

ATM Withdrawal Restriction and Customer Retention: A Case with Students and Pensioners

Rajat Deb*, Anirima Datta**

Abstract

Objectives:

The present study seeks to examine the perception of the graduate students and pensioners of some selected localities of Kolkata about the importance of ATMs as a branch surrogate, impact of the ceiling on withdrawals from ATMs, and the strategies to win over the capping for the customers as well as for the banks to retain them.

Participants and Data collection:

It obtained primary data from 200 respondents consisting of 140 graduate students and 60 pensioners using different non-probability sampling techniques through schedule and personal interviews.

Research Methods:

Different statistical tests like factor analysis, Mann Whitney U test, students't-test, regression analysis, and descriptive statistics were performed to assess support for the hypotheses. The reliability of the questions and sample adequacy test was also carried out. Through factor analysis, five major factors viz. perceptions about ATM- an avatar for banks, customers' satisfaction in ATM services, customers' repercussion on capping, financial planning for withdrawals, and strategies for customers to avoid charges and for banks to retain them were extracted.

Results:

The results of the study suggest that youth prefer to use ATMs which has become indispensable and provide diversified financial services that leads to customers' satisfaction; but withdrawing now requires some

planning as customers need to visit branches to avoid fees. To retain the customers the banks should encourage the use of more electronic cards and net banking; should not charge for withdrawing own funds, allow them to access even the non-home branch ATMs close to the their locality, should reduce the minimum average floor balance to enjoy free unlimited access of home bank ATMs and keep currency of higher denomination to reduce the number of transactions.

Keyword: ATM, RBI, Customers' Satisfaction, Factor Analysis, Regression Analysis

Introduction

The Indian banking sector has undergone several positive changes and developments through the last two decades. A few banks have outstandingly performed in the areas of innovation, growth, and value creation (McKinsey, 2009). The Indian banking system has reached even the remote corners of the country; which is the prime reasons of India's growth process (Jadav, 2011). The banking sector world wise, particularly the retail sector has to face huge competition from various sources. Customers have become more demanding (Accenture, 2008). Banking services are seen as commodities (Onufrey & Moskowitz, 2008; Genesys, 2008). Rai (2006) considered customer satisfaction to be an important objective of a business organisation like a bank. Customer satisfaction is key consequence of service quality and can determine the long term success of a service organisation (Parsuraman, Zeithaml & Berry, 1994). Higher service quality leads to

* Assistant Professor, Department of Commerce, Tripura Central University, West Tripura, India.
Email: debrajat3@gmail.com

** Student, Future Business School, Sonarpur, Kolkata, West Bengal, India. Email:nrmdtt7@gmail.com

not only higher level of consumer satisfaction (Awan *et al.*, 2011), but also greater customer loyalty (Islam & Ali, 2011) and positive word of mouth (WOM) publicity (Jain, 2012), thus helping service firms attracting new customers as well as increasing their market share and enhancing profitability (Jain, 2008). In fact, WOM plays a major role in the growth of banking; it is an important factor in the financial success of banks (Godes & Mayzlin, 2004). Customer satisfaction does have a positive impact on profitability as reported by Yeung & Ennew (2002). Price sensitivity of the customer is one of the key factors that explain the behavioural consequences of customer satisfaction (Peng & Wang, 2006). Service quality has also been defined as the result of a comparison between the received service and the expected service (Gronroos, 1984).

Automated Teller Machine (ATM) is an electronic banking outlet, which allows customers to complete basic transactions without the aid of a branch representative. There are two primary types of automated teller machines, or ATMs. The basic units allow the customer to only withdraw cash and receive a report of the account's balance. The more complex machines will accept deposits, facilitate credit card payments, and report account information. Today, most of the transactions can be done from the home and customers need not visit the bank branch for anything. Since the ATM services are provided across the country, it is easy for them to transact their banking activities. ATM service is more preferable and convenient to the people, because the modern world is fully computerized and it is easy to access to them from anywhere.

India has a total of 0.167 million bank ATMs across the country as on June 2014. Private banks account for about 0.049 million ATMs, while public sector banks having about 0.117 million ATMs. But, from November 1st, 2014 the Reserve Bank of India (RBI) has given direction to reduce the number of free transactions a month at any non-home bank ATM to three from five in six metro cities of India-Delhi, Mumbai, Chennai, Kolkata, Bengaluru, and Hyderabad. This gives banks the freedom to charge for more than five transactions at their own ATMs. Largest public sector bank State Bank of India (SBI) have started this capping from November 1st, 2014 while private sector banks like HDFC, Axis etc. too joined the rally from December 1st, 2014. Due to the implementation of this capping on withdrawals different customer groups

especially the fixed amount accessing groups visit branches to avoid pay the charges, raising costs, given that banks to spend at least three times more to serve the customers. This paper seeks to assess the importance of ATMs as branch surrogate, impact of ceiling on ATM withdrawals and to suggest the strategies to overcome such capping on withdrawals by the customers as well as for the banks to retain them. The study was based on non-probability sampling techniques with a sample of 200 respondents from some selected localities of Kolkata.

Review of Literature

A number of studies have been conducted in different service aspects of banks including customer retention strategies worldwide but no such empirical studies so far been conducted on the capping of ATM withdrawals in India or elsewhere. The relevant volume of earlier studies is divided in the following three segments and on the basis of that pertinent questions of the schedule were framed.

