Public Perception of Demonetization 3.0 with Special Reference to Odisha: Results from Exploratory Factor Analysis

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Abstract: *Demonetization refers to the removal of legal tender from circulation in a country. After 1978 and 2016, on May 19, 2023, the Reserve Bank of India declared that it would stop printing notes with a denomination of Rs 2000. Since it is too early to determine the short or long-term effects of this demonetization on the Indian economy, the study thus only focuses on the general public's perception of it. And, as far as we know, this would be the first research on this matter. A total of 400 samples were gathered from the Sadar Baripada block of the Mayurbhanj district in Odisha, by using the snowball sampling method. The objectives were supported by a variety of statistical techniques, including Descriptive Statistics, X^2 test, Exploratory Factor Analysis (EFA), Kruskal-Wallis H test, and Mann-Whitney U test. The study brings to the conclusion that the overall public's attitude towards the potential impact of this demonetization on the Indian economy will be favourable.*

Keywords: *Demonetization, EFA, Public Perception, India, and Odisha.*

JEL Classification Codes: *D73, E58, H31 and R28*

Introduction

Demonetization refers to the removal of legal tender from circulation in a country (Chandra et al., 2020) and occurs normally when there is a change in national currency (Jawed, 2019). It is a drastic measure that governments sometimes employ to prevent bribery, corruption, terrorism, black money, and the like (Kapri, 2018). Three times, in 1978, 2016, and 2023, Demonetization was implemented in independent India. But before 1978, on 12 January 1946, the High Denomination Bank Notes (Demonetization) Ordinance 1978, enacted by the then Governor General of India, Earl Wavell prohibited the use of 500, 1000, and 10,000 notes as legal money (Wikipedia: The High Denomination Bank Notes (Demonetization) Act, 1978).

The High Denomination Bank Notes (Demonetization) Act, 1978, which was passed by the Janata Party government under the

leadership of Prime Minister Morarji Desai, resulted in India's first demonetization on January 16, 1978, when the Rs 1,000, Rs 5,000, and Rs 10,000 notes were eliminated from circulation. The final draft of this Demonetization Ordinance was prepared by referring to the 1946 Demonetization Ordinance. The government explained that the action was required to stop terrorism, counterfeiting, and black money from India. However, mixed opinions came up about the demonetization. While some individuals praised the decision, others criticised it as harmful, disruptive, ineffective, and useless. A Central Board of Direct Tax (CBDT) report revealed that only 15% of the demonetized notes, according to government estimates, were actually deposited with banks. And, the remaining were either stored or continued to be used.

The second Demonetization in independent India occurred on November 8, 2016, when Prime Minister Narendra Modi demonetized Rs 500 and Rs 1,000 notes, leading to the replacement of 86% of the country's total currency in circulation (Wikipedia: 2016 Indian Banknote Demonetization). The government asserted that the action was required to combat terrorism, money laundering, counterfeiting, and black money as well as to boost digital transactions in India. Compared to the Demonetization implemented in 1978, this one was a significantly more drastic step. Because in contrast to the 1978 one, where people could only swap their demonetized notes over the counter if they lacked a bank account, in the 2016 one, people were permitted to do so up to a limit that was modified according to the prevailing situation. The government gave individuals only 50 days to deposit their old notes with banks, which caused a ton of chaos, difficulties & disruptions. Even ATMs ran out of money, and businesses were compelled to shut down. The government set a December 31, 2016, deadline for ordinary note holders to return old currency notes, while non-resident Indian citizens had until June 30, 2017. Customers failing to comply with KYC or 'Know Your Customer' norms were limited to depositing a maximum of Rs 50,000 (Reich et al., 2019). Fortunately, petrol, CNG, and gas stations, government hospitals, railway, and airline booking counters, state government recognised dairies and ration stores, and crematoriums were allowed to accept the banned Rs. 500 and Rs. 1,000 notes until December 2, 2016 (Beg & Joshi, 2017). Though commercial and urban cooperative banks were permitted to accept deposits in old notes, district cooperative banks were restricted from doing so. And, as per the RBI annual report 2016-17, banks received roughly 99.3% of the demonetized notes. The consequences of Demonetization – 2016, on the Indian economy, however, have been a subject of great debate. Some claim that it has had a favourable impact on the economy, while others argue that it has had an adverse effect. Those who claim that demonetization has had beneficial effects argue that it has reduced the flow of black money and boosted the digital economy in India. On the contrary, the people who claim that demonetization has had a negative influence, argue that it has triggered economic instability and hardship for many people, as well as ineffective in curbing black money from India. Hence, there is still some controversy regarding whether demonetization was genuinely helpful in reducing black money or not.

