

Measuring Effectiveness of ATMs as Workload Relievers: A Study With Reference to Cooperative and Private Sector Banks in Pune City

Amol Mane, Dr.N.Y.Rajeshirke, Dr.R.D.Kumbhar

Abstract

This study explores the issue of whether the use of the Automated Teller Machines (ATM) as service delivery tools used in cooperative banks and private banks have achieved their intended objective of reducing the workload of bank tellers. The purpose of the study is to find out whether in the current scenario, ATMs lead to a workload relief and better performance of the bank employees. ATMs have been installed with a multiplicity of objectives; this study determines whether the ATMs are good enough to achieve the objective of workload reduction. Data was collected using questionnaires that were administered to branch managers. The findings showed that though most bank customers who use the ATM services perceive the ATM as a suitable, reliable, precise and appropriate service delivery device for their banking needs; they still underutilize the ATM's service capacity by choosing to go to the bank branch premises to make cash withdrawals of amounts that could be obtained from the ATMs. During the study, it was found that branch

managers' experiences about the private sector banks were less satisfying than that of cooperative banks. At the same time, it was found that though ATM's work to their best potential in the opinion of the branch managers, the expected relief in workload is not achieved for both types of banks. This study also makes an attempt to find the reasons as to what circumstances have led to such a situation.

Keywords : *ATMs, E-Banking, Co-operative Banks, Private Sector Banks*

Introduction

An ATM is a computerized electronic machine that performs basic banking functions related to deposits and withdrawals. It is also referred to as an automated teller machine or an automatic teller machine. According to the ATM Industry Association (ATMIA), there are now close to 3000000 cash machines installed worldwide. A recent article states that according to predictions, in 2015, close to 9 Billion withdrawals per year happened in ATMs worldwide. As per RBI data, there are 218542 ATMs (Till Sept, 2016) in India.

There is no doubt that the ATMs are a significant addition to the banking trade, especially with such a huge number of withdrawals taking place all throughout the globe. They are convenient to the customers in numerous ways and they work around the clock. Customers need not wait in long queues for their money. Originally developed as cash dispensers, cash machines have evolved to include many other bank-related functions which are; a. Paying utility bills, fees, and taxes (utilities, phone bills, social security, legal fees, taxes, etc.), b. Printing in statements, c. Updating passbook balances, d. Cash advances, e. Cheque Processing Segment, f. Paying Credit Card bills, g. Transferring money between two or more accounts, h. Deposit currency recognition, acceptance, and recycling.

All what bank customers need is an ATM capable card, a pin number and they're ready to go. With recent developments in banking, a person with a simple mobile phone can also withdraw cash from ATMs, provided he has a few security keys. Several studies have been undertaken to find out how the ATMs are useful for customers of Banks. Unfortunately, lesser importance seems to be given to the other side of the coin, which means that there are

only a few studies that focus on the bank employees and not only customers.

Significance of the Study

ATMs are an important vehicle to support the daily transactional needs of the customers. As mentioned earlier, there are a huge number of transactions that take place thorough ATMs. At the same time, with the growth and advances in India, banking habits of people are becoming healthier. There is a continuous pressure on banks and the employees who work in banks. When the managers of the banks were being interviewed during the course of the study, they spoke of several reasons as to why the load on bank employees has been increasing. A few reasons are listed below:

- Globalization, economic growth, technological progresses and intense competition have led to an increase in the expectations from banks.
- To meet the ever-increasing competition in the banking sector, the officials are required to perform multiple tasks more efficiently. Not all employees are good in multitasking.
- A bank employee has to be an expert in not only in the banking domain, but also should be good at customer relations. Today's scenario is extremely competitive and customers need to be treated with care. They need to be given due attention and respect. It is a time consuming process and fake corporate smiles can be stressful.
- A good employee is the one who works fast and delivers his best. It is a difficult task to maintain speed and quality, no matter what the volume of transactions is. At time, this causes mental and physical stress to the employees.
- Usually, banks are always buzzing with people but especially, from the 1st to 10th of every month, there are maximum numbers of individuals who visit the banks for withdrawing their salaries. The same thing happens on Saturdays & Mondays, when the bank opens after a holiday on Sunday. This seems to be the case with public holidays too.
- Rarely, there are system failures, but when they happen, the bank employees cannot blame it on the computers and have to deal with a huge pile of work.

