



DEMONETIZATION AND ITS IMPACT ON DIGITAL TRANSACTION- A STUDY IN SBI AND HDFC BANK

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ABSTRACT

With the announcement of demonetization on 8th November, 2016 by the Govt. of India a huge cash crunch was observed as majority of the people in India depends on cash transactions to a large extent. Although the main aim of this move was to curb the black money but the government also kept an eye towards less cash economy by promoting digital transaction in the country. RBI and the Government in India is making several efforts to promote the use of digital payment devices through limiting the use of cash in the economy and demonetization is one of such major initiatives. The consequences of demonetization has experienced by many people during the first three to four months from the day of such declaration and in most cases it was very unfavorable such as making queue in front of ATMs for withdrawal, ATMs were dried up of currency and so on. This kind of post demonetization situation made cash transaction more complex in India. In the meantime, the Govt. made an attempt to popularize digital transaction and people started to deal with this for their day to day transactions. This paper is an attempt to study the impact of demonetization on the digital transaction through the usage of credit card and debit card. Data from RBI have been used for the study. This study will help to know the picture of the transactions done digitally pre and post demonetization.

KEYWORDS: demonetization, digital transaction.

INTRODUCTION:

On 8th November, 2016, the Govt. of India announced demonetization of Rs. 500 and Rs.1000 notes with the aim of curbing black money and to promote digital transaction in the country. The second objective 'promote digital transaction' was not there originally with the demonetization announcement. This move by the government had a great impact on the daily cash transactions as majority of the Indian people deals in cash. RBI and the Government in India is making several efforts to promote the use of digital payment devices through limiting the use of cash in the economy and demonetization is one of such major initiatives. The Vision 2018 for Payment and Settlement system in India brought by RBI in June 2016 reprise the intention to enhance "less cash society". Demonetization has encouraged the people of our country towards electronic payment gateway and a large number of people even people belonging to remote rural areas have started using the cashless transactions. Demonetization has also pushed up the banking activities by increasing the number of small transactions through banking channels. "Some of the reasons why government demonetized their nation's currency are resisting inflation, resist corruption, discouraging cash

system in the country etc.”¹“The recent data shows that new digital payment methods are building momentum.”²

The consequences of demonetization has experienced by many people during the first three to four months from the day of such declaration and in most cases it was very unfavorable such as making queue in front of ATMs for withdrawal, ATMs were dried up of currency and so on. Banks also running shortage of currencies to facilitate cash withdrawal. New currency (Rs 2000 denomination) not coming to the market and there was short supply of currencies of small denominations creating problem to the traders to give changes for high value notes (Rs2000). This kind of post demonetization situation made cash transaction more complex in INdia. In the meantime, the Govt. made an attempt to popularize digital transaction and people started to deal with this for their day to day transactions. “Digital transformation holds the potential to streamline and integrate all business operations for increasing the business performance. It helps the organizations in streamlining their operations to save time, efforts and money by replacing traditional processes with automation, thus lowering the rate of errors by users.”³A report of State Bank of India said, “If demonetization had not happened, it would have taken 3 years more to initiate credit and debit cards transactions on PoS(point of Sales) terminals to reach the current level of Rs 700 billion (assuming a yearly growth rate of 25%).⁴ This paper is an attempt to study the impact of demonetization on the digital transaction through the usage of credit card and debit card.

OBJECTIVES OF THE STUDY:

The study has made with the following objectives:

1. To compare use of credit cards by the customers of SBI (including associate Banks) with customers of HDFC bank.
2. To compare use of debit cards by the customers of select banks.
3. To study the status of ATMs installed by SBI and its associates banks and HDFC bank.
4. To study the status of Point of Sale (PoS) terminals distributed by select banks.

STATEMENT OF THE PROBLEM:

India ranks very low with respect to dealing in Non-cash transactions. Same is the case with using digital mode of payments, use of PoS terminals and other IT devices for transacting. More cash dependence, in turn, has impact on government’s ability to widen tax compliance and improve tax revenue. Digitization of transactions is an obligation for India; it will benefit the poor, the middle class, the businesses and the nation. In India, digital transactions, and digitization will create a multiplier benefit to the financial market and it is expected to bring transparency to the entire economy. Unaccounted financial transaction can be restricted to a great extent to reduce the presence of black money in the country.

IMPORTANCE OF THE STUDY:

Demonetization initiatives by the government of India along with the RBI focused mainly on changing the cash based economy into less cash economy by promoting the digital transaction. For the young generation although it is not a difficult task to transact digitally but for the older generation it seemed to be a difficult venture. Even if most of the people have the platform of digital payment yet it is seen that many people go for cash transaction. This study therefore is important because it will not only help to

¹Rahmath U, Dhivya G “Impact of Demonetization: Cash to Cashless-A Study of Select Consumer” Journal of Business and Management, e-ISSN: 2278-487x, pp. 34-40.

² Ibid.

³Digital Transformation Market Analysis By Type (Solution, Service), By Deployment (Hosted, On-premise), By Enterprise Size (Large Enterprise, Small & Medium Enterprise), By End-use, By Region, And Segment Forecasts, 2018 – 2025 <https://www.grandviewresearch.com/industry-analysis/digital-transformation-market>

⁴ Ibid.

understand the impact of demonetization on the digital transaction but also will help to understand the position of digital transactions through various platforms especially through the three mostly used platforms i.e. debit card, credit card and PoS.

