Journal of Rural Development, Vol. 41 No. (1) pp 120-135
NIRDPR, Hyderabad

IMPACT OF DEMONETISATION IN RURAL AREAS THROUGH THE LENS OF FINANCIAL INCLUSION

Himani Baxi*, Sonal Yadav** and Mita Suthar***

Abstract

The paper studies the impact of demonetisation that was announced in the year 2016 on the rural population of Kutch district of Gujarat state. Rural areas in India, with about 38 per cent of bank branches in August 2016 (RBI 2017) and 69 per cent of the population (Census 2011), it will be critical to experience demonetisation. In this context, the study examines the hypothesis that the segment of the population which could easily access banking facilities and shift to cashless transaction might have had to bear the lower cost of demonetisation than those who could not. Both supply and demand side of the status of financial inclusion is considered. Although the study did not find any significant difference in the cost of exchange or impact on consumption and income between the inclusive group and excluded group, it implicitly brings out the challenges of financial inclusion in the rural economy.

Keywords: Demonetisation, Financial Inclusion.

* Assistant Professor, Department of Economics, School of Liberal Studies, Pandit Deendayal Energy University

**Assistant Professor & ***Associate Professor, Amrut Mody School of Management, Ahmedabad University

Introduction

On 8th November 2016, India witnessed a major government policy announcement of demonetisation of ₹500 and ₹1000 currency notes. These currency denominations comprised 86 per cent of all the cash in circulation (a significant component of narrow money M1) in the economy. Withdrawal of such a high amount of cash obviously led to a shortage of cash in hand, but not in the supply of broad money. Those who could easily exchange the old notes without much of the monetary and non-monetary cost due to access to wider banking facility and shift to cashless transaction would have had to bear less cost of demonetisation than the ones who did not have such access. According to the Reserve Bank of India (RBI) data, about 38 per cent of bank branches were located in rural areas in August 2016. This is certainly a matter of concern in the context of demonetisation, as more than two-thirds of the population lives in or earns livelihood from the rural sector. The insufficient banking infrastructure might have made the rural people more vulnerable to policy announcement of demonetisation.

In this context, the paper raises questions such as did banking infrastructure provide enough facilities to rural people at the time of demonetisation? Did people of rural India avail the benefits of this infrastructure for their monetary transactions? What was the monetary and non-monetary impact on the lives of these people? Was there any significant difference in the impact across the group of people who had benefited and not benefited from the process of financial inclusion?

Review of Literature

According to the World Bank's Global Findex database 2017, 69 per cent of adults have bank accounts globally, which has increased from 62 per cent in 2014. In developing economies, 63 per cent of adults have accounts, while in developed economies, 93 per cent have bank accounts.

In India, the Pradhan Mantri Jan Dhan Yojana (PMJDY), initiated in 2014, achieved the target of opening 15.75 crore new bank accounts by November 2016 in the rural and semi-urban regions to provide financial services at an affordable cost to a large section of the poor and low-income groups (Govt. of India, Ministry of Finance, PMJDY, 2016). Having a bank account should have provided easy access to cashless transactions to the rural population at the time of demonetisation. However, it is also true that only 8.5 per cent of the villages had real brick-and-mortar bank branches, while about 91 per cent of the banking outlets in villages were covered by banking correspondents (RBI, 2017).

The study by Nair and Tankha (2015) on financial inclusion suggests an increase in the number of bank accounts while there is a slow increase in bank deposits. Moreover, among the banking variables, deposit and credit penetration have a significant association with financial inclusion.

In order to enable effective financial inclusion, there is a need to remove demand-side constraints by improving the financial literacy and income of the lower strata of society (Tulsi et al., 2017). The report also pointed out that access to technologies like mobile phone and internet can increase affordability and help overcome the barriers to using financial services.

The Global Findex Database 2014 pointed out that in developing countries, the unbanked lived predominantly in rural areas. Many people have access to financial services at affordable prices; however, some people do not prefer to use these services. Globally, about 20 per cent of accounts are inactive. The share of inactive accounts in India is 48 per cent, the highest in the world and twice the average of developing economies. Roughly 65 million account owners in India use cash or over-the-counter services to send or receive domestic remittances (Demirguc-Kunt et al., 2017).

A few studies that analysed the impact of demonetisation use the framework for cash in circulation versus broad money. These studies revolve around the basic argument of change in the component of M1, i.e., cash in circulation and its impact on economic transactions. According to Ajay Shah (2016), money is the lubricant of the market economy. “It is how payments are made. When money is disrupted, the working of the market economy is disrupted.”

Further, he also argues that the group of people who can adopt cashless transactions would not be affected much, but those who rely mainly on cash for their transactions would face troublles and would not be able to carry out transactions smoothly. Firms that experience lack of demand and credit facility would suffer in the production aspect. Based on this argument, he concludes that “money is a veil, but when the veil flutters, real output sputters.”

Dasgupta (2016) also provides a plausible framework for explaining the decline in economic activity due to demonetisation. According to him, Indian society takes time to adjust to the idea of cashless transactions. He proved that the reduction in the real money supply and absence of the socio-economic infrastructure has actually reduced the interest rate, which is obviously caused by a sharp fall in the economic activity in the real sector. According to Chattopadhyay (2019), two effects of demonetisation need careful attention: 1) households’ preference for holding cash, especially for various transactional purposes; and 2) the impact of demonetisation on the output levels keeping in mind the informal sector after adjustments of inflation expectations.

