

Usage of Credit Cards through ATMs and Pos Pre Demonetisation in India

Dr.B.Madhusudhan Naik ¹, Dr. Nidhi Oswal ²

¹Assistant Professor, Aurorar's PG College,Ramanthapur, Hyderabad

²Assistant Professor, Business Administration Department, Khawarizmi International College
Abu Dhabi, United Arab Emirates.

Article Info

Volume 83

Page Number: 4886 - 4897

Publication Issue:

March - April 2020

Abstract

Gobally Financial inclusion has moving very swiftly due to advancemt of technology, carrying trasactions becamed cushy to customer, business community and banks with using of debit cards, e-payments and credit cards. Government of India has implemented many fancial inclusion progammes in space of digital payments with aim to cashless India, usage of plastic money for shopping leads to vission of cashlees India. About 21% of Indians were used debit cards and 16% using credit for shopping before demonetisation. deep penetration of internet is also the reason for wider usage of digital payments, In early stage of credit card introduction Indian consumers were not usaged widely due to a fear of debt and higher interest rate on credit card dues, later it swiftly inceased usage. e-commerce, e-business, mobile commerce market are also the influencer of credit cards usage. The focal aim of this paper is to articulate progress of the outstanding credit cards of Indian scheduled commercial banks and its usage at various payment gateways such as ATMs and point of sales terminals before demonetisation.

Article History

Article Received: 24 July 2019

Revised: 12 September 2019

Accepted: 15 February 2020

Publication: 27 March 2020

Keywords; *Financial inclusion, credit card culture, e-commerce, outstanding credit cards*

I. BACKDROP

Worldwide Financial inclusion transported copious technological payment services such as debit cards, e-payments and credit cards. All these financial inclusion tools implicate cashless transactions by making payments using the debit cards and credit cards for shopping and at the point of sales terminals. Credit cards are claasified into various types as General credit cards, Kisan credit cards and navy credit card .kisan credit cards are issuing to the farmers in rural areas for purchasing of agriculture products, this is the finest source of financing to the farmers to procure the short term funds without depending on money lenders. Progress of credit card segment is not depending on the total number of credit card usage, its depends on the timely repayment of credit card dues.Nearly 21% of Indian shoppers are using debit cards and 16% using credit

for shopping. Over the years the use of these debit and credit cards increasing due to the availability internet facility, there is huge scope for proliferation of credit and debit card usage. ⁽²⁾ but still most of the Indians are not confident about using of debit and credit cards for online purchase, that's why still most of the shoppers the following cash on delivery in India. cash on dispense cost higher than online purchases per transaction. Hence the online sellers need to take necessary action to protect the data from cyber hackers.

II. PUBLIC-AWERANCE

The number of merchants accepting debit and credit cards has also doubled since 2007-08. e-commerce played pivitol role in proliferation of credit and debit card. In the same time, cards re-embedded with microchips and prerequisite use of PIN at the point-

of-sales imputes the behavior of customer to use the cards and it implicates to cashless economy. Credit card holders must be very conscious about two things related to the credit card, usage the tenure and the rate of interest on card dues. The rate of interest different from bank-to-bank and customer –to-customer. The period of repayment of a credit card dues between three months to three years. The longer the repayment tenure, the higher the interest rate on the due amount. Experts say that clear the dues in the shortest possible tenure, but it also depends on upon the repayment capacity of the cardholders, in fact, personal loans and credit cards are the two segments that have witnessed the growth of banking sector.

Reserve Bank of India's data outlining 23.7 percent growth in the credit card dues over the previous financial year, two years back banks were very conservative in issuing credit cards, but now the scenario entirely changed. Even the persons with income between 15,000- 20,000 per month also applying for credit cards, experts advising that before falling into a debt trap, start to reducing it now. Most people get stuck in the debt trap. The reason is it slowly creeps up. Credit card debt can affect the chances of getting personal loans in the future. Because nowadays banks are depending much on the reports given by credit agencies, banks are providing an opportunity to converting into EMI(equated monthly installment) for a large transaction. Banks are facilitating EMI option while purchasing in case of offline and online purchases.

III. METHODOLOGY OF STUDY

This study is completely relayed upon a secondary source of data, this data of study is collected from the Reserve Banks of India's website data for the study taken from March 2012 to March 2016. The data available at the end of March of every year at this juncture taken as a benchmark, meanwhile information collected from newspapers like Business Line, Business Standard, Live Mint, and papers from International Journals.

IV. OBJECTIVES OF THE STUDY

Following objectives are designed after going through wide review of literature on cashless economy .

1. To identify the total quanta of outstanding credit cards of the public sector banks during pre demonetization in India.
2. To examine the total number of credit cards distributed by the private banks at the juncture of pre demonetization in India.
3. To illuminate the total number of credit card transactions carried out through ATM during period study.
4. To examine the usage of credit cards usage at the point of sales terminals for payments during the phase of pre demonetization in India.

