Perceptual Segmentation of Demonetization Impact on Farming Communities in Anand District, Gujarat, India

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Authors' contributions

This work was carried out in collaboration between all authors. Author DV built the concept, collected the data and did data summerisation. Author SRP performed the statistical analysis and wrote the manuscript. Author NV did the data entry and compilation. Author MBC did the literature collection and data validation. All authors read and approved the final manuscript.

Article Information

Opinion Article

ABSTRACT

Demonetisation is a policy measure of the government to dismantle any bottleneck in the direction of growth; Whether it is corruption at one end or policy paralysis due to paucity of funds at other end. Farming communities are always be at bottom end when policy has been changed at any time, may be due to their poor knowledge base or poor adoptability for any change. Here, the researchers studied post demonetisation impact on farming communities in between January 2017 to April 2017 assuming continuous work schedule of the farmer irrespective of time or substances. Two stage

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cluster analysis has been used for analysis purpose for understanding of homogeneity of any vulnerability on farming communities. From the study, poor education and informational bottleneck have been found as a major thrust area for reducing any impact of demonetisation on farmer. Even farmers faced impact irrespective of their high income and high age due to poor informational base which is a matter of concerned for policy makers in future.

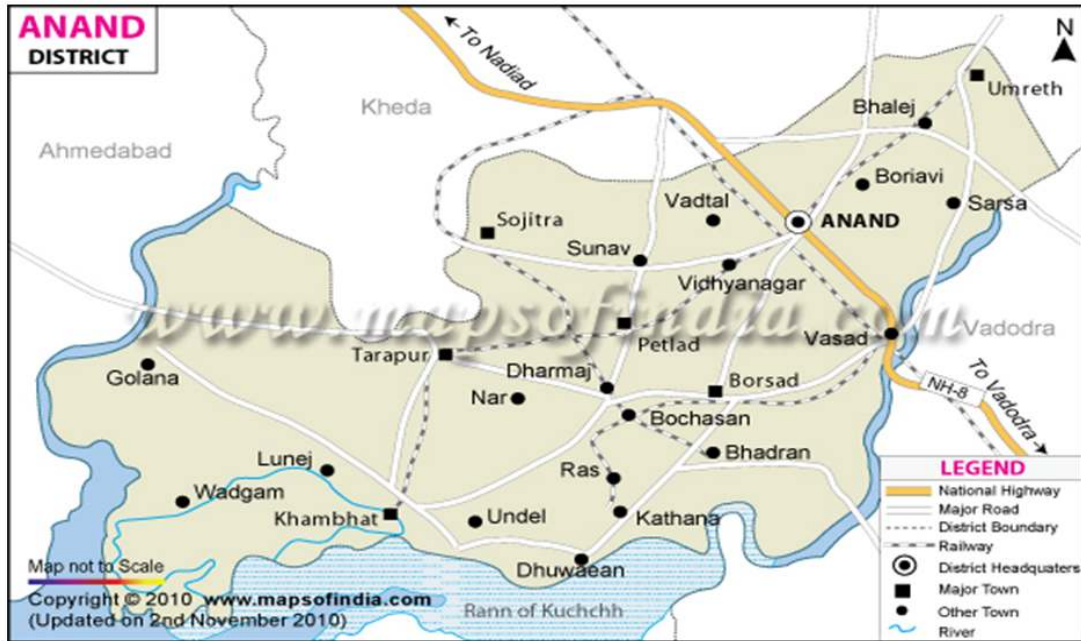*Keywords: Demonetisation; two stage cluster analysis.*

1. INTRODUCTION

Demonetisation is a policy measure of every government to dismantle corruption, illegal money flow towards criminal prosecution, gear up lethargic national income and devaluation of money in contest to foreign currency. No doubt pros and cons are integrated in any policy measures, still short term pain has been overlooked for anticipating long term benefit in future. Demonetisation is not a new concept. Its impact has been tasted in the year of 1978, but only the very rich population has been affected more in that time and general population of the country were remain unaffected. Last year Demonetisation policy (declared on 8/11/2016) was a complete package of the NDA government that has many folds against new other policy amplification, whether it is digitalization or decentralization. Previous days fragile policy has to be modified and it cannot be possible when almost 85% of the Indian population had been handled 500 and 1000 high denomination currency in their chunk. A proactive government policy could not be possible in presence of informal parallel system which was manipulated and modified by many stakeholders. Transaction through cash only hikes tax evasion and its benefit has been taken by many faces other than government. When Demonetisation impact has been studied in India, its major impact has been felt on grass root level, may be due to its agricultural livelihood dependency or may be due to unaccountable informal work force in each activities particularly in agriculture.