REVIEW OF LITERATURE:

1. Kaur, Manpreet (2017)⁵ made a study on Impact of Demonetization on Cashless Payment System to understand the status of Electronic Payment System in India. The study showed that the future transaction system is cashless transaction system as there is no trouble of carrying and wear and tear of money.
2. Rathi, Seema (2017)⁶ made a study on Demonetization and Digital Payment System in India: Issues and Challenges". The study concluded that government can create awareness, build trust, provide cyber security framework and provide necessary infrastructure for public to adopt digital payment systems.
3. Shekhar and Jain (2018)⁷ in their report made Observations about the phenomenal growth in the new age instruments such as debit cards credit cards, UPI, paytms etc. They highlighted building of ecosystem around digital payments and boost to interoperability as factors that have driven the rise of digital payments in the recent years. Further they opined about the growth of the digital payment in the future.
4. Tanya Sanatani⁸ conducted a research on effects of Demonetization on Digital Payment Systems in India to study the impact of demonetization on various payment methods in India. The study concluded that people are now becoming more comfortable with the digital world and e-commerce industry has tremendous scope for growth. The software industry is going to have massive improvement.
5. Unnis and Kumari⁹ conducted a study on "Impact of Demonetization: Cash to Cashless- A study of Select Consumer" to evaluate the awareness and usage of cashless payment by consumers after Demonetization. The study suggests that government and banks should adopt strategy of giving incentives for cashless transactions and can discourage cash payments by proper implementation and supervision of restrictions for using cash.

METHODOLOGY:

The study is based on secondary data collected from the data set released by RBI on monthly basis. Further, data of digital transaction, in amount and in volume have been collected for three mostly used electronic platforms i.e. debit card, credit card, and point-of-sale (POS) machine only. The collected monthly data are then converted into quarterly basis in order to find out quarterly change behavior of such payment gateway. For the study, one public sector and one private sector bank have been selected. From the public sector banks, SBI and its associates have been selected and from the private sector, HDFC bank have been selected. The selection of the banks have been made based on the fact that SBI is the largest public sector bank and HDFC bank is the largest private sector bank operating in India. Since the SBI and its associates have emerged as SBIw.e.f. 1st April, 2017, so for the convenience of the analysis, the researchers have

⁵Manpreetkaur (2017) "Demonetization: Impact On Cashless Payment System" 6th International Conference On Recent Trends In Engineering, Science & Management, ISBN: 978-93-86171-21-4

⁶Rathi S (2017) "Demonetization and Digital Payment System in India: Issues and Challenges"

⁷Shekhar L & Jain A (2018) "Demonetization effect: Digital payments gain new momentum"

<https://www.pwc.in/consulting/financial-services/fintech/fintech-insights...>

⁸Tanya Sanatani(2017) "Effects of Demonetization on Digital Payment Systems in India" International Journal of Computer Science and Network Security, VOL.17 No.11, November 2017, pp.136-140.

⁹Unnisa R&Kumari D.G. (2017), "Impact Of Demonetization: Cash To Cashless-A Study Of Select Consumer" IOSR Journal Of Business And Management, E-ISSN: 2278-487x, Pp. 34-40

considered SBI and its associates as a single entity for the entire period of study. The study has covered a period of eight quarters starting from 1st January, 2016 and ending on 31st December, 2017. For analytical advantage, researchers have divided the two calendar years (period of study) into eight quarters serially from one to eight. The first four quarters falls in the first calendar year 2016 and the quarter fifth to eight falls in the second year i.e.2017 calendar year.

ANALYSIS AND DISCUSSION:

Table 1: Credit Cardoutstanding and position of ATM &PoS machines and value of transactions made at SBI

SBI	1st Quarter (Jan-Mar), 2016	2nd Quarter (Apr-Jun), 2016	Change (%) (2 nd over 1 st)	3rd Quarter (Jul-Sept), 2016	Change (%) (3 rd over 2 nd)	4th Quarter (Oct-Dec), 2016	Change (%) (4 th over 3 rd)
No .Of Outstanding CCs At The End Of The Quarter	10720060	19363414	8643354 (80.63%)	20087178	723764 (3.73%)	12472567	-7614611 (-37.91)
No Of Times CC Swiped In ATM	237556	375338	137782 (57.99%)	396242	20904 (5.57)	238139	-158103 (-39.90)
Value Of Transaction Made Through CC At ATM (Rs. In Millions)	1115.82	1918.83	803.01 (71.97%)	2010.98	92.15 (4.80))	779.05	-1231.93 (-61.26)
No Of Times CC Swiped In PoS	29324823	57027939	27703116 (94.47%)	60805091	3777152 (6.62)	43837612	16967479 (-27.90)
Value Of Transaction Made Through PoS (Rs. In Millions)	77617.56	156296.33	78678.77 (101.37%)	166514.94	10218.61 (6.54)	119824.56	-46690.38 (-28.04)

Source: RBI

OBSERVATIONS:

From Table 1 it is observed that the number of outstanding credit cards at the end of 2nd quarter, 2016 increased by 80.63% but in the 3rd quarter it increased by 3.73% only. Again, in the 4th quarter (2016), number of outstanding CC decreased by 37.91% compared to 3rd quarter. It is because of the fact that during 4th quarter demonetization affect is clearly visible in the form of CC used. Again, regarding use of ATM through credit cards(in numbers), it is observed that there are significant increase in the number of ATM transactions in the 2nd quarter by 57.99% and again fall by 5.57% in 3rd quarter (2016). While significant decrease have been observed in the 4th quarter (2016) with 39.90% decrease in the number of transaction in ATMs through Credit Cards. Similar observations have been made regarding the value of ATM transaction through credit cards. There has significant increase (71.91%) in value of ATM transaction during the 2nd quarter (2016) compared to 1st quarter. While only 4.80% increase have been observed in the 3rd quarter 2016 but in the fourth quarter it has been reduced by 61.26% compared to previous quarter. Similar observations have been made regarding the PoS transactions through credit card (in numbers and in amount) where it has been observed that significant increase in the 2nd quarter in both the cases but in the 4th quarter significant decrease 27.90% have been observed in number of transactions with and 28.04% decrease in value of transaction.