V. REVIEW OF LITERATURE

Jonathan Zinman(2004) Why Use Debit Instead of Credit? Consumer Choice in a Trillion-Dollar Market. Credit cards transactions payments at the point of sales are lagging behind the debit cards, a number of stylized data imply that debit card makes use of is motivated by behavioral factors. The accepted outlook is that debit-card draw on a puzzle for canonical economic models. However, credit-card balances would pay interest to charge purchases on the limit and hence might realistically wish to use debit to a certain extent than credit to curtail operation costs. Debit-card makes use of might also be coherent for consumers do not have access to a credit card or opposite an enforced credit limit. In this study it implies possessions of these types of credit-card exercise on the debit use and be evidence for those things are dependable with a canonical replica of consumer choice. The outcomes encompass at least two inferences for the progression of the retail payments industry and associated policy issues. First, they suggest that debit and credit are fractional proxies. Of wide-

ranging intention stored-value cards will possibly depend on not solitary on group effects.

Santiago Carbó-Valverde the Economics of Credit Cards, Debit Cards and ATMs The authors argue that since there are Still a lot of exceptional concerns and difficulties about the pricing, use, and substitutability of these payment systems, In this survey, authors were focused on several issues with the pricing of credit cards, the impact of networks on the provision and pricing of ATMs, as well as the tradeoffs that consumers build between different types of payment means, including debit cards, credit cards, and ATMs. Prominently, authors wrap up that point of sale (debit card) and ATM transactions are replacements, and that ATM surcharges collision point of sale magnitude extensively. The main conclusion of this survey is that research in the area of credit cards, debit cards and ATMs is still inconclusive and unsettled and that additional research remains to be conducted. The topic of credit card pricing provides one example of the unsettled nature of this research.

At the instant, the foremost limitations for supplementary research progress in the payment method area are in the accessibility of constructive data. It seems evident Those researchers who have access to detailed data can make significant Progress in the further understanding of credit cards, debit cards, and ATMs.

VI. SIZE OF OUTSTANDING CREDIT CARDS IN PUBLIC SECTOR BANKS

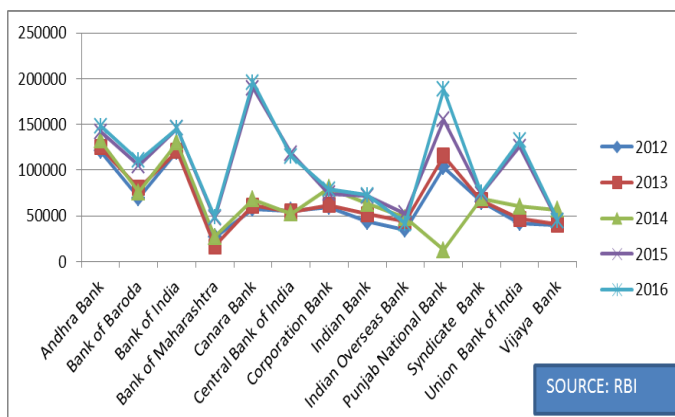


Figure 1 Public Sector Banks Outstanding Credit Cards

In general credit cards in the year 2010 march was 6,37,000 and 9,50,000 in march 2011 and Kisan credit cards 19.52million in 2010 and 22.49 million in 2011. Andhra Bank topped in No of outstanding credit cards. In March 2012, over the years Andhra Banks No. of. Outstanding credit cards are increasing from 1, 20,625 in 2012 to 148198 in March 2016. In the years of 2013 and 2014 also Andhra Bank topped in outstanding credit cards. Followed by (BOI) Bank of India, in the years of 2012, 2013, 2014. BO'S outstanding credit cards 120120, 1211062, and 130426 respectively it reaches to 145923 outstanding credit cards in the year of 2016 march. Punjab National Bank (PNB) is the country's third-largest lender PNB has over 6300 branches and over 7900 ATMS across 764 cities and it providing services more than 80 million account holders. PNB offers three types of credit cards. Those are PNB global platinum credit card, the PNB global gold card, and PNB global classic credit card. Each card has a special benefit that meets the overall requirements of credit cardholders and they choose according to the features that match to their specific needs.

PNBs no.of. Outstanding credit cards are consecutively increased every year. From 2012 to 2016 maximum rate of growth was 22.56 in 2015 and minimum growth rate in 2014. No.of.

Outstanding credit cards had been increasing from 102997 in March 2012 to 188164 in March 2016. The maximum growth rate of outstanding credit cards in 2015 it moved from 126568 in March 2014 to 155129 in March 2015. In March 2014 it moved to 115781 in 2013 to 126568 outstanding cards. In 2013 the growth of outstanding cards from 102997 in March 2012 to 115781 in March 2013.

Bank of Baroda offers three range of cards to customers those are Signature, Platinum, and Titanium, a co-branded card with BBA, Bob card, BBA co-branded Platinum credit card. In March 2012 the no. of Outstanding credit cards were 69529 and it reached to 148198 in March 2016. Outstanding cards were doubled in Bank of Baroda during this period 2012-16. In March 2013 outstanding cards increased by 15 percent to 80208 comparing with March 2012 from 69529. But in March 2014 there was the adverse growth of outstanding credit cards – 5 percentage from 80208 in 2013 to 75548 in 2014. The growth rate was revitalized in March 2015 to 38 percent i.e., 104551 from 75548. In 2016 growth rate is very meager comparing with all the years. Outstanding cards achieved 5 percent from 104551 in 2015 to 110729 in March 2016.