Similarly, Chakravorti (2017) also makes two important observations. The informal sector in India contributes about 45 per cent to the national output and employs approximately 94 per cent of the workforce.Hemce, impact of demonetisation on informal sector would affect the GDP of the economy much more significantly.

Arun Kumar (2017) discusses the possible consequences of demonetisation in the context of economic structure of organised versus unorganised sectors and black money versus white money. He rewrites the classical economists’ quantity theory of money equation, segregating the variables as organised and unorganised sectors: Mu.Vu + Mo.Vo = Pu.Tu + Po.To. (u stands for the unorganised sectors and o for the organised sectors). According to him, the implication of a decline in both ‘M’ and ‘V’ is that ‘P’ and ‘T’ also have to fall. In the case of demonetisation, since ‘P’ has not fallen (wholesale and retail prices were still rising during that time), it is ‘T’ that has contracted. ‘T’ translates into incomes, resulting in a corresponding fall in production and incomes. Assuming that the organised sector would have access to formal banking facilities, it could make cashless transactions feasible. However, the unorganised sector, the one that could not shift from cash to alternative modes of payment, i.e., cheque or debit/credit card or digital money, would have suffered a higher reduction in ‘T’. A similar argument is made by Waknis (2017) using the macroeconomic theory of essentiality of money and the segmented markets model. The paper explains how the policy decision of demonetisation affects the organised and unorganised sectors of the Indian economy. It is a theoretical perspective and provides derivations for the possible impact of demonetisation on two different sets of the market, one with access to formal financial market facilities, and the other not connected with the formal financial markets but managing financial transactions through cash. The paper concludes that the segment of the economy, which is well connected with the banking sector, is not affected much, but the segment without access to financial institutions suffered a greater impact on consumption, expenditure, income and employment.

There is some interesting empirical work measuring the impact of demonetisation in the context of financial inclusion.

An empirical study (Karmakar & Narayanan, 2019) argues that, by contrast, demonetisation helped households with bank accounts in disposing of the demonetised cash. They found that the impact of demonetisation on household income and expenditure has been transient, with the major impact seen during December 2016. However, the households with no bank accounts experienced a significant decrease in both income and expenditure during December 2016.

While access to banking facilities is much less in the rural economy, people mainly rely on cash transactions. This certainly raises concerns, as the impact of demonetisation can be much more severe in rural India. Cash has been the engine of rural economy, accounting for almost all transactions, while cheque payments are not widely acceptable to the farmers for fear of bouncing. The severe shortage of cash on one hand, and indifferent attitude of the officials to the predicaments of the farming and trading communities on the other brought economic activities to a near standstill in parts of the country (Aga & Choudhari, 2016). A study in the Sundarban region of West Bengal collected high-frequency data from villages and estimated almost 15.5 per cent income loss among the rural population. (Heng Zhu et al., 2018). The study also observed that farmers had difficulty procuring agriculture inputs or selling their produce. Households adopted various strategies such as borrowing less, lending out more or spending more on consumption expenditure to get rid of demonetised notes. Isabelle Guérin et al. (2017) make a similar observation in their survey in the rural areas of Tamil Nadu. They point out that demonetisation had a different set of impacts, given diverse and informal social networks. Agricultural workers were the most affected by either reduction in wage rates or loss of employment. They conclude that the rural economy was adversely affected in terms of employment, income and daily financial practices. However, people came to rely more strongly on their networks to sustain their economic and social activities. The study specific to Gujarat districts (Singh & Prajapati, 2020) observed a negative impact on the purchase of agriculture inputs, reduction in the price of perishable agri products and delayed payments. They also note how the strong social fabric in rural areas helped each other, and the entire village economy survived on interest-free credit. The study revealed that the cash crunch and long waiting time in banks to exchange demonetised currency caused production as well as consumption delays.

Where most of the empirical studies carried out in rural areas indirectly capture the lack of access to banking facilities, they do not attempt to scan the impact of demonetisation through the lenses of financial inclusion. This study explicitly discusses the status of financial inclusion in the rural areas of Gujarat. The aim is to measure the impact of demonetisation in rural areas against the backdrop of financial inclusion in terms of both the demand and supply sides.

Methodology

The study was conducted in Kutch district of Gujarat, which covers 23.27 per cent of the total geographical area of the State. (Census 2011). There are 10 taluks/block, and 949 villages in the district and around 65.18 per cent of the total district population live in rural areas. The population density is significantly low at 46 persons per sq.km. as against the State average of 308 persons per sq.km. Considering the diversity in terms of economic activities, the survey was conducted in two taluks, namely Rapar and Mundra. According to the 2011 census, only five villages in Mundra (12.7 per cent) and Rapar taluka (6.27 per cent) had bank branches at the time of demonetisation.[1] In this study, the villages with at least one bank branch are considered 'Banked Villages', and those with no brick and mortar banking facility/bank branch are considered 'Unbanked Villages'.

Sampling: The survey was conducted in five banked villages and five unbanked villages from each taluka. (Unbanked villages were selected based on the size of the population - more than 3000 persons according to the census 2011). The interview schedule was prepared, and 25 households were surveyed based on convenient sampling from each village which mostly depended upon the availability of respondents and willingness to respond. In total, 500 households were surveyed, of which 449 samples were considered valid for the analysis. The interaction with the Gram Panchayat officials, the head of APMC market, and village dairy cooperative societies were held to get more insights.