There is negative impact of demonetization on Industry and the study highlighted industry as a whole for production of product only even the study had not highlighted any impact on micro perspectives [1]. Demonetization impact was for short run and it will be stabilized due to higher multiplier effect on economy [2]. Demonetization effect was only felt due to inefficiency of system itself. Hence we can speculate the future macroeconomic effects of demonetization [3]. Demonetisation puzzles are only for short run, so logical consistency and methodology of

demonetization should be minimized [4]. The educated class of the State of Kerala feels that demonetization would be good, if it were to eradicate the evils of corruption, black money and terrorism [5]. Demonetization effected more on the small artisans and street vendors [6]. Judging by the blizzard of policy tweaks since the announcement, it seems clear that no impact study was carried out [7]. After demonetization only Agriculture sector shows some positive improvement while if we talk about the manufacturing and service sector both were crashed down and these will affect the whole Indian market in 2017 also [8]. Demonetization will prove to be beneficial for Indian economy in long run. The impact of currency swap on country's tax structure would be felt in years to come. Government revenue will increase in the form of increased tax collection, bank deposits will increase leading to lower interest rates on loans, and government can channelize this increased revenue towards implementation of projects of national importance. Further the funding to illegal or unlawful activities which arise due to unaccounted cash flow will reduce. Government can now easily track unreported income resulting in reducing of corrupt practices and money laundering [9].

No study highlighted or did research on demonetization that had any impact on farming communities who are backbone of our economy. Without Agriculture, we cannot sustain our culture. In this study, cluster analysis has been used which is advanced multivariate analysis that put an objective oriented impact analysis. Major problem in this study was to highlight the perception of farming communities after advent of demonetisation. Perception as a whole is a subjective parameter which was effected through different variables. That variables have been gathered here and perceptual segmentation has been established through cluster analysis Anand district in Gujarat is known for its international recognition due to presence of AMUL (Anand Milk Union Limited) in Anand city of Anand Taluka. No doubt district has its edge for milk production and marketing but growing production

Map 1.

of Banana, Tobacco, Ginger, Garlic, Organic manure, nurseries along with Inland fish through ponds and tanks adds more in its identity. Inspite of presence of 2, 63,622 agricultural labour [10] in this district, dependency for more labour has been earmarked which may be fulfilled by the immigrant labours from Odisha and Bihar. Farm labour is an input that has direct impact on price of the product in short run condition of enterprise; means cheaper the input cheaper the price and competitive advantage. After declaration of demonetisation no doubt some impact has been observed among farming communities within two months of declaration of policy, but subsequent paramount impact may be effected among farm communities (farm labor/agricultural labour) in different areas. As agriculture is a day to day activities and it is intermingled with credit to insurance; mansoon to marketing, so impact of demonetisation may be observed after many days of advent of this policy. This brings into the concept that which is the major factor that impact on farming communities due to effect of demonetisation policy.

2. MATERIALS AND METHODS

Both primary and secondary data has been collected and analysed in this study. Anand city has been purposively selected in Anand district due to its strategic importance and six major

villages from different corner of Anand city have been selected and from each village, fifty respondents were interviewed. Major variables like age, income, educational status, family size, awareness level of demonetisation have been taken into consideration in data collection purpose and its impact on social life and wage and salary level of farming communities have been understood in this study. Two stage cluster analysis have been applied in this study to understand any impact of demonetisation on criterion variables like social impact and earning of farm communities. Two stage cluster analysis [11] is a technique in which both categorical and continuous variables are used to understand any impact of predictor variables on criterion variable. This technique are mainly helpful for market segmentation, even for perceptual segmentation in social groups. Here number of clusters are determined automatically. In this study, age has been categorized in to 10-20, 20-30, 30-40, and 40-50 years assuming productive age of farm communities in different groups. Educational level has been categorized in to upto secondary (1 to 7th Standard), secondary to matriculation (8th to 10th Standard), matriculation to intermediate (11th and 12th standard) and intermediate to graduation, by going through pilot study of farm communities in the identified villages. Income of farm communities has been grouped in to 5000-10000, 10000-20000, 20000-

30000, 30000-40000, 40000-50000, and 50000-100000 rupees per year. Family size data were continuous one. To understand impact on social life, family function like marriage and festive occasions have been considered as variables. Demonetisation impact on wage and salary has been analysed likert scale technique [12] where 1 has been demarcated as strongly agree, 2 as agree, 3 as neutral, 4 as disagree and as strongly disagree. Respondent response have been gathered accordingly.