Syndicate Bank still remains as laggard comparing with remaining PSB (Public Sector Banks) growth rate of outstanding credit cards from 2012 to 2016 around 15 percent from 65436 to 75223 cards an average yearly growth rate of cards was 2 to 3 percent. In 2015 achieved 5 percent growth rate outstanding credit cards were 65436 in 2012, 67195 in 2013, 68948 in 2014 73554 in 2015 and 75223 in 2016.

Corporation Bank achieved 33 percent of outstanding cards from 2012 to 2016 from 59560 to 78763. In 2013 bank got 4 percent growth rate from 59560 to 61891. In 2014 outstanding card rate was grown around 30 percent this is the highest rate of growth to comparing in all these years in 2015 corporation bank outstanding credit card growth

returned into -7 percent from 80268 to 74331. Again in 2016 outstanding credit card regain 6 percent from 74331 to 78763.

Canara Bank outstanding credit card growth rate is 240 percent from 2012 to 2016 from 57586 to 195777. Bank achieved highest growth rate among PSBs. In 2013, 2014 outstanding credit cards increased 6 percent.

Central Bank of India's no. of outstanding credit cards swung from 55703 in 2012 to 118212 in 2016, the growth rate was 212 percent in the engaged period of study but in 2013 exceptional credit cards turn down to negative growth rate to approximately 2 percent comparing with 2012 from 55703 to 54611 credit cards. In 2014 also, recurring the diminishing of outstanding credit cards this point in time it became -4.28 comparing with its previous years. But in 2015 CBI accomplished noteworthy progress in its outstanding credit cards growth rate was 126.14 percent from 52272 in 2014 to 118212 credit cards. Yet, again 2016 it registered an insignificant negative growth rate of 2.38 percent credit cards. As per outstanding credit cards of Central Bank of India recorded trivial negative growth rate comparing with previous years. Excluding in 2015, in this year bank attained major milestone of outstanding credit cards enlargement about 126.14 percent growth rate.

Indian Bank outstanding credit cards improved from 43449 in 2012 to 78763 in 2016, in this selective period of study growth rate of credit cards achieved by this bank was around 167 percent. Maximum augmentation of outstanding credit cards in 2014. It was about 22 percent growth, from 52104 outstanding cards in 2013 to 63149 in 2014. Whereas in 2016 growth rate of outstanding credit cards was quite low propositioned revolutionize from 71801 in 2015 to 72419 in 2016. In the 2013 outstanding credit cards was well again about 20 percent, from 43449 in 2012 to 52104 in 2013. In 2015 rate of growth was 13.70 percent from 63149 in 2014 to 71801 in 2015.

Union Bank of India (UBI) attained its growth rate of outstanding credit cards above three times of credits cards from the benchmark year 2012. In this instance of study from March 2012 till March 2016, From 42190 outstanding credit cards in 2012 to 132136 in 2016. During this era of study 2015 was a foremost mail stone to the UBI, in terms of number of outstanding credit cards, bank recorded 108.70 percent growth during this year from 60186 in 2014 to 125612 in 2015 and the least rate of growth in 2016 from 125612 outstanding credit cards to 132136, it very slight growth of 5.19 percent and bank achieved 10.40 percent and 29.21 percent in 2013 and 2014 respectively.

The growth rate of number outstanding credit cards in Vijaya Bank is very meager in the period of 2012-2016, it's about 11.49 percent, and maximum growth of outstanding credit cards in 2014 was 39.29 percent from 40505 in 2013 to 56420, No.of. Credit card in 2014, but Vijaya Bank registered to the adverse growth rate in 2015, was -21.89 percent in 2015 and minimum growth rate in 2013, i.e. 0.72 percent. However, after 2015 negative growth rate, in 2016 Vijaya bank gradually enhanced its outstanding credit cards to about 2 percent growth starting with 44066 in 2015 to 44837 in 2016.

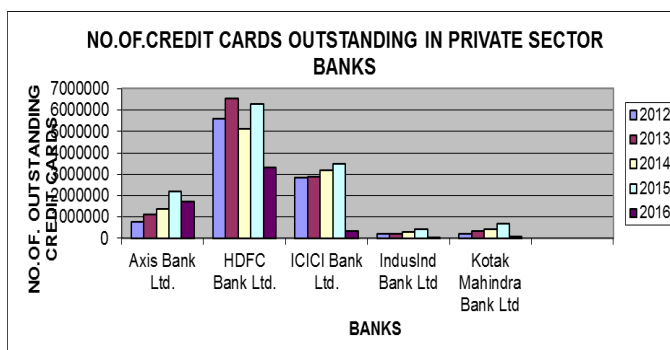
In the context of Indian Overseas Bank, achieved slight growth of outstanding credit cards in this period, it is about 20 percent in this study point in time. It observed that 27.78 percent maximum progress in terms of no. of credit cards from 34568 in 2012 to 44171 in 2013 and pessimistic growth rate of -20.63 percent , in 2016 from 52486 in 2015 to 41657 in 2016, in the left over years 8.15 percent and 9.86 percent growth of no.of.credit cards in 2014 and 2015 respectively.

