

# Impact of Demonetisation on Pradhan Mantri Jan Dhan Yojana

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## ABSTRACT

The Pradhan Mantri Jan Dhan Yojana was launched on 15 August 2014, by Prime Minister of India, as one of the biggest financial inclusion Initiatives. PMJDY focused on increasing the banking penetration and providing a platform for the universal access to banking facilities with at least one basic account for every household, financial literacy, and access to the credit, insurance and pension facilities. On November 8, 2016, currency notes of denominations of Rs.1000 and Rs. 500, valued at Rs.15.4 trillion and constituting 86.9 per cent of the value of total notes in circulation were demonetized. Demonetization led to several changes for the financial sector and also affected the PMJDY Accounts. Speaking at a bankers' conference on 24 May 2016, RBI's then deputy governor SS Mundra had said that Jan Dhan accounts are 'very vulnerable' to misuse for 'money muling'. This scheme has reportedly come under the scanner for "suspicious" activity post demonetization. This research paper attempts to examine the impact of demonetization on the Jan Dhan Accounts and finds whether the amount of deposits in these accounts show an abnormal increase or decrease during the period of Demonetization. This study also attempts to analyze the movement of deposits in PMJDY accounts during pre and post 18 months of demonetization.

**Keywords:** *Demonetization, PMJDY, Financial Inclusion*

## 1) INTRODUCTION:

### 1.1 Financial Inclusion

Despite India boasting economic growth rates higher than most developed countries in recent years, a majority of the country's population still remains unbanked. Financial Inclusion is a relatively new socio-economic concept in India that aims to change this dynamic by providing financial services at affordable costs to the underprivileged, who might not otherwise be aware of or able to afford these services. Global trends have shown that in order to achieve inclusive development and growth, the expansion of financial services to all sections of society is of utmost importance. As a whole, financial inclusion in the rural as well as financially backward pockets of cities is a win-win opportunity for everybody involved – the banks/NBFC's intermediaries, and the left-out urban population.

#### Benefits of financial inclusion:

- The rural masses will get access to banking like cash receipts, cash payments, balance enquiry and statement of account can be completed using fingerprint authentication. The confidence of fulfillment is provided by issuing an online receipt to the customer.
- Reduction in cash economy as more money is brought into the banking ecosystem
- It inculcates the habit to save, thus increasing capital formation in the country and giving it an economic boost.

- Direct cash transfers to beneficiary bank accounts, instead of physical cash payments against subsidies will become possible. This also ensures that the funds actually reach the intended recipients instead of being siphoned off along the way.
- Availability of adequate and transparent credit from formal banking channels will foster the entrepreneurial spirit of the masses to increase output and prosperity in the countryside.

### **Initiatives taken for Financial Inclusion in India**

The history of measures taken towards financial inclusion in India dates back to the Cooperative Movement in 1904. This agenda received further impetus with the nationalization of 14 major commercial banks in 1969, soon after which the lead bank scheme was introduced. This resulted in expansion in the banking network with the opening of large number of branches across the country including some of the remote and difficult to reach areas.

Realizing the ramifications of the exclusion of a vast section of population out of the development process, the Government of India has been taking several measures to promote financial inclusion. The Reserve Bank of India (RBI) has been complementing the Government's efforts through its numerous initiatives like introduction of priority sector lending requirements for banks, establishment of regional rural banks (RRBs), and self-help group-bank linkage programmes to extend the financial services to the poor and marginalized segments of the society. Further, based on the Mid Term Review of Monetary Policy (2005-06), the RBI urged the banks to make financial inclusion as one of their prime objectives. In this respect, various policy prescriptions were suggested by RBI, viz. opening of no-frill account, issuing of General Purpose credit cards, etc.

In February 2011, the Government of India and the Indian Banks' Association (IBA) jointly launched 'Swabhimaan', a path-breaking initiative to bridge economic gap between rural and urban India. It aimed at ensuring availability of banking facilities within the reach of every village with a population of over 2000 by the end of March, 2012. With this initiative, it was expected that the banking facilities will reach over 73,000 villages in the country which were not served by any bank thus far. The banks in the villages were supposed to facilitate the opening of accounts by villagers, offering them need-based credit, and offering remittance facilities to transfer funds from one place to another.

In August 2014, the Government of India launched the 'Pradhan Mantri Jan-Dhan Yojana' to facilitate access to all kinds of financial services to the excluded sections of society.

### **1.2 Pradhan Mantri Jan-Dhan Yojana (PMJDY)**

Financial inclusion can initiate the next revolution of growth and prosperity. In the 21st century, India has been pulling all the right levers to advance financial inclusion and economic citizenship by channeling its own transactions to lubricate the system. India's journey towards economic ascension relies on how the 65% unbanked population of India (conservative 2012 estimate by World Bank) is enabled with financial infrastructure. Pradhan Mantri Jan-Dhan Yojana (PMJDY) is India's National Mission for Financial Inclusion to ensure affordable access to financial services, namely, Savings and Deposit Accounts, Remittance, Credit, Insurance and Pension funds. This financial inclusion campaign was launched by the prime minister of India on 28 August 2014. The Yojna was announced by the prime minister in his Independence Day speech on August 15, 2014. Customers opening bank accounts under this scheme were not required to maintain a minimum balance and there was no restriction on depositing money in such accounts. Jan Dhan was declared a spectacular success and even made it to the Guinness Book of World Records for most bank accounts opened in one week. The main features of these accounts were as follows:

1. These accounts could be opened both in the urban and the rural areas at any Bank Branch at zero Balance.
2. Every bank account is on Core Banking System (CBS) of banks. Mobile banking using USSD facility available on even basic feature phones is also being supported. A facility of call centre and toll free number is available nationwide.
3. Rs. 10,000 overdraft facility for Aadhar-linked accounts and a RuPay debit card with inbuilt Rs. 2 lakh accident insurance cover and a life insurance cover of 30,000.

