

Growth of ATM network in India since 2005

Ahmad Shadab Khan¹ & Dr. Shahina Perween²

¹ Research Scholars, Department of Economics, AMU, Aligarh,

¹ Assistant Professor, Department of Economics, AMU, Aligarh.

ABSTRACT

The Indian banking industry is going through the period of modernization and development. Technological changes occur, which can change the industry. New rules and regulations are advancing competition and choice for consumers, while technological advancements open new business models and approach to financial institutions. In the midst of all these changes and evolution, ATMs becomes the most efficient alternate delivery channel. This paper will offer a detailed look of the essential features of ATM, using growth rate and CAGR this paper explains the growth of ATM network in Indian banking industry during the period of study i.e., 2005-2020.

INTRODUCTION

Since the reform of the banking sector, the Indian banking sector has developed with the increasing emphasis on competition and technology-based services towards Universal Banking. The bank has implemented a banking core solution, company risk management and reengineering of business processes and reached social banking which has enrooted the performance, productivity and efficiency of the Indian banking sector. The reform of the banking sector in India was initiated in 1992 with one of the main objectives as the strengthening of Indian banks by increasing their productivity, efficiency and profitability. The advancement of information technology (IT) in the Indian banking sector and other financial intermediaries results in the growth and development of bank productivity and efficiency. A significant improvement has been observed in the performance of financial institutions and the service sector while incorporating IT into their functionality. (Leeladhar, 2006).

The Indian banking industry is going through the period of modernisation and development. Technological changes occur, which can change the industry. New rules and regulations are advancing competition and choice for consumers, while technological advancements open new business models and approach to financial institutions. In the midst of all these changes and evolution, it is crucial for the industry not to forget those at risk of lagging and disconnected from financial services, like those living in remote areas and low-income countries. According to the centre of financial inclusion, only 24 per cent of people in low-income countries have bank accounts, compared to 89 per cent of high-income countries.

This paper will offer a detailed look at the growth of ATM as a delivery channel of the Indian banking industry. As the most decidedly used customer contact channel in retail banking, the ATM is an important touchpoint. The latest ATM innovation offers financial institutions opportunities to change ATMs from cash dispensers to consumer relations management tools, help increase loyalty among all consumers, especially those who are almost exclusively using ATMs.

Self-service delivery channels such as ATMs help reduce costs by moving transactions from branch cashiers to ATMs. In one large bank, branch employees spend an average of 60% of their time on transactions, administration, and low-value-worth time. Removing many tellers from branches and replacing it with a full

functionality ATM will allow this bank to eliminate 15% branch staff and move it to the activity of high-value advisors. (Bain capital, 2012)

The mechanisation of deposits has become one of the fastest-growing new banking technologies. It offers consumers of advanced functionality and the benefits they want, and allow financial institutions to cut costs while they maintain or increase their consumer base. In accordance with the study of tower groups, automatic deposits at ATMs can also reduce the deposit processing costs by 65 per cent.

Although the ATM's core functionality remains untouched since their introduction to almost four decades ago, the latest technological advancements provide ATMs a new life and provide significant opportunities for financial institutions to change the role of ATMs in consumer interaction greatly.

In order to maintain a competitive advantage, it is essential to have an updated ATM network with current technology and functionality. Updating equipment also guarantees your consent with Government and Industrial Regulations. ATMs are a proven, affordable way for financial institutions to improve their signs and cut costs associated with providing services in the branch.

OBJECTIVES OF THE STUDY

The objectives of the study are as follows:

- ❖ To calculate the growth of ATMs during the period Of 2005-2020.
- ❖ To calculate the CAGR of ATMs for the period 2005-2020.
- ❖ To explore the various aspects of ATMs in India.

DATA AND METHODOLOGY

This study is based on secondary data that has been accessed from the following sources:

- PROWESS 2.5, a corporate database developed by Center for Monitoring Indian Economy (CMIE).
- Bank-wise balance sheet and respective bank's website.
- Various issues of Statistical Tables Relating to Banks in India, RBI.
- Various issues of Performance Highlights of Banks, a yearly publication of the Indian Banks' Association (IBA).
- Basic Statistical Returns of Scheduled Commercial banks, RBI.
- RBI Bulletins.