Bank of Maharashtra launched its credit cards in the year 2006, with the intent of scattering credit card services to the incredibly wide area, in the opening year itself, it made an aim to provide one lakh , credit cards by the end of the fiscal year 2016. But Bank of Maharashtra didn't achieve aim to

scattering one lakh credit cards till 2016 from its initiate, this bank arrived at just half of its target of providing credit cards. As on 2012 bank was provided one by the fourth of its targeted number of credit cards. And it reached to 48778 in 2016. The growth rate in the stipulated study point was around 85 percent,

In the year 2014 bank has accomplished downbeat to 35.58 percent from 16897 to 27073 outstanding credit cards in the next subsequent year 2015 it registered 73.87 percent enrichment in terms of outstanding credit cards and ultimately in the year 2016, it recorded very least rate of augmentation i.e. 3 percent from 47072 to 48778 credit cards.

VII. SIZE OF OUTSTANDING CREDIT CARDS IN PRIVATE BANKS



Axis Bank is India's third largest private sector bank. According to Sangram Singh, head of the Axis Bank cards and merchant acquiring business. Earlier, no.of. outstanding credit cards capturing was confined to top eight cities, however, current scenario entirely changed, over half the growth is occupying by smaller cities and towns. During the FY2015-16 the small cities and towns are capturing a share of 60 percent of total no.of. Outstanding credit cards and he said that bank is not decrementing in the distribution of its credit cards from small cities and towns, issuing of credit cards can be taken from all branches of the bank. During this period of study from 2012-16, the overall growth of banks no.of. Outstanding credit cards reached to 123 percent from 77885 to 1736892 total credit cards. in the year 2015, Axis Bank attained to

maximum, the growth rate of total credit cards, i.e. 56.80 percent from 1384836 to 21751507 and a minimum number of total credit cards growth in 2014 25.79 percent from 1100895 to 1384836. In 2013 bank registered 41 percent growth, but in 2016 total credit cards slipped into negative 20 percent.

HDFC Bank, second largest India's private sector Bank, which launched credit card business in the beginning of 2002, and posted profits in this segment of credit cards as on September 30, 2012. and the largest issuer of credit cards in the country and penetrated 50 percent of total market share in terms total outstanding credit card business segment. during the period of study, bank attained negative growth of 40 percent from 5602439 in 2012 cards to 3329101 credit cards in the end of march 2016. Though the bank has targeted to offer 4 lakh credit cards in the next 12-15 months, over the years in the end of march there is slight volatility in total credit cards. In 2013 bank had positive growth 17 percent from 5602439 in 2012 to 6557564 credit cards in 2013/ however, in the end of march 2014 bank has experienced negative growth of 21.65 percent from 6557564 in 2013 to 5137406 in the end of march 2014. Again in 2015 bank was geared up for positive growth of 22 percent of credit cards in the end of march 2016 comparing with previous years outstanding credit cards fallen drastically to 47 percent.

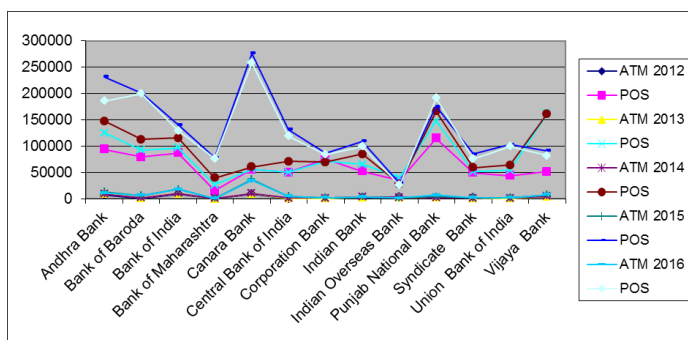
ICICI Bank is the largest Indian private sector bank, and second most top bank in the country, after 2008 global financial crisis, bank curtailed its unsecured lendings. Post-crisis bank started offering credit cards to only selective individuals, who are a new customer to it. However, its prime concern remains to offer credit cards to its existing customers. ICICI Bank, credit card portfolio grown negatively from 2844075 in 2012 to 340312, but in the year of 2014 and 2015 attained maximum growth of credit cards about 11 percent from 2866278 in 2013 to 3180205 in 2014, whereas 10.13 percent in 2015 from

3180205 to 3502517 comparing with its previous year.

Indulnd Bank Ltd is one of the India's leading private Bank, this bank offers credit cards to its customers, total outskating credit cards was growing to 118 percent in this period of study 2012-2016, from 201056 to 437510 credit cards, the highest rate of increase of credit cards was 48 percent in 2015 from 41096 to 4801289 credit cards comparing with its previous year and least rate of growth in 2016. I.e. 6 percent from 410496 to 437510 comparing with its previous year. In 2013, outstanding credit cards grew to 13.46 percent and in 2014 it grown to 21.57 percent comparing with 2013 from 228121 to 277338 cards.

