

GROWTH TREND IN ATMs IN COMMERCIAL BANKS IN INDIA

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Abstract

ATM is one of the most popular delivery channel as it promotes Anywhere, Anytime banking, brings down the cost per transaction, increases efficiency of staff by reducing their workload, helps to foster accuracy and speed and ultimately saves time, money and energy of customers. The present paper focuses on the following variables over the last three years, namely, growth in the number of ATMs in commercial banks/groupwise in India, number of transactions effected by using both credit and debit cards at ATMs & POS, amount of transactions effected by using both credit and debit cards at ATMs & POS and projects the trend values for the growth of the same in forthcoming years.

Keywords: Growth Trend in ATMs in Commercial Banks of India, Proportion of transactions by both debit and credit cards at ATMs and POS. JEL Classification: G20, O33

Introduction

ATM technology was used as a means to reach out to the customers at a lower transaction costs and offering trouble-free services. ATMs were introduced to the Indian banking industry in the early 1990s and it was initiated by foreign banks and few private sector banks, but faced many difficulties in handling transactions at that time due to lack of a strong branch network. Economic development, growing income in urban areas and a transition from class banking to mass banking have driven the Indian ATM industry to rapid growth and it is entering into next phase. It is expecting a high growth rate with regulatory changes relating to financial inclusion and increasing dissemination campaign and white label ATMs. Reserve Bank of India (RBI), banking regulator, designed policies to encourage financial institutions to reach the unbanked and under banked areas for an effective electronic payment system all over India.

In addition to ATMs, there are over five lakh POS terminals in the country, which enable customers to make payments for purchases of goods and services by means of credit/debit cards. The banks have also permitted cash withdrawal using debit cards issued by the banks at POS terminals to facilitate customer convenience. The POS for accepting card payments, also include online payment gateways. This facility is used for enabling online payments for goods and services.

In this study an attempt has been made to study the growth trend in ATMs and the number and amount of transactions effected through debit/credit cards at ATMs and POS.

Number of ATMs in Commercial Banks

Table 1 gives the number of ATMs by four groups of banks in India from the year 2008-09 to 2013-14

Table 1
Number of ATMs of Commercial Banks in India

Year/Bank Groupwise	FOREIGN BANKS	NATIONALISED BANKS	PRIVATE SECTOR BANKS	SBI AND ITS ASSOCIATES	TOTAL
2008-09	1,054	14,840	15,320	11,339	42,533
2009-10	1,026	19,702	18,447	20,978	60,153
2010-11	1,367	24,836	23,651	24,651	74,505
2011-12	1,414	31,050	36,079	27,143	95,686
2012-13	1,261	35,359	44,803	32,591	1,14,014
2013-14	1,156	61,393	49,074	52,733	1,64,456

Source: www.rbi.org

Table 1 show that there is notable increase in the number of ATMs launched from 2008-09 to 2013-14. It is observed that nationalized banks consistently continue to be the leaders in opening ATMs, followed by SBI and its Associates during the last six years ending 2013-14. The growth trend of SBI is consistently increasing compared to private sector banks. In the case of foreign banks the growth trend is negative in 2012 and 2013.

Table 2

The Proportion of Bank Groupwise in the Total Number of ATMs

Year/Bank Groupwise	FOREIGN BANKS (%)	NATIONALISED BANKS (%)	PRIVATE SECTOR BANKS (%)	SBI AND ITS ASSOCIATES (%)	TOTAL
2008-09	2.48	34.87	36.00	26.65	100.00
2009-10	1.71	32.75	30.67	34.87	100.00
2010-11	1.83	33.33	31.74	33.09	100.00
2011-12	1.48	32.45	37.71	28.37	100.00
2012-13	1.11	31.01	39.30	28.59	100.00
2013-14	0.70	37.35	29.86	32.08	100.00

Source: Computed data

It is inferred from Table 2, nationalized banks and SBI and its associates account for 66 per cent to 70 per cent of the total ATMs in the country during the years 2009-10, 2010-11 and 2013-14. The nationalized banks and private sector banks account for 70 per cent of the total ATMs in the country during the years 2008-09, 2011-12 and 2012-13. As per the recent data nationalized banks and SBI hold more than 70% of the total ATMs in the country.

