IMPACT OF DEMONETIZATION ON CASHLESS ECONOMY WITH REFERENCE TO INDIA

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Abstract: Purpose: Demonetization has been one of the most important and impactful financial event of our time. India being a cash-centric economy needed a force to become a cashless economy. Apart from the direct motives such as eradicating black money, money laundering, the hidden and important motive was to transform India a cashless economy. Cashless economy means an economy in which people use digital payments methods such as credit cards-wallets to make payments. Demonetization was a progressive move towards making the economy less concentrated on cash. The government had demonetized the high value denominations which created a major cash crunch in the economy. To encourage people and compensate for the inconvenience caused to the people, the modi government started various benefits and concessions on cashless transaction. Demonetization created many inroads for the Indian economy in becoming a cashless economy. This paper emphasizes on studying the path of India towards a cashless economy

Design: Structured questionnaire has been used to collect data. The sampling technique chosen was on the basis of non-probability sampling (convenience sampling) and the sample size was 150 respondents.

Index Terms - Demonetization, Digital payments, Cashless economy.

I. INTRODUCTION

India being a country which is concentrated highly on cash transactions for most of the B2C transactions. Also, the total cash circulating in the market is almost 14.07% of GDP which clearly indicated the dependency of India on cash transactions. Cash has been the blood of Indian economy. In a country like India, cashless payment isn't a very popular choice between the people. Here, People usually prefer making cash payments. Since the Indian economy is extremely dependent on cash transactions with only half of the population having access to banking services, it's difficult to convert this economy into a more knowledgeable and digital transactions. But The Indian government on 9th November, 2016 took a huge step of demonetization. This step shook the entire country over night. The government banned use of high value notes such as 500 and 1000. This step was taken to eradicate black money, avoid the funding of terrorist organizations through the Indian currency, avoid fake currency and stop corruption. Also, one major motive was to move or bring the 'CASHLESS REGIME'. People having the demonetized currency could deposit it into banks with a certain identity proof so that the government can have a track of the deposited amount/exchanged amount by an individual. However, there were certain exemptions such as people could use old notes in government hospitals, book air and railway tickets, use it in government offices, buy fuel, buy utilities etc. The exchange limit was first capped at Rs.4000 and then later reduced to Rs.2000. The ATM withdrawal limit was first Rs.2000 and then as time went; it was increased to Rs.10, 000. These factors led to serious cash crunch in the country and people had to face a lot of problems during this phase. Most Citizens during this period started disclosing their actual wealth and the black money had come out. Also During this period, to encourage people and compensate for the inconvenience caused to the people, the modi government started various benefits and concessions on cashless transaction. Thus, motivating people to use cards, e-wallets etc. to make transactions. This study is undertaken to examine the effects of Demonetization in growing India into a more digital intensive economy.

II. LITERATURE REVIEW

Roy.A (April, 2017) posits in his article has Demonetization has made major changes in our economy. It has been implemented with a motive to create a more clear and transparent economy through digitalisation which in return will make our economy favourable for FDI, boost our economy in the long run.

Ananya Mitra, Sonali Rath, Jayant Kumar Nayak (July, 2017) posits that the success of digital economy is influenced by the success of electronic payment systems. The success of electronic payments depends on the availability of bank accounts, connectivity and mobile devices.

Roopali Batra, Neha Kalra, (Jan.2016), posits that India is moving towards a major digital revolution. Digitisation of the payment modes in India will be a landmark in the era of Indian history. This research concentrates to examine the acceptance of respondents towards digital wallets. It also identifies the various challenges faced by a person to adopt such a system where he has been used to cash transactions since very long. The market for digital wallets is still untouched in India and many more advancements are yet to be made.

James Wilson, (**July**, **2017**), posits in his article about how Demonetization move has boosted the Indians to use cashless transactions. However the increase what we have seen is just like a drop in the large pool of retail payments. Then the article shows the data of increase in usage of UPI modes of payments and various other modes. However, the large pool of retail payments will take a little time to shift towards digital economy.

Anurag Pahuja, Sukhmani Virk, (2012) posits in their article that with the ever changing and developing world, it has become necessary for banks to provide a variety of financial services at one stop and assume the role of financial supermarkets. These changes and developments majorly are through technology advancements. Also, the study shows the potential of Indian market to adapt to e banking services.