Kotak Mahindra Bank Ltd is regarded as one of the most efficient and high performing private sector banks in India. During this study period bank achieved 238 percent growth rate in its outstanding credit cards portfolio in the year of 2013 it achieved 62 percent maximum of growth from 203102 to 328354, and minimum rate growth registered in 2016, i.e. 29 percent from 687979 to 884050 credit cards. In the years of 2014 and 2015, the bank achieved progress in outstanding credit cards 32 percent and 58 percent respectively.

VIII. PBS NO.OF. ATM TANSCTIONS AND POS



Source : RBI

Andhra Bank had launched two credit cards on 20th December 2003, namely artisan credit card and swarojgar credit cards aiming to artisan and self-

employed beneficiaries. No. of transactions through ATMs was substantially increased to 60 percent in this period of study from 7183 in 2012 to 11465 in 2015 ATM transaction through credit cards. In 2014 and 2016 recorded negative growth of transactions by using ATMs by 7 and 14 percent comparing with its previous years. Maximum no. of credit card transaction through ATMs in the end of March 2013, by 38 percent from 7183 to 9929 transactions and minimum in March 2015 about 46 percent. Credit cards of Andhra Bank usage at the point of sales were considerably increased during the period from March 2012 to March 2016 by 97 percent from 93942 to 185403 transactions. The highest number of transactions at POs by using credit cards was registered in 2015 from 147503 to 231570 with comparing March 2014 it was increased by 57 percent. And least number of growth in 2014 around 18 percent hike in transactions from 125180 to 147503 comparing with previous year March. In 2013 credit card transaction at POs was notified 33.25 percent improvement from 93942 to 125180. However in 2016 it was recorded the negative progress of transactions by using credit cards at POs by 20 percent from 231570 to 185403.

Bank of Baroda's credit card usage at ATMs grown incredibly 552 percent during the end of March 2012 to end March 2016. Maximum growth of usage of credit cards at ATMs in 2015, by 243 percent comparing with 2014, from 1780 to 6106 transactions in the March 2016, by 2.34 percent from 6106 to 6249 transactions. Bank of Baroda credit cards transactions at the point of sales were plunged incredibly 152 percent from 79224 to 199324, in the period of 2012 -2016. 2015 March recorded the highest number of transactions done by using credit cards at POs by 77.48 growth from 112816 to 200236 comparing with its previous year March. In 2013 was least growth rate of transactions at POs by 17 percent from 79224 to 92784 credits used to settle the payments POs terminals comparing 2012 March. However, in 2014 again it quite better than a previous year increased by 22 percent. And at the

end of the study in March 2016 settlements by using credit cards at point sales terminals sunk into -0.45 percent from 200236 to 199324 transactions comparing with 2015.

Bank of India credit card usage at ATMs had plunged to 98 percent in this period of study. Highest rate of growth in 2015, from 10579 to 18288 for transaction customer used their credit cards at ATMs, i.e. 73 percent comparing with its previous year, and slight plunging of ATM's transactions by using credit cards in 2016, it's around 1 percent from 18288 to 18429 and in remaining years 2013 and 2014 growth rate was 8 percent and 5.27 percent respectively. Bank of India's credit cards usage at the point of sales for settlement of payments was plunged to 48 percent during a 2012-2016 March from 87180 to 129455. The highest number of settlement at POs by using credit cards as per the concerns of this bank in the year 2015 by 21.55 percent growth from 115819 to 140789 transactions comparing with March 2014. In 2013 progress of total transactions increased by 11 percent from 87180 to 96856 comparing with March 2013. In 2014 slight plunging of settlements by using credit cards at sales terminals by 19.57 percent. Again in 2015 also settlements were quite better than its previous by 21.55 percent from 115819 to 140789. At the end, the study settlements turned into negative by -8 percent from 140789 to 129455.

Bank of Maharashtra issued the least number of credit cards among this selected public sector banks and this bank scored the last rank in terms of outstanding credit cards. Transactions of credit cards at ATMs also very small amount comparing with remaining banks. Transactions of BOM by using ATMs though credit cards even don't cross 500 in the end of March of any the years from 2012-2016. The overall growth of transactions it was increased by 203 percent from March 2012 to March 2016. Credit cards used for transactions at ATM's centers was 129 in March 2012 to 391 in March 2016. More

no. of transactions increased in 2014, around 100 percent from 217 to 432, the growth of transactions turned into red in 2015 and 2016 by -1.23 percent and -9.28 percent. In 2013 banks credit card transaction at ATMs increased 68 percent from 129 to 217 comparing with the previous year. Bank of Maharashtra's credit cards usage at the point of sales for settling transactions was tremendously changed by 404 percent from 15209 in March 2012 to 76735 in March 2016. A maximum number of growth in the transactions happened in 2015 from 39465 to 77570 by around 97 percent of improvement of transactions comparing with the previous year. Immediately in 2016, it turned into negative growth or rate – 1 percent. In 2013 credit cards settlements at the point of sales terminals were betterment by 75 percent by comparing with March 2012. However in 2014 transactions at PO's growth was 48 percent 26670 to 39465.