Number of ATMs- Rankings

The ranks are given to each of the group of banks for each year according to the number of cash vending machines they have in their banks. The weights given for the first rank, second rank, third rank and the fourth rank are four, three, two and one respectively. The scores are totaled and mean score is obtained by each of the four companies. Table 3 shows the ranking of the banks on the basis of the number of ATMs of in each group of banks.

Table 3
Number of ATMs –Rankings

BANK GROUPWISE	Rank I	Rank II	Rank III	Rank IV	Total	Mean Score	Rank
Foreign Banks	--	--	---	6(6)	6	1.00	IV
Nationalized Banks	2(8)	4(12)	---	--	20	3.33	I
Private Sector Banks	3(12)	---	3(6)	---	18	3.00	II
SBI and its Associates	1(4)	2(6)	3(6)	---	16	2.67	III

Source: Computed data

Figures in parentheses represent weighted scores

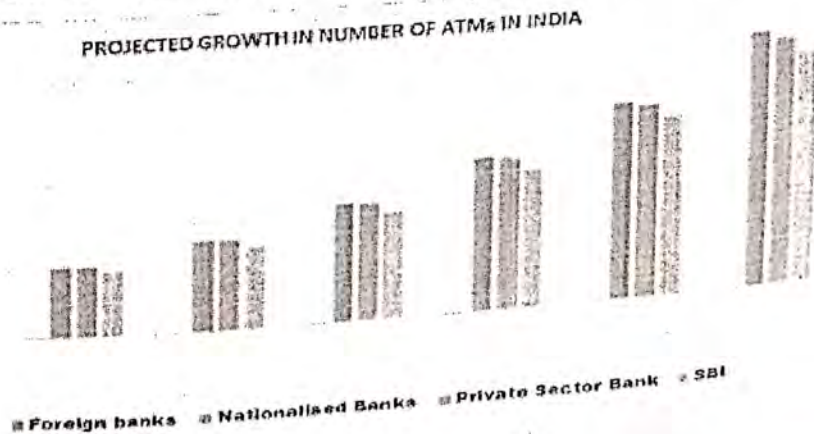
It is clear from the table 3 that nationalized banks (I) are having more ATMs to their credit and it is closely followed by private sector banks(II) and SBI(III). The role of foreign banks (IV) is small compared to other groups of banks, in electronic payment system through plastic cards.

Projected Trend in the Growth of ATMs

Table 4 shows the projected trend in the Growth of ATMs is given. The exponential trends are plotted on a semi-logarithmic chart in the form of a straight line or a non-linear curve. The equation of the exponential curve is of the form: $Y=a+bx$, the curve in logarithmic form: $\text{Log } Y = \text{Log } a + x \text{ Log } b$. The trend value for the next 6 years (2014-2020) is given below.

Figure 1

The Projected Trend in the Growth of ATMs of Commercial Banks in India





It is revealed in Fig.1 that, if the growth rate in number of ATMs launched is maintained in the next six year the total number will touch 735,000 in the year 2019- 20 and the proportion of each group of banks, namely, private sector banks, nationalized banks and SBI would be 33.6, 34.6 and 31.6 respectively. The proportion of the foreign banks would remain as 0.21.

The Proportion of Bank Transactions by Debit and Credit Cards at ATMs

With the advent of Technology in banking, all the banks started launching electronic mode of payment to bring down the cost per transaction and save time of bank staff and customers. Table 4 shows the proportion of bank transactions by Debit and Credit Cards at ATMs.

Table 4

The Proportion of Bank Groupwise Transactions by Debit and Credit Cards at ATMs

BANK GROUPWISE	2011-12		2012-13		2013-14	
	Debit Cards	Credit Cards	Debit Cards *	Credit Cards	Debit Cards	Credit Cards
Foreign Banks	1.32	19.37	1.36	17.76	1.08	20.67
Nationalized Banks	27.94	21.41	25.53	20.84	27.25	15.25
Private Sector Banks	27.79	44.82	25.47	45.93	21.74	47.71
SBI and its Associates	42.95	14.40	47.63	15.47	49.93	16.37
Total	100	100	100.00	100.00	100.00	100.00

Source: Computed data

It is inferred from the Table 4 that SBI and its associates are having majority share in the number of transactions effected through debit cards of ATMs in the country. Its proportion is consistently increasing from 43 to 50 per cent over the last three years. The nationalized banks and private sector banks are having share from 26 to 28 per cent. The foreign banks have a minimum share of one per cent.