The per cent change from one period to another i.e., the growth rate is calculated from the formula:

$$\text{Growth Rate} = \left\{ \frac{(V_{\text{Present}} - V_{\text{Past}})}{V_{\text{Past}}} \right\} * 100$$

Where:

V_{Present} = Present Value

V_{Past} = Past Value

CAGR or Compound annual growth rate, is the mean annual growth rate of something over a specified period of time more than one year. It demonstrates one of the most accurate ways to calculate and determine returns for anything that can rise or fall in value over time.

The formula for calculating the compound annual growth rate is:

$$\text{CAGR} = (V_n/V_0)^{1/n} - 1$$

Where:

- ❖ CAGR= Compound annual growth rate
- ❖ V_n – The end year value
- ❖ V_0 – The beginning year value
- ❖ n – the number of years



TYPES OF ATM

There are various types of ATMs used for different purposes, some of which are shown below: ATMs are usually classified on the following two bases:

1. Location-Based Types of ATM:

- **On-site ATM:**

In this, ATMs are located either within the branch or is close to the sites of the branch so that customers can avoid the line that are present in the branch and can save their time to complete the transaction.

- **Offsite ATMs:**

Offsite ATMs are situated outside the bank like railway stations, shopping malls, petrol pumps and airports etc. This is usually on a standalone basis where there is no physical presence of branch. This is being done by banks in order to reach more and more customers in the geographical locations where there is no branch of them, but customers could still able to use their services.

- **Worksite ATM:**

Worksite ATMs are the ATMs that are situated within the buildings of an organisation and usually meant only for the employees of the organisation.

- **Mobile ATM:**

also known as ATM on wheels. In this, the ATMs moves in various locations for the customers to let them use their services.

2. Operation Based Types of ATM:

- **White label ATM:**

ATMs that are provided by NON-BANKING FINANCIAL COMPANY (NBFC) are called as white label ATMs. These ATMs are set up, operated and owned by non-bank entities which are approved by RBI and are incorporated under the companies act, 1956. To drive ATM dispersion in the country, RBI has approved (WLAs), i.e. Non-Bank entities to operate and set-up their own brand of ATMs in the country. In these types of ATMs, transaction from any bank is allowed and no logo of any particular bank is displayed.

- **GREEN LABEL ATM:**

Generally Green label ATMs are the ATMs that are used for the agricultural transaction.

- **Orange label ATMs:**

Orange label ATMs are usually used for share transactions.

- **Yellow label: ATMs:**

Yellow label ATMs are the ATMs that are mostly used for the purpose E-commerce.

- **Pink label ATM:**

This type of ATM is solely made for women banking.

- **Brown label ATM:**

In this type of ATM, the ATM's hardware and lease are owned by the service provider, but the sponsor bank provides the cash management and connectivity to the banking network.

- **Cash dispenser:** CD (cash dispenser) performs certain operations like cash withdrawal, requests, mini statement and balance enquiry.

ADVANTAGES OF ATM

There are many advantages of ATM which are discussed below.

- ❖ Prompt and quick service is possible with less human errors.
- ❖ It is beneficial for travellers.
- ❖ It provides 24 hrs automatic services and reduces the workload on bank staff.
- ❖ One can withdraw cash at any time or in urgent without the help of the bank.
- ❖ It ensures privacy to the customers.
- ❖ The withdrawal of rupees is faster than the bank.
- ❖ Maintenance cost is reduced as no bank staff is involved in the transaction.
- ❖ It also provides a receipt for details of withdrawal of money and balance in the account.

DISADVANTAGES OF ATM

There are some disadvantages of ATM which are discussed below.

- ❖ Customers do not have proper knowledge of its operation, so hesitate to use it.
- ❖ If ATM card is lost, no withdrawal of rupees. There is a possibility of misusing and hacking the ATM card.
- ❖ The personal touch of customers-employee relation is missing.
- ❖ Due to leakage of PIN, fraud can take place easily.
- ❖ The initial cost of hardware, software, and installation site is very high.
- ❖ Limitation of withdrawal of money.