Canara Bank credit cards usage at ATMs for transactions was substantially plunging during the period of this experiment from March 2012 to March 2016, by 272 percent from 9368 to 34840 transactions. In 2015 was incredible to the Canara Bank, transactions were plunged substantially very high of 250 percent from 10524 to 36817 comparing with its previous year and in 2016 March it slipped into negative growth 5 percent. In the remaining year 2013 and 2014 very small growth of transaction in the case of Canara Bank, i.e. about 2 percent and 10.46 percent in respective years. Canara Bank credit card settlements were processed three-fold during this period of March 2012 to March 2016, from 55827 to 257828 transactions paid by using credit cards at the point of sales by 361 percent. In 2015 highest number of transactions made payments by using credit cards at POs from 60393 to 2766089 it's about 357 percent growth rate of settlements comparing with last year. And during 2013 and 2014 lowest number of transactions are settled by using credit cards at sales terminals by 1 percent and around 7 percent respectively from 55827 to 56470 in 2013, 56470 to 60393 in 2014. However, in

2013 growth of card payments, transactions come down to negative -6.61 percent from 276089 to 257828 comparing with last year.

Central Bank of India's credit card usage at ATMs substantially plunged over the years. Bank had recorded highest growth rate in terms of increasing transactions from 136 in March 2012 to 4955 in March 2016, in 2013 bank credit cards usage at ATMs was increased 265 percent from 136 to 497 comparing with 2012. In the year 2015 banks, growth rate achieved very high 290 percent from 1275 to 4983 transactions. However, in 2016 growth of transactions downfallen to negative 0.56 percent. Central Bank of India's settlements of point of sale payment was done through credit cards was grew 137 percent from 2012-2016, the total number of transactions moved from 49960 to 118900. During 2013 progress rate was too little just 0.33 percent from 49960 to 50150 comparing with 2012. In 2014 it was grew to 41.44 percent from 50150 to 79937 with 2013, in 2015 rate of the transaction was progressed to 85 percent from 70937 to 131613 with last year March. At the end year of this study, transactions were registered negative progress rate of – 9.56 percent comparing with last year March.

Corporation Banks growth rate of credit card transactions at ATMs grown 43 percent from 2012-2016, the highest growth was achieved in 2015, i.e. 86 percent from 1118 to 2081 transactions from its previous year. Slight improvement in 2013 and 2016 this transaction of credit cards at ATMs turned very sluggish at achieved -22 percent and – 8 percent respectively. Corporation Bank's credit card payments at the point of sales terminals grew by 12 percent in this period of study March 2012- March 2016 from 75075 to 84176 transactions. Except in 2015 remaining years March end credit cards payments were turned into negative in this year it grew by about 24 percent with last year. In 2013 it recorded – 5.75 percent growth rate from 75075 to 70753, again in 2014 it registered around -2 percent it was geared up into positive growth rate in 2015,

however in 2013 march end growth rate of settlement slipped into red mark by -2.26 percent from 86126 to 84176.

Indian Bank credit cards transactions by using ATMs grown 40 percent in the period 2012-2016 but over the years very slight changes in the transaction 16 percent in 2013, 13 percent in 2014, 9 percent in 2015 but in 2016 it attained adverse growth of -0.59 percent from 1180 to 1187 transactions. Indian Bank's Settlements of transactions at sales terminals by using credit cards increased to around 91 percent 52044 to 99308 transactions in the period of study from March end 201 to march end 2016. Growth rate credit cards payments of Indian Bank seem to almost the same rate during this period of study. Except 2016 it was attained a negative growth rate of transactions payment by -8.78 percent. In 2013 it was 25 percent plunging rate, 31 percent in 2014 and about 28 percent in 2015.

India overseas Banks credit card usage for payment of transactions at point sales terminals has recorded negative growth of 26.11percent between the study period of march 2012 to march 2016.in 2013 growth rate of payments at POs are higher than comparing with other years it's around 17 percent from 34676 to 40546. Immediately in 2014, it deteriorated to -31percent from 40546 to 27654, and it was quite a betterment in 2015 gear up to about 9 percent. And finally in 2016 again deteriorated to -15 percent from 30072 to 25622 comparing with last year.

Punjab National Banks credit card payments at the point of sales terminals have increased to 69 percent between march 2012 and march 2016 from 114472 to 191050 transactions. In 2013 banks credit cards usage highest number for the payment at POs comparing with remaining years by 29 percent from 114472 to 147780, immediately in 2014 credit cards at POs terminals payments was slight improved by 12.27percent comparing with 2013 from 147780 to 165919 and in remaining in 2015 ,2016 increased by 5 percent and 9 percent receptively

Syndicate Banks credit cards usage at ATMs was little bit positive volatility in the period of study march 2012-2016 by 12 percent , maximum growth transactions were in 2015, i.e. 17 percent from 1739 to 2029 and minimum growth in 2014 just 3 percent from 1678 to 1739. In 2013 it transactions growth rate sunk into negative 16percent from 2011 to 1678. transactions in 2014 geared up to 3 percent from 1678 to 1739 finally in 2016 banks credit cards usage ATMs touched to 2258 from 2029 i.e. 11 percent progress. Syndicate Banks credit card payments at the point of sales terminals have increased to 54percent between march 2012 and march 2016 from 49193 to 51475 transactions.in 2015 transactions was improved highest payments of credit cards by 44 percent from 58870 to 85020 comparing with 2014.in 2013 credit cards payments were around 5 percent grew from 49193 to 51475. But in 2014 slight plunging of cards usage increased to 14 percent from 51475 to 58870. However in 2016 it is attained negative growth of transactions of cards at POs to about 11 percent from 85020 to 75683.