With regard to share in the number of transactions effected through credit cards at ATMs private sector banks consistently lead at a greater margin with 45 to 48 per cent. It is followed by nationalized banks, foreign banks and SBI. The share of nationalized banks is 15 to 21 per cent while the share of foreign banks vary between 18 to 21 per cent. SBI shows marginal increase in share as 14 to 16 per cent.

Number of Bank Transactions-Rankings

Table 5 shows the rank for each group of banks according to the number of transactions effected by debit and credit cards at ATMs.

Table 5

Number of Bank Groupwise Transactions by Debit and Credit Cards at ATMs –Rankings

Ranks/Bank Groupwise	FOREIGN BANKS		NATIONALISED BANKS		PRIVATE SECTOR BANKS		SBI AND ITS ASSOCIATES	
	Debit Cards	Credit cards	Debit Cards	Credit cards	Debit Cards	Credit cards	Debit Cards	Credit cards
I	----	----	----	---	---	3(12)	3(12)	----
II	-----	1(3)	3(9)	2(6)	----	---	---	----
III	---	2(4)	----	----	3(6)	---	-----	1(2)
IV	3(3)	----	-----	1(1)	----	----	-----	2(2)
Total	3	7	9	7	6	12	12	4
Mean Score	1	2.33	3	2.33	2	4	4	1.33
Rank	IV	Second	II	Second	III	First	I	Fourth,

Source: Computed data

It is clear from the Table 5 that SBI has obtained first rank in effecting more number of transactions with debit cards at ATMs and it is followed by nationalized banks(II), private sector banks(III) and foreign banks(IV) . With regard to the number of transactions effected through credit cards at ATMs, the private sector banks has obtained first rank. The foreign banks (Second) and private sector banks (Second) are equal in number of transactions effected by credit cards at ATMs. SBI has obtained fourth rank.

Proportion of Bank Transactions at POS

Table 6 shows the proportion of bank groupwise transactions by debit and credit cards at POS.

Table 6

The Proportion of Bank Groupwise Transactions by Debit & Credit Cards at POS

BANK GROUPWISE	2011-12		2012-13		2013-14	
	Debit Cards	Credit Cards	Debit Cards	Credit Cards	Debit Cards	Credit Cards
Foreign Banks	8.28	38.17	6.56	33.86	5.35	28.55
Nationalized Banks	19.11	2.79	19.54	2.92	22.28	2.37
Private Sector Banks	50.07	46.80	49.45	49.99	47.24	56.33
SBI and its Associates	22.53	12.24	24.45	13.23	25.13	12.74
Total	100.00	100.00	100.00	100.00	100.00	100.00

Source: Computed data



It is inferred from the Table 6 that private sector banks are having majority share in the number of transactions transacted through debit cards of POS in the country, but in a declining trend. Its proportion has consistently decreased from 50 to 47 per cent over the last three years. The SBI has second majority share and it is consistently increasing from 22 to 25 per cent. The nationalized banks are in third position and their share is consistently increasing from 19 to 22 per cent. The foreign banks have a share from 5 to 8 per cent.

With regard to share in the number of transactions effected through credit cards at POS, private sector banks lead at a greater margin with consistently increasing trend from 47 to 56 per cent. It is followed by foreign banks but its share is consistently decreasing from 38 to 29. The SBI and nationalized banks are maintaining the same proportion over the three year, i.e 13 and 3 per cent respectively.

Number of Bank Transactions at POS-Rankings

Table 7 shows the rank for each group of banks according to the number of transactions effected by debit and credit cards at POS.