**PMJDY: PROGRESS & ACHIVEMENTS (From 28<sup>th</sup> August 2014 to 16<sup>th</sup> Oct. 2019)**

- Out of Total accounts, 60% opened in Rural Area.
- Out of Total accounts 53% opened by women.
- Average Amount deposited per account : Rs. 2,829
- Total number of Bank Mitras delivering branchless banking services 1.26 Lac
- Guinness Book of World Record: 1, 80, 96,130 account opened in a single week from 23<sup>rd</sup> August to 29<sup>th</sup> August 2014.
- Number one State (by Maximum accounts opened) : Uttar Pradesh
- First Indian State Achieve 100% financial inclusion : Meghalaya (on 20<sup>th</sup> May, 2015)

**PMJDY: UPDATED PROGRESS REPORT IN DIFFERENT TYPE OF COMMERCIAL BANKS OF INDIA**

**(FROM 28<sup>th</sup> AUGUST 2014 TO 16<sup>th</sup> OCT 2019)**

Bank Type	Total Number of Accounts (In Crore)	% of Total	Total Amount Deposits (In Rs. Crore)	% of Total	Total Number of Rupay Cards Issued (In Crore)	% of Total
Public Sector Banks	29.66	79.52	83,235.70	78.88	24.48	82.98
Regional Rural Banks	6.37	17.08	19,295.99	18.28	3.86	13.08
Private Sector Banks	1.27	3.40	2,991.62	2.84	1.16	3.94
Grand Total	37.30	100	1,05,523.30	100	29.50	100

Source: [www.pmjdy.gov.in](http://www.pmjdy.gov.in)

### 1.3 Demonetization

Demonetization is a rare economic event, which has a deep impact on all the components of an economy. In India this event occurred in November 2016. There were so many predictions and discussions on its impact on GDP, employments, inflation, and all other sectors, because it is an event with massive short term and long term consequences. This process is implemented through the vital support of entire banking sector, which is one of the major service sectors affected by this economic event. . In November 2016, the Central Govt. of India demonetized all the currency in denomination of Rs. 1000 and Rs 500. With immediate effect these notes became legally invalid and to be returned to the banks. This rare economic event showed a deep impact on almost all the sector of the economy of our country and PMJDY.

## 2) REVIEW OF LITERATURE

**Joshi & Rajpurohit, 2016** examined the awareness of financial Inclusion among the rural customers. For the study the author took the data of all the rural customers of surat city who opened their account under the new financial inclusion scheme Pradhan Mantri Jan Dhan Yojana (PMJDY). The testing of the hypotheses was done by applying the chi-square test and concluded that government is partially successful in increasing awareness about new financial inclusion plan PMJDY compared to old Swabhimaan. But still government is not able to affect the awareness level of rural customer about financial inclusion schemes significantly.

**Verma & Garg, 2016** studied the effectiveness of PMJDY by analyzing the financial literacy program and awareness towards PMJDY. The primary data was collected through discussions from the workers in the in Central University of Rajasthan and villagers of Bandrasindri village in Ajmer district of Rajasthan. The study concluded that government needs to still work on measures to eradicate financial untouchability from the country.

**Deb & Das, 2016** studied the motivating factors of the respondents of Latuatila village, Tripura, for opening bank accounts under PMJDY and their preference for nationalized banks. The data was collected from 125 respondents by using an interview schedule. Through Factor analysis, four major factors were extracted. The statistical tests like Independent Sample t-test, Cross-tabulation, Regression analysis has used to test the hypotheses. The results indicated that policy lags and perceptions about the private banks attracted the customers to the nationalized banks.

**Singh & Naik, 2018** examined the success of PMJDY in six Gram Pnchayats of Gubbi. The author chose Questionnaire survey method to obtain necessary data through a randomly chosen sample of 209 individuals. The study also analyzed the impact of demonetization on the respondents and concluded that there was no change in the role in the banks after demonetization but the role of money lenders improved.

**Babu & Kumar M, 2017** assessed the impact of demonetization on the PMJDY with special reference to kolar district. The study was done with the sample size of 100 personnel through snow ball sampling techniques and analyzed and interpreted by applying Statistical tool is Factor analysis, Paired T-test, F-test and Correlation using SPSS software. The results concluded that demonetization is putting more than 80 percent of the country's monetary economy under suspicion of black money.

**Kumar, 2017** studied the impact of demonetization on PMJDY. The study also analyzed the accounts opened under PMJDY Pre and Post Demonetization.

**Verma Yogesh and Garg Priyanka (2016)** have carried out a study among the workers in Ajmer district of Rajasthan. They found that there is a long path which needs to be covered to eradicate financial untouchability in a real sense from our country.



**Charan Singh (2018)** also found in its working paper that demonetization is a step in ensuring an honest tax regime, better tax collection and lower dependence on borrowings.

**Sagar Burse (2018)** has concluded that Indians are more tolerant in terms of the application of any new event by the Government of India. Whatever the success and black money has recovered with the help of demonetization in India is the collective effort and patient Indian people, bank staff and Government.