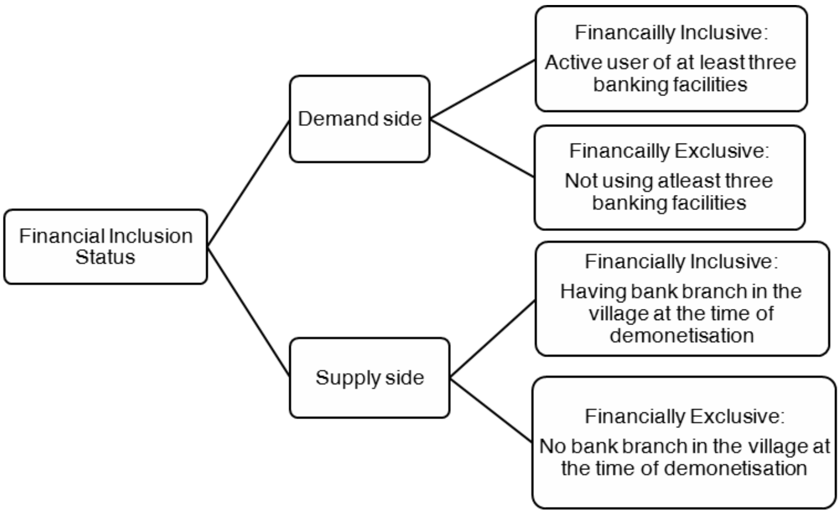
The hypothesis examined through this study is that 'the impact of demonetisation on the group of people who are financially inclusive is lower than those who are financially exclusive'. The term financial inclusion is captured both from the supply and demand sides in this study, as suggested in the literature. In addition to ensuring the availability and accessibility of financial services, which is the supply side of financial inclusion, experts have also emphasised the effective use of such services, referring to the demand side of financial inclusion. The Rangarajan Committee notes that demand-side issues also cause financial exclusion. Unless some initiatives are taken on the demand side or in the "real sectors," supply-side solutions from the financial sector alone cannot work. Merely giving access to financial services does not always result in the use of such services (Beck et al., 2007). Based on these recommendations, the study examines the status of financial inclusion from both the supply and demand sides. Supply-side refers to the presence or the absence of bank branches – brick and mortar – in the village, while the demand side refers to the extent of using banking facility by each household.

The respondents or households have further been classified into two segments - financially inclusive ones and those exclusive of formal banking facility (Figure 1). The 'financially inclusive' from the demand side refers to the respondents/ households who actively use at least three banking services from the list provided.[2] The logic followed here is using at least three or more facilities out of those listed would have provided enough ease of managing cashless transactions, particularly during the turmoil caused by cash shortage during demonetisation. The 'financially exclusive' refers to the respondents/households who have not been availing of at least three banking services. The classification of respondents was done after collecting data based on the responses of the number of banking facilities availed during the time of demonetisation.

The 'financially inclusive' from the supply side refers to the respondents who have access to a bank branch in their village. 'Financially exclusive' from the supply side refers to the respondents who do not have access to the bank branch in their village.

Figure 1

Classification of Respondents Based on the Status of Financial Inclusion

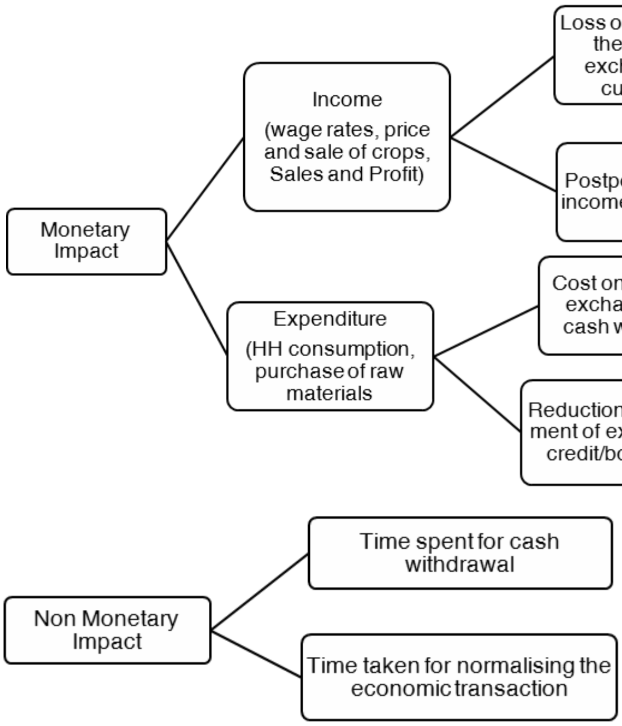


Measuring the Impact of Demonetisation

The impact of demonetisation is measured in terms of both monetary and non-monetary (mainly time) impacts. The details of the variables studied for monetary and non-monetary impact are provided in Figure 2. A three-point rating scale is used to capture the responses ranging from no impact at all, moderate impact and extremely high impact for some relevant information. The Cronbach Alpha test is conducted to assess the reliability of the scale.