3. RESULTS AND DISCUSSION

In the study area, major chunk of awareness were in the income bracket of 30000-40000 rupees per year, age group of 30-40, educational qualification 1 to 7th standard and family size of seven (Table 1). It highlighted a picture of poor income with comparatively low education and high members in farming communities with a middle age groups in spite of better awareness for demonetisation. It may be due to day to day transaction of these poor segments in cash only for fulfilling their basic necessities and sustaining their livelihood. In India, during the advent of demonetisation about 68% of transaction had been carrying on cash only [13].

From the Fig. 1, it has been clearly observed that out of four clusters formed, cluster 1 had comparatively more respondents than cluster 2, 4 and 3 respectively. Irrespective of cluster size, lower income group with middle age (30-40) had better impact on social life and wage/salary of farming communities. For better understanding, Fig. 2 has been analysed for getting more clarity of comparative cluster for perceptual segmentation.
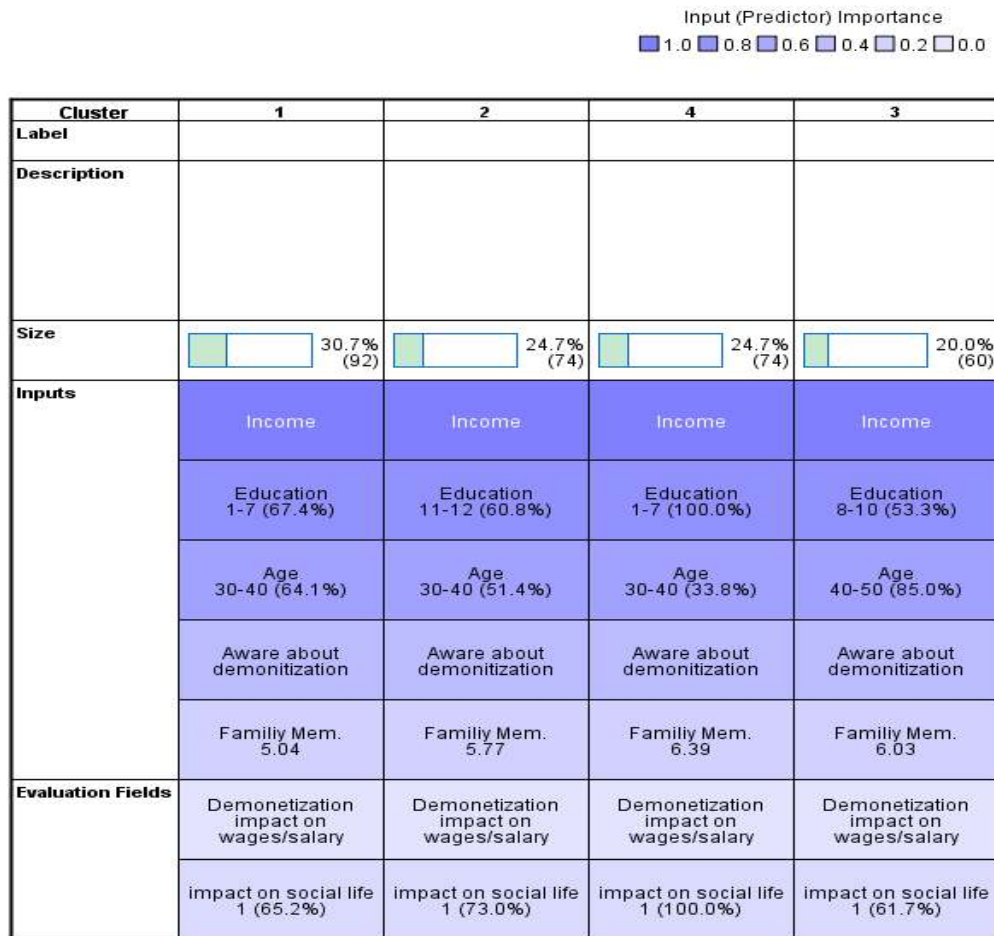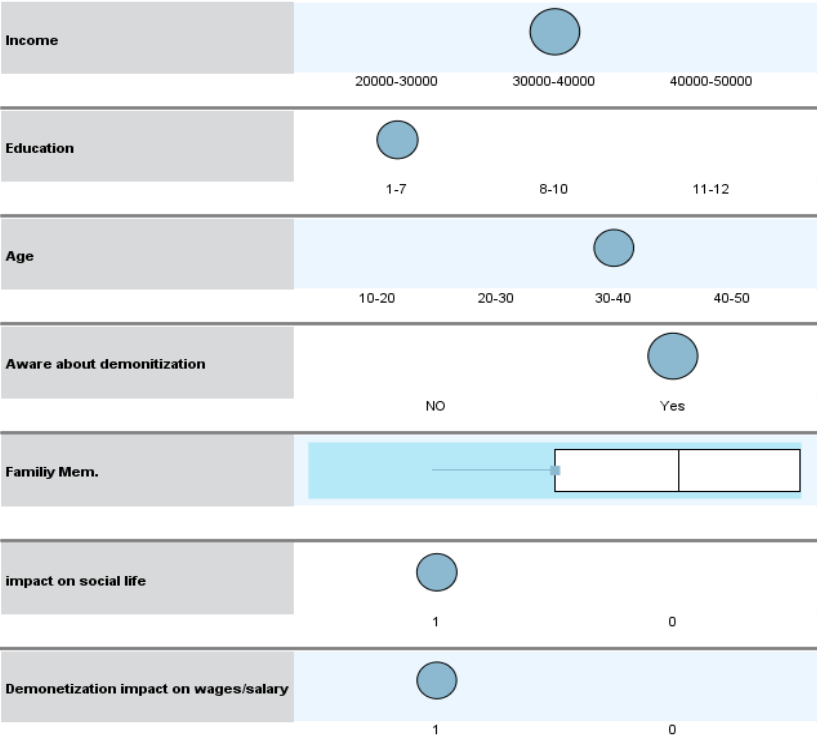