**Nitin Bansal (2019)** has concluded that the step of demonetization has improved the liquidity position of the scheduled commercial banks in India and banks invested the excess amount in various investments opportunities which helped the banking sector to increase their profitability position PMJDY.

**Sandra Ashok, Swati S. Nair and M.B. Krishna (2019)** also found that with the help of PMJDY the Government and RBI is able to bring a large number of people to formal financial channel and thereby helps in removing the financial exclusion.

### 3) OBJECTIVES

To evaluate the scheme (PMJDY) on the basis of its terms, objectives, benefits, achievements and progress.

1. To study the impact of demonetization on number of accounts of PMJDY in long term period (18 Months Pre & Post Demonetization ) and Short term period (6 Months Pre & Post Demonetization).
2. To know the impact of Demonetization on the amounts deposited in PMJDY accounts in long term period (18 Months Pre & Post Demonetization ) and Short term period (6 Months Pre & Post Demonetization).
3. To discover the impact of demonetization on the average amount deposits per PMJDY Account in long term period (18 Months Pre & Post Demonetization ) and Short term period (6 Months Pre & Post Demonetization).
4. **To work out the impact of Demonetization on the zero Balance Accounts of PMJDY long term and short term.**

### 4) LIMITATIONS

With the reference to the above objectives following are the main limitations of this Research Study:

1. This Research Study is to examine the impact of Demonetization on only PMJDY Accounts, not any other bank Accounts.
2. The period for this Research Study is 18 Months pre demonetization (i.e. May 15 to Oct 2016) and Post demonetization (Nov 2016 to April 2018).
3. The impact is analyzed by taking two different periods i.e. Short Term Period for 6 Months (Pre & Post demonetization) and long term period 18 Months (Pre & Post demonetization).

### 5) HYPOTHESES

- H01:** There is no significant difference in the number of PMJDY Accounts in short term and long term due to demonetization.
- H02:** There is no significant change in the Cumulative deposits in PMJDY in short term and long term due to demonetization.
- H03:** There is no significant change in the Average Deposits per PMJDY Accounts in short term and long term due to demonetization.

## 6) RESEARCH METHODOLOGY

The Researches Design is a conceptual structure with in which the research is conducted. This analytical and quantitative research is based on secondary data of banking sector specially provided by RBI and PMJDY Database. Other main Sources of data are Books, Reports of Indian Bank Association IBA, IMF's Financial Access survey 2012 etc. For the analysis of data and testing the hypothesis following banking parameters and research tools are used:

*a. Compounded Monthly Growth Rate (CMGR) :*

$$P_n = P_o (1 + r)^n$$

*b. Average Amount Deposit Per PMJDY Accounts :*

$$= \frac{\text{Cumulative Deposits at the end of the Month (in Rs.)}}{\text{Cumulative Number of Accounts at the of the Month}}$$

*c. Student's t-Test: For the test of Hypothesis*

$$t = \frac{x_1 - x_2}{s} * \sqrt{\frac{n_1 * n_2}{n_1 + n_2}}$$

## 7) IMPACT OF DEMONETIZATION ON PMJDY

Jan Dhan accounts witnessed an abnormal surge immediately after the note ban. According to Business Standard, cash totalling Rs 42,200 crore was deposited in 3.74 crore Jan Dhan accounts between November 8, 2016 - when Prime Minister of India made his surprise note ban announcement - and December 30, 2016. Now let's start the process of evaluation of Impact of demonetization on PMJDY Accounts. For the comprehensive analysis the impact in divided in the following five categories:

## 7.1 Long Term Impact on Cumulative Basis

<b>Table-01 PMJDY MONTHLY PROGRESS REPORT ON CULMULATIVE BASIS</b>				
<b>PART-A PRE-DEMONETISATION PERIOD (From May 2015 to Oct 2016)</b>				
<b>Month</b>	<b>Cumulative Number of Accounts (in crore)</b>	<b>Cumulative Deposits (In Rs. Crore)</b>	<b>Average deposits Per Account (In Rs.)</b>	<b>Number of Rupay Cards (In Crore)</b>
May-15	15.86	17520.34	1104.53	14.24
Jun-15	16.43	19015.42	1157.51	14.67
Jul-15	17.08	20473.82	1199.00	15.15
Aug-15	17.90	22900.68	1279.35	15.74
Sep-15	18.54	24939.23	1344.99	16.06
Oct-15	19.02	25913.56	1362.15	16.38
Nov-15	19.34	26956.45	1393.55	16.60
Dec-15	19.84	29225.56	1473.18	16.85
Jan-16	20.47	30796.46	1504.62	17.20
Feb-16	21.00	33074.89	1574.95	17.46
Mar-16	21.43	35672.01	1664.77	17.75
Apr-16	21.68	36795.55	1697.58	17.89
May-16	21.93	38047.65	1735.02	18.01
Jun-16	22.29	39251.57	1761.09	18.22
Jul-16	22.65	40750.82	1799.12	18.39
Aug-16	24.10	42094.24	1746.59	19.00
Sep-16	24.74	43532.67	1759.91	19.09
Oct-16	25.32	44867.28	1772.26	19.39
<b>CMGR</b>	<b>3%</b>	<b>6%</b>	<b>3%</b>	<b>2%</b>
<b>PART-B POST-DEMONETISATION PERIOD (Nov 2016-Apr 2018)</b>				
Nov-16	25.78	74321.55	2882.38	19.36
Dec-16	26.20	71036.59	2711.12	20.70
Jan-17	27.31	67324.98	2465.38	21.38
Feb-17	27.77	64720.94	2330.50	21.59
Mar-17	28.17	62972.43	2235.62	21.99
Apr-17	28.44	64567.10	2270.22	22.15
May-17	28.76	64163.27	2231.01	22.29
Jun-17	28.99	64134.66	2212.32	22.42
Jul-17	29.33	64926.37	2214.02	22.62
Aug-17	30.09	65799.46	2186.54	22.75
Sep-17	30.31	66742.48	2201.89	22.88
Oct-17	30.52	67085.70	2198.05	22.95
Nov-17	30.69	69176.91	2253.95	23.08
Dec-17	30.80	71501.17	2321.83	23.23
Jan-18	31.04	73878.73	2380.31	23.42
Feb-18	31.20	75572.09	2422.11	23.56
Mar-18	31.44	78493.99	2496.32	23.65
Apr-18	31.52	80871.67	2565.41	23.71
<b>CMGR</b>	<b>1%</b>	<b>4%</b>	<b>2%</b>	<b>1%</b>