Union bank credit cards usage at ATMs had grown up to 166 percent in the period of study from march 2012 to march 2016 from 845 to 2252 transactions, the highest number of positive volatility in transactions at ATMs by using credit cards in 2016 by 3 percent from 2193 to 2252 transaction comparing with its previous years. In 2013 transactions turned into red mark from 845 to 805 transactions, i.e. -4.7 percent comparing with 2012 and in 2014 transactions at ATMs by using credit cards recouped to 1145 from 805 transactions it is about 42 improvement. Union Banks credit card payments at the point of sales terminals have incredibly improved to 126 percent between march 2012 and march 2016 from 44023 to 99710 transactions. Maximum number payment of credit cards in 2015 to 102858 from 63884 by the growth of 61 percent, and minimum growth in 2014 by 18 percent from 53974 to 63884 and this growth rate was slight deteriorated compared with 2013 from 22

percent. Finally in 2016 transactions of credit cards at POs declined to – 3 percent from 102858 to 99710.

Vijaya Banks transactions grew to 97 percent during this period of study from 4003 in March 2012 to 7895 in March 2016 and a maximum number of transactions was recorded in 2016 to 7696 from 4593 comparing with 2015, in the year 2013 transactions turned into slight negative by 1 percent from 4003 to 3964 comparing with 2012. In 2015 transactions regained into positive figures 15 percent from 3964 to 4593. Finally, in the year 2016 transactions slightly bettered just 2 percent improvement comparing with 2015.

IX. NO. OF. ATM TANSCTIONS AND POS BY PRIVATE BANK CREDIT CARDS

Axis Bank credit cards usage at ATMs between juncture 2012march to 2016march credit card transactions were grown significantly from 7768 to 98579, maximum rate of growth attained in 2014 by 166 percent from 8603 to 22936 comparing with previous year, lowest rate of transactions using credit cards at ATMs in 2013 increased by 10.74 percent from 7768 to 8603 transactions. in 2015 growth rate was 74 percent from 22936 to 39918. Finally in the 2016 growth rate of credit card transactions at ATMs was filliped. In the meantime credit cards, payments for transactions at point sales also sparked tremendously from 948032 to 5738362 transactions. The highest number of transactions settled in 78 percent in 2013 and in 2016 it grew by 44 percent from 3975918 to 5738362 comparing with 2015.

HDFC Bank Ltd credit cards transitions at ATMs was increased 161 percent between the juncture 2012-2016 march, from 68877 to 180269 transactions. In 2013 it grew to 17 percent from 68877 to 80587, growth rate fragile comparing to last but transactions grew at 11 percent from 80587 to 89997, and growth rate was resilience in 2015 to 49 percent from 89997 to 134345, however in 2016 growth rate of credit card transactions at ATMs

increased by 34 percent from 134345 to 180269 comparing with march 2015. Credit card transactions at the point of the sale were increased by 205 percent from 7443931 to 22740689, between march 2013 and march 2014 maximum growth rate was attained by 48 percent from 10014020 to 14879965, and in 2015 growth rate of credit card payments at POs was 26 percent from 17970090 to 22740629 comparing with 2015.

ICICI Bank is the India's second largest issuer of credit cards, the growth rate of credit card transactions at ATMs was increased 216 percent between the juncture of march 2012 to march 2016. However growth rate fragile to negative 10 percent in 2013 comparing with 2012 from 8668 to 7746. The growth rate was reliance in 2014 about 30 percent. In 2015 it growth rate was sparked 85 percent from 10039 to 18640, and 85 percent in 2015. The point of sales transactions payments by using credit cards was increased 125 percent from 4416638 to 9930873 between this period study. In 2014 transactions at POs was increased by 30 percent from 5160914 to 6711350 and it reached to 8578861 in 2015 to 27 percent. Finally in 2016 growth rate was 15 percent comparing with 2015.

IndusInd Banks credit card transactions were in terms number comparing with remaining banks. But transactions rate of credit cards usage at ATMs was increased drastically from 598 to 8921, in the beginning of the study in march 2012, it was fragile too -12.24 percent. however in 2014 transactions of credit cards at ATMs was resilience to 248 percent comparing with 2013 from 523 to 1822, in 2015 also there was the good growth rate of transactions of credit cards at ATMs from 1822 to 4454, finally to tougher to 8291 transactions. Though it may be a low number of transactions at ATMs, at the point of sales terminals it was quite opposite it increased 250 percent of credit card payments at POs from 293347 to 1029029 and it reached 1029029 in 2016 march growth rate was 44 percent.