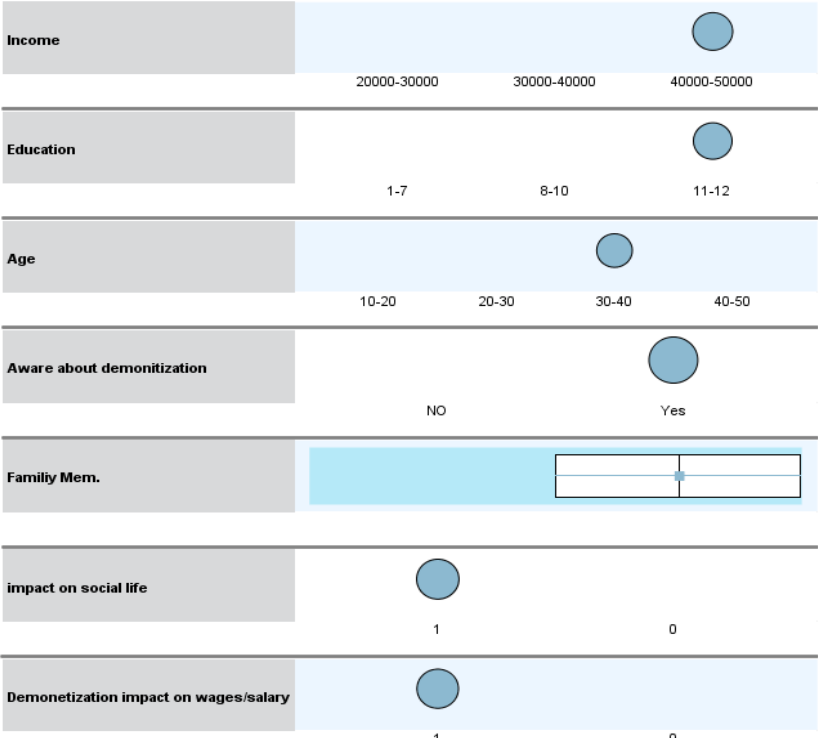**Fig. 1. Showing cluster importance on criterion variables**