Source: [www.pmjdy.gov.in](http://www.pmjdy.gov.in)

**Analysis:**

With the reference of the above table it is evident that:

1. In the terms of Number of cumulative accounts the compound monthly growth rate has slow down from 3% to 1% pm. In the pre demonetization period the accounts increased from 15.86 crore to 25.32 crore almost 60% overall growth, while in the post demonetization period it was from 25.32 crore to 31.52 crore only 20% growth.
2. Cumulative deposits monthly growth rate also slows down however the amount of deposits significantly increased. During the pre demonetization period it increased from 17520.34 crore to 44867.28 crore while during post demonetization from 44867.28 crore to 80871.67.
3. In terms of average deposits per account the monthly growth rate also slows down. During pre demonetization period it is grown overall by 60% while during post demonetization period it is grown by 45%.
4. Same impact on issue to Rupay cards has also decreased.

**7.2 Short Term Impact on Cumulative Basis**

<b>Table -2( PART-A)PRE-DEMONETISATION PERIOD : PMJDY MONTHLY PROGRESS REPORT</b>				
<b>Month</b>	<b>Number of Accounts ( In Crore)</b>	<b>Cumulative Deposits ( In Rs. Crore)</b>	<b>Average Deposits Per Account (In Rs.)</b>	<b>Number of Rupay Cards ( In Crore)</b>
<b>May-16</b>	21.93	38047.65	1735.02	18.01
<b>Jun-16</b>	22.29	39251.57	1761.09	18.22
<b>Jul-16</b>	22.65	40750.82	1799.12	18.39
<b>Aug-16</b>	24.10	42094.24	1746.59	19.00
<b>Sep-16</b>	24.74	43532.67	1759.91	19.09
<b>Oct-16</b>	25.32	44867.28	1772.26	19.39
<b>CMGR</b>	<b>3%</b>	<b>4%</b>	<b>1%</b>	<b>2%</b>
<b>Table -2 ( PART-B) POST-DEMONETISATION PERIOD : PMJDY MONTHLY PROGRESS REPORT</b>				
<b>Month</b>	<b>Number of Accounts ( In Crore)</b>	<b>Cumulative Deposits ( In Rs. Crore)</b>	<b>Average Deposits Per Account (In Rs.)</b>	<b>Number of Rupay Cards ( In Crore)</b>
<b>Nov-16</b>	25.78	74321.55	2882.38	19.36
<b>Dec-16</b>	26.20	71036.59	2711.12	20.70
<b>Jan-17</b>	27.31	67324.98	2465.38	21.38
<b>Feb-17</b>	27.77	64720.94	2330.50	21.59
<b>Mar-17</b>	28.17	62972.43	2235.62	21.99
<b>Apr-17</b>	28.44	64567.10	2270.22	22.15

*Source: Own calculation on the basis of PMJDY Database*

**Analysis:**

With the reference of the above table it is noticeable that:

1. The compounded monthly growth rate of number of cumulative accounts slows down after demonetization.
2. The compounded monthly growth rate of cumulative deposits is just double as compared to pre demonetization.

3. 5 Times increase in the compounded monthly growth rate of average deposits per account.
4. This increase is also visible in the terms Rupay Cards.

