

Demonetization Effect on Agriculture Sector - Problems and Prospects



D. Sudarsana Murthy, P.V. Narasaiah, Roma Chavan

Abstract: Agriculture in Indian, economy shares around 50 per cent of the workforce. Farmers, who are considered as the backbone of our national economy, were sternly affected by the currency note demonetization of Indian economy. Most of the farmers who are availing loans from cooperative banks have no cash reserves to supply them. With this effect farmers were not able to buy seeds, fertilizers and other required things for farming on time. It took almost 8 weeks to resolve this issue. Till that time, farmers found it very difficult, they normally deal their transactions in cash. The cash transactions in our economy are extremely high when compared with the total number of electronic transactions carried on a daily basis. Most of the earlier studies emphasizes more about cashless payments and its advantages, Debit and Credit Cards using in retail sector, e-payments and their problems faced by the public in using plastic cards for payments etc., all these could not solve the shortage of currency in the country at a time. Eventhough there is no much difference in value and volume of currency i.e., the calculated values for the hypotheses formulated are 0.148 and 0.075 respectively, but the people were much more suffered due to the demonetization of currency by the Government due to that agriculture sector severely affected. The previous studies could not much focused on agriculture sector. Hence, this kind of specific study is highly needed in the context of demonetization. By using multi-stage random sampling technique 330 sample respondents were selected.

Keywords: Demonetization, cash shortage, agriculture, farmers, cash less transactions. **JEL Classification:** Q22; E42; G21

I. INTRODUCTION

The Government of India on 8th November, 2016 has announced demonetization and cancelled the legal tender character of Rs.500 and Rs.1000 currency and issuance of new Rs.2000 banknotes in exchange for the old banknotes upto 31st December, 2016. The demonetization process increases using electronic transactions among the people in the country. The demonetization resolution enhanced cashless transactions at a larger rate rather than creating the transactions convenient. This measure taken by the Prime Minister to address the resolve against corruption, black money and counterfeit notes.

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This move is expected to cleanse the formal economic system. The spread of un-accounted money and the vision 2018 that is., Payment and settlement by RBI in June 2016 encourage the cashless payments and aims to achieve 'less – cash' economy.

The process of demonetization involves either introducing new currency notes or coins of the same currency or entirely replacing the old currency notes with new currency notes. It is an act of stripping a currency unit of its eminence as legal tender. Demonetization is compulsory whenever there is a change of national currency. The old unit of currency must be discharged and swapped with a new currency note.

Demonitization in India –A Historical Review

Demonetization in India is not happening for the first time. The first demonetization took place in year 1946; the 1000 and 10,000 denominations notes were demonetized in order to eradicate un-accounted money. The notes with the denominations of 1000, 5000 and 10,000 were re-introduced in 1954 and again they were demonetized on January 1978 by the Indian Government. Nearly almost after 38 years, the demonetization again came to scene in the year 2016. There are numerous unorganized sectors in India which are entirely grounded on cash economy. "In this historical move which will add record strength in the fight against corruption, black money, money laundering, terrorism and financing terrorists as well as counterfeit notes, the Government of India has decided that the five hundred and one thousand rupee notes will no longer be legal tender from the midnight of 8th November 2016. Demonetization is a dare step by the Government and rightly called as the surgical strike of the government on black money.

II. LITERATURE REVIEW

The following are some studies done for study purpose. The reviews presented below:

Chelladurai, M., and Sornaganesh, V., (2016), in their study opined that India is a cash-dependent economy. Its cash to GDP ratio stood at 11 per cent which is much higher than in most economies. Close to 98 per cent of all consumer payments are made in cash. Financial technology companies in the payment services sector are upbeat that demonetisation will also mean a big digital push for India.

Shish Das, and Rakhi Agarwal, (2010) studied the cashless payment system in India. They suggested that the cash payment is an expensive proposition to the government and so the nation must step towards the cashless payment system which can reduce the track transactions, currency management cost,

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eliminates tax avoidance, fraud etc. Moreover, it widens and encourages financial inclusion and integrate the parallel economy to the main steam.

Annamalai, S., and Muthu R. Iakkuvan., (2008) studied the future of plastic money in retail transactions. The growth of the debit and credit cards in retail transactions were projected by them in their study.

The popularity leading growth factors, the obstacles faced by the banks, future and scope of the plastic money were explained in their study.