On May 19, 2023, the Reserve Bank of India (RBI) announced that the Rs 2000 denomination note would be removed from circulation. The decision was taken by the RBI's clean note policy, which aims to eliminate all unsuitable notes from circulation. In November 2016, only a couple of months after the demonetization of the Rs 500 and Rs 1000 notes, the Rs 2000 note was released. At the time, the government said that the Rs 2000 note was essential for promoting digital payments and combating counterfeiting, as exchanging 2000Rs notes for small purchases is quite difficult. Nevertheless, the discontinuation of the Rs. 2000

note has occurred in stages. The notes were accepted as payment until September 30, 2023, and were not recognised as legal tender beyond that date. People may deposit or exchange their Rs 2000 notes at bank branches or authorized RBI offices during the withdrawal period. Additionally, people were only able to make payments with the 2000Rs notes to the merchants, who have been approved by the RBI. Since it is a very recent incident, it is too early to predict what the short or long-term impacts of this Demonetization will be. Therefore, what the general public presumes about the potential impact of this latest Demonetization on the Indian economy is the subject matter of this study, and to the best of our knowledge, this would be the first study on this particular matter. So, the paper attempts to determine how the general public in the study area perceives the possible impact of this Demonetization on the Indian economy. The study concentrates on analysing the category-by-category perception towards the likely impact of digitalisation 3.0 on the Indian economy.

Review of Literature

The 2016 Demonetization aimed to curb the shadow economy, eliminate fake currencies, reduce black money, and terror funding from India (Alam, 2017). The demonetization had a pretty noticeable short-term impact, but as the occurrence is still fresh, it is uncertain exactly how it would affect society in the long run (Vij, 2018). For instance, the contribution of black-market money to India's GDP in the early 1970s was 30%, but in 2017, it was 23849 billion Indian rupees, which was 14% of the Indian GDP (Sharma, 2019). Goel (2018) also made clear that Demonetization cleaned up India's banking system and eliminated black money. These findings were greatly supported by Swain & Das (2018), whose study revealed that Demonetization had a positive impact on the removal of illicit cash, fake currency, and terrorist funding from India. Even the younger generations, especially the students, too felt that the 2016 Demonetization would help to counter terrorism and black money flows from India (Babu & Rao, 2017). Numerous studies, including Alam (2017), Kumar et al. (2018) and Mukherjee (2019) came to the conclusion that after Demonetization, India's use of digital payments grew significantly. As a result, in the long run, Demonetization will be advantageous for India (Pujara & Oza, 2017). Beg & Joshi (2017), however, came to the opposite conclusion, noting that while the 2016 Demonetization had a positive impact on the fight against corruption & illicit money, it also had several loopholes in its implementation, and harmed the real estate and tourism industry of India. According to Panah & Muniraju (2020), the general public experienced massive trouble and hardship due to 2016's Demonetization. Perhaps for this reason, the latest Demonetization is more lenient than the one in 2016 (Outlook India, 2023).

However, recently, the COVID-19 pandemic has increased the adoption of digital payment methods (Das S., 2021). Since there is a nexus between a cashless economy and e-money (Sarangi, 2023), as well as a statistically positive and significant relationship exists between Fintech and financial inclusion (Gupta & Verma, 2022), both digital payments and e-shopping can thus accelerate financial inclusion and the digitalisation process in India for a rapid and sustainable development. Therefore, the government decided to demonetize the highest-value currency note, i.e., the 2000Rs note, in order to encourage digital payments and forward the process of digitalisation (Bardhan, 2023).

Data Source & Methodology

The study is based on the data collected from 400 samples (*200 each from rural and urban areas*) taken from the Sadar Baripada block of the Mayurbhanj district of Odisha, using the snowball sampling procedure from June to September 2023, through a well-defined questionnaire. The sample size was selected by using the Cochran formula (1977), which is employed when the population is very large and

heterogeneous (Uakarn et al., 2021), and its algorithm is illustrated in Equation 1.

$$n = \frac{p(1-p)z^2}{e^2} \dots\dots\dots\dots\dots (1)$$

Where, **n** = sample size, **p** = population proportion (0.5), **e** = acceptable sampling error (0.05) and **z** = significance level (95% i.e., 1.96)

$$n = \frac{0.5(1-0.5).(1.96)^2}{(0.05)^2} = 384.16 \sim 385$$

Though the calculated sample size is 385, but a bit more than the calculated size was gathered.