FUNCTIONS OF ATM

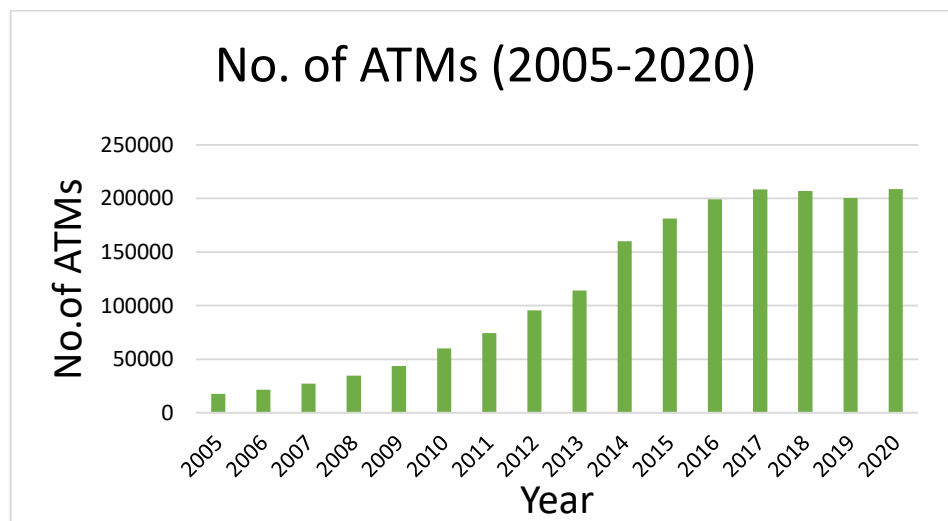
The functions of an automated teller machine are as follows.

- ❖ Transfer funds between linked bank accounts
- ❖ Receive account balance
- ❖ Prints recent transactions list
- ❖ Change your pin
- ❖ Deposit your cash
- ❖ Prepaid mobile recharge
- ❖ Bill payments
- ❖ Cash withdrawal

ANALYSIS AND FINDINGS

To calculate the CAGR and growth rate of ATMs in the Indian banking industry, the present study used the data of no. of ATMs of the overall Indian banking system over the period of 2005-2020.

The following bar graph shows the growth of the number of ATMs in the overall Indian banking industry.



The following table represents the growth rate of ATMs in India from the year 2005-2020. Compounded Annual Growth Rate is also calculated in this table.

year	No. of Atm	Growth	CAGR
2005	17642		
2006	21523	18%	125%
2007	27088	21%	
2008	34789	22%	
2009	43651	20%	
2010	60153	27%	
2011	74505	19%	
2012	95686	22%	
2013	114014	16%	

2014	160055	29%	
2015	181398	12%	
2016	199099	9%	
2017	208354	4%	
2018	207052	-1%	
2019	200352	-3%	
2020	208818	4%	