Table 2:Credit Card outstanding and position of ATM &PoS machines and value of transactions made at SBI.

SBI	5th Quarter (Jan-Mar), 2017	Change (%) (5 th over 4 th last year)	6 th Quarter (Apr-Jun), 2017	Change (%) (6 th over 5 th)	7th Quarter (Jul-Sept), 2017	Change (%) (7 th over 6 th)	8th Quarter (Oct-Dec), 2017	Change (%) (8 th over 7 th)
No. Of Outstanding CCs At The End Of The Quarter	13386307	913740 (7.33)	14421283	1034976 (7.73)	15321116	899833 (6.24)	16804295	1483179 (9.68)
No Of Times CC Swiped In ATM	256453	18314 (7.7)	284261	27808 (10.84)	353014	68753 (24.19)	384832	31818 (9.01)
Value Of Transaction Made Through CC At ATM (Rs. In Millions)	1031.74	252.69 (32.44)	1174.76	143.02 (13.86)	1370.36	195.6 (16.65)	1460.1	89.74 (6.55)
No Of Times CC Swiped In PoS	42135266	- 1702346 (-3.89)	46242860	4107594 (9.75)	50576839	4333979 (9.37)	55337566	4760727 (9.41)
Value Of Transaction Made Through PoS (Rs. In Millions)	136171.87	16347.31 (13.64)	165258.99	29087.12 (21.36)	186799.35	21540.36 (13.03)	221825.93	35026.58 (18.75)

Source: RBI

OBSERVATIONS:

From Table 2 it is observed that the number of outstanding credit cards at the end of 5th quarter (2017) increased by 7.33% as compared to the decrease in the 4th quarter (2016). Again in the 6th quarter (2017) it increased by 7.73% and being the highest increase (9.68%) in the 8th quarter (2017). It clearly shows that after the demonetization, use of credit cards is growing positively. Regarding the ATM transactions through credit cards in number highest percentage change with 24.19% was observed in 7th quarter (2017) while in the 8th quarter (2017) only 9.01% increase in the number of ATM transactions through credit cards has been observed. Again, with regard to the ATM transaction through credit cards (in amount) it was observed that there was increase in the 6th and 7th quarter (2017) by 13.86% and 16.55% respectively, while in the 8th quarter it is 6.55% only. Further, regarding the PoS transaction through credit cards (in numbers) similar increase throughout the quarters have been observed while regarding the PoS transaction through credit cards (in amount) highest percentage change have been observed in the 6th quarter 2017. In the fourth quarter (Oct-Dec, 2016) outstanding number of credit cards decreased by 37.91% compared to previous quarter means pre-demonetization quarter. As a result, there has been contraction in use of credit cards in PoS and ATMs. During the 4th and 5th quarters the ATMs ran shortage of cash as such the use of CC for withdrawal has been reduced. Another Observations has been made that the bank has revised their account opening norms and there has some reduction in the volume of transaction in banks. But it has been observed in both the banks under study that from 5th quarter they have started recovery and till 8th quarter the operational level has become almost normal.

Table 3: Credit Card outstanding and position of ATM & PoS machines with the transaction value in HDFC Bank

HDFC	1st Quarter (Jan-Mar), 2016	2nd Quarter (Apr-Jun), 2016	Change (%) (2 nd over 1 st)	3rd Quarter (Jul-Sept), 2016	Change (%) (3 rd over 2 nd)	4th Quarter (Oct-Dec), 2016	Change (%) 4 th over 3 rd
No .Of Outstanding CCs At The End Of The Quarter	21515708	14934645	-6581063 (-30.59)	16066067	1131422 (7.58)	25429999	9363932 (58.28)
No Of Times CC Swiped In ATM	508882	360132	-148750 (-29.23)	366065	5933 (1.65)	391073	25008 (6.83)
Value Of Transaction Made Through CC At ATM (Rs. In Millions)	2901.87	2045.6	-856.27 (-29.51)	2103.53	57.93 (2.83)	1868.64	-234.899 (-11.17)
No Of Times CC Swiped In PoS	66195762	47571700	-18624062 (-28.13)	50268124	2696424 (5.67)	92730552	42462428 (84.47)
Value Of Transaction Made Through PoS (Rs. In Millions)	189831.13	140450.26	-49380.87 (-26.01)	146216.26	5766 (4.12)	258774.94	112558.68 (76.98)

Source: RBI

Table 4: Credit Card outstanding and position of ATM & PoS and value of transactions made at HDFC Bank

HDFC	5th Quarter (Jan-Mar), 2017	Change (%) (5 th over 4 th last year)	6 th Quarter (Apr-Jun), 2017	Change (%) (6 th over 5 th)	7th Quarter (Jul-Sept), 2017	Change (%) (7 th over 6 th)	8th Quarter (Oct-Dec), 2017	Change (%) 8 th over 7 th
No .Of Outstanding CCs At The End Of The Quarter	26077744	647745 (2.55)	26579798	502054 (1.93%)	28302181	1722383 (6.48)	29949763	1647582 (5.82)
No Of Times CC Swiped In ATM	382954	-8119 (-2.08)	446217	63263 (16.51%)	535436	89219 (19.99)	528678	-6758 (-1.26)
Value Of Transaction Made Through CC At ATM (Rs. In Millions)	1860.419	-8.221 (-0.44)	2432.22	571.8 (30.73)	2841.03	408.81 (16.81)	2854.68	13.65 (0.48)
No Of Times CC Swiped In PoS	91073896	1656656 (-1.79)	95388712	4314816 (4.74)	98117342	2728630 (2.86)	103308752	5191410 (5.29)
Value Of Transaction Made Through PoS (Rs. In Millions)	275681.6	16906.66 (6.53)	302796.69	27115.09 (9.84)	312869.75	10073.06 (3.34)	345751.79	32882.04 (10.59)

Source: RBI

Observations: From table 3 and 4 it is observed that in HDFC bank, the number of outstanding credit cards decreased by 30.59% in the 2nd quarter(2016) but again it increased in the 3rd and 4th quarter(2016). While in 2017, the number of outstanding CCs showed an increasing trend. Again regarding the ATM transactions through credit cards (in number) decreases in the 2nd quarter (2016) while after that the number of ATM transaction through credit cards showed an increasing trend till 7th quarter (2017) with highest increase by 19.99%. While regarding the ATM transaction through credit cards (in amount) significantly decreased in 4th quarter (2016) while 30.73% increase is observed in 5th quarter (2017). Again, with regards to PoS transactions through credit cards in numbers and in amount highest change have been observed in the 4th quarter (2016) with an increase by 84.47% and 76.98% respectively. While in 2017 increasing trend is observed throughout the quarters.