Since the questionnaire uses a five-point Likert scale, Cronbach's alpha must be used to assess the data's reliability. The objectives are then supported by several statistical and econometric tools such as descriptive statistics, X^2 test, Exploratory Factor Analysis, Kruskal-Wallis H test, and Mann-Whitney U test. Microsoft Excel and IBM SPSS 20 software were used throughout the entire data analysis process. The description and justification for the use of the aforementioned tools are provided in the subsequent analysis.

Results & Discussion

This section looks at data analysis using various statistical tools to draw major conclusions.

Demographic Profile

Male respondents make up the bulk of the sample (57.3%), as shown in Table 1. Among all the respondents, 43.25% are between 20 and 40 years old, followed by 36.25% who are between 41 and 60 years. The total number of responders is made up of 25.75% graduates, 21.75% undergrads, 15% post-graduates, and only 2% illiterates. The subsequent category-wise analysis of the perception is done based on these four demographic factors.

Table 1: Socioeconomic Profile of the Respondents

Factors	Category	Frequency	Percentage	Cumulative Percentage
Gender	Male	229	57.3	57.3
	Female	171	42.8	100
	Total	**400**	**100**	
Home Area	Rural	200	50	50
	Urban	200	50	100
	Total	**400**	**100**	
Age	Less Than 20	52	13	13
	20 to 40	173	43.25	56.25
	Above 40 to 60	145	36.25	92.5
	More Than 60	30	7.5	100
	Total	**400**	**100**	
Education Level	Illiterate	8	2	2
	Under Matric	44	11	13
	Matric	72	18	31
	Under-graduate	87	21.75	52.75
	Graduate	103	25.75	78.5
	Post-graduate	60	15	93.5
	Other	26	6.5	100
	Total	**400**	**100**	

Source: *Authors' Own*

Descriptive Analysis

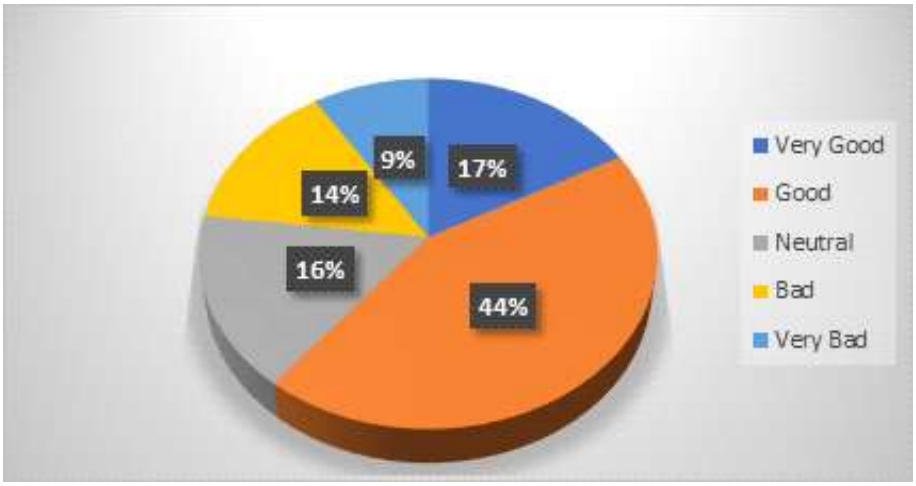
Around 55%, 62%, 58%, 54%, 53%, and 61% of the total respondents **(***these numbers were computed by adding the strongly agree and agree percentages from Table 2***)** agreed that this demonetization would result in a significant decrease in corruption **(***bribery***)**, black money **(***the money obtained from illegal activities and not declared for tax purposes***)**, money laundering **(***the process of concealing the origin of money obtained from illegal activities like gambling***)**, terrorist funding, circulation of fake notes, and printing cost of money in India respectively. As displayed in Table – 2, approximately 65%, 54%, and 50% of the respondents declared that demonetization 3.0 will enhance digital payments and financial inclusion in India as well as encourage people to save more money in bank accounts, respectively. Finally, 48% of all the respondents believed that it would benefit the Indian economy in the long run. Less than 25% of the respondents in the study area, however, disagreed with these statements, whereas 26% did so in the case of 'motivate people to save in banks'.