Jain, P.M., (2006) studied about the e-payments and e-banking with the help of technological advancement, rapid payment options and other features, there will be an optimal use of funds for banks, other financial institutions, and business houses and so on. He also elaborated the importance and need for e-payments and modes of e-payments and communication networks.

III. DESIGN AND METHODOLOGY

A. STATEMENT OF THE PROBLEM

The demonetization has hit largely on farming and retailing sectors of India: Though there is increase in sales by plastic card usage it is lesser than the fall in cash sales. During Post demonetization there is 20 per cent increase in prepaid orders while the cash on delivery sales were dropped by 30 per cent which eventually brought the overall fall in retailing by 8 per cent. Agriculture in Indian, economy shares around 50 per cent of the workforce. Farmers, who are considered as the backbone of our national economy, were sternly affected by the currency note demonetization of indian economy. Most of the farmers who are availing loans from cooperative banks have no cash reserves to supply them. With this effect farmers were not able to buy seeds, fertilizers and other required things for farming on time. It took almost 8 weeks to resolve this issue. Till that time, farmers found it very difficult, they normally deal their transactions in cash. The cash transactions in our economy are extremely high when compared with the total number of electronic transactions carried on a daily basis.

B. NEED FOR THE STUDY AND RESEARCH GAP

Most of the earlier studies emphasize more about cashless payments and its advantages, Debit and Credit Cards using in retail sector, e-payments and their problems faced by the public in using plastic cards for payments etc., all these could not solve the shortage of currency in the country at a time. Eventhough there is no much difference in value and volume of currency i.e., the calculated values for the hypotheses formulated are 0.148 and 0.075 respectively, but the people were much more suffered due to that demonetization of currency by the Government due to that agriculture sector severely affected. The previous studies could not much focused on agriculture sector. Hence, this kind of area specific study is highly needed in the context of demonetization.

C. OBJECTIVE OF THE STUDY

Precisely, the objectives of the study are:

- To examine the historical background of demonetization in the country
- To review the status of bank notes in circulation during pre and post demonetization
- To know the habits of agriculture farmers in using On-line transactions
- To study the impact of demonetization on agriculture sector
- To identify the different multi problems faced by the agriculturists.
- To review the supporters and non-supporters of demonetization and
- To evolve a package of suggestions to overcome the demonetization problems by the agriculturist.

D. HYPOTHESES

The following hypotheses were formulated to arrive at concrete inferences from the study.

H₀₁: *There is no significant difference in Volume of Currency between Pre and Post Demonetization.*

H₀₂: *There is no significant difference in Value of Currency between Pre and Post Demonetization.*

H₀₃: *There is no significant difference in e-payment usage of volume between Pre and Post Demonetization.*

H₀₄: *There is no significant difference in e-payment usage in value between Pre and Post Demonetization.*

H₀₅: *There is no significant difference between using of cash and non-cash transactions by the respondents*

H₀₆: *There is no significant difference in utilization of factors of production of agriculture during demonetization.*

H₀₇: *There is no significant difference among the problems faced by the respondents*

H₀₈: *There is no significant difference between Supporters and Non-supporters of demonetization.*

E. METHODOLOGY

The design and methodology adopted for the study have been outlined in the following sections:

Chittoor District in the state of Andhra Pradesh selected for an in-depth study. The study has been undertaken based on both Primary and Secondary data. The secondary data are collected from Reserve Bank of India Annual Reports, various books, journals like Kurukshetra, Yojana and news papers like The Hindu and Economic Times etc., Primary data are collected from 330 respondents through pre-tested schedules.

Period of the Study

Four years secondary data has been used for analysis purpose starting from 2013-14 to 2016-17.

Tools and techniques

Appropriate statistical tools have used such as paired sample test, One-Sample ‘t’ test and others wherever necessary so as to arrive at concrete inferences.

F. SCOPE AND LIMITATIONS OF THE STUDY

It is observed that many sectors of the economy suffered like anything. But the impact on agriculture sector is tremendous. The present throws light on agriculture covering various aspects like bank notes in circulation pre and post demonetization, the awareness status among the farmers about on-line transactions and the other problems faced by the farmers in the country.

G. SCOPE FOR FURTHER RESEARCH

Similar work may be carried out in other sectors such as Poultry, Dairy and other allied activities of agriculture.