Theoretical Development

Wu & Wang (2007) identified that the ATM is an innovative customer service delivery tool that offers diversified financial services, such as cash withdrawal, funds transfer, cash deposits, and payment of utility bills, among other financial enquiries. Olatokun (2009) finds that respondents believed in their safety in using ATM; ATMs were quite easy to use and fit in with their way of life; what they observed about ATMs convinced them to use it; and ATM was tried out before they use it. Pattanaik (2004) states the importance of ATMs and view that ATMs become indispensable tool of convenience as most of the people changed the acronym to anytime money. Kamala (2008) states that customers in Tirunelveli city of Tamil Nadu are conscious about more innovative techniques in ATM services. Calisir & Gumussoy (2008) in their study indicate that internet banking, ATMs, and phone banking substitute each other. The results also show that Internet banking is considered to be efficient for ease of use and access, and that the users of Internet banking lack confidence in the security of the websites of Internet banking. Haytko & Simmers (2009) reveal that while the human encounter was more important before online banking became so prevalent, the convenience of online banking has displaced the importance of human interaction. However, there were gender differences

in that males, more than females, remain influenced by teller transactions. Gupta (2003) says both public and private banks are spending huge amount of money on technology to provide innovative products and services to their customers with more convenience and satisfaction. Technology is reducing the cost of transaction and helping the increase the customer base.

Empirical Development

Mohammed (2012) finds that graduate and employed male customers who belong from higher income groups and having a bank account preferably in public sector bank are greatly emphasized to use of the banking services. Shobha (2012) provides information regarding the satisfaction level and problems faced while using ATM cards. Sanda (2011) concludes that though most bank customers who use the ATM services perceive the ATM as a convenient, reliable, accurate and suitable service delivery tool for their banking transactions. Customer service is a dynamic interactive process which needs continuous improvement. Rao (2002) says that customer service is not only a critical function but becoming key posture for the business. It is the next most business strategy. The improved customer service will definitely increase the profitability. Aurora *et al.* (1997) suggest that the level of customer satisfaction is becoming one of the major targets in the hands of banks to increase market share. Selvaraj (2006) suggests few points to increase the customer satisfaction in using ATM services. Jham & Khan (2008) indicate that satisfaction of customers with Indian banks is linked with the performance of banks. Kumar (2008) observes that customers in urban Indian banks no longer want to wait in long queues and spend hours in banking transactions. Clancy (2010) observes that the big high street banks in UK continue to fall short of customers' expectations as smaller banks make for happier banking. Colgate & Hedge (2001) show that in Australia and in New Zealand the customers stay silent about the problems that are most important in their decision to exit the banks. Mavri & Ioannou (2008) find that the enhancement of existing relationships is of pivotal importance to banks, since attracting new customers is known to be more expensive.

Research Gaps

Sharmili & Mehtab (2007) reveal that the brand equity of banks is highly dependent on the multiplicity of new

products and cost of products. The findings provide a factual basis to enhance brand awareness along with their products and services. Sanjeev (2007) suggests that no conclusive relationship can be established between the efficiency and size of banks. Eswar (2003) states that as our market evolves so consumer requirement change and hence the positioning strategy needs to be modified. Positioning is not a one-time effort. It is a constant pursuit. Shivkumar & Samyoudha (2002) state that customers are highly satisfied with the services that are provided by private sector banks when compared with public sector banks and cooperative banks. Sing & Kaur (2012) are of the opinion that banking operations has led the banks to think in the green context like green banking, green products, green financing, and so forth. Bhal (2012a) and Dua (2013) suggest that banks should also encourage activities like sending e-statements to the customers and services like mobile banking, online banking, e-remittance services, and so forth. Singhal *et al.* (2014) and Bhal (2012b) are of the opinion that credit and debit cards are being very widely used by the customers for making the payment of various expenses without carrying hard cash. Bhardwaj & Malhotra (2013) are of the opinion that by adopting green banking practices the banks may run in more profitable position through improvement in the asset and service quality in future. Reddy *et al.* (2000) find that an efficient and effective service is one which is extended appropriately by identifying and understanding the needs of the individual customer from time to time. Joshi *et al.* (2000) indicate that the success rate depend on the innovative strategies adopted by banks including the better customer services and adequate fulfilment of customers' expectations. Parsuraman *et al.* (1985) reinforce the idea that service quality is a function of customers' expectations and performance gap. Donze & Dubec (2006) report that a high interchange fee softens competition on the market for deposits but increases competition to process withdrawals. As the former effect dominates the latter, profits are increasing with the interchange fee up to some level only.

Research Method

Rationality and Scope of the Study

The present study is focused on analysing the perception of the respondents about the cap imposed by a good

number of public and private sector banks in six metro cities including Kolkata from November 1st, 2014. The scope of the study has been limited to the graduate students and pensioners of some selected areas of Kolkata. The participants of the present study are graduate students and pensioners as they are more or less access fixed regular monthly amount through ATM outlets. The study confined to these two groups as Service Marketing literature posits age as an important demographic characteristic that influence customer service quality perceptions (Homburg & Giering, 2001; Siu & Cheung, 2001; Kumbhar, 2011) and its effect on customer retention.

Research Objectives

The objectives of the study include:

- To analyse the perception of the respondents about the importance of ATMs as a surrogate of branch visit.
- To assess the impact of ATM withdrawal capping on the respondents.
- To formulate the strategies for the customers (graduate students and pensioners of the area of study) to manage such capping and for the banks to retain them.

Research Design

Firstly, to carry out the study, all the graduate students and pensioners having SB account with ATM facility of Kolkata are assumed as the study population of which 200 such account holders were selected with a mix of different non-probability sampling techniques like Quota, Judgemental, Convenience and Snowball; as suggested by Green, Tull & Gerald (1999).