Table 2: Public Perception Towards Demonetization 3.0 in the Study Area (in **%)**

Perception Towards	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Curtail Corruption	21.25	34	18.75	17	9
Curtail Black Money	24.25	37.5	21.5	10.75	6
Reduce Money Laundering	15.75	42.5	28.75	6.5	6.5
Reduce Terrorism	12	42.25	34.75	8	3
Reduce Circulation of Fake Notes	18.5	34.5	26.5	12.5	8
Reduce Printing Cost of Money	13.5	48.25	17.25	12	9
Increase Digital Payments	17.5	46.5	23.5	5.5	7
Motivate People to Save in Banks	16.25	33.75	24	19.5	6.5
Increase Financial Inclusion	14	39.25	27.25	11.5	8
Will India Benefit in Long-run	16.25	32	31.25	11	9.5

Source: *Authors' Compilation*

Figure 1: Overall Perception



Source: *Authors' Compilation*

Figure 1 shows that 61% of the respondents overall had a positive assessment of the Demonetization, whereas 16% had a neutral view and the remaining 23% had an adverse perspective.

Qualitative Analysis

The qualitative analysis seeks to determine the strength of the relationship between the variables listed in Table 2 and the overall perception of the 2023 demonetization. Since these are all qualitative variables as the questionnaire consisted of statements on a 5-point Likert scale ranging from 'Strongly Agree' to 'Strongly Disagree', the Chi-square test must be employed to figure out how strongly they are related to one another. It is evident from Table 3 that every statement has a positive and statistically significant association with the overall perception. Additionally, the association between overall perception and the statement of Increase in financial inclusion, is the strongest, while the association between reduce money laundering and overall perception is found to be the weakest. However, the degrees of freedom for each X^2 test are 16.

Table 3: Association between Overall Perception & Other Statements

Associations	Chi-square Value	P-Value
Curtail Corruption & Overall Perception	55.459	0.000
Curtail Black Money & Overall Perception	61.730	0.000
Reduce Money Laundering & Overall Perception	37.655	0.002
Reduce Terrorism & Overall Perception	62.128	0.000
Reduce Circulation of Fake Notes & Overall Perception	54.450	0.000
Reduce Printing Cost of Money & Overall Perception	62.819	0.000
Increase Digital Payments & Overall Perception	65.823	0.000
Motivate People to Save in Banks & Overall Perception	59.984	0.000
Increase Financial Inclusion & Overall Perception	71.331	0.000
Will India Benefit in Long-run & Overall Perception	52.598	0.000

Source: *Authors' Compilation*

Reliability Analysis

Reliability means that the scale produces consistent outcomes when multiple measurements are taken. Whether Cronbach's alpha is greater than 0.5 or not is the criterion for deciding the reliability of the scale. For the statements listed in Table 2, it is found that Cronbach's alpha is greater than the acceptance level. Thus, the scale has been confirmed to be reliable.

Exploratory Factor Analysis

Factor analysis is an econometric tool used to discover one or more common domains for a set of correlated variables, i.e., to figure out the pattern of correlations or covariance between the observed variables. It was introduced by Charles Spearman in 1904. Factor analysis is of two kinds; exploratory factor analysis **(**EFA**)** and confirmatory factor analysis **(**CFA**)**. EFA is used to identify latent variables, while CFA is conducted to assess the reliability and validity of the measurement scale, which is often linked with structural equation modelling using the partial least squares (SEM-PLS) approach. However, this study specifically emphasises EFA. Prior to performing factor analysis, the adequacy and appropriateness of the data were examined using the Kaiser–Meyer–Olkin (KMO) test and Bartlett's Test of Sphericity. The outcomes of these diagnostic tests are reported in Table 4.

Table 4: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.545
Bartlett's Test of Sphericity	Approx. Chi-Square	214.887
	df	45
	Sig.	0.000

Source: *Authors' Compilation*

The KMO test of sampling adequacy is a test used to assess the strength of partial correlation between the variables. KMO values closer to one are considered excellent, while values less than 0.5 are judged unacceptable. Bartlett's test of Sphericity is conducted to test the null hypothesis that the correlation matrix is an identity matrix, which implies that the variables are unrelated and therefore not suitable for factor analysis. However, as per Table 4, the KMO value is 0.545, which is acceptable and indicates sufficient items for each factor or component. The Bartlett test value is 214.887 at 45 degrees of freedom, which is statistically significant at a 99% confidence level because the p-value **(**0.000**)** is less than 0.05. As a result, the H_0 is rejected, indicating no issues for factor analysis.