IV. ANALYSIS AND RESULTS

(1) The Status of the Currency – An Evaluation

Table 1. Status of Currency Notes in Circulation During the Period From 2014 to 2016

Denomination	Volume (Million Pieces)			Value (Rs. in Billion)		
	March 2014	March 2015	March 2016	March 2014	March 2015	March 2016
2 and 5	11,698 (15.10)	11,672 (13.90)	11,626 (12.90)	46 (0.40)	46 (0.30)	45 (0.30)
10	26,648 (34.50)	30,304 (36.30)	32,015 (35.50)	266 (2.10)	303 (2.10)	320 (1.90)
20	4,285 (5.50)	4,350 (5.20)	4,924 (5.40)	86 (0.70)	87 (0.60)	98 (0.60)
50	3,448 (4.50)	3,487 (4.20)	3,890 (4.30)	172 (1.30)	174 (1.20)	194 (1.20)
100	14,765 (19.10)	15,026 (18.00)	15,778 (17.50)	1,476 (11.50)	1,503 (10.50)	1,578 (9.60)
500	11,405 (14.70)	13,128 (15.70)	15,707 (17.40)	5,702 (44.40)	6,564 (46.00)	7,854 (47.80)
1,000	5,081 (6.60)	5,612 (6.70)	6,326 (7.00)	5,081 (39.60)	5,612 (39.30)	6,326 (38.60)
Total	77,330 (100)	83,579 (100)	90,266 (100)	12,829 (100)	14,289 (100)	16,415 (100)

Source: i. Annual report, RBI, 2016-17, P.No.124.

ii. Figures in parentheses represent percentage to total.

Table – 1 reflects the volume and values of currency notes in circulation in the country. The volume of notes of 500 has increased from 11,405 million pieces in the year March 2014 to 15707 million pieces in the year March 2016, accounting for an increase of 2.70 per cent. But 1000 note volume has increased from 5081 million pieces in the year March, 2014 to 6326 notes in March 2016 which represented a meager increase of 0.40 per cent. On the other hand, the value of the currency of 500 notes has increased from 5702 billion rupees (44.40 per cent) in the year March, 2014 to 7854 billion rupees (47.80 per cent) as in the year March, 2016, indicating a little increase of 3.4 per cent over the preceding year. In case of 1000 notes a downward trend is noticed (from 39.60 per cent to 38.60 per cent). It is thus evident from the table the percentage either in increase or

decrease in circulation of almost all demonetizations is low and not serious.

(2) Comparative Analysis of Currency in terms of Volume and Value during the Pre and Post Demonetization

To arrive at concrete inference from the comparative analysis of different currency demonetizations, two hypotheses were formulated as indicated below:

Table 2. Status of Bank Notes in Circulation During Pre and Post Demonetization

Denomination	Volume (Million Pieces)		Value (Rs. in Billion)	
	March 2016	March 2017	March 2016	March 2017
2 and 5	11,626 (12.90)	11557 (11.52)	45 (0.3)	45 (0.30)
10	32,015 (35.50)	36929 (36.82)	320 (1.9)	369 (2.80)
20	4,924 (5.40)	10158 (10.13)	98 (0.6)	203 (1.50)
50	3,890 (4.30)	7113 (7.09)	194 (1.2)	356 (02.70)
100	15,778 (17.50)	25280 (25.21)	1,578 (9.6)	2528 (19.30)
500	15,707 (17.40)	5882 (5.86)	7,854 (47.8)	2941 (22.50)
1,000	6,326 (7.00)	89 (00.09)	6,326 (38.6)	89 (0.70)
2,000	-	3285 (3.27)	-	6571 (50.20)
Total	90266 (100.00)	100293 (100.00)	16,415 (100.00)	13102 (100.00)

Source: i. Annual report, RBI, 2016-17, P.No.124.

ii. Figures in parentheses represent to percentage to total.

As on March, 2016 the total 500 notes currency stood at 15707 million pieces (17.40 per cent) and lightly declined to 5882 million pieces and records 5.90 per cent. Nearly 11.50 per cent on an average decreased during the pre and post demonetization which was considered as a serious problem for the public. The value of demonetized 500 notes stood at March 2016 was 7854 billion rupees (47.80 per cent) and reached only 2941 billion rupees to the year March 2017 which accounted for 22.50 per cent.