Secondly, In the light of the stated objectives of the present study a schedule was developed and it was pre-tested with a small group of respondents (30) as suggested by Zikmund & Babin (2012) to check for clarity of questions, relevance and completeness. Further, a little modification to the schedule content, format and wording were made based on the outcomes of the pre-test. There after a survey on 200 account holders of ten localities

of south Kolkata was conducted; since survey approach is suitable when a researcher is trying to obtain a broad and representative overview of a situation (Fisher, 2007). The schedule comprising of 45 questions including socio-economic background of the respondents was used to collect the primary data.

Thirdly, eventual sampling was selected on the basis of convenience-cum judgemental sampling. At this stage a base of 200 account holders from each of the 10 areas has been taken into consideration as it is very difficult to know the exact number of account holders. Further, data from each area have been divided on the basis of 7:3 ratios between graduate students and pensioners (i.e. 70 students and 30 pensioners on the base of total 100 respondents). It was found during the survey that most of the respondents are men and hence the ratio of men and women respondents was taken as 60 per cent and 40 per cent respectively. Again, it was difficult to contact each and every required account holders in each locality hence quota of 10 per cent was fixed for every area. By using judgement and snowball sampling technique 200 respondents were chosen of which 140 were students and 60 were pensioners. The ratio of men and women respondents was 60:40 i.e. 84 men and 56 women graduate students & 36 men and 24 women pensioners.

Measures

The study has revealed that majority of the respondents are Hindus (82 percent), General (52 percent), having education up to Graduation (89 percent), monthly income / remittance from home (INR 5,000-15,000); SB A/c mostly in SBI (63 percent) since 1-5 year (61 percent), transact 10-15 times a month (77 percent) of which non-financial transactions are 3-5 times (58 percent) and visit the home branch less than 3 per month (87 percent).

To measure the effectiveness of the questions of the schedule were tested for its reliability. The value of Cronbach's alpha was found to be **0.783**. The value was found to be more than 0.6; hence, the schedule was valid to be used for the purpose of analysis, as the research is an exploratory one (Hair *et al.*, 2005). A close ended schedule with a 5 point Likert scale has been used for analysing the perception of the respondents. The 5 point

Table 1: Factors Extracted Through PCA

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	6.358	37.801	37.257	5.879	37.148	37.148	2.770	21.048	21.048
2	4.206	11.245	50.144	3.790	11.025	48.173	2.547	19.725	40.773
3	2.625	10.651	60.928	2.457	10.324	58.497	2.324	18.511	59.284
4	1.751	7.927	67.624	1.125	7.957	66.454	1.210	8.957	68.241
5	1.432	2.874	70.494	1.022	3.215	69.669	1.024	2.453	70.694

scale in the schedule ranging from strongly agree to strongly disagree was used. According to Cooper (2000), this type of scale is considered to be an interval scale. To consolidate the data, factor analysis was carried out. On the factors obtained through factor analysis the Student's t-test (for pensioners), Mann-Whitney U test (for graduate students) was applied to see if there is any difference in the opinion of men and women respondents on the factors so obtained. The other statistical tools like multiple regression analysis, descriptive statistics and factor analysis (for sections B, C & D) were used to test the hypotheses which we generated from the primary data.

Procedure

For the purpose of data collection, the schedule was used and a rapport was established with the selected respondents and the purpose of the study was briefly explained to them, so as to get reliable response from them. The respondents were asked to fill up the questions of the schedule carefully and doubts were clarified whenever requested. After successful completion of the process they were thanked for their cooperation. The data collected were then further processed using SPSS-20.

Results & Discussion

A total of 200 respondents were asked questions on 30 key issues (sections B, C & D of the schedule) related to their perceptions about the importance of ATMs, the caps imposed on withdrawals from the ATMs and the strategies need to be followed by the respondents to avoid charges as well as by the banks to retain them. Principal Component Analysis (PCA) has been conducted to find and club the components under the suitable head.

Factor analysis is used to uncover the latent structure of a set of variables. It is used to determine the smallest

number of factors that can best represent the inter-relationships among different aspects of importance of ATMs and capping on the withdrawals. Factor analysis was being chosen as a method for data reduction, since it is suitable for identifying correlations among variables in complex sets of data (Mitchellmore & Rowley, 2013).

Prior to performing the PCA, the suitability of data for factor analysis was assessed. The Kaiser-Mayer-Olkin (KMO) measure of sampling adequacy (MSA) is a statistic that indicates proportion of variance in variables that might be caused by underlying factors value was **.767**, exceeding the recommended value of 0.6 which indicates that the data is adequate for factor analysis (Kaiser, 1974). The Bartlett's test of Sphericity tests the hypothesis that the correlation matrix is an identity matrix, and indicates that the variables are unrelated and, therefore, are unsuitable for structure decision (Pallant, 2005). A small value less than 0.05 of significance level has been recommended suitable for the study (Kline, 1994). On the basis of the results it was implied that the dataset was fit for conducting factor analysis.

The communalities represent the amount of systematic variation for each variable that is accounted for by the set of factors in the study and the value ranges from 0 to 1. According to Zilmer & Vuz (1995), communalities below 0.30 suggest that few variables are associated and thus a suitable factor model may not emerge. Therefore, such values need to be removed from the scale. In this study all the values in the communalities are above 0.50, thus indicating that the variables provide a sufficient explanation for the factor solution.