Table 5: Total Variance Explained (TVE) Table

Factor	Initial Eigen Values & Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
F1	1.683	16.830	16.830	1.490	14.899	14.899
F2	1.407	14.067	30.896	1.362	13.622	28.521
F3	1.228	12.284	43.180	1.322	13.224	41.745
F4	1.143	11.433	54.612	1.287	12.867	54.612

Extraction Method: Principal Component Analysis (PCA).
Source: *Authors' Compilation*

The division of the total variance among the ten variables is shown in the Total Variance Explained (TVF) table. The first component explains the most variance, and the last component explains the least, since each succeeding component is produced by partialling out the previous component. For instance; the first component explains 1.683 or **(**1.683/10**)**% = 16.83% of the whole variance. Thus, the eigenvalues displayed in the "Total" column represent the amount of variance that can be explained. The number of factors is determined using eigenvalues. Only the eigenvalues greater than one are used. Values below one indicates that the factor explains less data than a single item would have explained. To be clear, a factor or component in factor analysis is a linear combination of variables that cannot be observed directly and must instead be inferred from the input variables, where the term "factors" often refers to latent or underlying variables. The input variables of this study are outlined in Table 2.

It can be inferred from Table 5 that the PCA approach yields four components only, and those four components account for around 54.61% of the total variance. Since the variances in the initial column and extraction column for each factor are found to be similar **(***displayed in one column in Table 5***)**, there is no unique variance **(***any portion of variance that is not common***)**, and hence the

PCA approach is employed. Otherwise, the Common Factor Analysis will have to be applied.

The Scree plot depicts the process of factor extraction. The Scree plot in Figure 2 is a graph of eigenvalues against all factors that are used to decide how many factors to retain. Where the curve begins to flatten is the key point of interest. As observed in the graph, the curve starts to flatten at factor 4, and after factor 4, all subsequent factors have eigenvalues that are less than one. As a result, just four factors have been kept.

Figure 2: Scree Plot



Source: *Authors' Compilation*

Table 6 shows the loading **(***extracted values of each item under the four components***)** of the ten input variables on the four components extracted. The higher the absolute value of loading, the higher will be the factor's contribution to the variable. The table's empty cells stand for loadings that are less than 0.5. Factor loading typically indicates how each variable is related to its underlined factor, like except for the variable increase in digital payments, all other variables have a positive nexus with their underlined factors. Similarly, by looking at the table below, it could easily be determined which variables are associated with which factors. The constituents of the component matrix are correlations of each item with each component, and the TVE table represents the R^2, which is 54.61%.

Table 6: Rotated Component Matrix[a]

	Component or Factor			
	F1	**F2**	**F3**	**F4**
Reduce the Circulation of Fake Currencies	0.775			
Reduce the Printing Cost of Money	0.649			
Increase Digital Payments		-0.674		
Curtail Black Money		0.651		
Reduce Money Laundering		0.624		
Motivate to Save Money in Banks			0.743	
Will India Benefit in Long-run			0.573	
Reduce Terrorism				0.674
Increase Financial Inclusion				0.627
Curtail Corruption				

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 12 iterations.

Source: *Authors' Compilation*

After factor loading, the next step is factor rotation, which involves reducing the number of factors when the variables under investigation have high loadings. The Factor rotation seeks to have a straightforward structure to improve interpretability. In Table 6, the Varimax technique is used for factor rotation, because it maximises the variance of loading within each factor. From the factor rotation process, four components or latent variables of the study are derived, which are used for further analysis. For instance, from the variables (i) reduce circulation of fake currency and (ii) reduce the printing cost of money, the latent variable F1 or reduce currency operations, is derived, which is illustrated in Table 7. Table 7 depicts the four extracted factors, along with their corresponding names, significant variables, eigenvalues, variance explained, and respective input variables.