Table 7

Number of Bank Groupwise Transactions by Debit and Credit Cards at POS-Rankings

Ranks/Bank Groupwise	FOREIGN BANKS		NATIONALISED BANKS		PRIVATE SECTOR BANKS		SBI AND ITS ASSOCIATES	
	Debit Cards	Credit cards	Debit Cards	Credit cards	Debit Cards	Credit cards	Debit Cards	Credit cards
I	----	----	---	----	4(12)	3(12)	----	---
II	----	3(9)	----	----	---	----	3(9)	---
III	----	----	3(6)	----	----	----	----	3(6)
IV	3(1)	----	----	3(1)	----	----	----	----
Total	3	9	6	3	12	12	9	6
Mean Score	1	3	2	1	4	4	3	2
Rank	IV	Second	III	Fourth	1	First	II	Third

Source: Computed data

It is clear from the Table 7 that private sector banks have obtained first rank in effecting number of transactions with debit cards at POS and it is followed by SBI (II), nationalized banks (III) and foreign banks (IV). With regard to the number of transactions effected through credit cards at POS, Private sector banks have obtained first ranks and it is followed by foreign banks (Second), SBI (Third) and nationalized bank (IV).

Proportion of the Amount of Bank Transactions at ATMs

Table 8 shows the amount of bank groupwise transactions by debit and credit cards at ATMs

Table 8
Proportion of the Amount of Bank Groupwise Transactions by Debit and Credit Cards at ATMs

BANK GROUPWISE	2011-12 (Rs in millions)		2012-13 (Rs in millions)		2013-14 (Rs in millions)	
	Debit Cards	Credit Cards	Debit Cards	Credit Cards	Debit Cards	Credit Cards
Foreign Banks	1.75	25.97	1.55	19.84	1.22	23.98
Nationalized Banks	23.86	17.33	23.81	14.93	28.51	12.80
Private Sector Banks	32.68	45.11	33.41	53.17	29.38	49.56
SBI and its Associates	41.72	11.58	41.24	12.06	40.90	13.67
Total	100.00	100.00	100.00	100.00	100.00	100.00

Source: Computed data

It is inferred from the Table 8 that SBI and its associates are having majority share in the total amount of transactions effected through debit cards of ATMs in the country with 40 to 42 per cent, but its proportion is marginally decreasing. The private sector has next majority share of 29 to 33 per cent and it is followed by nationalized banks and foreign banks.

With regard to share in the amount of transactions effected through credit cards at ATMs, private sector banks have a majority share of 45 to 53 per cent and it is followed by foreign banks and nationalized banks. The share of foreign banks is 20 to 26 per cent, while the share of nationalized banks 13 to 17 per cent. SBI's share in the amount of transactions by credit cards at ATMs is at an increasing trend at 11 to 14 per cent.

Amount of Transactions at ATMs –Rankings

Table 9 shows the rank for each group of banks according to the amount of transactions effected by debit and credit cards at ATMs.

It is clear from the Table 9 that SBI has obtained first rank in effecting more amount of transactions with debit cards at ATMs and it is followed by private sector banks (II), nationalized banks (III) and foreign banks (IV). With regard to the amount of transactions effected through credit cards at ATMs, private sector banks has obtained first rank and it is followed by the foreign banks (Second) the nationalized sector banks (Third) and SBI (IV).

Table 9

Amount of Transactions by Debit and Credit Cards at ATMs –Rankings

Ranks Bank Groupwise	FOREIGN BANKS		NATIONALISED BANKS		PRIVATE SECTOR BANKS		SBI AND ASSOCIATES	
	Debit Cards	Credit cards	Debit Cards	Credit cards	Debit Cards	Credit cards	Debit Cards	Credit cards
I	---	---	----	---	---	3(12)	3(12)	---
II	---	3(9)	----	---	3(9)	---	---	---
III	----	---	3(6)	2(4)	----	---	---	---
IV	3(3)	----	----	1(1)	----	---	---	---
Total	3	9	6	5	9	12	12	4
Mean Score	1	3	2	1.67	3	4	4	1.33
Rank	IV	Second	III	Third	IV	First	I	Fourth

Source: Computed data

Proportion of the Amount of Bank Transactions at POS

Table 10 shows the proportion of amount of bank groupwise transactions at POS

Table 10

Proportion of the Amount of Bank Groupwise Transactions by Debit & Credit Cards at POS