From Table 1, we get the Eigenvalues which are the variances of the factors that have been extracted by using PCA method. Five factors have been extracted for this study whose Eigenvalue is greater than 1, as they explain nearly 71 percent about the total variables taken into

Table 2: Result of Mann-Whitney Test

<i>ATM- an avatar for banks (Component 1)</i>	<i>Customers' satisfaction in ATM services (Component 2)</i>	<i>Customers' repercussion on capping (Component 3)</i>	<i>Financial planning for withdrawals (Component 4)</i>	<i>Strategies for banks (Component 5)</i>
ATM has become indispensable	Customers' satisfaction is an important factor	RBI directive gives banks freedom to charge	Withdrawing now requires some planning	Encourage electronic cards.
ATM locations are good	Time taken for issuing new cards	Need to visit the bank to avoid paying the fee	Customers should visit bank websites	Allow withdrawal from the ATMs closest to the customers
Error free transactions and flexibility in withdrawals	Significantly contributes toward customer satisfaction	ATMs have high fixed costs is absurd	Visit branches for the non-financial transactions	Do not charge for accessing their own funds
ATMs provide diversified financial services	Connected to interbank networks	Raising interchange fee is anti-competitive	ATMs should only be used for withdrawals.	Banks should keep currency notes of higher denomination
Youth prefer to use ATMs	-----	Cost of interchange fee for smaller banks will go up	Maximize the use of debit cards	-----
Minimize customers' time and energy	-----	Minimum monthly average floor balance should be reduced	Net banking usage should be more	-----
-----	-----	There is no symmetric information about the new charges and location of home bank ATMs	Better to move other bank	-----
-----	-----	Inadequate cash in ATM counters motivates multiple transactions.	-----	-----
-----	-----	Keeping minimum monthly average balance is just to improve CASA	-----	-----

account. The rotation sums of squared loadings shown in the table represent the distribution of the variance after the Varimax rotation. Varimax rotation is an orthogonal rotation which is commonly used, as it tries to maximize the variance of each of the factors in such a way that the total amount of variance accounted for is distributed over the five extracted factors.

PCA has been carried out in order to analyse the various components. PCA is central to the study of multivariate data. PCA of a data matrix extracts the dominant pattern

in the matrix in terms of a complimentary set of score and loading plots.

The most general pattern of relationships could not be identified through the component matrix, so rotational matrix was produced. On the basis of Rotated Component Matrix, the thirty parameters are segregated into five components. For each parameter, the highest factor loading has been taken for consideration under different components. Hence, the five components derived from PCA are as under:

Table 3: Test Statistics

Particulars	Mean_C1	Mean_C2	Mean_C3	Mean_C4	Mean_C5
Mann-Whitney U	3241.000	3226.000	3044.000	3280.520	2698.500
Wilcoxon W	3216.500	3453.000	3095.000	3149.000	3306.000
Z	-.431	-.717	-.094	-.477	-.435
Asymp. Sig. (2-tailed)	.669	.603	.848	.722	.685

Grouping Variable: Gender

On the basis of the above five components, the five hypotheses have been generated for the study. The five null hypotheses for the study have been tested using SPSS 20. Mann-Whitney U Test has been conducted in order to validate the hypotheses (for graduate students). The Mann-Whitney U test is a nonparametric statistic test most frequently used to assess whether two independent groups are significantly different from each other.

The hypotheses are:

- **H₀₁**: There is a significant difference between men and women pensioners in their perception of ATM- an avatar for banks.
- **H₀₂**: There is a significant difference between men and women pensioners in their perception about customers' satisfaction in ATM services.
- **H₀₃**: There is a significant difference between men and women pensioners in their perception about customers' repercussion on capping.
- **H₀₄**: There is a significant difference between men and women pensioners in their Perception about financial planning for withdrawals.
- **H₀₅**: There is a significant difference between men and women pensioners in their perception about strategies for banks.

At 5 percent level of significance, the Mann-Whitney U test statistic is insignificant for all the factors. Hence, we conclude that:

- There is no significant difference in the perception of men and women students about ATM- an avatar for banks.
- There is no significant difference in the perception of men and women students about customers' satisfaction in ATM services.
- There is no significant difference in the perception of men and women students about customers' repercussion on capping.

- There is no significant difference in the perception of men and women students about financial planning for withdrawals.
- There is no significant difference in the perception of men and women students about strategies for banks.

A statistical analysis (Students't-test) has been applied to understand the perception of pensioners on the basis of gender for the above five factors explored from the results of the PCA. (N=60, P=.05) < [.684, .657, .929, .783, and .941].

The statistic tests whether the two variables are independent or not. If the value is significantly high ($p < .05$), it indicates that a variable has no significant effect on the other. In other words, the highly significant result indicates that there is no association (pattern of response) between the gender of pensioners (men and women). So, all the null hypotheses are rejected.

Descriptive Statistics

Most of the respondents believe that the ATM has become indispensable (2.3952), their satisfaction is an important factor for banks in capturing the market (2.2124), ATMs provide an error free transaction to the customer and flexibility in withdrawals (2.0120), ATM is an innovative customer service delivery tool that offers diversified financial services (2.3774), generally the youth prefer to use ATM (2.1257), ATM services play key role to minimise customers' time and energy (2.8158), customers are satisfied with the existing ATM locations (1.7859), non-home bank ATMs are used for financial and non-financial transactions (2.9214).