The volume of demonetized currency 1000 notes abnormally decreased from March 2016, 6326 million pieces to 89 million pieces as on March 2017. The value of the demonetized 1000 notes as on March 2015 stood at 6,326 billion rupees and reached to 89 billion rupees which accounts for 38.60 per cent and 0.70 per cent respectively. This has created an immense problem among the public. The value of the currency has introverted under demonetization impact for almost 86.40 per cent (500 and 1000 notes). The coverage of this demonetization is much broader than the previous demonetization attempts made in the indian economy.

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H₀₁ Result Analysis:

		Mean	Std. Deviation	Std. Error Mean	T. Value	df	Sig. (2-tailed)
Pair 1	Volume 1 Volume 2	7587.00	2537.09	1794.00	4.23	1	.148

As per the paired Sample test the calculated value is 0.148. The volume is not significant. It is inferred that there is no significant difference in between currency volume during the pre and post demonetization. Hence, the hypothesis which was formulated is accepted.

H₀₂ Result Analysis:

Table – 4. Paired Samples Test

		Mean	Std. Deviation	Std. Error Mean	T. value	df	Sig. (2-tailed)
Pair 1	Value 1 Value 2	5575.00	936.21	662.00	8.42	1	.075

The calculated paired sample test value of the currency is 0.075 which is significant. It is thus inferred that there is significant difference between the value of currency during the pre and post demonetization period. Hence, the hypothesis which was formulated is accepted.

(3) Demonetisation – An Emphasis on Cashless Payment Schemes

The Indian Government wants its people to opt for cashless transactions but it has its own pros and cons. Formerly, the online transactions were performed only through debit and credit cards or via net banking. These alternatives always had the issues of security and were not user-friendly. Later on the smart phone revolution, there is a bang in digital payment options. The Top most cashless payment alternatives in Indian economy are:

- **Electronic Wallets:** Electronic wallets (E-wallets) became widespread now-a-days. These e-wallets make use of phone number or the QR code and the transactions will be done in matter of minutes.
- **UPI:** Unified Payments Interface is one of the greatest ways for cashless transactions. From UPI we can transfer the amount very effortlessly all we need are two significant things and they are a Smartphone and a Bank account.
- **Plastic Money:** As we all aware of this Debit and Credit cards which are used for transactions in ATM and at the Point of Sales are known as the Plastic money. This plastic money diminishes the security issues of carrying the liquid cash.
- **Net Banking:** Almost all banks provide the Net Banking facility to its customers. All that the customers need to do is to enable the e-banking facility for their bank account to go cashless. By this most convenient way, the customers can do all their transactions without visiting the branch. We can make payment, transfer and receive amount by ourselves through this e-banking facility.

(4) Cashless Payments in Rural Areas – A Study

Two hypotheses were formulated to draw inferences on the usage of e-payments by farmers in rural areas:

TABLE – 5. Usage of e-Payment Transactions done by Rural People During Pre And Post Demonetization

Transaction Type	Pre and Post Demonetization			
	Upto July 2016		Upto July 2017	
	Volume in Million Nos.	Value in Billion Rupees	Volume in Million Nos.	Value in Billion Rupees
Mobile Banking	64.44	668.04	106.18	1612.17
Debit / Credit Cards				
Use at ATM	752.13	660.32	2191.65	2168.60
Use at POS	129.67	268.00	170.92	374.82

Source: Kurukshetra, August, 2017, Vol.65, No.10, Page 36.

A closer look at the table – 5 reveals that mobile banking has registered a volume of 106.18 million transactions with a value of Rs.1612.17 billion upto April, 2017. By using ATM recorded 752.13 million transactions with the value of Rs.660.32 million rupees as on July, 2016. During the year 2017 the volume in million numbers has increased to 2191.65 and value in million rupees rose to 2168.60. But POS transactions recorded less when compared to ATM i.e., 129.67 million numbers done which accounted for 268.00 million rupees. In the year 2017 the same transaction substantially increased to 170.92 million transactions and 374.82 billion rupees. After demonetization the usage of e-banking transactions have increased. The pre and post demonetization, people have used their mobile, debit and credit cards to many transactions. If the people habituated this practice no doubt the country can become one of the best digital countries as far as on-line cash transactions are concerned and fraudulent transactions such as black business etc., could be controlled.