Fig.1 Diagram of Credit Card outstanding and position of ATM &PoS and value of transactions in SBI & HDFC bank



Observations: From figure 1 it is observed that regarding the credit card distributed by the select banks, HDFC bank is at the top in all the cases. It shows that the HDFC bank is more successful in penetration of digital cash and TPPs trade.

Table 5: Debit Card (DC) outstanding and position of ATM &PoS and value of transactions made at SBI

SBI	1st Quarter (Jan-Mar), 2016	2nd Quarter (Apr-Jun), 2016	Change (%) (2 nd over 1 st)	3rd Quarter (Jul-Sept), 2016	Change (%) (3 rd over 2 nd)	4th Quarter (Oct-Dec), 2016	Change (%) (4 th over 3 rd)
No .Of Outstanding DCs At The End Of The Quarter	716354242	554535335	-161818907 (-22.59)	591406121	36870786 (6.65)	845685411	254279290 (42.99)
No Of Times DC Swiped In ATM	1078718659	812031710	-266686949 (-24.72)	818316042	6284332 (0.77)	1035308553	216992511 (26.52)
Value Of Transaction Made Through DC at ATM (Rs. In Millions)	2550949.73	2037306.58	-513643.15 (-20.14)	2012017.58	-25289 (-1.24)	1903889.74	-108127.84 (-5.37)
No Of Times DC Swiped In PoS	101558755	124345197	22786442 (22.44)	113693659	-10651538 (-8.57)	252493117	138799458 (122.08)
Value Of Transaction Made Through PoS (Rs. In Millions)	107072.77	130797.88	23725.11 (22.16)	145758.69	14960.81 (11.44)	345940.12	200181.43 (137.34)

Source: RBI

Table 6: Debit Card (DC) outstanding and position of ATM &PoS and value of transactions made at SBI

SBI	5th Quarter (Jan-Mar), 2017	Change (%) (5 th over 4 th last year)	6 th Quarter (Apr-Jun), 2017	Change (%) (6 th over 5 th)	7th Quarter (Jul-Sept), 2017	Change (%) (7 th over 6 th)	8th Quarter (Oct-Dec), 2017	Change (%) (8 th over 7 th)
No .Of Outstanding DCs At The End Of The Quarter	809659066	-36026345 (-4.26)	792969314	-16689752 (-2.06)	807342474	14373160 (1.81)	828286143	20943669 (2.59)
No Of Times DC Swiped In ATM	1131127809	95819256 (9.26)	975433612	-155694197 (-13.76)	1050558333	75124721 (7.7)	1052585318	2026985 (0.19)

Value Of Transaction Made Through DC at ATM (Rs. In Millions)	2368746.79	464857.05 (24.42)	2740912.55	372165.76 (15.71)	2944616.7	203704.15 (7.4)	3174534.99	229918.3 (7.81)
No Of Times DC Swiped In PoS	255977834	3484717 (1.38)	239416859	-16560975 (-6.47)	229472363	-9944496 (-4.15)	241652944	12180581 (5.31)
Value Of Transaction Made Through PoS (Rs. In Millions)	368533.56	22593.44 (6.53)	349017.79	-19515.77 (-5.3)	326093.76	-22924.03 (-6.57)	351272.44	25178.68 (7.72)

Source: RBI

Observations: From table 5 and 6, significant increase (42.99%) have been noticed in the 4th quarter (2016) i.e. during the period of demonetization, with regards to the number of outstanding debit cards of SBI, while the number of cards swiped in ATMs during the 4th quarter decreased (26.52%), a huge increase (122.08%) have been observed with the number of DCs swiped in PoS. Regarding the number of ATM transactions and in terms of value it is observed that the number of transaction increased in the 4th quarter (2016) but in terms of value decreased during the period of demonetization. In the year 2017 there is increase in use of debit cards along with the value of transactions. Regarding the PoS transaction through debit cards significant change have been observed in the 4th quarter (2016) with 122.08% and 137.34% increase in the number of PoS transaction during the period of demonetization. While in 2017 no such significant changes have been noticed in the number of transaction and amount involved in such ATM and PoS transactions.

Table 7: Debit Card (DC) outstanding and position of ATM & PoS and value of transactions made at HDFC

HDFC	1st Quarter (Jan-Mar), 2016	2nd Quarter (Apr-Jun), 2016	Change (%) (2 nd over 1 st)	3rd Quarter (Jul-Sept), 2016	Change (%) (3 rd over 2 nd)	4th Quarter (Oct-Dec), 2016	Change (%) (4 th over 3 rd)
No .Of Outstanding DCs At The End Of The Quarter	78603257	50793474	-27809783 (-35.38)	52945498	2152024 (4.24)	70670107	17724609 (33.48)
No Of Times DC Swiped In ATM	106367296	77651795	-28715501 (-26.99)	78645306	993511 (1.28)	86129912	7484606 (9.52)
Value Of Transaction Made Through DC at ATM (Rs. In Millions)	518146.86	376852.21	-141294.65 (-27.27)	374923.07	-1929.12 (-0.51)	331787.44	-43135.6 (-11.51)
No of Times DC Swiped In PoS	48409544	36190893	-12218651 (-25.24)	39572915	338202 (9.34)	103335858	63762943 (161.13)