Kotak Mahindra Banks credit cards usage at ATMS also quite low comparing with remaining other banks. However usage of cards at ATMs grew to 500 percent in the period of study 2012-2016 march from 2361 to 14229, in 2013 it moved to 3851 from 2361 by 63 percent of growth and finally in 2016 it reached to 70 percent growth rate from 8366 to 14229 transactions of credit cards at ATMs. In the case, Kotak Mahindra Bank also credits card transactions at points of sales much better than ATM transactions. It grew 390 percent from 30433 to 1492517 between 2012-2016. In 2013 point of sales transactions were increased incredible to 72 percent from 304333 to 522893. At the end of the study, it moved to 1492517 from 919979 in 2015.

X. CONCLUSION

Over the years more outstanding credit cards are increasing very substantially in the case both public as well as private-sector banks, in the case of public sector banks Andhra Bank is topped in terms of outstanding credit cards, at this juncture of study from 120265 to 148198 and followed by Bank of Baroda and Punjab National Bank. In private banks HDFC topped in terms of outstanding credit cards as on March 2016, followed by ICICI Bank with 340312 and Axis Bank with 1736892 total numbers of outstanding credit cards. Private Banks are leads and public banks are laggard in terms outstanding credit cards. Credit cards usage at ATMs and point of sales terminals was plunged significantly at this juncture of study between March 2012 to March 2016, however in the end of study 2016 growth rate of transactions at both ATMs AND POs turn down due to Banking sector in stress. Further scope of study of this paper is average payment of transactions by using credit cards, and comparative study of debit card and credit transactions. In further research it will be focus on post demonetistion progress in usage of digital payment in India.

REFERENCES

- [1]. AGARWAL, S., C. L. CHOMSISENGPHET and N. S. SOULELES (2005): "Do

- Consumers Choose the Right Credit Contracts?", Available at SSRN, CFS Working Paper 32 (November).
- [2]. AUSUBEL, L. M. (1991): "The Failure of Competition in the Credit Card Market", *The American Economic Review*, 81(1), 50-81.
- [3]. BERLIN, M. and L. J. MESTER (2004): "Credit Card Rates and Consumer Search", *Review of Financial Economics*, 13, 179-198.
- [4]. BoltW, Chakravorti S (2008) Economics of payment cards: a status report. Economic perspectives, Federal Reserve Bank of Chicago, 4th Quarter, pp 15-27
- [5]. BRITO, D. L. and P. R. HARTLEY (1995): "Consumer Rationality and Credit Cards", *Journal of Political Economy*, 103(2), 400-433.
- [6]. CALEM, P. S. and L. J. MESTER (1995): "Consumer Behavior and the Stickiness of Credit-Card Interest Rates", *The American Economic Review*, 85(5), 1.327-1.336.
- [7]. CALOMIRIS, C. W. and J. R. MASON (2004): "Credit Card Securitization and Regulatory Arbitrage", *Journal of Financial Services Research*, 26(1), 5-27.
- [8]. CASTRONOVA, E. and P. HAGSTROM (2004): "The Demand for Credit Cards: Evidence from the
- [9]. Survey of Consumer Finances", *Economic Inquiry*, 42(2), 304-318.
- [10]. CHAKRAVORTI, S. and W. EMMONS (2003): "Who Pays for Credit Cards?", *The Journal of Consumer Affairs*, 37(2), 208-230.
- [11]. CHRISTENSEN, L. R., D. W. JORGENSON and L. J. LAU (1973): "Transcendental Logarithmic Production Frontiers", *Review of Economics and Statistics*, 55, 28-45.
- [12]. DELLAVIGNA, S. and U. MALMENDIER (2004): "Contract Design and Self-Control: Theory and practices.
- [13]. Evidence", *The Quarterly Journal of Economics*, CXIX(2), 353-402.
- [14]. Delinquency", *The Review of Financial Studies*, 15(1), 319-347. And N. S. SOULELES (2002b): "Do Liquidity Constraints and Interest Rates Matter for Consumer Behavior? Evidence from credit

card data”, The Quarterly Journal of Economics, 117(1),149-185.

- [15]. Santiago, Carbó-Valverde, Francisco Rodríguez-Fernández((2014) ATM withdrawals, debit card transactions at the point of sale and the demand for currencypp400-410
- [16]. Hansen LP (1982) Large sample properties of generalized method of moments estimator. Econometrica50(4):1029–1054
- [17]. Hausman JA, Taylor WE (1981) Panel data and unobservable individual effects. Econometrica 49(6):1377–1398
- [18]. Rochet JC, Tirole J (2006) Two-sided markets: a progress report. Rand J Econ 37(3):645–667
- [19]. Rysman M (2007) An empirical analysis of credit card usage. J Ind Econ 55:1–36
- [20]. Rysman M (2009) The economics of two-sided markets. J Econ Perspect 23(3):125–127

Websites

- [21]. RBI.com
- [22]. Business Line.com
- [23]. Business standard.com
- [24]. Live mint.com