H₀₃ Result Analysis:

Table – 6. Paired Samples Test

		Mean	S.D	Std.E	T. Value	df	Sig.
Pair 1	Volume A Volume B	-507.5	807.1	466.0	-1.09	2	.390

As per the paired t – test the calculated value 0.390 on volume is not significant. Hence, the hypothesis which was formulated is accepted. It means that there is no significant difference between volume of transactions during pre and post demonetization.

H₀₄ Result Analysis:

Table – 7. Paired Samples Test

		Mean	SD	Std. E	T. Value	df	Sig.
Pair 1	Value A Value B	-853.08	705.15	407.12	-2.095	2	.171

As per the paired t – test calculated value 0.171 on currency value is not significant. Hence, the hypothesis which was formulated is accepted. It means that there is no significant difference between value of transactions during the pre and post demonetization.

V. FIELD STUDY – AN ANALYSIS

Eventhough earlier studies did not reveal demonetization as a majour problem. But in reality more problems were faced by the agriculturists. In order to notice the problems faced by farmers due to demonetization especially in the drought prone areas like chittoor district of Andhra Pradesh, a field study has undertaken with a sample size of 330 farmers.

Table-8 presents a vivid picture on an analysis of sample design. The selection of sample design is presented in table-8.

Table – 8. Sample Design

Sl. No.	Revenue Division	No. of Mandals	No. of Sample Respondents from each Mandal	Sample Size
1.	Chittoor	20	5	100
2.	Tirupati	15	5	75
3.	Madanapalle	31	5	155
Total				330

Source: District Census Hand book, Chittoor, Directorate of Census Operations, Andhra Pradesh – 2011.

As disclosed by table – 8, the Chittoor District has been divided into three revenue divisions such as Chittoor, Tirupati and Madanapalle. Chittoor revenue division has 20 mandals, Tirupati revenue division 15 mandals and Madanapalle 31 mandals. By using multi-stage random sampling technique, from each mandal 5 agriculturists have been selected at random. From Chittoor mandal, 100 sample respondents; from Tirupati Mandal 75 respondents; and from Madanapalle 155 respondents were selected at random. The total sample respondents numbered 330.

i. Educational Background

Table – 9. Educational Status of the Respondents

Sl. No.	Education	No. of Respondents	Percentage to Total
1.	Illiterates	53	16.06
2.	Primary Education	79	29.94
3.	SSC	99	30.00
4.	Intermediate	50	15.15
5.	Graduates	33	10.00
6.	Post-Graduates	16	4.85
Total		330	100.00

Source: Figures compiled from field study.

The educational status of the respondents is indicated in table – 9, most of the respondents studied upto SSC which accounted for 30 per cent followed by Primary Education which is 29.94 per cent. The farmers having post-graduation was least which recorded at 4.85 per cent only. Based on this data, it is presumed that the farmers in the district have some awareness about the effects of demonetization.

ii. Habits of Using Cash and Non-Cash Transactions

iii.

Table – 10: Habits of the Respondents in Using Cash and Non-cash Transactions

Sl. No.	Habits of the Respondents	Number of Respondents	Percentage to Total
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1.	Cash Transactions	177	53.64
2.	Non-cash Transactions	153	46.36
Total		330	100.00

Source: Figures compiled from field study.

Table – 10 shows the habits of the respondents in using cash and non-cash transactions. Cash transactions using is habituated by 177 respondents which accounts for 53.64 per cent and Non-cash transactions habituated by 153 respondents which recorded for 46.36 per cent. Majority of the farmers using cash for more transactions. Hence, demonetization is a problem to them.

H₀₅ Results:

Table – 11. One-Sample Test

	Test Value = 0					
	T V	Df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Cash and Non-cash Transactions	13.75	1	.046	165.00	12.53	317.47

As per one sample test the calculated value is 0.046 which is not significant. Hence, the hypothesis which was formulated earlier has been rejected. There is significant difference between Cash transactions and Non-cash transactions.

iv. Awareness about On-line Transactions

Table – 12. Awareness among Farmers on Online Payment

Sl. No.	Parameter	No. of Respondents	Percent age to Total
1.	Don't have Knowledge	53	16.06
2.	Transacting with the help of others	178	53.94
3.	Having Knowledge to Transact	99	30.00
Total		330	100.00

Source: Figures compiled from field study.