Value of Transaction Made Through PoS (Rs. In Millions)	65993.90	50121.92	-15871.98 (-24.05)	52856.97	2735.06 (5.46)	145759.17	92902.19 (175.76)
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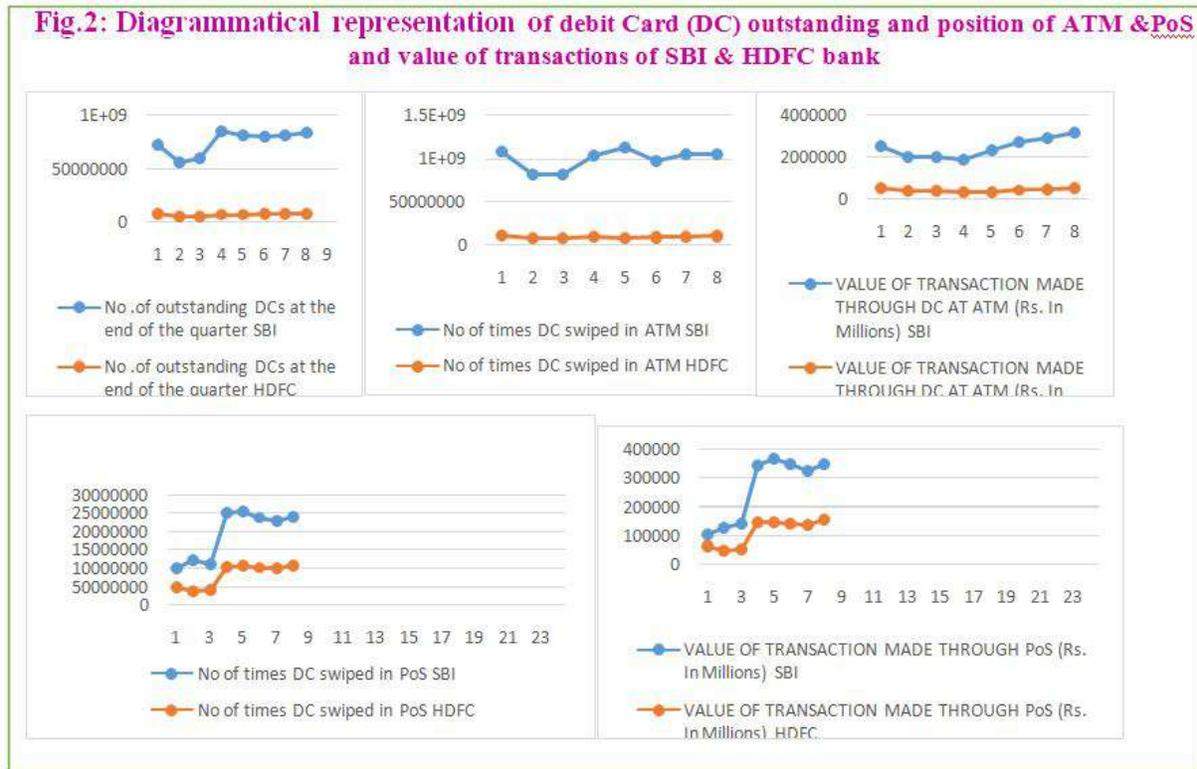
Source: RBI

Table 8: Debit Card (DC) outstanding and position of ATM &PoS and value of transactions made at HDFC

HDFC	5th Quarter (Jan-Mar), 2017	Change (%) (5 th over 4 th last year)	6 th Quarter (Apr-Jun), 2017	Change (%) (6th over 5th)	7th Quarter (Jul-Sept), 2017	Change (%) (7th over 6th)	8th Quarter (Oct-Dec), 2017	Change (%) (8 th over 7 th)
No .Of Outstanding DCs At The End Of The Quarter	70245072	-425035 (-0.6)	72251350	2006278 (2.86)	74164426	1913076 (2.65)	74885382	720956 (0.97)
No Of Times DC Swiped In ATM	76380919	-9748993 (-11.32)	84022548	7641629 (10)	93690742	9668194 (11.51)	99450571	5759829 (6.15)
Value Of Transaction Made Through DC at ATM (Rs. In Millions)	324773.2	-7014.24 (-2.11)	421537.1	96763.89 (29.79)	461788.6	40251.51 (9.55)	500015.2	38226.59 (8.28)
No Of Times DC Swiped In PoS	107476251	4140393 (4.01)	102226265	-5249986 (-4.88)	101492862	-733403 (-0.72)	108052036	6559174 (6.46)
Value Of Transaction Made Through PoS (Rs. In Millions)	147518.9	1759.73 (1.21)	141984.3	-5534.54 (-3.75)	136827.4	-5156.92 (-3.63)	154784.9	17957.52 (13.12)

Source: RBI

Fig.2: Diagrammatical representation of debit Card (DC) outstanding and position of ATM &PoS and value of transactions of SBI & HDFC bank



Observations: From table 7 and 8, significant increase (33.48%) have been observed on the 4th quarter (2016) i.e. during the period of demonetization with regard to number of outstanding debit cards of HDFC. But with respect to swiping of these cards, it has increased by only 9.52%. Value of transactions made through debit card has decreased by 11.5% in the 4th quarter (2016). Regarding PoS transactions through debit cards significant change have been observed in the 4th quarter (2016) with 161.13% and 175.76% increase in the number and value of transactions respectively. While in 2017 no such significant change have been observed in the number and value of ATM and PoS transactions made through debit cards.