Cluster Comparison

■ 1

Income	20000-30000 30000-40000 40000-50000
Education	1-7 8-10 11-12
Age	10-20 20-30 30-40 40-50
Aware about demonitization	NO Yes
Familiy Mem.	
impact on social life	1 0
Demonetization impact on wages/salary	1 0

Cluster Comparison

■ 2

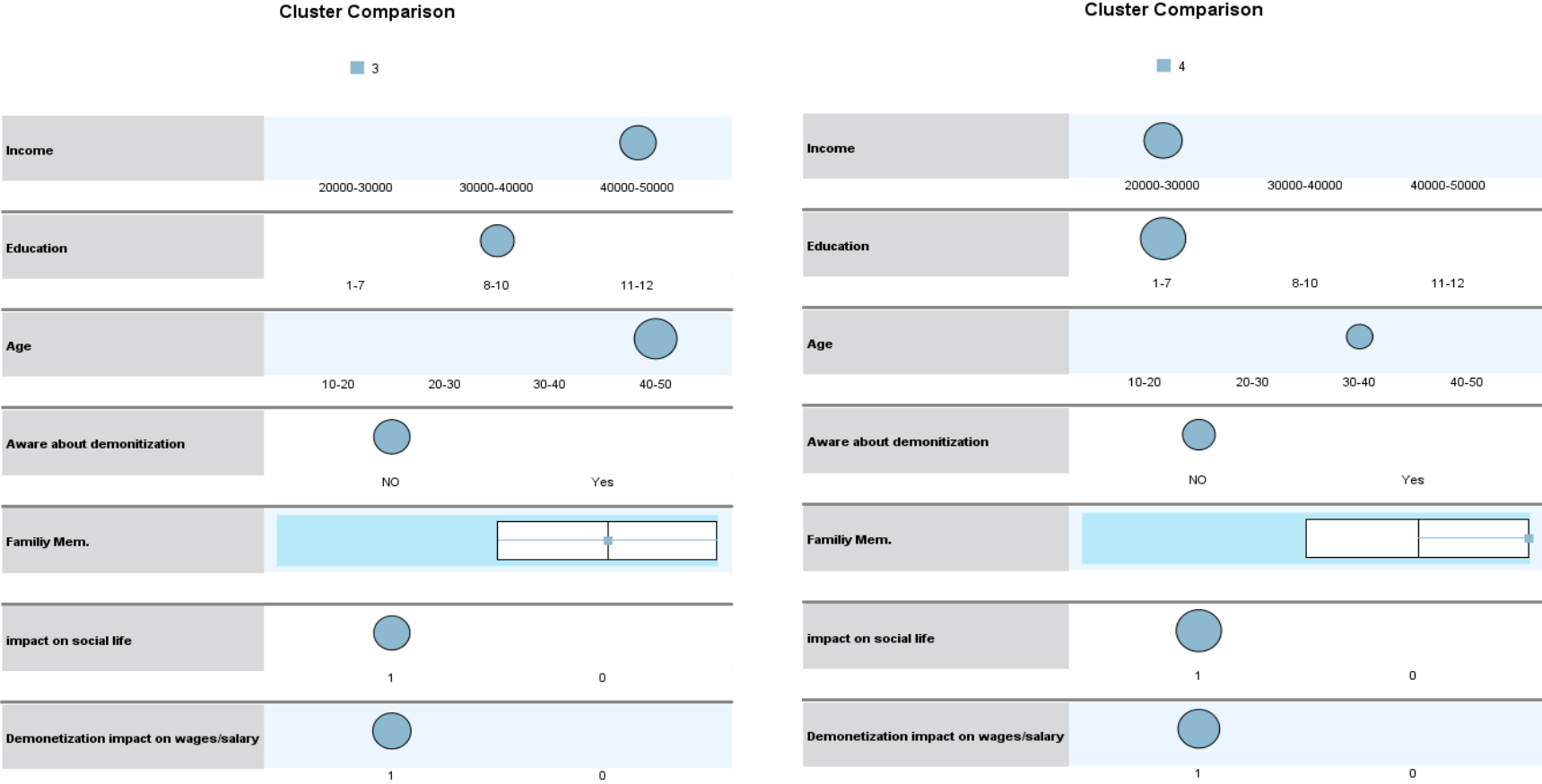|	
Income	20000-30000 30000-40000 40000-50000
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Familiy Mem.	
impact on social life	1 0
Demonetization impact on wages/salary	1 0