### 7.3 Long Term Month on Month Growth Basis:

<b>Table-3 (PART-A) PMJDY MONTH ON MONTH PROGRESS REPORT</b>						
<b>PRE-DEMONETISATION PERIOD (May 2015-Oct 2016)</b>						
<b>Month</b>	<b>M-on-M Growth in Accounts (in Rs.)</b>	<b>M-on-M Growth in Accounts (in %)</b>	<b>M-on-M Growth in Deposits (in Rs.)</b>	<b>M-on-M Growth in Deposits (in %)</b>	<b>M-on-M Growth in Average Deposits Per Account(in Rs.)</b>	<b>M-on-M Growth in Average Deposits Per Account(in %)</b>
May-15	0.56	3.68	1327.95	8.20	46.31	4.38
Jun-15	0.57	3.57	1495.09	8.53	52.99	4.80
Jul-15	0.65	3.94	1458.39	7.67	41.48	3.58
Aug-15	0.82	4.83	2426.86	11.85	80.35	6.70
Sep-15	0.64	3.59	2038.55	8.90	65.64	5.13
Oct-15	0.48	2.60	974.33	3.91	17.16	1.28
Nov-15	0.32	1.68	1042.90	4.02	31.40	2.30
Dec-15	0.49	2.56	2269.11	8.42	79.63	5.71
Jan-16	0.63	3.17	1570.90	5.38	31.45	2.13
Feb-16	0.53	2.60	2278.43	7.40	70.32	4.67
Mar-16	0.43	2.03	2597.12	7.85	89.83	5.70
Apr-16	0.25	1.16	1123.55	3.15	32.81	1.97
May-16	0.25	1.17	1252.10	3.40	37.44	2.21
Jun-16	0.36	1.64	1203.92	3.16	26.07	1.50
Jul-16	0.36	1.62	1499.25	3.82	38.03	2.16
Aug-16	1.45	6.40	1343.42	3.30	-52.53	-2.92
Sep-16	0.63	2.63	1438.43	3.42	13.32	0.76
Oct-16	0.58	2.35	1334.61	3.07	12.35	0.70
<b>(PART-B) POST-DEMONETISATION PERIOD (Nov 2016-Apr 2018)</b>						
Nov-16	0.47	1.85	29454.27	65.65	1110.12	62.64
Dec-16	0.42	1.62	-3284.96	-4.42	-171.27	-5.94
Jan-17	1.11	4.22	-3711.61	-5.22	-245.74	-9.06
Feb-17	0.46	1.70	-2604.04	-3.87	-134.87	-5.47
Mar-17	0.40	1.43	-1748.51	-2.70	-94.89	-4.07
Apr-17	0.27	0.97	1594.67	2.53	34.60	1.55
May-17	0.32	1.12	-403.83	-0.63	-39.21	-1.73
Jun-17	0.23	0.80	-28.60	-0.04	-18.69	-0.84
Jul-17	0.34	1.16	791.71	1.23	1.70	0.08
Aug-17	0.77	2.62	873.09	1.34	-27.47	-1.24
Sep-17	0.22	0.73	943.02	1.43	15.35	0.70
Oct-17	0.21	0.69	343.22	0.51	-3.85	-0.17
Nov-17	0.17	0.56	2091.21	3.12	55.90	2.54
Dec-17	0.10	0.34	2324.26	3.36	67.88	3.01
Jan-18	0.24	0.79	2377.57	3.33	58.47	2.52
Feb-18	0.16	0.53	1693.36	2.29	41.80	1.76
Mar-18	0.24	0.78	2921.90	3.87	74.21	3.06
Apr-18	0.08	0.25	2377.67	3.03	69.09	2.77

Source: Own calculation on the basis of PMJDY Database.



**Analysis:**

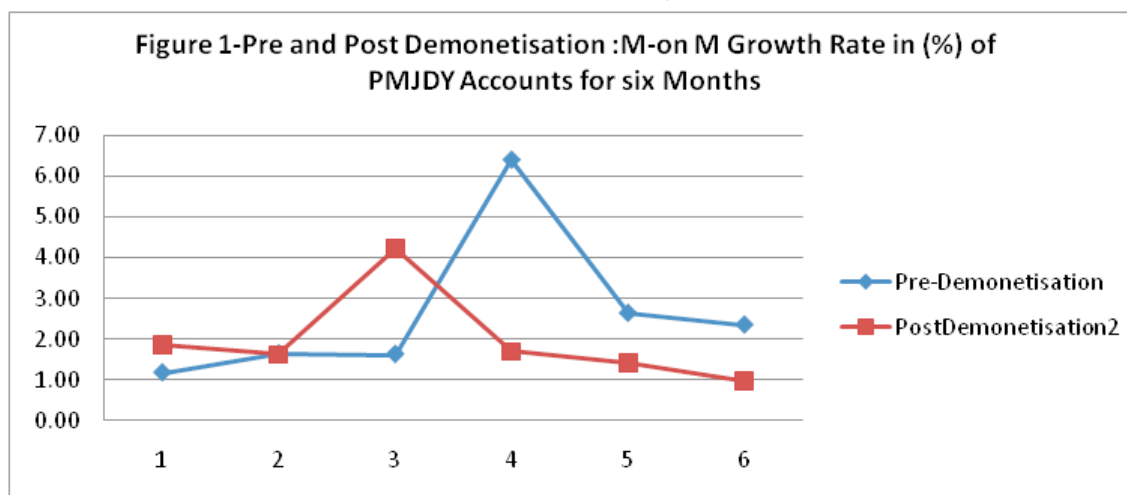
With the reference of the above table it is noticeable that:

1. In the terms of number of accounts during the pre demonetization period m-on-m growth rate fluctuated between **1% to 5 %** while during the post demonetization period it was between **0.25% to 2.7% (excluding 4.22% in Jan 2017)**. It implies that m-on-m additions to number of accounts also reduced.
2. In the terms of deposits amounts during the pre demonetization period m-on-m growth rate fluctuated between **3% to 12 %** while during the post demonetization period it was between **-5.5 % to 3.4% (excluding 65.65% in Nov 2016)**. During pre demonetization period m-on-m deposits amount showed a consistent growth, while during the demonetization month of Nov 2016 this growth rate showed an abnormal increase of 65.65%. This growth percentage is a clear sign of misuse of the PMJDY accounts for the deposits of **unaccounted currency**. This misappropriation of PMJDY accounts is also proved by another data that from Dec 2016 to Mar 2017 were the amount deposits growth rate becomes negative. It proves that instead of depositing the amounts there were withdrawals of amounts, which were earlier deposited during the demonetization month Nov 2016. Since the commencement of this PMJDY scheme, there was always growth of deposit amounts (Cumulative basis and m-on-m basis). Therefore in the second month of demonetization Dec 2016, first time ever since the inception of the PMJDY scheme withdraws was noticed.
3. In the terms of average deposits per accounts during the pre demonetization period m-on-m growth rate fluctuated between **0.7 % to 6.7 % (excluding -2.92 in August 2016)** while during the post demonetization period it was between **-9.06% to 3.06% (excluding 62.64 % in Nov 2016)**. It means m-on-m additions to of average deposits per accounts also reduced. It means during pre demonetization period m-on-m average deposits per amount showed a consistent growth, while during the demonetization month of Nov 2016 this growth rate showed an abnormal increase of 62.64%. Just like the growth rate in total deposits accounts from Dec 2016 (second month of Demonetization), average deposits per account also showing a negative growth first time ever since the inception of this scheme.

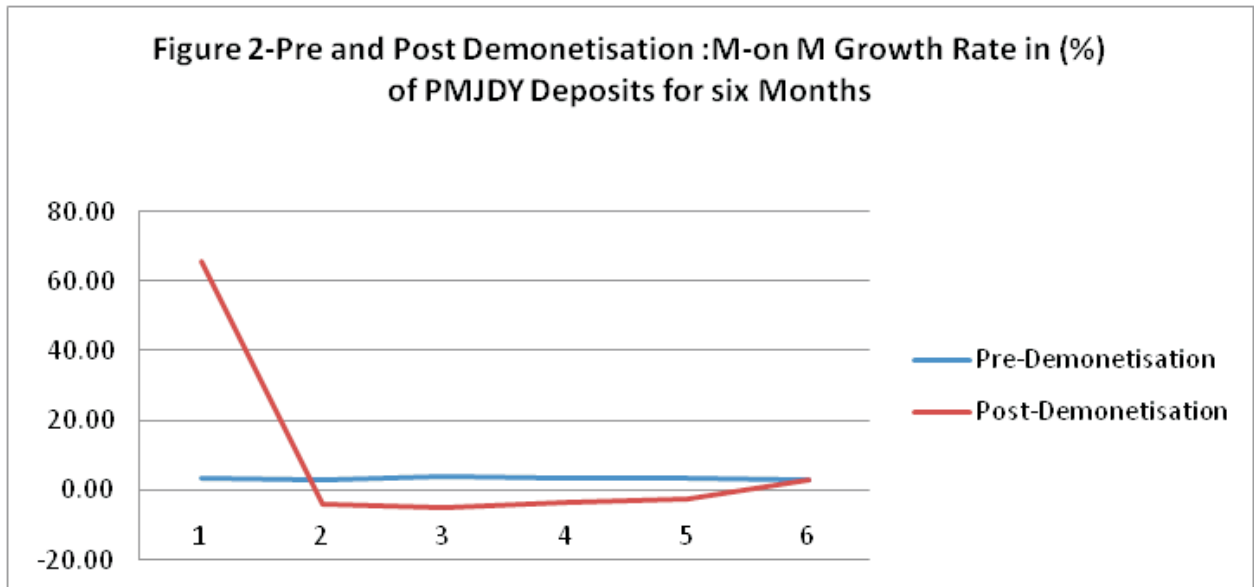
**7.4 Short Term Month on Month Growth Basis:**

The analysis was continued with a period of 6 Months pre and post demonetization to highlight the short term impact of demonetization on the PMJDY Accounts. With the reference of Table -3 it is visible that:

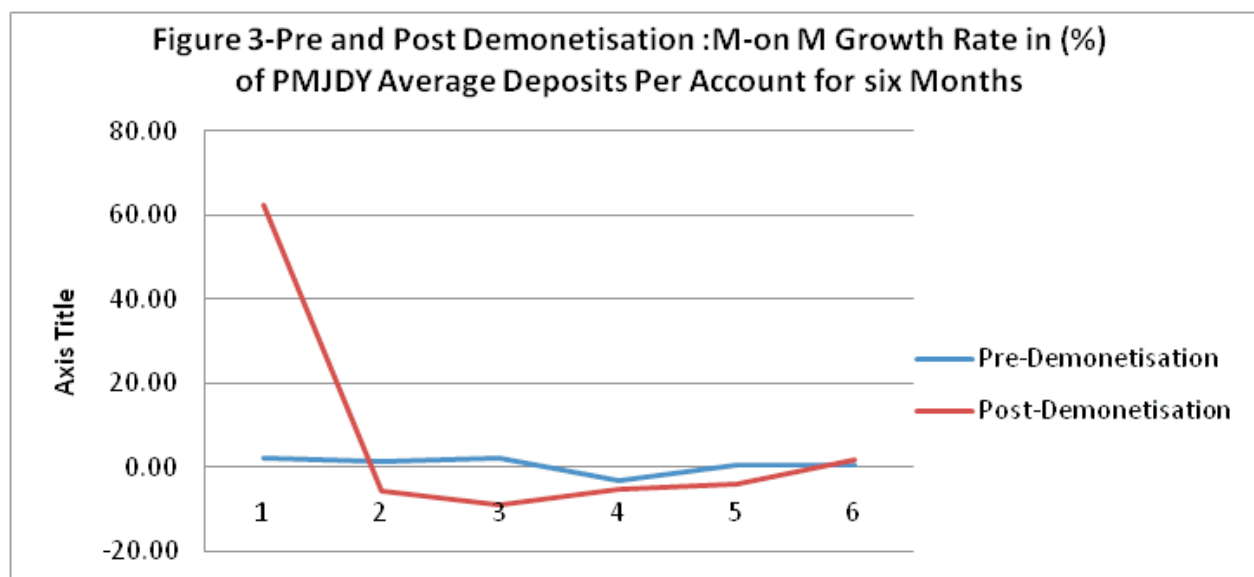
1. In the terms of number of accounts during the pre demonetization period m-on-m growth rate fluctuated between 1.17% to 2.63 % (excluding 6.4% in August 2016) while during the post demonetization period it was between 0.97% to 1.85 % (excluding 4.22% in Jan 2017). It means m-on-m additions to number of accounts also reduced(Figure -1)