- At times, on the same day, there are a large number of customers, who want to make huge deposits in cash. With limited number of cash counting machines and personnel, this task creates bottlenecks in the normal functioning of the bank.

Review of Literature

The ITrevolution has had a boundless impact on the Indian banking system. The use of information technology has led to the introduction of online banking in India. The usage of computers in the banking industry in our country has increased several times after the economic liberalization of 1991 as the country's banking sector has been exposed to the world's market. Indian banks were finding it difficult to compete with the international banks in terms of customer service, without the use of information technology. According to the August 2016 figures; these are the top 5 banks with the highest number of ATMs in India.

Source: RBI Website- Bank-wise ATM/POS/Card Statistics - August 2016

Rank	Name of the Bank	On Site	Off Site	Total
1	STATE BANK OF INDIA	20254	29501	49755
2	ICICI BANK LTD	4842	9412	14254
3	AXIS BANK LTD	3077	10166	13243
4	HDFC BANK LTD	5628	6392	12020
5	BANK OF BARODA	6263	4151	10414

The above table shows that SBI has nearly 5000 ATMs, AXIS, ICICI have nearly 28000 ATMs. According to the latest approximations made by the Associated Chambers of Commerce and Industry of India, over 65,000 tellers' job load in the banking sector has fallen by 50% in from a period of 2003-2008 due to growing installations of off and onsite ATMs Facilities in urban, semi-urban and rural bank branches and created employment engagements for thousands of ex-defence and paramilitary staffs. The current study seems to not confirm to these findings, which shall be seen later in the finding and conclusions section.

Ms. Meena R (2008), in her study “Automated Teller Machine – Its Benefits and Challenges” suggests findings that The Automated Teller Machine has positively affected people’s lifestyles and how the banking industry functions.

Sanda, M.A. &Arhin, E. (2011), In their study entitled “Using ATMs as workload relievers for Ghanaian bank tellers: the customer behavioral challenge”, have concluded that because of customer behavioral challenges to the effective utilization of the ATM technology, banks in economies that are not yet developed are not profiting from its complete potential as an effective customer service delivery instrument, and also as a strategic job reliever for cashiers who service customers within the banking rooms.

Serikawa SS et. al. (2012) in their study entitled “Analysis of the workload of bank tellers of a Brazilian public institution.” have investigated the workload of tellers who work at banks in aBrazil based public institution. They have used the techniques of Ergonomic Work Analysis (EWA) for the purpose of their study. In their findings, they state that the employees incline to adopt strategies trying to decrease the impacts of the excess of workload, in order to regulate the flow of work. Very vividly, it is a study related to more of the physiological and the psychological aspects of the bank staff members and speaks a bit less about the business side of ATMs.

Dr. Firdos T. Shroff(2007), in his book entitled Modern Banking Technology, also makes a mention of the ATMs being responsible for the reduction in the workload for the bank’s staff.

A lot of other literature was reviewed from a number of research articles, Ph.D. thesis and other magazines but there was one discrepancy found in all the studies. All of them drew their own conclusions as to whether the ATMs reduce workload or not, they also found whether the ATMs were useful, but none concentrated on the increasing number of transactions with the growth in commercial activities. Especially in a country like India, it is not only enough to study whether the ATMs are doing a fine job but it is equally important to know that whether the actual number of staff workers are less and that more staff needs to be hired. Again, consumers have

different ways to withdraw money according to their own spending needs and philosophy. Unfortunately, this is not the focus in this study either. It can be said that examining the aspect of consumer behavior towards ATMs would be a future scope to which this existing study can be extended.

Objectives of the Study

- To find out whether the ATMs lead to a workload relief in banks.
- To find out whether the ATMs lead to a more efficient performance of the bank employees.
- Understand the experiences of managers of private sector banks and cooperative banks with respect to ATMs.
- To find out whether in the opinion of the Branch Managers, the ATMs work to their best potential.
- To find the reasons as to what circumstances have led to such a situation.