Fig. 2. Showing perceptual segmentation of different variables and their impact on criterion variables

Table 1. Awareness for demonetisation in different groups according to different predictors

Cross tabulation between income and awareness about demonetization				Cross tabulation between age and awareness about demonetization			
Income	Awareness about demonetization		Total	Age	Awareness about demonetization		Total
	No	Yes			No	Yes	
20000-30000	36	57	93	10-20	6	16	22
30000-40000	**11**	**121**	**122**	20-30	11	70	81
40000-50000	21	64	85	**30-40**	**15**	**111**	**126**
				40-50	38	33	71

Cross tabulation between education and awareness about demonetization				Cross tabulation between Family member and Awareness about demonetisation			
Education	Awareness about demonetization		Total	Family member	Awareness about demonetization		Total
	No	Yes			No	Yes	
1-7	**35**	**129**	**164**	3	0	9	9
8-10	23	68	91	4	6	45	51
11-12	2	43	45	5	17	42	59
Up to Graduation	Nil	Nil	Nil	6	22	45	67
				7	**25**	**89**	**114**

In Fig. 2, it has been clearly observed that irrespective of four clusters formed, impact has been observed both for social life and wage/salary for farming communities. In cluster 2, impact has been marketed irrespective of higher income, higher education and medium range of family members. It is a matter of concerned for all the farming communities. In cluster 4, awareness were not observed against demonetisation. Impact against demonetisation may be due to poor income and education base in this segment. In cluster 3, awareness was also found against demonetisation aswell and again impact has been observed. It may be due to income escalates due to high age in farming but propels farming communities transacted all through cash, may be due to moment of inertia. In cluster 1, impact was observed in spite of lower family member base. This segment was found high in number (Fig. 1). It may be a reflection towards nuclear farming family that was faced impact both on social and earning spheres. Again poor education may be an element which was major chunk of concerned.

4. CONCLUSION

Lower educational status and subsequent lower level of awareness for demonetisation has impacted on farming communities. Income of farming communities has been increased as age increases. Impact of demonetisation are more prevalent for the age group which are more than 30-40.

5. RECOMMENDATION

Better education and information broadcasting definitely reduce any impact of demonetisation among farming communities.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

REFERENCES

1. Thimmaiah BN, Singh B. Demonetisation – won or lost. International Journal of Research in Management, Social Science & Technology. 2017;17:1-15.
2. Bhatnagar A. Demonetisation and its impacts in India. International Journal of Informative & Futuristic Research. 2017; 4(6):6503-6510.
3. Sinha A, Rai D. Aftermath of demonetisation on rural population. International Journal of Research in Economics and Social Sciences. 2016;6(11):223-228
4. Raychoudhury A. Demonetisation in India: Some unsolved economic puzzles. Trade and Development Review. 2017;9(1-2):74-85.
5. Francis TB. A study on the impact of "India-Demonetisation 2016" on the educated working class of Kerala- A survey among the faculty members of the

St. Xavier's College for Women, Aluva, Kerala, India. International Journal of Scientific Development & Research. 2017; 2(4):109-115

6. Bharathi, K. Demonetisation: Impact on Indian economy. International Journal of Trend in Research & Development. 2017;10-11.

7. Shirley JA. Impact of demonetisation in India. International Journal of Trend in Research & Development. 2017;20-23.

8. Bansal CJ. Impact of demonetisation on Indian economy. International conference on innovative research in science. Technology and Management. 2017;128-135.

9. Samuel Y, Saxena AK. A study on demonetisation and its impact on Indian economy. International Journal of Innovative Research and Advanced Studies. 2017;4(2):287-290.

10. Ministry of home affairs. Census of India, government of India. [Online]; 2011. Available:http://www.censusindia.gov.in/pca/SearchDetails.aspx?Id=580359 (Accessed on 5/4/2017)

11. Malhotra NK, Dash S. Cluster analysis. Marketing Research, Sixth Edition, Pearson Publication. 2013;628.

12. Kothari CR. Measurement and scaling technique. Research methodology, second revised edition. New Age International Publishers, New Delhi- 79; 2011.

13. Wadhwa P. 68% of transactions in India are cash-based: CLSA. Business Standard, [Online]; 2016. Available:http://www.business-standard.com/article/economy-policy/infographic68oftransactionsinindia-arecashbased116111400495_1.html, (Accessed on 20/04/2017)