Further, they believe that withdrawing from ATMs now requires some planning (2.7144), Recent RBI directive gives banks freedom to charge for more than five transactions at their own ATMs (2.7015), respondents will visit the bank to avoid paying the fee (2.8845), the

Table 4: Model Summaries and ANOVA for ATM withdrawals habits

Model	R	R ²	Adjusted R ²	Standard error of estimate	F	Sig.
1	.719	.636	.628	.70013	79.5842	.000*

Notes: Predictors: (Constant), ATM- an avatar for banks, Customers' satisfaction in ATM services, Customers' repercussion on capping, Financial planning for withdrawals, Strategies for customers to avoid charges and for banks to retain them. *p<0.05

logic banks stated that ATMs have high fixed costs is absurd (2.3570), the practice of raising interchange fee is anti-competitive (2.2641); the cost of interchange fee for smaller banks with fewer ATMs will go up as their customers will visit other bank ATMs (2.2018). Keeping minimum monthly average floor balance of INR 25,000 to enjoy unlimited access to home bank ATMs by SBI must be reduced to INR 3,000 (2.6458) and there is no symmetric information about the new charges with regard to ATM withdrawals and location of home bank ATMs (2.5923).

Again, the respondents are of opinion that they should visit bank websites and keep in touch with the relationship managers (2.3542), with proper time management it is better to visit branches especially for non-financial transactions to avoid fees (2.0091), ATMs should only be used by the customers exclusively for withdrawals (2.7420), customers should maximise the use of debit cards for day-to-day transactions (2.2413), the banks' norm of keeping minimum monthly average balance to enjoy free withdrawals is just to improve CASA ratio (2.6587), it is better to move other bank if the charges are too low than your home bank (2.7124), the appropriate strategy for banks to reduce ATM usage is to encourage electronic cards (2.9526), the banks should be allowed to withdraw from the ATM closest to the customers and they should not be required to travel to access a third-party ATM just because the limit at a third-party ATM (2.7120), customers should not be charged for accessing their own funds particularly at a time when ATMs were introduced to reduce branch banking costs (2.7852), and the withdrawal limit per transaction is based on the number of notes. So, the banks should keep currency notes of higher denomination in the ATMs to reduce the

number of limited transactions (2.6521).

Regression analysis is a statistical process which is used for estimating the relationships among variables in a study. In order to examine the extent to which the five extracted factors affect the ATM withdrawals habits, the data are further utilized in regression for validation. All the five factors are found to be significant for functional competencies (ATM withdrawals habits) and considered as predictors of the criterion variable (financial behaviour).

The model summary in Table 4 depicts the value of R², which refers to the proportion of variance in the dependent variable (financial behaviour) that can be explained by the independent variable (ATM withdrawals habits). The explanatory power of a model increases with a higher value of R². The value of R² is 0.636, which indicates that 63 percent of the variance in the dependent variable is explained by the predictor variables. The adjusted R² is an adjustment of R² that penalizes the addition of extraneous predictors to the model and indicates the fitness of a model. In this model the value of adjusted R² is 0.628, which is close to the value of R² 0.636, thus indicating the fitness of the model. The standard error of the estimate is 0.70013 which signifies that the value is good enough to imply reliable prediction of the model. The value of F is 79.5842, with a significance level of (p<0.001) which indicates that the model is statistically significant.

The model summaries in Table 5 indicate that out of the all extracted factors are considered as predictors of the criterion variable (financial behaviour). The value of R² is 0.672, which indicates that 67 percent of the variance in the dependent variable is explained by the predictor variables. Similarly, the value of adjusted R² is 0.680, which is close to the value of R² is 0.672, thus indicating

Table 5: Model Summaries and Anova for Financial Behaviour

Model	R	R ²	Adjusted R ²	Standard error of estimate	F	Sig.
1	.751	.672	.680	.56547	203.1485	.000*

Notes: Predictors: (Constant), ATM- an avatar for banks, Customers' satisfaction in ATM services, Customers' repercussion on capping, Financial planning for withdrawals, Strategies for customers to avoid charges and for banks to retain them. *p<0.05

Table 6: The Regression Coefficients for ATM Withdrawals Habits

Model		Un-standardized Coefficients		Standardized Coefficients			Collinearity Statistics	
		B	Std. error	Beta	t	Sig.	Tolerance	VIF
1	(Constant)	3.952	.042		96.159	.000		
1.	ATM- an avatar for banks	.138	.042	.147	5.125	.000	1.000	1.000
	Customers' satisfaction in ATM services	.745	.042	.673	22.155	.000	1.000	1.000
	Financial planning for withdrawals	.198	.042	.136	3.129	.000	1.000	1.000
	Customers' repercussion on capping	.144	.042	.134	3.125	.000	1.000	1.000
	Strategies for banks	.125	.042	.129	1.256	.000	1.000	1.000

Table 7: The Regression Coefficients for Financial Planning

Model		Un-standardized Coefficients		Standardized Coefficients Beta			Collinearity Statistics	
		B	Std. error		t	Sig.	Tolerance	VIF
	(Constant)	3.759	.033	.154	118.158	.000		
1.	ATM- an avatar for banks	.205	.033	.149	7.159	.000	1.000	1.000
	Customers' satisfaction in ATM services	.143	.033	.201	7.123	.000	1.000	1.000
	Financial planning for withdrawals	.142	.033	.104	4.129	.000	1.000	1.000
	Customers' repercussion on capping	.789	.033	.776	30.143	.000	1.000	1.000
	Strategies for banks	.168	.033	.157	1.026	.000	1.000	1.000

the fitness of the model. The standard error of estimate is .56547 which signifies that the value is good enough to imply reliable prediction of the model. The value of F is 203.1485, with a significance level of ($p < 0.001$) which indicates that the model is statistically significant.