Table 7: Summary Table of EFA

Factors	Factor Loadings	Eigen Values	% of Variance Explained	Cumulative % of Variation Explained
Reduce Currency Operations (F1)		**1.683**	**16.830**	**16.830**
Reduce Circulation of Fake Currency **(V11)**	0.775			
Reduce the Printing Cost of Money **(V12)**	0.649			
Financial Integrity (F2)		**1.407**	**14.067**	**30.896**
Increase Digital Payments **(V21)**	-0.674			
Curtail Black Money **(V21)**	0.651			
Reduce Money Laundering **(V23)**	0.624			
Savings & Long-Term Benefits (F3)		**1.228**	**12.284**	**43.180**
Motivate to Save Money in Banks **(V31)**	0.743			
Will India Benefit in Long-run **(V32)**	0.573			
Counter Terrorism & Inclusion (F4)		**1.143**	**11.433**	**54.612**
Reduce Terrorism **(V41)**	0.674			
Increase Financial Inclusion **(V42)**	0.627			

Source: *Authors' Compilation*

Category Analysis

In this category analysis, the cause-and-effect relationship between the categorical variables **(***gender, age, home area, and education level***)** and the latent variables is analysed. We merely sought to identify which specific category of the categorical variables had a stronger influence on the latent variables, specifically to determine which category held a more positive or negative perception of the recent demonetization, using various econometric tools. The econometric tools can be categorised into two types while analysing the relationship between a categorical and a continuous variable: parametric and non-parametric methods. And, to decide whether to apply parametric or non-parametric methods, it is required to first determine whether the data are normally distributed. In the case of primary data, either the Kolmogorov-Smirnov test or the Shapiro-Wilk test is used to check the normality of the variables. The Shapiro-Wilk test is more suitable for samples that are under 50 **(**Mishra et al., 2019; Sarangi, 2022**)**. So, to ensure that the data are normally distributed in our study, we solely deploy the Kolmogorov-Smirnov test. Since the p-value for all of the variables is less than 0.05, as shown in Table 8, we reject the null hypotheses that the variables are normally distributed. Therefore, we have to employ the non-parametric methods.

Table 8: Tests of Normality

	Kolmogorov-Smirnov			Shapiro-Wilk		
	Statistic	**Df**	**Sig.**	**Statistic**	**df**	**Sig.**
F1	0.049	400	0.023	0.985	400	0.000
F2	0.046	400	0.038	0.993	400	0.062
F3	0.053	400	0.010	0.985	400	0.000
F4	0.078	400	0.000	0.985	400	0.000

Source: *Authors' Compilation*

When one variable is categorical (*independent*), and the other is continuous, One-Way ANOVA and Independent Sample t-Test are typically applied for the parametric analysis, while the Kruskal-Wallis H test and Mann-Whitney U test are used for non-parametric analysis, respectively. The measurement or dependent variable, however, has to be normally distributed to employ a parametric assessment **(**McDonald, 2014**)**. It should be noted that when a categorical variable has only two groups, the Independent Sample t-Test or Mann-Whitney U test is applied. For variables with two or more groups, the One-Way ANOVA or Kruskal-Wallis H test is used. In all these tests, the H_0 is that the distribution of the dependent variable is the same across all categories of the independent variables, i.e., the mean rank of all categories of the independent variables is identical.

Table 9: Mann-Whitney U test Results

Dependent Variables/Factors	U Value	P – Value	Mean Ranks	Decision
Independent Variable: Gender				
F1	19067	0.654	**1 (**Male**)** = 198.26 **2 (**Female**)** = 203.50	Retain H_0
F2	17152	0.034	**1 = 211.10** **2** = 186.30	**Reject H_0**
F3	17718	0.104	**1** = 192.37 **2** = 211.39	Retain H_0
F4	16769	0.014	**1** = 188.23 **2 = 216.94**	**Reject H_0**
Independent Variable: Home Area				
F1	19560	0.704	**1 (**Rural**)** = 198.30 **2 (**Urban**)** = 202.70	Retain H_0
F2	19792	0.857	**1** = 199.46 **2** =201.54	Retain H_0
F3	19754	0.831	**1** = 201.73 **2** = 199.27	Retain H_0
F4	18630	0.236	**1** = 207.35 **2** = 193.65	Retain H_0

Source: *Authors' Compilation*

Table 10: Kruskal-Wallis H test Results

Dependent Variables/Factors	H Value	Degree of Freedom	P – Value	Decision
Independent Variable: Age				
F1	27.693	3	0.000	**Reject H_0**
F2	0.064	3	0.996	Retain H_0
F3	1.960	3	0.581	Retain H_0
F4	5.399	3	0.145	Retain H_0
Independent Variable: Education Level				
F1	5.796	6	0.446	Retain H_0
F2	3.926	6	0.687	Retain H_0
F3	15.870	6	0.014	**Reject H_0**
F4	10.480	6	0.106	Retain H_0

