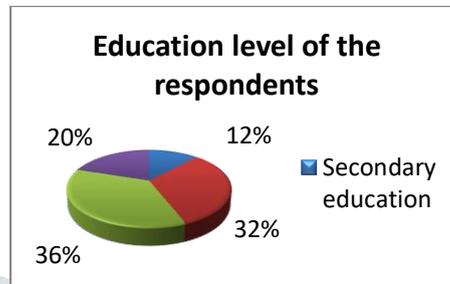

Figure 3 Education levels of the respondents from Jalgoan District

Income of the respondents

This is the matter of fact that the personal income or buying capacity of a consumer reflects its demands and expectations and since the presented thesis intends to explore the e-CRM facility and its significance, therefore assessing the income of the respondents is vital. In this study approximate 2.7% of respondents stated that their personal income is less than 5000 INR (Indian Rupee), while 14.61% of respondents agreed that they earn in the range of 5000-15000 INR months. The remaining 29.61% of the respondents stated that their income exist in the range of 15,000-25,000 INR. The remaining of 36.9% respondents were found having better monthly income and their income range was existing somewhat in between 25,000 INR to 35,000 INR. Interestingly, relatively higher fraction (23.84%) of respondents was having monthly salary of more than 35,000 INR. No doubt, majority of the respondents in this category were belonging to certain industry, particularly manufacturing, government sector and personal business or self-employment activities.

Table 5 Average monthly Income of the respondents

Average Monthly Income	
Less than 5000 Rs	7 (2.69%)
5000-15000 Rs	38 (14.61%)
15000-25000 Rs	77 (29.61%)
25000-35000 Rs	96 (36.92%)
More than 35000 Rs	62 (23.84%)

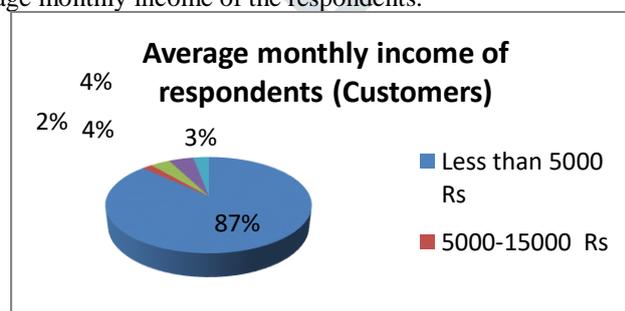Following figure presents the average monthly income of the respondents.

Figure 4 Average monthly incomes of respondents (customers) from Jalgoan district

Experience Level

The personal experience of a human being plays significant role in its respective decision process and thought process. Considering this factor, in this thesis the consumers were requested to state their experience, particularly banking experience or duration of banking process. The study revealed that among the respondents from North Maharashtra Region district approximate 30% of the respondents were having experience more than 5 years of banking (as a regular customer), followed by 40% of respondents (179 out of 280) with more than 5 years of experience.

Table 6 Education of the respondents in Jalgoan district

Experience	
Less than 5 years (banking)	84 (30%)
More than 5 years (banking)	112 (40%)
More than 10 years with banking experiences	84 (30%)

Among the respondents, a total of 84 (30%) respondents were having more than 10 years of banking experience. Here, it is important to analyze this factor because with a long term experience one better understands what is needed, what is lacked and how to enable.
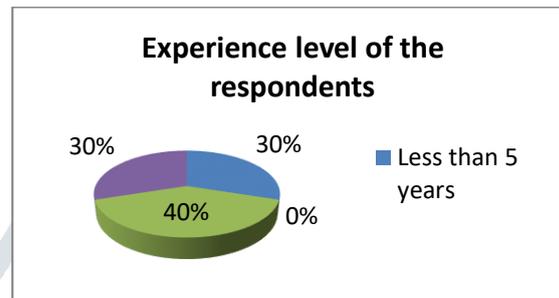

Figure 7Experience level of the respondents from North Maharashtra Region district

Similar to the demographic study of the respondents from North Maharashtra Region, in this thesis the separate demographic assessment has been done. Since, all the considered (three) districts do have different economical, industrial, education etc background, and therefore assessing respective distinct demographic assessment can play significant role.

5 Data Analysis :

The following is table shows satisfaction level of customer using ATM in bank of Maharashtra in North Maharashtra Region district in terms problem of technology usage faced by the customer

Table 5.25 Comparative analysis of public and private bank

Comparative analysis	Mean	Std. Dev
Public Bank		
Quality of Service	3.963	0.308
e-CRM service efficiency	3.971	0.303
Bankers/employees communication skills	1.993	0.442
Attract you to connect or continue with the bank	1.981	0.451
The e-CRM based services provide efficient and effective banking solutions	1.964	0.474
e-CRM services are available as per your needs and operating skills	1.973	0.469

Online application facility for check book apply, loan apply, new account opening request, other plans and services availability	1.982	0.449
Private Bank		
Quality of Service	4.990	0.204
e-CRM service efficiency	4.985	0.206
Bankers/employees communication skills	3.986	0.305
Attract you to connect or continue with the bank	3.967	0.312
The e-CRM based services provide efficient and effective banking solutions	4.982	0.210
e-CRM services are available as per your needs and operating skills	4.989	0.205
Online application facility for check book apply, loan apply, new account opening request, other plans and services availability	4.981	0.213