The size of the coefficient for each independent variable gives the size of the effect that variable is having on the dependent variable and sign of the coefficient (positive or negative) gives the direction of the effect. The regression coefficient table (Table 6) illustrates a range of un-standardised and standardised coefficients. The un-standardised coefficients indicate that how much the dependent variable goes up one unit. Similarly, the standardised coefficients estimates resulting from an analysis carried out on independent variables that have been standardised so that their variances are 1. So, standardised coefficients refer to how many standard deviations a dependent variable will change, per standard deviation increase in the predictor variable. In Table 6 the highest beta coefficient is customers' satisfaction in ATM services (.745). The t-value for the significance of each of the five predictors indicates significance at 0.000 levels. In the collinearity statistical test both the tolerance and

VIF level is equal to 1, which indicates that there is no multi-collinearity problem in the study. It is evident that the predictors extracted are significant indicators of ATM withdrawals habits.

In Table 7 the highest beta coefficient is *Customers' repercussion on capping* (.789). The t-value for the significance of each of the five predictors indicates significance at 0.000 levels. In the collinearity statistical test both the tolerance and VIF level is equal to 1, which indicates that there is no multi-collinearity problem in this study. On the basis of the results we can conclude that the predictors extracted are significant indicators of financial behaviour.

Conclusion

The study examines the perceptions of the graduate students and pensioners of some selected localities of Kolkata on the ATM withdrawal restriction and customer retention strategies for the banks. Using different non-probability sampling techniques through schedule and personal interviews data were collected for the study.

The reliability of the questions and sample adequacy test was also carried out. Through factor analysis, five major factors viz. perceptions about ATM- an avatar for banks, customers' satisfaction in ATM services, customers' repercussion on capping, financial planning for withdrawals, and strategies for customers to avoid charges and for banks to retain them were extracted. Based on such factors, a factorial regression analysis; Mann-Whitney U test (for graduate students) and Students't-test (for pensioners) were carried out. All the five factors were found to be significant for (ATM withdrawals habits) and considered as predictors of the criterion variable (financial behaviour). The findings of the present study cannot be generalised as the sample for the study was too small due to time and financial constraints and it was collected through non-probability sampling techniques which themselves are not flawless. Again, the accuracy of the results depends up on the accuracy of the responses provided by the participants.

Scope for Future Research

Hardly, there has been any empirical research conducted in the world or in India on the capping issues of ATM withdrawals. The restriction on withdrawals have been effective since November 1st, 2014 and in coming days studies may be conducted to address the problem not only in Kolkata but also other five metro cities in India. Again, comparative studies on the withdrawal restriction policies among the public and private sector banks in intra-city or inter-city may be carried out. There lies a huge shortfall in the literature on this particular area in India and in abroad; although, studies have been conducted in different dimensions of ATM services but not exclusively on the capping on ATM withdrawals. This facilitates the need to expedite the research to address every related dimensions of this very pertinent issue not only for Kolkata but also at a national arena by the banking services regulator RBI as well as by the public, private and foreign sectorbanks to come out with a possible robust solution and to restore a balance between the two extreme points- retention and attraction of valued customers and to improve the bottom line by cost controlling.

Implementations of the study

The study extends the perception of the two groups of bank account holders of some selected areas of Kolkata

by examining a wide range of factors which affect their banking transaction practices. These findings indicate a number of issues which need to be amended especially to retain these two groups of customers; as tapping new customers is much more costly than serving the existing one as suggested by Reich held (1996). Further, the management of the banks should realise that the customer satisfaction is a key consequence of service quality and can determine the long term success as it is a service organisation (Parsuraman, Zeithaml & Berry, 1994b).

References

- Accenture (2008). UK Banks' Customer Services: Winning the Battle for Hearts and Minds. *UK Banking Point of View*, winter, 5.
- Ahmed, J. U. (2010). Customer orientation and service quality of commercial banks: Evidence from State Bank of India. *International Journal of Management*, 1(2), 174-203.
- Aurora, S., & Malhotra, M. (1997). Customer satisfaction: A comparative analysis of public and private sector banks. *Decision*, 24(1.4), 109-112.
- Awan, M. H., Bukhari, K. S., & Iqbal, A. (2011). Service quality and customer satisfaction in banking sector: Comparative study of conventional and Islamic banks in Pakistan. A paper presented at Global Marketing Islamic Conference.
- Bhal, S. (2012a). Green banking: The new strategic imperative. *Asian Journal of Research in Business Economics and Management*, 2(2), 176-185.
- Bhal, S. (2012b). The role of green banking in sustainable growth. *International Journal of Marketing, Financial Services and Management Research*, 1(2), 27-35.
- Bhardwaj, B. R., & Malhotra, A. (2013). Green banking strategies: Sustainability through corporate entrepreneurship. *Greener Journal of Business and Management Studies*, 3(4), 180-193.
- Calisir, F., & Gumussoy, C. A. (2008). Internet banking versus other banking channels: Young consumers' view. *International Journal of Information Management: The Journal for Information Professionals*, 28(3), 215-221.
- Clancy, R. (2010). Smaller UK banks offer better customers satisfaction. Annual Survey Shows, Investment International, dt. 23rd August.
- Cooper, D. R. (2000). *Business research methods* (7th Ed.). New York, McGraw-Hill/ Irwin.