Hypothesis

H1-ATMs lead to a significant reduction in the workload of the banks employees. The data has been collected through questionnaires that required the managers to respond to Likert Scales. Jacqueline Murray from University of Guyana Berbice Campus, conducted a study entitled "Likert Data: What to Use, Parametric or Non-Parametric?" and the paper's findings were published in Vol. 4 No. 11; September 2013, International Journal of Business and Social Science. The objective of Murray's study was to determine whether the type of statistical tests conducted on Likert scale data affect the conclusions. It is concluded that parametric and non-parametric tests conducted on Likert scale data do not affect the conclusions drawn from the results.

Research Methodology

5 Private Banks and 5 Cooperative banks in Pune & Pimpri-Chinchwad areas were chosen for the purpose of the study. 4 Branch managers of different branches were chosen as respondents. Thus, this study has a total sample size of 20 branch managers managing cooperative banks and the other 20 branch managers managing private banks.

Primary data was collected using structured questionnaires. In a few cases, where the branch managers were not available, assistant branch managers/ senior employees have responded to the questionnaire. The following banks were selected:

Private Banks	Cooperative Banks
HDFC Bank	Abhyudaya Co-operative Bank
Axis Bank	Cosmos Cooperative Bank
ICICI Bank	Saraswat Cooperative Bank
Kotak Mahindra Bank	Pune People's Cooperative Bank
IDBI Bank	TJSB Sahakari Bank Ltd (The Thane Janata Sahakari Bank)

Pune as a destination has gained rapid importance in the past few years due to the development of the city's infrastructure, which has made it an attractive location for a cosmopolitan and extremely talented workforce as well corporates. The city, known as a BPO center for information technology majors, is now a hot terminus for back offices of all types of banks. Thus, Pune becomes an ideal study area.

Important Findings of the Study

Question	Responses	Bank			
		Private		Co-operative	
		No.	%	No.	%
ATMs are never under maintenance	Strongly Disagree	9	45	6	30
	Disagree	8	40	9	45
	Neutral	1	5	3	15
	Agree	1	5	1	5
	Strongly Agree	1	5	1	5
Without ATMs, Bank employees can never survive	Strongly Disagree	3	15	3	15
	Disagree	2	10	6	30
	Neutral	12	60	5	25
	Agree	2	10	4	20
	Strongly Agree	1	5	2	10
ATMs create complicated errors at times	Strongly Disagree	4	20	7	35
	Disagree	3	15	7	35
	Neutral	8	40	1	5
	Agree	3	15	2	10
	Strongly Agree	2	10	3	15

The above table gives a fair idea of the responses given by the managers. It can be seen that 45% of the Private Bank managers have

strongly disagreed that ATMs are never under maintenance as compared to 30% for Cooperative Bank managers. 30% of the Cooperative bank managers seem to disagree to the idea that without ATMs their survival would be difficult. This may be because the number of ATMs of Cooperative Banks is very less as compared to Private Banks. 35% of the cooperative bank managers responded that they strongly disagree that ATMs create complicated errors.

Other findings

1. It was found that 60% of all the branch managers agreed that ATMs improve quality of service. 55% stated that their bank's ATMs are never offline. 20% stated that they are rarely offline.
2. 55% of the managers of Private Banks and 70% of the managers of cooperative banks strongly agreed that the number of ATMs that their bank has on site or off site are insufficient.
3. 50% of the managers of private banks and cooperative banks strongly disagreed that ATMs have reduced the workload of the banking staff.
4. 15% of the managers of Private Banks and 13% of the managers of cooperative banks were of the opinion that it is the cashier whose workload reduces. to a particular extent.
5. 30% of the managers of Private Banks and 30% of the managers of cooperative banks were of the opinion that ATMs help them to speed up the operations at the branches.
6. 95% of the managers of Private Banks and 100% of the managers of cooperative banks strongly agreed that workload has been ever increasing.
7. 80% of the managers of Private Banks and 70% of the managers of cooperative banks strongly agreed that the people in Pune have healthy banking habits.
8. 65% of the managers of Private Banks and 70% of the managers of cooperative banks were of the opinion that the number of staff members is shorter than required.
9. 90% of the managers of Private Banks and 85% of the managers of cooperative banks also strongly agreed that on busy days the branch becomes overcrowded beyond limits.