Figure 2

Monetary and Non-Monetary Variables



Status of Financial Inclusion in Kutch District

This section discusses the status of financial inclusion in Kutch district. According to the survey, 91 per cent of the households reported at least one family member holding a bank account and 86.5 per cent of households opened bank accounts before demonetisation. Hence, exchanging the old currency notes and shifting from cash to cashless transaction at the time of demonetisation should have been less painful for these 86.5 per cent of households. However, it is also important to note that 42 per cent of these bank account holders reside in unbanked villages, and the average distance from home to the bank branch for these households is 23 km. Such distance is a matter of concern. With RBI's efforts for financial inclusion, the unbanked villages have been provided banking correspondents (Bank Mitra) to carry out banking transactions. However, only 20 per cent of the households were aware of a banking correspondent in the village, and merely 8.5 per cent had ever availed of banking correspondent's services in any form. The survey revealed that many respondents were unaware of the names of their banks and the branches despite having a bank account. The individual who holds the bank account, but is not using it regularly, would have suffered more than the one who actively uses banking facilities.

Table 1

Responses for Banking Facilities Usage (%)

Banking Facility and Instrument	Frequency Respondents* (%)
Avail benefits of govt. schemes	17
Receiving and making payment	36
Saving and depositing money	43.2
Borrowing	20
Cheque	35.1
ATM	32.7
Demand Draft	3.9
Debit card	15.7
Credit card	7.6
Mobile Banking	8.1
Online Banking	6.9

Source: Calculation based on the survey data (September-October 2017)

Note: *The responses are considered out of the number of households with bank accounts

As discussed in the methodology, the respondents have been classified as financially inclusive and exclusive users of banking facilities. Only 30 per cent of the respondents were using a minimum of three banking facilities (listed in Table 1), whereas 70 per cent of the respondents were using only two or even less than that. Out of these 70 per cent, 11 per cent did not have bank accounts, whereas the other 89 per cent were account holders but were not using them effectively.

Table 2

Test of Independence: Income and Type of Banking Facility User

Type of user	Per centage of household (%)	Average monthly income (in ₹)
Financially Inclusive	30	30290*
Financially Exclusive	70	17559*

***** Significant at 1 %. T statistics 4.062, SE 31231.150

One of the prime reasons for demand side of financial exclusion is the low-income level. (Chithra & Selvam 2013, Christabell & Vimal Raj, 2012, NSS 59th Round, All India Debt and Investment Survey). A significant difference in the average monthly income across two categories of the respondent was observed, indicating income as one of the significant variables affecting the use of banking facilities. The study also found a strong association between the existence of bank branch in a village and the type of users of banking facilities (Table 3). The proximity of bank branch is critical for the active use of banking facilities.

Table 3

Test of Association: Banking Facility – Availability and Usage

		Demand Side of Financial Inclusion	
		Financially Inclusive	Financially Exclusive
Supply-side of Financial Inclusion	No Banking Facility	17 %	83 %
	Banking Facility	26 %	74 %
	Chi-square = 4.7		P value = .03

Source: Calculation based on the survey data

Impact of Demonetisation

Some of the observations related to currency exchange are:

1. Almost 62 per cent of the respondents exchanged old currency notes, and 16.5 per cent deposited them in banks with an average value of approximately ₹30,000 and ₹61,000, respectively.
2. Those who did not exchange/deposit notes reported not possessing ₹500 and ₹1000 currency notes as the prime reason.
3. Interestingly, around 4 per cent of the respondents did not have a bank account and still managed to exchange or deposit old currency notes in the bank.
4. Approximately 29 per cent of those who deposited old currency reported the amount of ₹100,000 and above, whereas merely 7 per cent of those who exchanged the notes reported the amount of ₹100,000 or more.
5. Fifty per cent of those who exchanged/ deposited the currency notes said the amount was below ₹15,000. Underreporting of the actual amount exchanged/deposited can certainly not be ruled out.

A skewed distribution was observed in the case of income lost for standing in the queue for exchange or depositing the currency notes. While more than half of the respondents who stood in the queue reported that they suffered a loss of income, the average income lost is estimated to be around ₹9669. Only 15 households reported loss of income of more than ₹20,000, which is equivalent to a household's monthly income from primary occupations.

Table 4

Demonetisation Experience: Exchange of Old Notes

Particular	Responses (%)
Per centage of households exchanged notes	62
Per centage of households deposited old notes	16.5
Average amount exchanged during demonetisation	₹ 34680
An average of days spent in the queue for exchange of notes	7.2
An average of hours spent per day while standing in the queue	4.9
Per centage of households reported loss of income while exchanging notes (52 % of those who exchanged/deposited old notes)	37
Amount of income lost while standing in the queue	₹ 9669

Source: Based on the survey data (September-October 2017).

The extent of currency notes exchanged is higher for the financially inclusive group as compared to the exclusive group. However, it is statistically different only in the case of demand side classification, i.e., with respect to users of banking facilities (Table 5). The income lost on account of waiting in the queue is also higher for the financially inclusive group as compared to the one that is not. What is important to observe here is that although the amount of money exchanged and the income lost is less for the excluded group, there is no difference in the number of days lost while standing in the queue. More importantly, the number of hours spent in the queue is higher for the financially non-inclusive group for both demand and supply sides. A significantly higher number of respondents reported loss of income from the unbanked villages compared to banked villages, although the amount is lower. Sixty-two per cent of respondents from unbanked villages reported loss of income vis-a-vis 44 per cent who reported loss with banking facility in the village. This association is also found statistically significant through the Chi -squire test ($\chi 2$ (1) = 3.24, P < 0.10).