- Diana, L. H., & Christina, S. S. (2009). What's your preference? : An exploratory examination of the effect of human vs. ATM vs. online interactions on overall consumer satisfaction with banking services. *Management Research News*, 32(4), 337-353.
- Donze, J., & Dubec, I. (2006). The role of interchange fees in ATM networks. *International Journal of Industrial Organization*, 24(1), 29-43.
- Dua, K. (2013). Green banking: A low carbon banking initiative. *Radix International Journal of Banking, Finance and Accounting (RIJFA)*, 2(9), 27-36.
- Dziuban, C. D., & Shirkey, E. C. (1974). When is a correlation matrix appropriate for factor analysis? Some decision rules. *Psychological Bulletin*, 81(6), 358 - 361.
- Eswar, K. (2003). Challenges before banks to manage product maturity stage: Suggested strategies. *Industrial Herald*, August, pp-25.
- Field, A. (2012). *Discovering Statistics using SPSS*, Sage Publications Ltd., New Delhi.
- Fisher, C. M. (2007). *Researching and writing a dissertation: A guidebook for business students* (pp.171-190). New Jersey; Financial Times Prentice Hall.
- Godes, D., & Mayzlin, D. (2004). Using online conversations to study word-of-mouth communication. *Marketing Science*, 23(4), 545-560.
- Gow, S. H., & Thomas, L. C. (1998). Interchange Fees for Bank ATM Networks. *Naval Research Logistics*, 45(1), 407-417.
- Green, P. E., Tull, D. S., & Gerald, A. (1999). *Research for marketing decisions* (5th Ed.) (pp.325-329). New Delhi: Prentice-Hall of India Pvt. Ltd.
- Gronroos, C. (1984). A service quality model and its marketing implications. *European Journal of Marketing*, 18(4), 36-44.
- Gupta, P. (2003). *Indian banks going innovative*. ICAFI Professional Banker, Hyderabad, October, pp-35.
- Hair, J. F., Black, B., Anderson, R. E., & Tatham, R. L. (2005). *Multivariate data analysis* (6th Ed.). New Delhi: Prentice Hall of India.
- Homburg, C., & Giering, A. (2001). Personal characteristics as moderators of the relationship between customers and loyalty: An empirical analysis. *Psychology & Marketing*, 18(1), 43-66.
- Islam, S., & Ali, M. B. (2011). Measuring service quality of banks: An empirical study. *Research journal of Finance & Accounting*, 2(4), 74-85.
- Jadav, R. A. (2011). *An overview of the banking sector* (Chapter 1, pp.20-35). Retrieved from [http:// Shodhganga. Inflibnet. Ac.in/Bitstream/10603/2031/10/10_ Chapter% 201.pdf](http://Shodhganga.Inflibnet.Ac.in/Bitstream/10603/2031/10/10_Chapter%201.pdf)
- Jain, S. K. (2008). Searching for critical success factors: A dimension specific assessment of service quality and its relationship with customer satisfaction and behavioural intentions in fast food restaurants. In Jauhri, V., (Ed.), *global cases on hospitality industry*, New York: Haw worth Press, 79-116.
- Jain, S. (2012). Assessment of service quality in Indian banking industry: A comparison of Indian banks and foreign banks, PhD. thesis, University of Delhi.
- Jham, V., & Khan, K. M. (2008). Customers' satisfaction in the Indian Banking sector: A Study. *IIMB Management Review*, March.
- Jha, N., & Bhome, S. (2013). A Study of green banking trends in India. *International Journal of Research in management and Technology*, 2(1), 127-132.
- Joshi, J. K., Awasthi, B. D., & Jinnah, M. M. (2000). Customers' expectations and level of satisfaction from the Banking Services: An Empirical Investigation, Report on the UGC Seminar on Liberalization and Role of Nationalized Banks, January 6-7, Kumaun University, Nainital, U. P.
- Kaiser. H. F. (1970, 1974). A second generation little jiffy. *Psychometrika*, 35(4), 401-415.
- Kline, P. (1994). *An easy guide to factor analysis*, London, UK: Rout ledge Publications.
- Kumar, R. (2008). Customer satisfaction in Indian Banking: A Case of Yamuna Nagar District in Haryana. *Political Economy Journal of India*. Jan-June.
- Kumari, H. V., & Rani, S. S. (2011). Customer perception of service quality in the retail banking sector. *European Journal of Business and Management*, 3(3), 299-306.
- Maria, M., & George, I. (2008). Customer switching behaviour in Greek banking services using survival analysis. *Managerial Finance*, 34(3), 186 - 197.
- Mark, C., & Hedge, R. (2001). An investigation into the switching process in retail banking services. *International Journal of Bank Marketing*, 19(5), 201-212.
- McKinsey (2009). *Indian Banking 2010: Towards a high performing sector*. McKinsey & Co., accessed on 29th November, 2014 through Retrieved from <http://www.mckinsey.com>
- Min, S., & Khoon, C. C. (2013). Demographic factors in the evaluation of service quality in higher education: International students' perspective. *International*