From figure 2 it is observed that with regard to the debit card SBI stands above HDFC bank. This has happened because of the huge customer base of SBI compared to HDFC. The debit card segment of SBI comes up more strongly than the credit card segment and hence we can see an opposite picture in relation with the credit card. Similar trend have been observed in both the banks throughout all the quarters.

Table 9: ATM maintained on/off site by SBI and its associates during 2016

SBI	1st Quarter (Jan-Mar), 2016	2nd Quarter (Apr-Jun), 2016	Change (%) (2 nd over 1 st)	3rd Quarter (Jul-Sept), 2016	Change (%) (3 rd over 2 nd)	4th Quarter (Oct-Dec), 2016	Change (%) (4 th over 3 rd)
ONSITE ATM	79273	65122	-14151 (-17.85)	68064	2942 (4.51)	88990	20926 (30.74)
OFFSITE ATM	95589	80491	-15098 (-15.79)	78095	-2396 (-2.97)	88172	10077 (12.9)

Source: RBI

Observations: From table 9 it is observed that number of onsite and offsite ATMs of SBI have increased significantly by 30.74% and offsite ATM by 12.9% in the 4th quarter (2016) i.e. during the period of demonetization.

Table 10: ATMs maintained on/off site by SBI and its associates during 2017

SBI	5th Quarter (Jan-Mar), 2017	Change (%) (5 th over 4 th last year)	6 th Quarter (Apr-Jun), 2017	Change (%) (6th over 5th)	7th Quarter (Jul-Sept), 2017	Change (%) (7th over 6th)	8th Quarter (Oct-Dec), 2017	Change (%) 8 th over 7th
ONSITE ATM	89063	73 (0.08)	87385	-1678 (-1.88)	86214	-1171 (-1.34)	58638	-27576 (-31.99)
OFFSITE ATM	88679	507 (0.56)	89771	1092 (1.23)	91115	1344 (1.50)	60903	-30212 (-33.16)

Source: RBI

Observations: From table 10, significant decrease have been observed regarding the onsite ATM of SBI with -31.99% change in relation to the 4th quarter(2016). Regarding the offsite ATM it is observed that the number of offsite ATMs have been changing throughout the quarters while significant decrease (-33.16%) have been observed in the 8th quarter (2017).

Table 11: Number ATMs maintained on/off siteby HDFC during 2016

HDFC	1st Quarter (Jan-Mar), 2016	2nd Quarter (Apr-Jun), 2016	Change (%) (2 nd over 1 st)	3rd Quarter (Jul-Sept), 2016	Change (%) (3 rd over 2 nd)	4th Quarter (Oct-Dec), 2016	Change (%) 4 th over 3rd
Onsite Atm	16353	11954	-4399 (-26.90)	11996	42 (0.35)	16910	4914 (40.96)
Offsite Atm	19352	13787	-5565 (-28.76)	13718	-69 (-0.50)	19279	5561 (40.54)

Source: RBI

Table 12: Number ofATMs maintained on/off site by HDFC during 2017

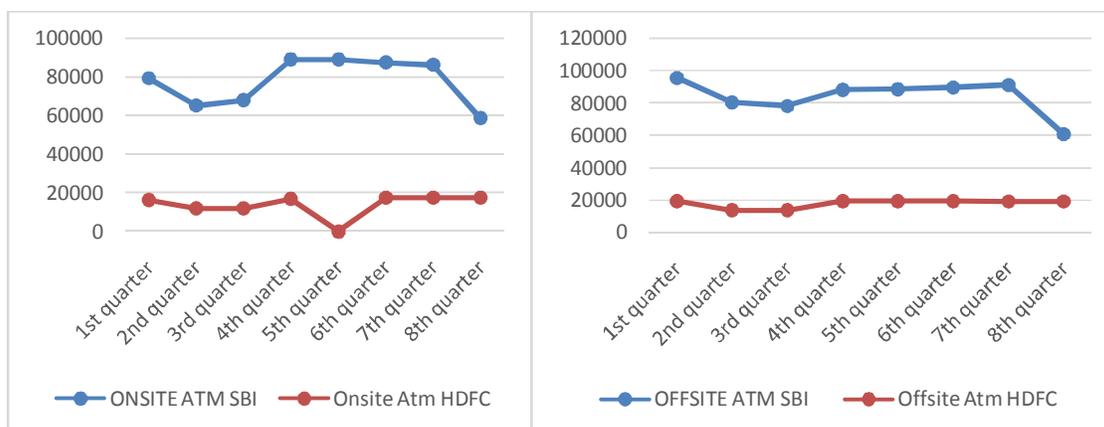
HDFC	5th Quarter (Jan-Mar), 2017	Change (%) (5 th over 4 th last year)	6 th Quarter (Apr-Jun), 2017	Change (%) (6th over 5th)	7th Quarter (Jul-Sept), 2017	Change (%) (7th over 6th)	8th Quarter (Oct-Dec), 2017	Change (%) 8 th over 7th
Onsite Atm	17177	267 (1.58)	17516	339 (1.97)	17524	8 (0.05)	17540	16 (0.09)
Offsite Atm	19433	154 (0.80)	19278	-155 (-0.80)	19187	-91 (-0.47)	19165	-22 (-0.11)

Source: RBI

Observations: From table 11 and 12 significant increase have been observed in the number of onsite ATMs in the 4th quarter (2016) with 40.96% increase while similar increase have been observed with regard to the

offsite ATMs of HDFC during 2016. While no such significant change have been observed throughout all the quarters of 2017.

Fig. 3: Diagrammatical representation of Number of ATMs maintained on/off site of SBI & HDFC banks



Observations: From figure 3 it is observed that the number of onsite and offsite ATM installed by SBI is more in number compared to onsite and offsite ATM installed by HDFC bank. The onsite and offsite ATM of SBI showed a decreasing trend towards the 8th quarter while in case of HDFC bank the number of onsite and offsite ATM showed a very small growth throughout the quarters.