The another big challenge faced by agricultural farmers is on-line transactions. Most of the persons do not have knowledge directly to perform the activity of transactions through on-line they have been traced out and indicated in table – 12. Among them 53.94 per cent respondents are performing their transactions with the help of others. However, 30 per cent have the knowledge to perform the on-line transactions.

v. Problems faced by Agriculturists

Table – 13: Problems faced by the respondents in Marketing of Agricultural Products

Sl. No.	Agricultural Products	No. of Respondents	Percentage to Total
1.	Vegetables	158	47.88
2.	Milk and Milk related Products	119	36.00

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3.	Other Commercial Crops	53	16.06
	Total	330	100.00

Source: Figures compiled from field study.

Marketing is the challenging task of any industry. The agriculture industry is not an exemption. Table – 13 manifests the details regarding marketing of agricultural products by the respondent farmers.

The product wise problems of marketing such as vegetables by 47.88 per cent followed by Milk and Milk related Products which recorded 36.00 per cent and other commercial crops only by 16.06 per cent.

vi. Factors of Production Utilisation

Table – 14: Status of the factors of Production Utilisation by the Respondents

Sl. No.	Utilization	No. of Respondents	Percentage to Total
1.	Optimum Level	155	46.97
2.	Not at Optimum Level	175	53.03
	Total	330	100.00

Source: Figures compiled from field study.

The responses of the sample farmers regarding the utilization of factors of production are embedded in table – 14. The agricultural farmers utilized factors of production at optimum level only 46.97 per cent. The rest of the respondents not utilized the factors of production at optimum level due to demonetization which reflected on production yield.

H₀₆: Results

Table – 15. One-Sample Test

	Test Value = 0					
	T	Df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Optimum and Non-Optimum level usage	16.50	1	.039	165.00	37.94	292.06

The calculated one sample test value is 0.039 which is not significant. Hence, the hypothesis which was framed has been rejected.

vii. Problems Due to the Demonetisation

Table – 16: Age group wise problems faced by the respondents due to demonetization

Age	No. of Respondents	Percentage to Total
15-25	20	6.06
25-35	122	36.97
35-45	128	38.79
45-55	36	10.91
55-65	16	4.85
65-75	08	2.42
Total	330	100.00

Source: Figures compiled from field study.

Table – 16 snap-shots the age group wise agriculture problems encountered by the respondents due to demonetization. In between 35 and 45 majority of the

respondents faced demonetization problem which is 38.79 per cent followed by 25 and 35 age group respondents accounted for 36.97 per cent. Little percentage (2.42) of farmers in age-group between 65-75 reported no problems.

Table – 17: Problems Faced by the respondents in Withdrawing Money from the banks due to Lack of the necessary documents

Sl. No.	Necessary Document	No. of Respondents	Percentage to Total
1.	Pan Card	292	88.48
2.	Adhaar Card	38	11.52
	Total	330	100.00

Source: Figures compiled from field study.

Table – 17 displays the problems faced by the respondents in withdrawing money from the banks. There are number of restrictions on withdrawing money. Due to the lack of the documents such as Adhaar and Pan Cards they faced many problems. Without having Pan Card, the number of respondents faced problem in cash withdrawal are 292 and recorded 88.48 per cent and without Adhaar, the number of respondents faced the same problem recorded 38, accounted for 11.52 per cent. These documents are necessary to each and every person. If the farmers want to deposit and withdraw more than 50000, which requires PAN Card number. When the farmer wants to open the bank account the required document is Adhaar Card.

viii. Multi Problems faced by the agriculturists

Table – 18. Multy Problems faced by the Agricultural Based Farmers Due to Demonetization At 5 Point Scale

Sl. No.	Problems	Multiple problems suggested by Respondents	Average	Weighted Average	Rank
1.	Purchasing Seed	264	0.80	4.00	3
2.	Purchasing Fertilizers	277	0.84	4.20	2
3.	Payment of Daily Wages and other expenses	284	0.86	4.30	1
4.	Purchasing of Agriculture Instruments etc.,	191	0.58	2.90	5
5.	Hiring the Vehicles (Tractors) to cultivate	126	0.38	1.90	7
6.	Hiring the Vehicles for Transportation of Agricultural Production [crops etc.,]	218	0.66	3.33	4

7.	Repayment and borrowing of Loans	119	0.36	1.80	8
8.	Health care	145	0.44	2.20	6

Source: Figures compiled from field study.

Payment of wages and other expenses is the major problem which was recorded in table – 18 expressed (depicted in fig.) by 284 respondents out of 330, the calculated weighted average is 4.30 at 5 point scale.