III. RESEARCH METHODOLOGY

3.1Population and Sample

Population chosen is general public of Bangalore.

Sampling Technique chosen is convenience sampling. Convenience sampling is a type of non-probability sampling where respondents are chosen on the basic of availability and closeness to researcher.

Sample Size is of 150 respondents. This number is chose due to cost and time constraints.

3.2 Data and Sources of Data

Primary data has been collected through a questionnaire. The aim was to collect first hand and reliable data so that further analysis and interpretations could be done. The questionnaire prepared for the study is a structured questionnaire. The primary data collected had a Cronbach Alpha value (reliability test) as 0.580. Secondary data has been collected from RBI website.

3.3 Theoretical framework

Usage of cashless modes of payments refers to making payments on digital platforms such as via paytm, debit or credit cards. The usage of cashless modes of payments had been greatly influenced by Demonetization. The aftermath of Demonetization in Indian economy were clearly demonstrated by the usage of cashless modes of payments. Usage of cashless modes of payments in an economy is an important factor determining the shift of a cash-centric economy towards a cashless regime.

Liquid cash is basically the readily convertible cash in hand which can be used to perform transactions in an economy. The government had demonetized 500 and 1000 notes in the Indian economy. This resulted in lesser liquid cash in the economy which created many problems for the public in making transactions. Liquid cash in an economy is an important factor determining the shift of a cash-centric economy towards a cashless regime.

Lacks of merchant acceptance, costs of making transactions, security in making transactions are factors which restrict individuals from using cashless modes of payments. These factors had started playing important role during Demonetization had government had taken many steps to provide a more legitimate and secured framework to the digital framework.

Motivational factors such as cash backs, discounts encourage individuals to use cashless modes of payments. The government during Demonetization had made many attempts to increase the usage of cashless modes of payments by motivating the public through various sources.

3.4Statistical tools

The statistical tool used in this paper for analysis of data collected is chi-square tests. Chi-square tests are used to find the independency or dependency of one variable on another.

3.5 Limitations

- i. All limitations of primary data are applicable to this study.
- ii. The statistical tools used have their own limitations.
- iii. Data availability on RBI website only from 2nd December, 2016.
- iv. The results are subject to common limitation of accuracy of response.

IV. RESULTS AND DISCUSSION

Table 4.1: Reliability statistics

Reliability Statistics

| Cronbach's Alpha | Cronbach's Alpha Based on Standardized Items | N of Items |
|------------------|--|------------|
| | | |
| .580 | .558 | 12 |

Table 4.2: Table showing demographic details of respondents

| VARIABLES AND | F(N=150) | % |
|------------------------------|----------|------|
| CATEGORIES | | |
| Gender | | |
| Male | 69 | 46 |
| Female | 81 | 54 |
| Average Income | <u></u> | |
| up to 250,000 | 116 | 77.3 |
| 250,000-500,000 | 16 | 10.7 |
| 500,000-10,00,000 | 9 | 6 |
| 10,00,000 and above | 9 | 6 |
| Educational Qualification | | 3500 |
| Up to 12 th Grade | 44 | 29.3 |
| Graduate | 95 | 62 |
| Post Graduate | 9 | 6 |
| No formal Education | 4 | 2.7 |
| Profile | | |
| Student | 124 | 82.7 |
| Self-Employed | 14 | 9.3 |
| Employed | 8 | 5.3 |
| Unemployed | 4 | 2.7 |

Table 4.2 portrays the demographic details of the respondents which are being considered for this study. The frequency distributions show that 46% of the respondents are males while the remaining 54% are females. Around 77.3% fall under the income category of up to 250,000 and 6% in the category of 5 lakhs to 10 lakhs, 10lakhs and above, each. Around 62% of the total respondents have an educational qualification of a graduate while 29.3% have education up to 12th grade. A majority of respondents (82.7%) were students, 9.3% were self-employed, 5.3% employed and around 2.7% were unemployed.