Table 13: Number of PoS terminals distributed by SBI in 2016

SBI	1st Quarter (Jan-Mar), 2016	2nd Quarter (Apr-Jun), 2016	Change (%) (2 nd over 1 st)	3rd Quarter (Jul-Sept), 2016	Change (%) (3 rd over 2 nd)	4th Quarter (Oct-Dec), 2016	Change (%) (4 th over 3 rd)
PoS Online	950261	1172727	222466 (23.41)	1223476	50749 (4.33)	1170392	-53084 (-4.34)

Source: RBI

Table 14: Number of PoS terminals distributed by SBI in 2017

SBI	5th Quarter (Jan-Mar), 2017	Change (%) (5th over 4th last year)	6th Quarter (Apr-Jun), 2017	Change (%) (6th over 5th)	7th Quarter (Jul-Sept), 2017	Change (%) (7th over 6th)	8th Quarter (Oct-Dec), 2017	Change (%) (8th over 7th)
PoS Online	1525778	353051 (30.11)	1818598	292820 (19.19)	1881080	62482 (3.44)	3158218	1277138 (67.89)

Source: RBI

Observations: Table 13 and 14 shows that number of PoS of SBI increased significantly in the 2nd quarter (2016) while in the 4th quarter it decreased by 4.34% but in the 8th quarter (2017) PoS operating in the market increased by 67.89%. It indicates that the people are asking for easiest mode of payment gradually and digital payment system being preferred.

Table 15: Number of PoS terminals distributed by HDFC in 2016

HDFC	1st Quarter (Jan-Mar), 2016	2nd Quarter (Apr-Jun), 2016	Change (%) (2 nd over 1 st)	3rd Quarter (Jul-Sept), 2016	Change (%) (3 rd over 2 nd)	4th Quarter (Oct-Dec), 2016	Change (%) (4 th over 3 rd)
PoS online data	841884	568437	-273447 (-32.48)	586189	17752 (3.12)	965492	379303 (64.71)

Source: RBI

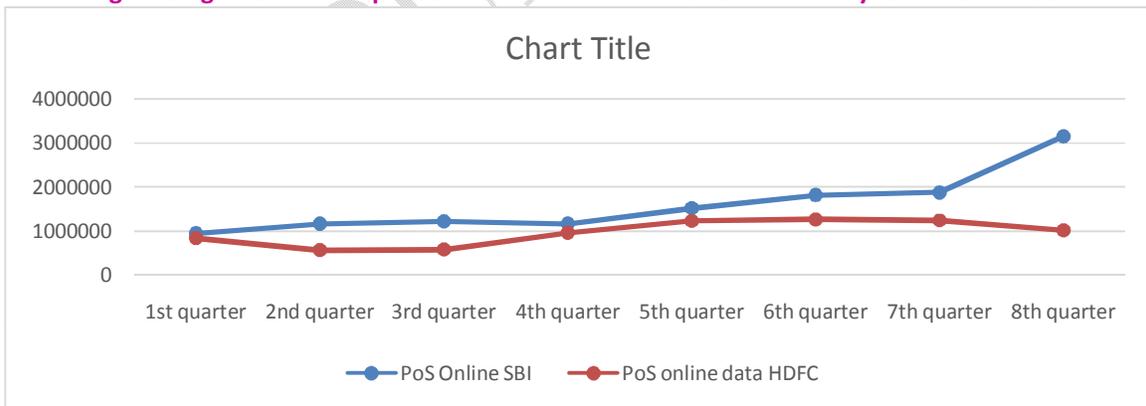
Table 16: Number of PoS terminal distributed by HDFC bank in 2017

HDFC	5th Quarter (Jan-Mar), 2017	Change (%) (5 th over 4 th last year)	6 th Quarter (Apr-Jun), 2017	Change (%) (6 th over 5 th)	7th Quarter (Jul-Sept), 2017	Change (%) (7 th over 6 th)	8th Quarter (Oct-Dec), 2017	Change (%) (8 th over 7 th)
PoS online data	1232329	266873 (27.64)	1270302	304810 (31.57)	1246361	-23941 (-1.88)	1019969	-226392 (-18.16)

Source: RBI

Observations: From the table 15 and 16, significant increase have been observed in number of PoS terminals distributed by HDFC bank except in the 4th quarter (2016). While at the end of the 8th quarter (2017) the number of PoS distributed by HDFC bank decreased by -18.16%.

Fig. 4: Diagrammatical representation of POS terminal distributed by SBI & HDFC bank



It is apparent from fig. 4 that the number of PoS distributed by SBI is more as compared to HDFC. Although similar trend have been observed throughout the quarters but at the end of the 8th quarter the number of PoS in case of SBI is rising while it is falling in case of HDFC bank.

FINDINGS:

- The study revealed that the number of outstanding credit cards of SBI in 2nd quarter (2016) was increased by 80.63% compared to 1st quarter while at the end of the 4th quarter there has been a fall in

number of CC outstanding by 37.91% compared to 3rd quarter. However, in the year 2017, a moderate upward change with respect to outstanding credit card have been observed all throughout the year. Significant decrease in the credit card usages have been found during the period of demonetization.