Purchasing Fertilizers and seed both have captured II and III places respectively in problems due to the demonetization. Repayment and borrowing of loans both are very important because the farmers will get loans from the money lenders and banks for agricultural purpose which is seasonal. Due to demonetization the farmers did not get money to perform their agricultural activities. If repayment of loans by the farmers is not done on time, recycling fund problem will arise in financial institutions. The following figure will give clear picture about the multiple problems faced by the respondents.

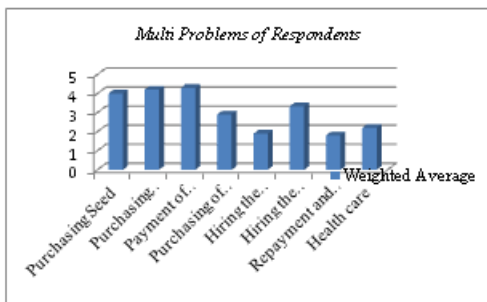


Fig. – 1: Multi Problems of Respondents

H₀₇ Result Analysis:

Table – 19. One-Sample Test

	Test Value = 0					
	T	Df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Response of Respondents on Problems	8.43	7	.000	203.00	146.06	259.94

As per the one sample test the calculated value is 0.000 which is significant. Hence, the hypothesis which was formulated is rejected. It means there is no significant difference among problems faced by the farmers.

ix. Respondents' Opinions on demonetization

Table – 20: Opinion of the Respondents On Demonetisation

Sl. No.	Opinion	No. of Respondents	Percentage to Total
1.	Supporting	176	53.33
2.	Non-Supporting	154	46.67
	Total	330	100.00

Source: Figures compiled from field study.

As evidenced from Table – 20, the respondents who support demonetization is 53.33 per cent and Non-supporters are

46.67 per cent. The percentage of supporters to total is amazing. The people are slightly becoming educators and they can understand what is good and what is bad.

H₀₈ Result Analysis:

Table – 21. One-Sample Test

	Test Value = 0					
	T	Df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
VAR00015	15.00	1	.04	165.00	25.23	304.77

As per the calculated value by one sample test is 0.042. Hence, the H₀₈ is rejected.

VI.DISCUSSIONS

(1) Problems confronted by Agriculturists during Post Demonetisation:

The farmers in the country suffered a lot during the period of demonetization. The most important problems confronted by them are reviewed under:

- * The demonetization of 500 and 1000 rupee notes has come at a wrong time for farmers in our Indian economy.
- * Millions of farmers were unable to get adequate cash to buy seeds, fertilizers and for manures raising their winter crops cultivation.
- * India's 263 million farmers habituated to live on cash transactions in the economy.
- * Agriculture is completely dependent upon cash transactions. Cash is direct problem to the farmer markets because they should purchase all their agriculture inputs on cash basis.
- * Even the superior land holders have faced complications such as paying daily wages to the farmers and purchasing agricultural essentials which are required for growing crops.
- * Farmers faced the problems even to sell the harvested production at the time of demonetization.
- * Farmers faced various problems in purchasing seeds at the right time for sowing for the forthcoming season.
- * Many farmers thrived in the below economy and delay in sowing affected the crops. Consequently, wheat outcome was decreased in northern India
- * Farmers underwent a setback due to nation wide cash crisis and a breakdown in the demand for vegetables in wholesale markets.
- * Farmers who were badly hit are fruit and vegetable. As they want cash on day-to-day basis to procure various inputs like pesticides, fertilizers and employ laborers' for harvesting and also to conveyance and trade at urban cities.
- * Deficiency of cash with farmers leading to less than optimal use of inputs which resulted in lower yields, reduced sales, great wastage and poorer price realization.

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- * Small farmers have also suffered with cash crisis due to demonetization, as many have crops with them, but were unable to sell as the buyers were not having cash.
- * The farmers also faced many hardships in getting bank credit as the banks only grant new loans to them on a condition if they repay their existing loans.