Testing of Hypothesis: One-Sample Statistics

The managers were asked to express how strongly they agree or disagree to a statement that said -“ATMs result to a reduction in workload of the employees”

N	Valid	40
	Missing	0
Mean		1.85

ATMs result to a reduction in workload of the employees

ATMs result to a reduction in workload of the employees					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	9	22.5	22.5	22.5
	Disagree	28	70.0	70.0	92.5
	Neutral	3	7.5	7.5	100.0
Total		40	100.0	100.0	

Null hypothesis

H0: $\mu = 2$; The population mean (μ) equals the hypothesized mean (2).

Alternative hypothesis

H1: $\mu \neq 2$; The population mean (μ) differs from the hypothesized mean (2).

	N	Mean	Std. Deviation	Std. Error Mean
ATMs result to a reduction in workload of the employees	40	1.85	.533	.084

	Test Value = 2					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
ATMs result to a reduction in workload of the employees	-1.778	39	.083	-.150	-.32	.02

The test value was kept at 2 (Which meant – Disagree). The mean was found to be 1.85. P value is 0.08 (which greater than 0.05). Thus the null hypothesis cannot be rejected. The difference between the sample-estimated population mean and the comparison population mean is not statistically significantly different.

Conclusion

Thus, it can be concluded from the above findings that though the ATMs are important, in general, they do not lead to a significant reduction in the workload of the banks employees. At the same time, one may not conclude that the ATMs are completely useless; they are useful as they result in an improvisation in service quality. Another conclusion that can be drawn is that as far as ATMs are concerned, the overall experience of the cooperative bank managers seems to be better than that of the private bank owners.

References

- Jani, Kamiya, "How E-Banking Can Ease Your Life", www.rediff.com, Nov. 17, 2006.
- Sakkthivel, A.M., "Impact of Demographics on The Consumption of Different Services Online In India", *Journal of Internet Banking and Commerce*, www.arraydev.com, Vol. 11, No. 3, Dec. 2006.
- Jena, Chirasrota, "Biometric ATMs for Rural India", *Express Computer, Business Weekly*, www.expresscomputeronline.com, March, 12, 2007.
- Iqbal, Nadeem, "Opportunity and Challenges of Electronic Banking", *Journal of The Institute of Bankers Pakistan*, Vol. 74, Issue No. 2, April-June, 2007.
- Kaul, Urvashi, "ATM: The Power of Cash", *Dataquest: IT Giant*, August, 03, 2007. Rao, Manhunath, p.p., "ATMs: Changing Fundamentals", *Publication of Indian Express*, www.finacialexpress.com, Feb. 28, 2008.
- Doley, Kunal, "The Big Indian Virtual Bazaar", *Publication of Mail Today*, March 30, 2008.
- Gupta, Parmod, "The Future of Plastic Money", *Professional Bankers*, Feb. 8, 2004.
- Srikanth, R.P. and Chitra, Padmanabhan, "Indian Banks Cash in on Delivery Channels", *Banking Special, Weekly Issue of Express Computer*, www.expresscomputeronline.com, Dec. 2, 2002.
- Das Gupta, P, "Future of E-banking in India." www.projectship.com, Aug. 16, 2003.
- Narayanan, V, "Nuts and Bolts of Internet Banking", *The Hindu group of Publications*, July 16, 2000.
- Mishra A. K. "Internet Banking in India Part-I", *Journal of Bank net India*, May, 2000.
- Srikanth, R.P. and Rajneesh, De, "ATM Growth Set to Explode in India", *Indian Express Group*, 2000.
- Modern Banking Technology - Dr. Firdos T. Shroff*, *Notrthan Book Centre*, 2008

The Authors

Amol Mane is Assistant Professor and Head, Department of Business Administration and International Business in MIT Arts, Commerce and Science College, Alandi, Pune.

Dr.N.Y.Rajeshirke is Head, Department of Commerce in Swami Vivekanand College, Kolhapur.

Dr. R. D. Kumbhar is Assistant Professor in KBP(Karmaver Bhaurao Patil) Institute of Management Sciences, Satara

Email : asmane84@gmail.com , nyrajeshirke@rediffmail.com, rdk14@gmail.com

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