2. In the terms of amounts deposited during the pre demonetization period m-on-m growth rate fluctuated between 3.07% to 3.42 %, while during the post demonetization period there was a negative growth (excluding 65.65% in Nov 2016). It means during pre demonetization period there was a consistent growth , while post period witnessed withdrawals and huge growth rate of deposits in Nov 2016 ( Figure 2)



3. In the terms of average deposits per accounts during the pre demonetization period m-on-m growth rate fluctuated between 0.7 % to 2.21 % (excluding -2.92 in August 2016) while during the post demonetization period it was a negative growth (excluding 62.64 % in Nov 2016). It means m-on-m additions to average deposits per accounts also reduced. It means during pre demonetization period m-on-m average deposits per amount showed a consistent growth, while during the demonetization month of Nov 2016 this growth rate showed an abnormal increase of 62.64%. (Figure 3)



## 7.5 Zero Balance Accounts

<b>Table-04 PMJDY MONTHLY PROGRESS REPORT ON ZERO BALANCE ACCOUNTS ON CULMULATIVE BASIS ( May 17- Feb 17)</b>			
<b>Date</b>	<b>No. of Accounts (In Crores)</b>	<b>Balance Accounts (In Crores )</b>	<b>Zero Blance Accounts to Total Accounts( In %)</b>
May-15	15.86	8.50	53.6
Jun-15	16.43	8.52	51.8
Jul-15	17.08	8.58	50.2
Aug-15	17.90	8.04	44.9
Sep-15	18.54	7.48	40.3
Oct-15	19.02	7.14	37.5
Nov-15	19.34	6.77	35.0
Dec-15	19.84	6.31	31.8
Jan-16	20.47	6.34	31.0
Feb-16	21.00	6.06	28.9
Mar-16	21.43	5.87	27.4
Apr-16	21.68	5.72	26.4
May-16	21.93	5.63	25.7
Jun-16	22.29	5.64	25.3
Jul-16	22.65	5.48	24.2
Aug-16	24.10	5.87	24.3
Sep-16	24.74	5.95	24.1
Oct-16	25.32	5.93	23.4
Nov-16	25.78	5.89	22.8
Dec-16	26.20	6.32	24.1
Jan-17	27.31	6.68	24.5
Feb-17	27.77	6.91	24.9

*Source: Own calculation on the basis of PMJDY Database.*

**Analysis:** With the reference of the above table it is noticeable that initially more than half accounts opened under this scheme were zero balance (In May 2015 it was 53.6%). Since that there was continuous decrease in number of zero balance accounts and in Feb 2017 this percentage was only 24.9. It was observed that the decrease rate was consistent even during the period of post demonetization. So there was no impact of demonetization on zero balance accounts of PMJDY. It also indicates that the amount deposited during the demonetization process was in the accounts in which there was some balance already maintained. Therefore we can say that there was no misappropriation of Zero Balance accounts during post demonetization period.

<b>Table-4 LONG TERM &amp; SHORT TERM IMPACT OF DEMONETISATION ON PMJDY : AT A GLANCE (In Percentage)</b>		
<b>PART-A : LONG TERM</b>	<b>PRE</b>	<b>POST</b>
<b>1.Componded Monthly Growth Rate of</b>		
i.Number of Cumulative Accounts	<b>3%</b>	<b>1%</b>
ii.Cumulative Deposits	<b>6%</b>	<b>4%</b>
iii. Average balance Per Accounts	<b>3%</b>	<b>2%</b>
<b>PART-B : SHORT TERM</b>	<b>PRE</b>	<b>POST</b>
<b>1.Componded Monthly Growth Rate of</b>		
i.Number ofCumulative Accounts	<b>3%</b>	<b>2%</b>
ii.Cumulative Deposits	<b>4%</b>	<b>8%</b>
iii. Average balance Per Accounts	<b>1%</b>	<b>5%</b>
<b>LONG TERM &amp; SHORT TERM IMPACT OF DEMONETISATION ON PMJDY : AT A GLANCE (In Percentage)</b>		
<b>PART-A : LONG TERM</b>	<b>PRE</b>	<b>POST</b>
<b>Monthly Growth Rate of :</b>		
i. Number of Accounts <b>Maximum</b>	6.40(Aug 2016)	4.22 (Jan 2017)
<b>Minimum</b>	1.16(April 2016)	0.25(April 2018)
ii. Amount Deposited <b>Maximum</b>	11.85 (Aug 2015)	65.65(Nov 2016)
<b>Minimum</b>	3.07(Oct 2016)	(-) 5.22 (Jan 2017)
iii.Per Account Deposits <b>Maximum</b>	6.70 (August 2015)	62.64 (Nov 2016)
<b>Minimum</b>	(-) 2.92 (Aug 2016)	(-) 9.06 (Jan 2017)
<b>PART-B: SHORT TERM</b>	<b>PRE</b>	<b>POST</b>
<b>Monthly Growth Rate of :</b>		
i. Number of Accounts <b>Maximum</b>	6.40(August 2016)	4.22 (Jan 2017)
<b>Minimum</b>	1.17(May 2016)	0.97 (April 2017)
ii. Amount Deposited <b>Maximum</b>	3.82 (July 2016)	65.65 ( Nov 2016)
<b>Minimum</b>	3.07 (Oct 2016)	(-)2.70( Mar 2017)
iii.Per Account Deposits <b>Maximum</b>	2.16 (July 2016)	62.64 (Nov 2016)
<b>Minimum</b>	(-)2.92 (Aug 2016)	(-) 9.06 (Jan 2017)