(1) *Problems arised due to the Demonetisation*

- * No PAN Card – Most of the farmers i.e., almost 80 per cent of farmers were not having PAN Cards which was required to withdraw the highest denomination money.
- * Farmers also faced problems because of lack of ATMs in various small markets
- * Farmers were illiterates as they were not having any knowledge of using plastic cards for meeting their cash needs.
- * Middle men took the undue advantage from the farmers due to demonetization effect.
- * Most of the small vegetables and fruit vendors were badly affected as they need cash on a daily basis to buy their daily inputs / requirement for cultivation.
- * Most of the Farmers were unable to repay their existing loans due to cash crisis in the economy.
- * Farmers were unable to rotate the money in the market due to cash crunch led by demonetization.
- * Most of the farmers used to get credit from the agents for their daily requirements and they were unable to provide cash to them in view of cash crisis.

VII. FINDINGS

The majour findings of the study are:

- Demonetization concept took place in the country at first in the year 1946 due to demonetization of 1000 and 10000 currency notes.
- Recently the Government of India has demonetized 500 and 1000 currency notes on 8th November, 2016.
- Usage of e-payments in rural areas has been observed and found the following:
 - As per the paired t test, the calculated value is 0.390 on volume which is not significant.
 - The calculated paired t test value is 0.171 on value which is not significant.
- Majority of the sample respondents' educational status is SSC which accounts for 30 per cent of total respondents.
- Habit of the respondents in using cash transactions are more than 50 per cent. There is significant difference between cash and non-cash transaction users. The calculated simple 't' value is 0.046. The H_{08} which was formulated was rejected.
- Majority of the respondents are facing problems while marketing their products due to demonetization.
- It is found that the utilization of factors of production by the respondents are at optimum level 155 and not at optimum level 175. The calculated one sample test value is 0.039. Hence, there is significant difference between utilization of factors of production of

agriculture during demonetization at optimum level and not at optimum level. Hence, H_{06} which was formulated is rejected.

- Most of the respondents suffered a lot due to demonetization are in between the age group of 35-45 which recorded 38.79 per cent.
- 292 respondents do not have Pan Cards.
- Majority of the respondents faced the problem of payment of daily wages and other expenses followed by purchasing of fertilizers and seeds etc. The calculated one sample test is 0.000. Hence, H_{07} which was formulated has been rejected.
- The supporters of demonetization are 154 and non-supporters were 176. The calculated one sample test is 0.042. Hence, here is no significance difference between supporters and non-supporters of demonetization.

VIII. SUGGESTIONS

The study offers the following suggestions:

- ✓ The RBI should release small denominated currency notes to the extent of equal demonetized currency so as to solve the problem of demonetization and change the problem.
- ✓ The financial institutions need to conduct the awareness programmes to the rural people for using debit and credit cards etc., for their transactions so that it could be possible to certain the severity of the demonetization problem.
- ✓ Majority of the respondents are having education and understanding capacity. It is easy to conduct awareness programmes on using online payments etc., by the voluntary organizations.
- ✓ To solve the marketing problems of agriculturists, swiping machines should be provided at free of cost by the government agencies.
- ✓ The rural and co-operative banks should ensure that the agriculturists are utilizing the factors of production effectively.
- ✓ The respective authority or concerned government agencies should issue pan cards to the agriculturists so that, cash deposit/withdrawals more than 50000 may be solved. Through this some multi-problems may be solved such as purchasing seed, agriculture instruments and payment of wages etc.,
- ✓ If all those exercises done by the respective agencies no doubt, the number of supporters of demonetization may be increased and people in the country shall be benefited.

IX. RESEARCH IMPLICATIONS

- The topic is contemporary one. Every citizen of India is eagerly looking for the pros and cons of the impact of Demonetization.

- In a country like India, with federal setup [Centre and State Governments], the present research work will go a long way in answering the concerns of various stakeholders.
- We here to wait and see whether the objective with which demonetization was implemented in India will be achieved or not.

X. CONCLUSION

The effect of demonetization has been experienced by every citizen in the country. But agriculturists faced many problems compared with others. It is more likely to say that the government would come up with feasible solutions. A farmer can take a day out to visit a bank and withdraw the amount but they are not aware of using these cashless transactions on day to day basis as they are unaware of usage of smart phones, Internet Usage, swiping machines and plastic cards.

Demonetization in India is a conceived effort taken by Indian Government to combat the black money and corruption. In addition, the government strongly aimed at eradicating terrorist activities, corruption and other anti-social things in view of national security. However, it is the time to decide whether demonetization is a panacea to the ills of economy or not. Majority of the farmers in India are illiterate, they need thorough awareness programmes to overcome the problems of demonetization. Hence, conducting more awareness programmes by the government is the need of the hour.

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