- Review of Management and Business Research*, 2(4), 994-1010.
- Mitchelmore, S., & Rowley, J. (2013). Entrepreneurial competencies of women entrepreneurs pursuing business growth. *Journal of Small Business and Enterprise Management*, 20(1), 125-142.
- Mohammed, S. (2012). Factors affecting ATM usage in India: An empirical analysis. *UTMS Journal of Economics*, 3(1), 1-7.
- Mohammed, A., & Sanda, E. A. (2011). Using ATMs as workload relievers for Ghanaian bank Tellers: The customer behavioural challenge. *Journal of Economics and Behavioural Studies*, 3(1), 13-21.
- Mor, N. (2008, January 30). *Sustainable financing for Indian banks*. Presentation at IFC Seminar, January, Mumbai. Retrieved from http://www.ifc.org/wps/wcm/connect/9a56580048855745bbe4fb6515bb18/IFC_30Jan08_NachiketMor.pdf?MOD=AJPERES&CACHEID=9a56580048855745bbe4fb6a6515bb18.
- Onufrey, S., & Moskowitz, H. (2008). Rethinking Segmentation. *ABA Banking Journal*, October, 26-51.
- Pallant, J. (2005). *SPSS survival manual* (2nd Ed.). New York, NY: McGraw-Hill.
- Parsuraman, A., Zeithaml, V. A., & Berry, L. L. (1985a). A conceptual model of service quality and its implications for future research. *Journal of Marketing*, 49(2), 42-50.
- Parsuraman, A., Zeithaml, V. A., & Berry, L. L. (1994b). Reassessment of expectations as a comparison standard in measuring service quality: Implications for further research. *Journal of Marketing*, 58(1), 111-124.
- Pattanaik, S. (2004). Shared ATM: The way forward. *IBA Bulletin*, December.
- Peng, L. Y., & Wang, Q. (2006). Impact of relationship marketing tactics (RMTs) on switchers and stayers in a comparative service industry. *Journal of Marketing Management*, 22(1-2), 25-59.
- Rai, A. K. (2006). *Cashing in on customers: The relationship management way, managing global organization: challenges, opportunities, and strategies*. Paper presented at the 4th AIMS International Conference on management, IIM Indore, p. 512.
- Rao, T., et al. (2014). *Indian Journal of Commerce and management*, 1(2), 100-110. (As cited by James Shoba Kamala (2008) in her study entitled - A study on customer's satisfaction on ATM in Tirunelveli city of Tamil Nadu).
- Rao, S. C. (2002). The dynamics of customer service. *Indian Bank Association Bulletins*, March, pp-16.
- Reddy, B. V. R., Reddy, S. V., & Sakuntala, V. (2000). Customer Service in Banks. *Banking Finance*, 8-9.
- Reichheld, F. F. (1996). Learning from customer defections. *Harvard Business Review*, 74(2), 56-69.
- Safakli, O. (2007). Credit risk assessment for the banking sector of Northern Cyprus. *Journal of Yasar University*, 615-630.
- Sanjeev, G. M. (2007). Does Banks's size matter in India? *Journal of Services Research*, 6(2), 135-144.
- Selvaraj, V. M. (2006). Perception of customers towards the utilization of ATM service of SBI in Tirunelveli. Banking and Insurance. ICAFI University Press, 3, 199-212.
- Sharimali, V., & Kathawala, M. (2007). Impact of Brand Equity on Customer Patronage: A Study on Banking Sector. *The Indian Journal of Commerce*, 60(1), 56-73.
- Shivkumar, K., & Samyoudha, V. (2002). Banking and customer service-An Empirical Study. *Indian Economic Panorama*, Special Banking Issue, p-22.
- Shobana, K. (2012). Customers satisfaction levels Of ATM cardholders radix. *International Journal of Research in Social Science*, 1(9), 35-47.
- Singh, H., & Singh, K. M. (2012). Internet banking: Content analysis of selected Indian public and private sector banks' online portals. *Journal of Internet Banking and Commerce*, 17(1), 2-10.
- Singhal, K., & Arya, M. (2014). Green banking: An overview. *Asian Journal of Multidisciplinary Studies*, 2(6), 196-200.
- Siu, N., & Cheung, J. (2001). A measure of retail service quality. *Marketing Intelligence & Planning*, 19(2), 88-96.
- Tara, K., & Singh, S. (2014). Green Banking: An Approach towards Environmental Management. *Prabhandhan: Indian Journal of Management*, 7(11), 7-20.
- Wu, J. H., & Wang, Y. M. (2007). Measuring ERP Success: The Key-Users Viewpoint of the ERP to produce a Viable IS in the Organization. *Computers in Human Behaviour*, 23(3), 1582-1596.
- Wole, M., & Joyce, O. L. I. (2009). The adoption of automatic teller machines in

- Nigeria: An application of the theory of diffusion of innovation issues in informing science and information technology. *Information Sciences*, 6(2), 15-22.
- Yeung, M. C. H., Lee, C., & Ennew, C. T. (2002). Customer satisfaction and profitability: A reappraisal of the nature of the relationship. *Journal of Targeting, Measurement & Analysis for Marketing*, 11(1), 24-36.
- Zikmund, W. G., & Babin, B. J. (2012). *Marketing research* (10th Ed.). Australia; [Mason, Ohio]: South-Western/Cengage Learning.
- Zilmer, E. A., & Vuz, J. (1995). Factor analysis with Rorschach data. In: JE Exner Jr. (Ed.), *Methods and Issues in Rorschach Research*. Hillsdale, NJ: Lawrence Erlbaum Associates.
- RBI (2014, November 24th). 'Withdraw this ATM Fee Circular', Editorial. *The Economic Times*, Kolkata Ed. dt.pp-12.
- Working around ATM fees (2014). *The Business Line*, Kolkata Ed., dt. 24th November, pp-8.
- Withdrawing from ATM now requires some planning (2014, November 14). *The Times of India*, Kolkata Ed., dt. pp-6.