Table 5

Test of Independence: Cost of Demonetisation and Financial Inclusion (Supply & Demand)

Particular	Mean Values			
	Financial Inclusion Supply Side		**Financial Inclusion Demand Side**	
	Inclusive Group	Exclusive Group	Inclusive Group	Exclusive Group
Amount of currency exchanged	₹ 37,012	₹ 31,732	₹ 44,569**	₹ 31,774**
No. of days lost while standing in queue	7	7.23	7.27	7
Hours spent per day	4.18*	5.9*	3.95*	5.2*
Amount of income lost while standing in queue	₹ 11,000	₹ 8321	₹ 13712	₹ 8581
No. of months taken for normalising the economic activities	3.3**	3.7**	3.82	3.43

Source: Calculation based on the survey data

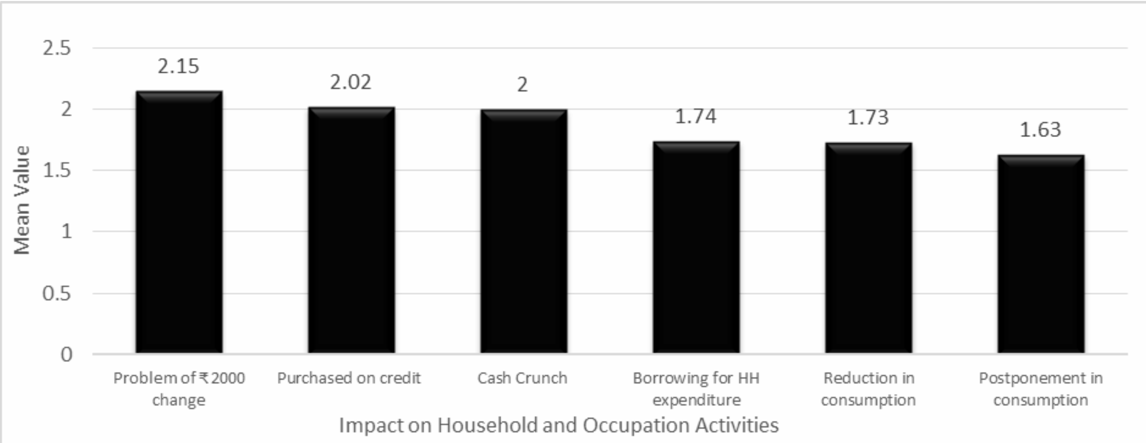
* Significant at 5 %, ** Significant at 10 %

To capture the impact of demonetisation on consumption across all the respondents, a total of six questions were asked on the three-point rating scale, where 1 indicates no impact at all and 3 indicates very high impact. These items mainly captured impact in the form of (i) getting the change of ₹2000 notes, (ii) shifting to credit for making their purchase and (iii) experiencing shortage of cash for routine transactions. The reliability test is also conducted with this scale. The Cronbach's Alpha test statics value is 0.8 for the six items used in the scale. 0.8 indicates a high internal consistency; hence, the scale is reliable. The mean values of the scale are presented in Graph 1.

Due to a strong social network in rural areas, people managed their household purchases through a credit system with the promise to pay later. A total of 65 per cent shifted to credit purchases, due to which the postponement of consumption was minimal. Around 46 per cent of the respondents reported that they did not experience a reduction in consumption, and around 51 per cent of the respondents said they did not postpone consumption. Postponement of consumption was not observed in the daily essentials but mainly happened in the case of commodities like vehicle, television, and mobile handsets.

Graph 1

Impact of Demonetisation on Consumption (Mean Value)

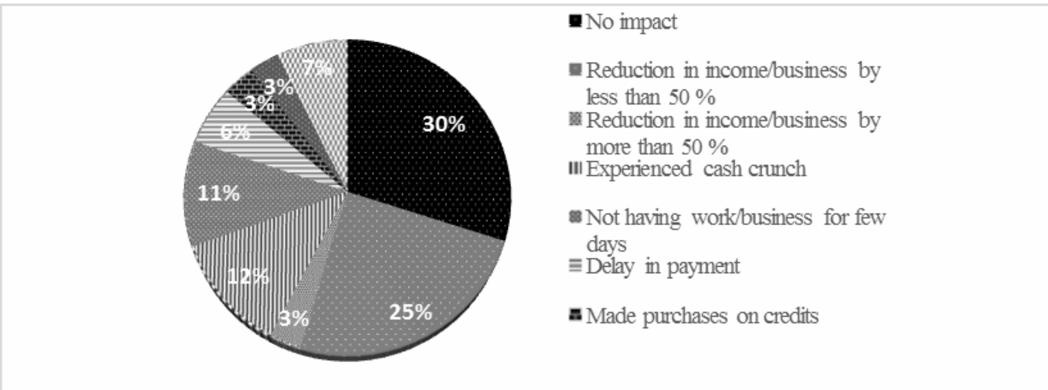


Source: Calculation based on the Survey data.