Source: *Authors' Compilation*

Table 9 makes it clear that in the case of F2 and F4, the perceptions differ significantly across the genders, i.e., there are considerable gender differences in views for factors F2 and F4. As the mean rank of males is higher than the mean rank of females in F2 and the mean rank of females is higher than the mean rank of males in F4, the corresponding gender has a more favourable opinion of the corresponding factor. However, no such statistically significant variation regarding perception is detected across the home area.

Table 10 reveals that only the perceptions of the F1 and F3 factors vary considerably among age groups and educational levels. Pairwise comparisons using the Mann-Whitney U test must be made for each group separately in order to determine which category has a more favourable opinion of F1 and F3.

Table 11: Pairwise Comparisons

Sample l -Sample 2	Test Statistic	Std. Error	Std. Test Statistic	Sig. Adj.Sig.
Independent Variable: Age, Dependent Variable: F1				
4.00 – 1.00	97.899	26.506	3.693	0.000 0.001
3.00 – 1.00	95.595	18.688	5.115	0.000 0.000
2.00 – 1.00	76.578	18.284	4.188	0.000 0.000
Independent Variable: Education Level, Dependent Variable: F3				
4.00 – 7.00	73.083	25.840	-2.828	0.005 0.098*

Source: *Authors' Compilation*

Table 11 only displays those comparisons using the Mann-Whitney U test that are found statistically significant as per the Adjusted Significance value, which is the lowest familywise significance level **(**i.e., *family error rate***)** at which a specific null hypothesis will be rejected or a comparison will be declared statistically significant as part of the multiple comparison testing. The significance values in the table, indicate the Mann-Whitney U test p-value, while the test statistic displays the U-value. We must compare the mean ranks between the two significant groups to explore which particular group has a statistically more positive opinion of F1 & F3.

Table 12: Mean Ranks of Age & Education Level

Categories	Mean Rank
Age Groups & F1	
1 = Less Than 20	**275.62**
2 = 20 to 40	199.04
3 = Above 40 to 60	180.02
4 = More Than 60	177.72
Education Levels & F3	
4 = Under-graduate	179.49
7 = Other	**252.58**

Source: *Authors' Compilation*

In accordance with Tables 11 and 12, individuals under the age of 20 have a more positive mindset towards Factor F1 in the study area, whereas the individuals with ITI, Bed, MBA, and PhD degrees **(**Other**)** have a more pleasing perspective towards Factor F3.

Conclusion & Research Implications

The study attempted to demonstrate the attitude of the common public towards the possible impact of Demonetization 3.0 on the Indian economy with the help of EFA. According to the study, 61% of respondents have an overall favourable outlook of Demonetization 3.0, and on average, 56% of all respondents have an enthusiastic response to the ten demonetization-related statements listed in Table 2. Furthermore, each of the ten statements is associated favourably with how people typically feel about demonetization 3.0. Only four factors, reduce currency operations (F1), financial integrity efforts (F2), savings and long-term benefits (F3), counter-terrorism and financial inclusion (F4), are extracted from the EFA, and all four have an optimistic view of this demonetization confirmed by the factor loadings of their respective input variables, except the input variable increase in digital payments. These four factors account for about 55% of the total variation. The category analysis yielded some intriguing conclusions. While financial integrity initiatives are viewed with greater support by men, counter-terrorism and financial exclusion are viewed more favourably by women. However, no such statistically significant variation in perception is observed across the home region. Respondents under the age of 20 had a more favourable perspective on reduced currency operations, and respondents with degrees in ITI, MBA, and PhD had a more pleasant perspective on saving and long-term benefits. Therefore, it can be concluded that the overall attitude of the general public towards the impact of the Indian government's demonetization 3.0 on the economy as a whole is favourable. It is thus apparent that the respondents are completely aware of the rationale for the demonetization. However, the findings of this research depend upon the authenticity of the information provided by the respondents. Hence, it is possible that they cannot be generalised to the entire study population. And, the study also relies on a non-probability sampling technique, which has its own drawbacks. It is just a perception study without any policy suggestions. Hence, a study should be conducted to examine the benefits and challenges of this demonetization on the Indian economy as a whole.

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