The responses collected from 500 respondents belonging to Jalgaon, Dhule and Nandubar district reveal that the e-CRM services being provided by private banks are more effective and responsive (M=3.982, SD=0.210) than the public sector banks (M=2.964, SD=0.474). In addition respondents also state that e-CRM services are available as per their needs and operating skills (M=3.989, SD=0.205) in private bank but the same they find at comprised quality with the public bank (M=2.973, SD=0.469). For online application facility for check book apply, loan apply, new account opening request, other plans and services availability (M=4.981, SD=0.213) respondents are extremely satisfied by private bank but dissatisfied by public bank (M=1.982, SD=0.449).

In order to keep the customer relationship for a long run, bank willing to provide many facility to customers. Responses collected by the Jalgaon, Dhule and Nandurbar district bank respondents state that bank uses web as tool to improve customer relationship (M=3.925, SD=0.323). Every bank providing ATM card facility that is helpful in product offering (M=3.962, SD=0.313). Bank offering credit card services to customers that is helpful in product offering (M=3.976, SD=0.301). Similar responses obtained for card based payment system (M=3.966, SD=0.310).

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needs and operating skills (M=3.989, SD=0.205) in private bank but the same they find at comprised quality with the public bank (M=2.973, SD=0.469). For online application facility for check book apply, loan apply, new account opening request, other plans and services availability (M=4.981, SD=0.213) respondents are extremely satisfied by private bank but dissatisfied by public bank (M=1.982, SD=0.449).

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The following table presents the customers orientation towards e-CRM facilities.

Table 5.26 Customer orientation of e-CRM facilities

Comparative analysis	Mean	Std. Dev
Public Bank		
Quality of Service	3.963	0.308
e-CRM service efficiency	3.971	0.303
Bankers/employees communication skills	1.993	0.442
Attract you to connect or continue with the bank	1.981	0.451
The e-CRM based services provide efficient and effective banking solutions	1.964	0.474
e-CRM services are available as per your needs and operating skills	1.973	0.469
Online application facility for check book apply, loan apply, new account opening request, other plans and services availability	1.982	0.449

Thus, observing above discussed matters and their respective significances, it can be stated that e-CRM facilities by banks can be of paramount significance to increase consumer acquisition and retention. However, enhancing infrastructures, awareness, policy, service delivery quality etc. is inevitable. Ensuring best feasible tangible e-CRM facilities such as quality assured contentious ATM functions, cash availability, other banking assistance such as fair operating support by bank executives, public awareness programs and activities, and more significantly optimal consumer handling facility or responsibility across financial

organization can be of paramount significance to attract more consumers and retain them for long term. No doubt, the existing limitations such as lack of awareness, knowledge transfer, etc do exist in the relatively low developed North Maharashtra districts, however the policies (competitive dynamic strategies by banks) have motivated banking institutions to alleviate existing gaps and enable e-CRM facilities reaching to the each consumer.

So far in this thesis, the consumer perspective was studied and analyzed; however understanding banks executives prospects' and limitations can be vital to enable better strategies across this industry. As observed in above sections, it has been found that some of the consumers still do feel that the way of delivery by banks executives' confines interest of consumers towards e-CRM facilities. Therefore, with this objective, in this thesis the perception of bank executive has also been taken into consideration.

Table 7

Findings :

1.　In North Maharashtra Regions Private Bank(Axis Bank) Customers has Maximum (56%) of ATM's user than customers of Nationalized Banks (48.40%)

2.　The E-CRM techniques like internet Banking is also higher side percentages (12.00%) in Axis Bank(Private Bank) than Nationalized Banks (9%)Customers of both Nationalized and Private Banks has poor response in using of Mobile and Telephone Banking e-CRM techniques

3.　Still use of branch banking far higher side in both Nationalized and Private banking (Nationalized 33.80% ,Private 22.00%)

4.　In Tribal district like Nandurbar ,there is very poor percentage of customers using Internet and Mobile Banking due to lack of infrastructure like internet also as compare other two district ATM's user are also lower side (35%)

Conclusion:

➢　Respondents agree that private banks are providing better and competitive e-CRM solutions than public sector banks

➢　As a comparative result, it has been found that private banks are providing better e-CRM facilities to ensure better service quality that eventually leads better customer acquisition and retention.

➢　North Maharashtra Region ATM's use in Private Bank greater than in Nationalized Banking while Branching e-CRM techniques in Nationalized banking is little high as compare to Private Bank .But Mobile and telephone banking is somewhat same in both Nationalized and Private Banking. It is observed that Internet Banking is higher side in private Banking than Nationalized Banking

.

Recommendations:

1) Keep sufficient money in ATM so that machine not have problem machine out of cash

2) ATM should be available 24x7 hours for service.

3) Locality of ATM should be in public places so that it become easily accessible to customers

4) There should a plan to train customer for using ATM e-CRM technique

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