The independent two sample t-test is conducted to examine if there is any significant difference in the impact of demonetisation on household consumption for financially inclusive and exclusive both from the supply and demand sides (Table 6). Shortage of cash on hand, borrowing cash for managing household expenses and reduction in consumption are the impacts that indicate statistically significant differences across the group of people with and without banking facilities in the village. In the case of demand-side factor, the impact in terms of managing household expenses by shifting of credit, postponement of consumption, reduction in consumption and borrowing money for managing household expenses are significantly higher for the financially excluded respondents.

Graph 2

Impact of Demonetisation on Income: Percentage Responses



Source: Calculation based on the survey data (September-October 2017).

Table 6

Test of Independence: Impact of Demonetisation on Consumption & Financial Inclusion (Supply & Demand)

Particular	Mean Rating			
	Financial Inclusion Supply Side		Financial Inclusion Demand Side	
	Inclusive Group	Exclusive Group	Inclusive Group	Exclusive Group
Problem of ₹2000 change	2.13	2.17	2.18	2.14
Make purchases on credit	1.98	2.06	1.9**	2.05**
Cash Crunch	1.91*	2.12*	1.95	2.01
Borrowing for household expenditure	1.66*	1.84*	1.48*	1.81*
Postponement in consumption	1.64	1.62	1.51*	1.66*
Reduction in consumption	1.67*	1.79*	1.56*	1.77*

Source: Calculation based on the Survey data.

* Significant at 5 %, ** significant at 10 %

Table 7

Impact on Income – Test of Association

Impact	Percentage Responses			
	Financial Inclusion Supply Side		Financial Inclusion Demand Side	
	Inclusive Group	**Exclusive Group**	**Inclusive Group**	**Exclusive Group**
No impact on economic activities	62.2	37.8	25	74.8
Reduction in the income/business by less than 50 %	56.7	43.3	23	77
Reduction in income/business by more than 50 %	38.5	61.5	30	70
Experienced cash crunch	56	44	18	82
Not having work/business for a few days	34.8	65.2	13	87
Delay in payments	61.5	38.5	31	69
Made purchases on credits	50	50	28.6	71.4
Business got shut down	23	77	15.4	84.6
	χ^2 = 15.503, (df 8) P = 0.05		χ^2 = 7.385, (df 8) P = 0.496	

Source: Calculation based on the survey data (September-October 2017).

Thirty per cent of the respondent reported that demonetisation made no impact on their occupation and income, of which 35 per cent are employees. Around 11 per cent reported not getting the work for a few days, 50 per cent of whom were agricultural labourers. The Chi-square test results (Table 7) indicate that in the case of supply side of financial inclusion, a strong association is observed between the impact of demonetisation, and the presence and absence of a bank branch in the village. Such a significant difference in the impact between two groups under demand-side financial inclusion is not observed, mainly due to a higher proportion of respondents falling in the category of passive users.

Each occupation segment had a different set of experiences and impacts of demonetisation. In the case of daily wage earners, 90 per cent reported delay in payment, and 70 per cent reported loss of work. However, wage rate reduction was reported only by 27 per cent. This may be because of a shift of labour supply from agriculture or construction to standing in the queue as proxies on behalf of others to exchange old notes. This became an alternative source of income for the daily wage earners; 66 per cent of them reported that they were engaged in standing in the queue and made earnings. The exchange rate was ₹100 for exchange of ₹500 and ₹300 for standing in the queue for the entire day. While conducting the test of independence, loss of work and delay in the payment show a significant relationship with the banking facility in the village. The test of independence for the demand side could not be conducted as only 3 per cent of the daily wage earners are active users.

Table 8

Impact of Demonetisation on Daily Wager Earners

Impact	Responses		Test of Independence Supply-side Financial Inclusion	
	Percentage Responses	Mean Values	Inclusive Group	Exclusive Group
Loss of work	70	46 days	28*	61*
Delay in payment	90	33 days	25**	44**
Reduction in wage rates	27	₹ 100	105	100
Had to look for work elsewhere	22	76	46	99
Advancement of payment	6.8	45	60	38.5
Earned through exchange of notes	66	Not reported		

Source: Calculation based on survey data.

* Significant at 5 % ** Significant at 10 %

Table 9

Impact of Demonetisation on Farmers

Impact	Percentage Responses	Mean Value			
		Financial Inclusion Supply Side		Financial Inclusion Demand Side	
		Inclusive Group	Exclusive Group	Inclusive Group	Exclusive Group
Crop perished as it could not be sold	51	1.69	1.65	1.72	1.65
Reduction in the crop prices	60	1.93	1.88	1.69**	1.96**
Had to reduce purchase of seeds and fertilisers	64	1.98	2.1	1.79**	2.1**

Source: Calculation based on survey data.

* Significant at 5 % ** Significant at 10 %

Table 10

Impact of Demonetisation on Self-Employed

Impact	Percentage Responses	Mean Value			
		Financial Inclusion Supply Side		Financial Inclusion Demand Side	
		Inclusive Group	Exclusive Group	Inclusive Group	Exclusive Group
Reduction in the sales turnover	86	2.26	2.3	2.21	2.30
Reduction in the prices of your goods/services	22	1.25	1.38	1.24	1.32
Loss of products	10	1.17	1.11	1.12	1.16
Problems of procurement	3.4	1.06	1.03	1.0	1.07

Source: Calculation based on survey data.