*Source: Own calculation on the basis of PMJDY Database.*

#### 8) TEST OF HYPOTHESIS TEST BY STUDENT'S T- TEST:

- H01:** “There is no significant difference in the number of PMJDY Accounts in short term and long term due to demonetization”.
- H02:** “There is no significant change in the cumulative deposits in PMJDY in short term and long term due to demonetization”.
- H03:** “There is no significant change in the average Deposits per PMJDY Accounts in short term and long term due to demonetization”.

	No. of Accounts		Average Deposits Per		Rupay Cards		Cumulative Deposits	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post
Mean	20.53	29.3537	1518.3	2365.5	17.115	22.4	31768.2	69293.9
Variance	7.694	3.18256	55835	38232.5	2.322	1.27	77544804.05	29119321.66
Observations	18	18	18	18	18	18	18	18
df	29		33		31		28	
t Stat	-11.3		-11.72		-11.89		-15.41542125	
P(T<=t) one-tail	0.000		0.00		0.00		0.00	
t Critical one-tail	1.699		1.6924		1.6955		1.701130908	
P(T<=t) two-tail	0.000		0.00		0.00		0.00	
t Critical two-tail	2.045		2.0345		2.0395		2.048407115	

*Source: Own calculation on the basis of PMJDY Database.*

	No. of Accounts		Average Deposits Per		Rupay Cards		Cumulative Deposits	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post
Mean	23.5	27.2791	1762.3	2482.54	18.685	21.2	41424.03858	67490.5977
Variance	1.969	1.15522	490.63	68317.2	0.3032	1.07	6664833.889	19179027.4
Observations	6	6	6	6	6	6	6	6
df	9		5		8		8	
t Stat	-5.23		-6.725		-5.24		-12.55973947	
P(T<=t) one-tail	0.00		0.00		0.00		0.00	
t Critical one-tail	1.833		2.015		1.8595		1.859548033	
P(T<=t) two-tail	0.00		0.00		0.00		0.00	
t Critical two-tail	2.262		2.5706		2.306		2.306004133	

*Source: Own calculation on the basis of PMJDY Database.*

In the analysis, an alpha of **0.05** is used as the cutoff for **significance**. If the **p-value** is less than **0.05**, we reject the null hypothesis that there's no difference between the means and conclude that a **significant** difference does exist. In the above analysis the p-value is less than 0.05 in all cases. The result is significant at  $p < .05$ . Hence Null Hypothesis is **REJECTED**. Therefore it is concluded that there is significant difference in the PMJDY Accounts, Cumulative deposits, Average Deposits in PMJDY in short term and long term due to demonetization.

## 9) CONCLUSION

Pradhan Mantri Jan-Dhan Yojana (PMJDY) is India's National Mission for Financial Inclusion to ensure affordable access to financial services, namely, Savings and Deposit Accounts, Remittance, Credit, Insurance and Pension funds. The primary objective of this study was to summarize and interpret the impact of demonetization on the Jan Dhan Accounts and finds whether the amount of deposits in these accounts show an abnormal increase or decrease during the period of Demonetization. This study also attempted to analyze the movement of deposits in PMJDY accounts during pre and post 18 months of demonetization. The study can be concluded with the following points:



- With the analysis long term and short term period it is clear that demonetization process have no impact on number of accounts of PMJDY scheme. During Post demonetization period the growth rate was slow but the slow down starts before the demonetization process .As initially this scheme was launched as a camping so there was rapid growth in number of accounts.
- During Pre demonetization period there was consistent growth in cumulative deposits in these accounts but there was a huge increase in deposits amounts during the demonetization month Nov 2016 (from 44867.28 to 74321.55, resulted 65.65%). After this month there was negative growth that indicates the withdrawals from these accounts till the month of June 2017. This indicates the misappropriation of PMJDY accounts during the process of demonetization for the deposit of banned currency of non account holders.
- As there was abnormal growth in total amount deposited in theses account in Nov 2016, there was also abnormal increase in average deposits per account. During pre demonetization period it was moving between Rs. 1100 to Rs .1800. In Nov 2016 it is rise up to Rs.2882 per Account. After that it starts decreasing and moving between Rs. 2180 to Rs. 2700.This indicates that the unaccounted currency was being deposited in the PMJDY account and was later withdrawn to some extent when the demonetization impact faded.
- There was consistent decrease in the zero balance accounts, so there was no impact of demonetization on zero balance accounts. It means these accounts were not used for depositing the banned currency in demonetization process.

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