- Further similar trend have been observed with respect to the ATM and PoS transactions of SBI (in number and in amount) through the credit cards. Change in ATM transactions in number and value of transactions increased in the 2nd quarter by 57.99% and 71.97% respectively compared to 1st quarter. While the change in the 4th quarter (2016), came down by 39.90% and 61.26% respectively. Positive change in PoS transactions in number and in value during the 2nd quarter was 94.47% and 101.37% respectively while the change in the 4th quarter (2016), there has been negative change by -27.90% and -28.04% respectively compared to 3rd quarter.
- The study showed that in HDFC bank, the value of transaction made in ATMs fall by 29.51% in 2nd quarter with a recovery in the 3rd quarter by 2.83% but again fall by 11.17% in the 4th quarter. While regarding the PoS transaction significant increase (84.47%) have been observed in the 4th quarter (2016) and value of transaction made through PoS has increased by 76.98%. While no such significant change have been observed all throughout the quarters in 2017.
- Regarding the debit card usage the study revealed that the number of outstanding debit cards of SBI have increased in the 4th quarter (2016) by 42.99% and the ATM transactions through debit card in numbers increases by 26.52%. But with respect to the value of transaction there has been a fall (5.37%) in the 4th quarter (2016). Again, a significant upward change (122.08%) have been observed in the usage of debit card through PoS. Whereas, value of transaction made through debit card in PoS has increased by 137.34% in the 4th quarter compared to 3rd quarter. This has happened because of demonetization effect i.e. short supply of currency has created this situation. No significant change have been observed all throughout the quarters of 2017 in the usage of debit cards
- There has been a significant increase (161.13%) in the use of debit cards at PoS in the 4th quarter (2016) compared to 3rd quarter as observed in case of HDFC bank. While the percentage change in value of transactions through this window have also increased by 175.76% in the 4th quarter 2016 as against 5.46% change in the 3rd quarter (2016). No significant changes have been observed throughout the year 2017.
- Regarding the number onsite and offsite ATMs of SBI it was found that the number of onsite and offsite ATMs increased in the 4th quarter by 30.74% as against 4.51% change in the 3rd quarter (2016) while regarding the offsite ATMs of SBI the change in the 4th quarter 2016 was 12.9%, as against -2.97% decrease in the 3rd quarter (2016). Further, significant decrease in the change percentage have been observed throughout the quarters in 2017 highest being in the 4th quarter.
- Regarding the onsite and offsite ATMs of HDFC bank it was found that the change percentage is highest in the 4th quarter (2016) while no such significant change have been observed throughout the quarters in 2017.
- Regarding the PoS distributed by SBI -4.34% negative change have been observed in the 4th quarter (2016) while the number of PoS distributed by SBI in 2017 is increasing and at the end of the 8th quarter (2017) with a record increase by 67.89% being the highest.
- Regarding the PoS distributed by HDFC bank it was revealed from the study that 64.71% change have been observed in the 4th quarter 2016 while no significant change have been observed throughout the quarters in 2017.
- From the findings with regard to the debit card usage of SBI and HDFC banks it can be inferred that during the period of demonetization people preferred to use more of PoS than using ATMs.

SUGGESTIONS:

The following suggestions have been forwarded:

- The bank officials should take initiatives in providing awareness to the people regarding the use of credit cards, debit cards to make payments through digital mode.
- More and more PoS machines need to be installed so that customers can make payments through these terminals.
- The charges in the use of debit card and credit cards should be abolished so that people get motivated in using the cards for transactions.
- The banks should try to decrease the number of ATMs and increase the other mode of payments so that the intensity to withdraw cash diminish and people go for digital transaction.
- Banks should look after the proper infrastructure regarding the digital mode of payments specially related with the system of payment that should be made easy and the issue of cyber security should be properly addressed.

CONCLUSION:

At the present scenario, we can sought the importance of cashless economy as it helps to bring transparency in the transactions. Moreover, it also benefit the government as it is helpful in curbing the tax evasion and fighting against the problem of fake currencies to a great extent. With the move towards digital India, a significant change have been observed in the payment system. The use of Credit cards and debit cards showed an increasing trends throughout the quarters. This is a positive move as the dream of cashless economy seems to be on the way. The numbers of card users are increasing over the quarters. Especially after the move of demonetization, the trend to use digital mode of payment have been increased but it was observed that the trend was just during the period of demonetization. Decreases in the digital payments have been observed during the post demonetization period. This decrease should address properly so that more and more amount can be transacted through digital mode.

The increasing use of the digital mode of payment gives a picture of the growth likely to continue in the future. It is important that this new mode of payment could easily cover every nook and corner of rural economy. Further to push the use of digital transaction it is important that the government with the help of the banks must be very critical about dealing with cyber-crime. Moreover, incentives should be given for using digital mode of payments to increase the volume of digital transactions.

REFERENCES:

- Digital Transformation Market Analysis by Type (Solution, Service), By Deployment (Hosted, On-premise), By Enterprise Size (Large Enterprise, Small & Medium Enterprise), By End-use, By Region, And Segment Forecasts, 2018 – 2025 <https://www.grandviewresearch.com/industry-analysis/digital-transformation-market>
- <https://rbi.org.in/Scripts/ATMView.aspx>
- Manpreet Kaur (2017) "Demonetization: Impact On Cashless Payment System" 6th International Conference On Recent Trends In Engineering, Science & Management, ISBN: 978-93-86171-21-4
- Malik D.S. "Demonetization: Step Towards Less Cash Economy" Yojana, ISSN. -0971-8400, vol.61
- Rathi S (2017) "Demonetization and Digital Payment System in India: Issues and Challenges"
- Sahoo P and Arora A (2017) "From a Cash Economy to a Less-Cash Economy" Yojana, ISSN. -0971-8400, vol.61 p 11
- Shekhar L & Jain A (2018) "Demonetization effect: Digital payments gain new momentum" <https://www.pwc.in/consulting/financial-services/fintech/fintech-insights...>
- Tanya Sanatani(2017) "Effects of Demonetization on Digital Payment Systems in India" IJCSNS International Journal of Computer Science and Network Security, VOL.17 No.11, November 2017, pp.136-140.
- UnnisaR&Kumari DG (2017), "ImpactOf Demonetization: Cash To Cashless-A Study Of Select Consumer" IOSR Journal Of Business And Management, E-Issn: 2278-487x, Pp. 34-40