* Significant at 5 % ** Significant at 10 %

At the time of demonetisation, farmers were engaged in sowing rabi crops and selling kharif crops. In Kutch, rabi crops mainly include jiru (cumin), chana (chickpea), castor and groundnut, while kharif crops include cotton, oilseeds, pulses and millets. It was observed that price reduction was depended on the markets where the farmers sold their produce. Farmers selling the produce in Rapar APMC did not suffer price reduction as it provided RTGS facility and helped them open bank accounts if they did not have one. Farmers cultivating cotton mostly sold it directly to the ginning mill near Rapar, which offered ₹500 less (while the price was around ₹1500 for 40 kg) to those who could not accept the payment through cheque. Farmers who were actively using bank accounts managed to get the full payment. Those cultivating oil seeds and guar gum experienced a reduction in prices. Around 35 per cent of the farmers sold their crops in the local market or outside APMC. They suffered more than the ones who sold their crops in the APMC. Farmers struggled to purchase seeds and fertilisers; almost 77 per cent of them bought seeds and fertilisers from private shops rather than the agro-samiti. Very few shops provided seeds and fertilisers on credit. Sixty per cent of the farmers reported reduction in crop prices, and 64 per cent reported fall in purchasing seeds and fertilisers. Evidently, the prices of crops and purchase of the seeds and fertilisers were significantly dependent on the demand side of financial inclusion. Farmers using RTGS and cheque payments were the only ones who could buy fertilisers and seeds. Others had to wait for almost two months for the cash crunch to get over.

The impact on self-employed and businessmen is observed to be less severe than that on farmers and daily wage earners. About 22 per cent of the self-employed reported price reduction, and only 3.4 per cent reported procurement problems. Eighty-six per cent of the business felt an impact in terms of reduction in the sales turnover. They postponed the sales rather than trading the products at a lower price. Most shop owners and small businessmen shifted to selling goods and services on credit. A few businessmen/shop owners made use of urban banking facilities while making business trips to cities like Rajkot, Ahmedabad and Mehsana, instead of exchanging old notes in Rapar itself. Surprisingly, there was no significant difference in the impact of demonetisation on the business activities across the two segments of financially included and excluded groups, as seen in Table 10.

Conclusion

The study observes that around 86.5 per cent of the households were holding bank accounts when demonetisation was announced. However, households from unbanked villages had to travel an average of 23 km to avail banking facilities. The study also looked at the demand side of financial inclusion and found that less than one-third of the bank account holders were active users, who availed at least three or more types of banking services. The study found that 62 per cent of respondents exchanged notes through banks with an average amount of ₹34,680. Only 7 per cent of the respondents exchanged more than Rs. 1 lakh, and only half of those who exchanged notes reported a loss of income. This brings out the issue of lower income level among rural households who often have a hand-to-mouth life. The study also did not find any significant difference in the cost of exchange between the inclusive and excluded groups. In the case of the impact on income and consumption, the primary concern was getting change for the new ₹2000 note. No significant difference is observed in the case of impact on consumption across two different groups. This is because when it came to maintaining their standard of living, they could shift to credit and borrowing to satisfy their absolute daily necessities. The postponable demand was pushed back to the period when the cash crunch was reduced. As far as impact on income or occupation is concerned, around half of the respondents reported no or a negligible impact on their occupation in terms of loss of income or not getting the work. It appeared that longer-term economic activities, such as agriculture, suffered a greater negative impact than business and organised sectors.

The study concludes that the impact of demonetisation was not extreme. In the case of certain variables, the impact of demonetisation is not significantly different between two groups, i.e., financially inclusive and not-inclusive. However, the availability of bank branches to carry out monetary transactions is a crucial factor determining the impact of demonetisation rather than availing banking facilities. Thus, the study implicitly brings out the issues of failing to achieve financial inclusion in overall spirit. After opening the bank accounts, the financial transactions remained outside the banking system's purview, and hence did not experience any major impact at the time of demonetisation.

This certainly underlines a greater challenge to achieve financial inclusion in its true sense. Three very critical aspects bring important policy implications here. First, as seen, merely giving access to financial services does not automatically result in their use. Some initiatives need to be taken on the demand side as well, which for the "real sectors", as mere supply-side solutions from the financial sector cannot create inclusion. Second, a critical factor to consider for the not-so-extreme impact of demonetisation along with minimum usage of banking facilities is extremely lower income standard and lower value monetary transactions. Unless the economic standards are improved, the rural people may not really gain by using various banking facilities. Third, as the cost of availing of banking facilities, both monetary and non-monetary outweigh the cost of financial transaction because they are usually of a lower denominator. Hence, efforts towards simplifying banking procedures and reducing the monetary and non-monetary cost of banking services are required to improve the active use of banking facilities. These issues altogether need another detailed investigation which could be in the form of further research. Given the low number of economic transactions in rural India, how financial inclusion can be achieved in totality and how rural Indians can improve their financial status are the questions yet to be deliberated.

Acknowledgements

The authors are grateful to University Research Board of Ahmedabad University for providing the research grants. We are also thankful to all the undergraduate students of Ahmedabad University who enthusiastically participated in the field work and helped us in data collection from villages.

Author's Contribution

All the three authors have equally contributed to the conceptualisation, carrying out the data collection, analysis and writing the paper.