BANK GROUPWISE	2011-12 (Rs in millions)		2012-13 (Rs in millions)		2013-14 (Rs in millions)	
	Debit Cards	Credit Cards	Debit Cards	Credit Cards	Debit Cards	Credit Cards
Foreign Banks	11.08	44.23	9.29	39.81	7.36	35.73
Nationalized Banks	17.41	2.14	17.68	2.21	19.24	1.87
Private Sector Banks	50.84	45.58	51.64	48.31	48.17	51.42
SBI and its Associates	20.66	8.05	21.40	9.67	25.23	10.99
Total	100.00	100.00	100.00	100.00	100.00	100.00

Source: Computed data

It is inferred from the Table 10 that private sector banks have majority share in total amount of transactions effected by debit cards of POS in the country, but its proportion decreased from 50 to 48 per cent over the last three years. The SBI has second majority share and is consistently increasing from 21 to 25 per cent. The nationalized banks are in third position.



their share is consistently increasing from 17 to 19 per cent. The foreign banks have a declining trend in their share i.e. 11 to 7 per cent.

With regard to share in the amount of transactions effected through credit cards at POS, private sector banks lead at a greater margin with consistently increasing trend from 45 to 51 per cent. It is followed by foreign banks but its share is consistently decreasing from 44 to 35. The share of SBI is marginally increasing from 8 to 11 per cent and the share of nationalized banks is only 2 per cent.

Amount of Bank Transactions at POS–Rankings

Table 11 shows the rank for each group of banks according to the amount of transactions effected by debit and credit cards at POS.

Table 11

Amount of Bank Groupwise Transactions by Debit and Credit Cards at POS–Rankings

Ranks/Bank Groupwise	FOREIGN BANKS		NATIONALISED BANKS		PRIVATE SECTOR BANKS		SBI AND ITS ASSOCIATES	
	Debit Cards	Credit cards	Debit Cards	Credit cards	Debit Cards	Credit cards	Debit Cards	Credit cards
I	----	---	----	-----	3(12)	3(12)	---	---
II	----	3(9)	----	-----	---	---	3(9)	----
III	----	----	3(6)	-----	---	---	----	3(6)
IV	3(3)	----	----	3(3)	----	----	---	---
Total	,3	9	6	3	12	12	9	---
Mean Score	1	3	2	1	4	4	3	2
Rank	IV	Second	III	Fourth	I	First	II	Third

Source: Computed data

It is clear from the Table 11 that private sector banks have obtained first rank in effecting more amounts of transactions with debit cards at POS and it is followed by SBI (II), nationalized banks (III) and foreign banks (IV). With regard to the amount of transactions effected through credit cards at POS, private sector banks have obtained first rank and it is followed by foreign banks (Second), SBI (Third) and nationalized bank (IV).

Findings

The study on growth trend in ATMs of commercial banks in India and the transactions effected through plastic cards reveals the following:

The growth trend in the number of ATMs launched by nationalized banks and SBI is creditable. The private sector banks are having third majority share, while foreign banks are in fourth position. The nationalized banks and SBI and its associates account for 66 per cent to 70 per cent of

the total ATMs in the country during the years 2009-10, 2010-11 and 2013-14. The nationalized banks and private sector banks account for 70 per cent of the total ATMs in the country during the years 2008-09, 2011-12 and 2012-13. As per the recent data nationalized banks and SBI account for more than 70% of the total ATMs in the country.

If the growth rate in number of ATMs launched is maintained for the next six years, the total number will touch 735,000 in the year 2019-20 and the proportion of each of the groups, namely, private sector banks, nationalized banks and SBI would be 33.6, 34.6 and 31.8% respectively.

The SBI and its associates are having majority share in the total number and amount of transactions effected through debit cards of ATMs in the country. With regard to share in the number and transactions effected through credit cards at ATMs, private sector banks consistently hold a greater margin.

The private sector banks are having majority share in the total number and amount of transactions transacted through debit cards and credit cards at POS in the country and this is followed by foreign banks.

Conclusion

The nationalized banks are having more number of ATMs, but the number and the amount of transactions effected by them are less than SBI and private sector banks with regard to debit cards. The private sector banks lead in the number and the amount of transactions effected by credit cards both at ATMs and POS and SBI's share in the transactions by credit cards is much lower than private sector banks. Hence the nationalized banks have to devise strategy to increase its transactions. Private sector banks are the major players in achieving financial inclusion which has a priority in national agenda.

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