Table 4.3:

Chi-Square Tests

| | Value | df | Asymp. |
|--------------------|---------------------|----|----------|
| | | | Sig. (2- |
| | | | sided) |
| Pearson Chi-Square | 48.568 ^a | 16 | .000 |
| Likelihood Ratio | 38.051 | 16 | .001 |
| Linear-by-Linear | 4.710 | 1 | .030 |
| Association | | | |
| N of Valid Cases | 150 | | |

a. 16 cells (64.0%) have expected count less than 5. The minimum expected count is .44.

Table 4.5:

It is evident that Demonetization did increase the awareness of different kinds of cashless payments such as UPI, E-wallets, and Mobile banking from the data collected. With the increase in awareness, it is implied that there can be an increase in the usage of cashless payments too. In the above table, chi square assumptions are violated and therefore we draw our inferences from likelihood ratio. Since P value is < 0.05, we reject the null hypothesis. Therefore, it can be concluded that usage of cashless modes of payments is dependent of the awareness towards these cashless modes of payments.

Table 4.4:

Table showing chi-square tests between frequency of usage and the liquid cash carried

| | Value | df | Asymp. Sig. (2- |
|--------------------|---------------------|----|-----------------|
| | | | sided) |
| Pearson Chi-Square | 20.287 ^a | 16 | .208 |
| Likelihood Ratio | 20.379 | 16 | .204 |
| Linear-by-Linear | 1.975 | 1 | .160 |
| Association | | | |
| N of Valid Cases | 150 | | |

a. 13 cells (52.0%) have expected count less than 5. The minimum expected count is .03.

During the demonetization drive, there was serious cash crunch in the Indian economy and therefore, people wanted to safe the money which they had in hand. This in turn increased their usage of cashless payments. Since the assumption of chi-square is violated in the above table, we analyses the likelihoodratio. It can be inferred from the likelihood ratio that since the value is more than 0.05, we accept the null hypothesis. Therefore, it can be concluded that usage of cashless modes of payments is independent of the amount of liquid cash carried by an individual

Table showing chi-square tests between influence of demonetization to use cashless modes of payments and the motivational factors such as cashbacks, discounts etc. to use cashless modes of payments.

| | Value | df | Asymp. Sig. (2- |
|--------------------|---------------------|----|-----------------|
| | | | sided) |
| Pearson Chi-Square | 67.778 ^a | 16 | .000 |
| Likelihood Ratio | 50.433 | 16 | .000 |
| Linear-by-Linear | 31.745 | 1 | .000 |
| Association | | | |
| N of Valid Cases | 150 | | |

a. 15 cells (60.0%) have expected count less than 5. The minimum expected count is .37.

While the demonetization drive created problems such as cash crunch for public, huge lines outside ATM's, the government on the other hand was using cash backs, discounts on using cashless payments methods as motivational forces.

Since the basic assumption of chi-square is violated, we derive our results from likelihood ratio. From the above table, it can be inferred that likelihood ratio is less than 0.05, therefore null hypothesis is rejected. Hence, Usage of cashless modes of payments is dependent of the motivational factors such as cash backs and rebates.

Table 4. 6:

Table showing usage of cashless modes of payments and the limitation to usage due to lack of merchant acceptance, poor technology,costs,security

| | Value | df | Asymp. Sig. (2-sided) |
|--------------------|---------|----|-----------------------|
| Pearson Chi-Square | 14.000a | 16 | .599 |
| Likelihood Ratio | 14.260 | 16 | .579 |

| Linear-by-Linear | 2.626 | 1 | .105 |
|------------------|-------|---|------|
| Association | | | |
| N of Valid Cases | 150 | | |

a. 15 cells (60.0%) have expected count less than 5. The minimum expected count is .37.

There are numerous benefits of having a cashless society such as ease of transactions, more records of transactions. However, with these benefits there are various limiting factors such as lack of merchant acceptance, poor technology, security issues etc.

Since the basic violation of chi-square is violated, we derive our results from likelihood ratio. In the above table, the likelihood ratio is greater than 0.05, we accept our null hypothesis.