End Notes

1. Villages with Bank facilities in Mundra Taluka: Samagoga, Nana Kapaya, Jarpara, Baroi, Gundala; Villages with Bank Facilities in Rapar Taluka: Adesar, Ravmoti, Selari, Chitrod, Nilpar

2. The list includes ten banking facilities that any bank account holder can use. These are (i) to avail the benefits of government schemes under direct benefit transfer, (ii) Receiving and making payments, (iii) saving and depositing money, (iv) borrowing, (v) use of cheque, (vi) ATM, (vii) Debit Card, (viii) Credit Card, (ix) Mobile Banking and (x) Online Banking.

References

Aga, A., & Choudhari, C. (2016). Notebandi Takes the Sauce Out of Nashik's Tomatoes. *Economic and Political Weekly, 51* (53), 7–8.

Govt. of India (2011), Census India 2011, Retrieved from http://www.censusindia.gov.in/2011census/PCA/PCA_Highlights/pca_highlights_file/India/Chapter-1.pdf

Guérin, Isabelle, et al. (2017). "Insights on demonetisation from rural Tamil Nadu." *Economic and Political Weekly 52* (52), 44-53.

Chakarvorty, B. (2017). 'Early Lessons from India's Demonetization Experiment', Harvard Business Review, Retrieved from https://hbr.org/2017/03/early-lessons-from-indias-demonetization-experiment

Chattopadhyay, S. (2019). The Macroeconomics of Demonetization: Theory and Some Conjectures. *South Asian Journal of Macroeconomics and Public Finance, 8*(2), 118–143.

Chithra, N.R., & Selvam, M. (2013). Determinants of Financial Inclusion: An Empirical Study on the Inter-State Variations in India. *Social & Political Philosophy eJournal*., DOI: dx.doi.org/10.2139/ssrn.2296096

Christabell, P. J., & Vimal, R. A. (2012). Financial Inclusion in Rural India: The role of Microfinance as a tool. *IOSR Journal of Humanities and Social Science, 2*(5), 21-25.

Dasgupta, D. (2016). 'Theoretical Analysis of 'Demonetisation', *Economic and Political Weekly, 51*(51): 67-71

Demirguc-Kunt, A., Klapper, L., Ansar, S., & Jagati, A. (2017). *Making It Easier to Apply for a Bank Account: A Study of the Indian Market.* The World Bank. https://doi.org/10.1596/1813-9450-8205

Demirguc-Kunt, A., Klapper, L., Singer, D., & Ansar, S. (2018). The Global Findex Database 2017: Measuring Financial Inclusion and the Fintech Revolution. World Bank Publications.

Dev, S. Mahendra (2006), Financial Inclusion: Issues and Challenges, *Economic and Political Weekly, 41* (41): 4310-4314.

Govt. of Gujarat (2011), District Census Handbook: Kutch, Directorate of Census Operations Gujarat Series 25, Part XII-B, 2011

Govt. of India, Ministry of Finance (2016), Pradhan Mantri Jan Dhan Yojana (PMJDY), Progress Report, Retrieved from https://www.pmjdy.gov.in/

Zhu, H., Gupta, A., Majumder, B., & Steinbach, S. (2018). Short-term Effects of India's Demonetization on the Rural poor. *Economics Letters*, *170*, 117–121.

Kumar, Arun (2017). Economic Consequences of Demonetization: Money Supply and Economic Structure, *Economic and Political Weekly, 52*(1),14-17.

Economic Consequences of Demonetisation. (2015). *Economic and Political Weekly*, *52*(1), 7–8.

Nair Smita, (2016, 15th November). Flashback 1978: The Transition to New Notes was Less Painful. The Indian Express, Mumbai. Retrieved from https://indianexpress.com/article/india/india-news-india/flashback-1978-currency-ban-500-1000-invalid-the-transition-to-new-notes-was-less-painful-4375865

Nair, T. S., & Tankha, A. (2015). Inclusive Finance India Report 2014. New Delhi: Oxford University Press.

PWC (2015). Disrupting Cash: Accelerating Electronic Payments in India, 2015. Retrieved from https://www.pwc.in/assets/pdfs/publications/2015/disrupting-cash-accelerating-electronic-payments-in-india.pdf

Rangarajan, C. (2008). Report of the Committee on Financial Inclusion, January 2008

Reserve Bank of India. (2017). Annual Report: 2016-17, August 2017

Shah Ajay. (2016). "A Monetary Economics View of the Demonetisation", Business Standard, 13th November 2016

Singh, R., & Prajapati, M. R. (2020). An Agribusiness Perspective of Demonetization in Central Region of the State of Gujarat in India. *Journal of Economic Structures*, *9*(1), 1–20.

Sudipto Karmakar & Abhinav Narayanan. (2020). Do Households Care about Cash? Exploring the Heterogeneous Effects of India's Demonetisation. *Journal of Asian Economics, 69*, 101-203.

Tulasi, G., Golait, R., Sethi, M., & Goel, S. (2017). Involuntary Exclusion and the Formal Financial Sector. *Economic and Political Weekly, 52*(36), 67-72.

Waknis, Parag (2017). Demonetization through Segmented Markets: Some Theoretical Perspectives, *Economic and Political Weekly, 52*(9).

World Bank. (2017). "The Global Findex Database." http://www.worldbank.org/globalfindex