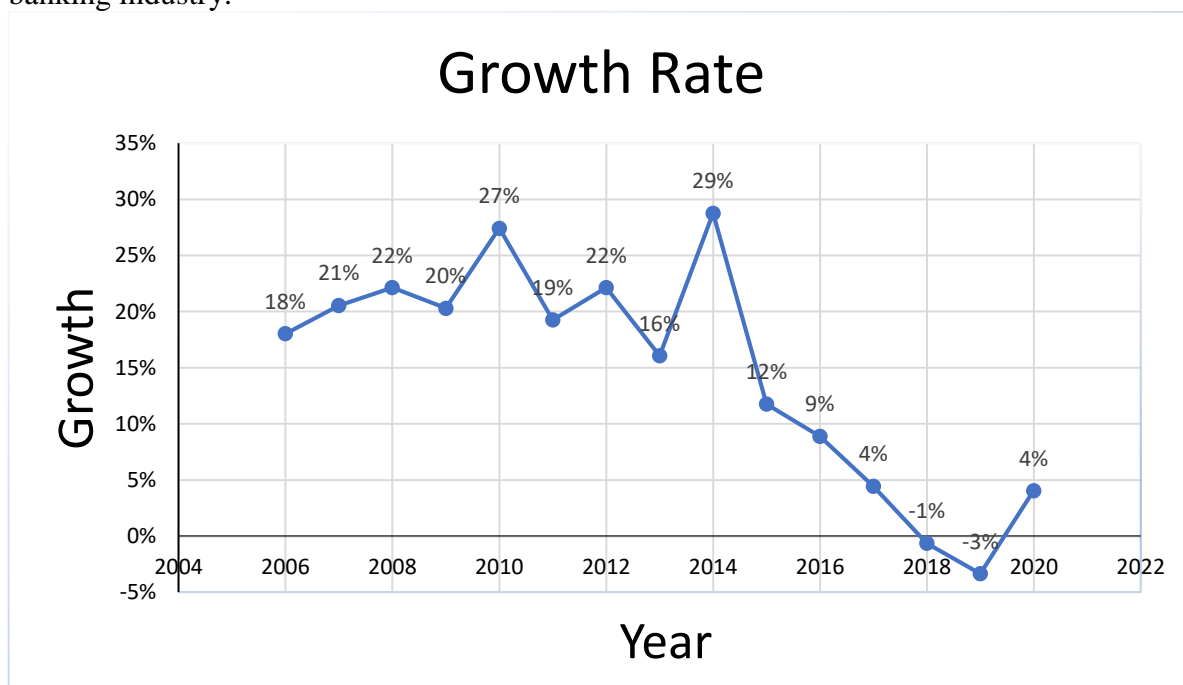
Source: Author's calculation

The table above demonstrates the growth of ATMs in India. As shown in the table above a growth rate of 18% has been observed in the initial year i.e. in 2006. In the year 2007, the growth rate was increased to 21%, which is further increased by 1% i.e., to 22% in the year 2008. In the year 2009, a slight fall of 1% in the growth rate was observed. A significant jump of 7% is seen in the growth rate in the year 2010, at the end of this year the growth rate touched the figure of 27%. Thereafter in the year 2011, it suddenly falls to a mere 19%. Again, in the year 2012 a slight increment of 3% is seen. This growth rate further reduces to 16% by the end of the financial year 2013.

It has been demonstrated that in the year 2014 a maximum jump of 13% has been seen in the growth rate and in this year the no. of ATMs has been increased from 114014 to 160055 with a growth rate of 29%. But in the following year i.e., in 2015 a huge slump of 15% has been detected. Hereafter this negative trend in the growth rate has been constantly observed, in 2016, a decline of 3% was observed which was further declined by 5% in 2017.

For the first time during the period of study, in the year 2018 a negative growth rate of -1% has been observed in this year for the first time the no. of ATMs has been declined, it was reduced from 208354 in 2017 to 207052 in 2018. This number is further reduced by 6,700 to 200352 in 2019. In the following year i.e., in 2020, a significant improvement in the growth rate has been observed, in this year the growth rate again touches a positive figure of 4%.

The following graph can further demonstrate the pattern of the growth rate of the no. of ATMs in the Indian banking industry.



The Compounded Annual Growth Rate of the no. of ATM's in India comes out to be a whopping 125%, which shows that during the period of study there has been an exponential rise in the no. of ATMs in India.

CONCLUSION

The surge of electronic delivery channels has changed the banking industry, making smaller and low-cost branches a reality, thereby, introducing a new opportunity for the ATM. Innovative technology currently provides new ways for ATMs to provide safe and better consumer experience, lower costs and increased income. Taking advantage of this opportunity to uphold the competitive advantage; however, financial institutions must maximise their ATM channels' potential. As ATMs are a proven, affordable way for banks to improve their efficiency and cut costs associated with providing services in the branch and maintain their competitive advantage, banks are installing a large number of ATMs.

REFERENCES

Chandrashekhar, G. (2007). India China hungry for more ATMs: Study. *The Hindu Business Line*. Retrieved April, 2, 2008.

Urvashi, K. (2007). ATM of cash: The power. Retrieved April, 8, 2008.

Leeladhar, V. (2006). Recent banking developments in India. *BIS Papers chapters*, 28, 237-241.

De Sarkar, P., Yadav, S. S., & Banwet, D. K. (2001). Emergence of flexible distribution channels for financial products: electronic banking as competitive strategy for banks in India. *Global Journal of Flexible Systems Management*, 2(3), 29.

Gaurie, M. (2007). Indians Get Elastic with Plastic Money. *The Economics Times*, Retrieved April, 2, 2008.

Apeksha, M., Ritu, M., & Monika, M. Plastic Money-An Overview.

Adepoju, A. S., & Alhassan, M. E. (1970). Challenges of Automated Teller Machine (ATM) Usage and Fraud Occurrences in Nigeria – A Case Study of Selected Banks in Minna Metropolis. *The Journal of Internet Banking and Commerce*, 15(2), 1-10.

Matutes, C., & Padilla, A. J. (1994). Shared ATM networks and banking competition. *European economic review*, 38(5), 1113-1138.

<https://www.bain.com/insights/customer-loyalty-in-retail-banking-2012/>

<https://www.rbi.org.in/Scripts/AnnualPublications.aspx?head=A%20Profile%20of%20Banks>