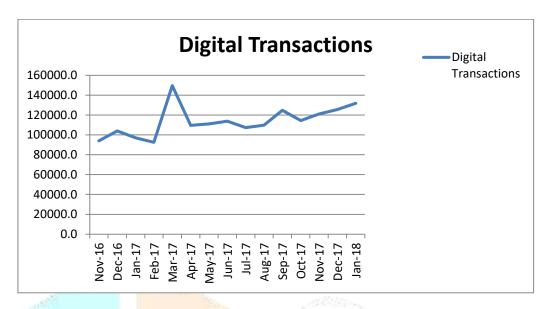
Therefore, it can be concluded that usage of cashless modes of payments is independent of limitation factors such as lack of merchant acceptance, costs, security. These factors limit the usage of cashless modes of payments.

Table 4. 7:

| | | Data for the period | In billions rs. | Month on Month Growth | |
|--|------|---------------------------|-----------------|-----------------------------|-------|
| | 1835 | Nov-16 | 94004.2 | _ | |
| | | Dec-16 | 104055.3 | 10.69 | |
| | | Jan-17 | 97011.4 | -6.77 | |
| | | Feb-17 | 92594.5 | -4.55 | |
| | | Mar-17 | 149589.1 | 61.55 | |
| | | Apr-17 | 109602.2 | -26.73 | |
| | | May-17 | 111109.3 | 1.38 | |
| 4 | | Jun-17 | 113745.2 | 2.37 | 7.7 |
| | | Jul-17 | 107378.4 | -5.60 | |
| | | Aug-17 | 109817.9 | 2.27 | |
| | | Sep-17 | 124706.8 | 13.56 | |
| | | Oct-17 | 114532.2 | -8.16 | C. N. |
| | | Nov-17 | 121047.1 | 5.69 | |
| The state of the s | | Dec-17 | 125531.5 | 3.70 | 10 |
| | 38 | Jan-18 | 131952.3 | 5.11 | |
| | So | urce: RBI | 1 | | |

From the above table, it can be inferred that since Demonetization (November 2016), the cashless/electronic payments have been increased at a tremendous pace. There were 94, ooo billion worth transactions happened in November, and in March 2017, it increased to around 149589.1 billion worth transactions. There had been growth of 60% increase in electronic payments from November 2016 to March 2017. However, there were fluctuations in electronic payments due to remonetisation (circulation of Rupee 500 and 2000 notes By January 2018, the electronic payments have reached a whopping 131952.3 billion worth in India. Also, from the above table it can be inferred that the usage of cashless transactions have been continuously fluctuating from month over month. This fluctuation mainly happened because of the rapid remonetisation in the economy. Also, the month over month of the usage of has been fluctuating ever since demonetization. We can see an increase in the usage of cashless modes of payments. Therefore, it can be concluded that the deliberate and much needed Demonetization move in India, has shifted our economy to a more intensive digital economy.

Figure 1



Conclusions:

The impact of demonetization on cashless economy can be measured by the increase in usage of the people living in India. The usage of cashless modes of payments is affected by the awareness of different kinds of cashless modes of payments, liquid cash carried, and the motivational factors such as cash backs, discount and various other limiting factors such as lack of merchant acceptance, poor technology. Data analysis is done using chi-square tests in SPSS .Also, Secondary data from RBI website is being used to analyses the total increase in digital transactions since demonetization date (November, 2016).

Demonetization was a much needed force to shift our economy towards a less-cash society. A less-cash society has many benefits such as ease of transactions, less corrupted cash into circulation. While demonetization was constructing a digital framework in our economy, the public in our country was facing liquidity cash crunch. Most of the people in India have now become friendly to digital transactions. Demonetization drive did increase the usage of cashless modes of payments. Concerns what the public faced are lack of merchant acceptance, frauds, illiteracy of public which prevents them from using cashless modes of payments. To counterfeit these concerns, there should be prompt and fast development of supportive infrastructure which in turn motivates the public to use cashless transactions. There are many benefits of a cashless framework such as avoidance of wear & tear of money, all transactions done are recorded, less money laundering which in turn develops an economy. Demonetization has motivated people to use cashless modes of payments and created a digital environment not only in the urban areas but also in the rural India. Therefore, demonetization has created many inroads towards making India a less-cash economy. However, turning into a completely cashless economy is still a long term goal for us.

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