

A Study on Stimulus of Electing open Defecation Free Transformation in Thalli Block of Krishnagiri District

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Abstract:

Open defecation is largely practiced for generations and it is highly welcoming traditional practice and deeply rooted in minds of population in India. Free from open defecation is not a substance of access to toilets, but it is subjected to motivational factors and mix set of people. Economic condition, values, awareness and environment are stimulus of adoption of open defecation free innovations among respondents. Significant difference is prevailing in stimulus of adoption of open stimulus free innovations among demographics of respondents. Economic condition, awareness, environment and values are positively and significantly impacting rate of success of open defecation free innovations among respondents. Therefore, adequate credit bears and incentives should be given to respondents for construction of toilets and religious, social and communal groups must educate respondents to remove their cultural fear in the use of toilets.

Keywords: Adoption, Determinants, Open Defecation Free Innovations, Rate of Success

I INTRODUCTION

Open defecation is largely practiced for generations and it is highly accepted traditional practice and deeply rooted in minds of population in India (Anuradha et al 2017). Open defecation is an extensive practice in India and around 65,000 tons of faeces in to environment daily (Panda et al 2017). As per census of 2011, 46.90 per cent of people are having toilets and 3.20 per cent of households are using public toilets and rest of 49.80 per cent of population is continuously defecating in open spaces.

In rural areas, open defecation is everywhere across all segments of people though the bottom two quintiles of wealth practice it on the entire rural communities (Banerjee et al 2013). Open defecation in India is one of the main health hazards and it damages environment and most of rural people do not know the health problems associated with open defecation (Geeta, 2014).

Open defecation is highly related with environmental pollution, leading to risk of infections and diseases, poor educational and personal development and low level of productivity of adult people (Mbuya and Humphrey, 2016).

Constructing and using toilets is the most significant way of understanding the appropriate utilization

and continuity of toilets for better personal and family purity (Debesay et al 2013). Free from open defecation is not a substance of approaching to toilets, but it is subjected to stimulating factors and mind set of people (Jenkins and Curtis, 2005). Further, promotion of construction and use of toilets among people are mainly depending on resources availability, affordability, subsidies and incentives (Kar and Milward, 2011). Open defecation free environment is essential for improving social, economic and health standards

of people and at the same time, it is determined by numerous factors. Therefore, it is necessary study on stimulus of electing open defecation free transformation in Thalli block of Krishnagiri district.

II REVIEW OF LITERATURE:

Jewitt (2011) found that financial support, support from local communities, communication, awareness, access to toilets and subsidies were affecting open defecation free situation in rural areas. Mukherjee et al in 2012 concluded that access to water & open area, greenery, conveying, subsidies, education & behavioral changes were significantly influencing sustainable development of open defecation free communities.

Galan et al (2013) revealed that availability of sanitation facilities, access to toilets, economic condition and cultural values were preventing open defecation practices among rural people. Sara and Graham (2014) indicated that personal beliefs, awareness, socio-economic conditions and availability of toilets were facilitating open defecation free atmosphere in rural areas.

Desai et al (2015) showed that health, environment, privacy, safety and dignity of women were influencing open defecation free environment. Hathi et al (2016) found that caste, ethnic problems, cultural values and life style were affecting practice of open defecation free conditions of people in rural areas.

Odagiri et al (2017) concluded that social norms, lack of water, socio-economic conditions and level of wealth of communities were affecting open defecation free situations in rural areas. Alhassan and Anyarayer (2018) revealed that communication, health problems, security, income

level, comforts, privacy and cultural beliefs were significantly influencing construction and sustainable use of toilets among respondents.

III METHODOLOGY

The existent study is executed in Thalli block of Krishnagiri district. Respondents are selected using simple random sampling method and data was collected from 300 respondents through questionnaire method. Percentages are calculated to know demographics of respondents. An exploratory factor analysis is done to find out the stimulus of electing open defecation free transformations among respondents. Analysis such as t-test and ANOVA analysis acclimate to explore the difference between demographics of respondents and study on stimulus of electing open defecation free transformation. Multiple regression analysis is accomplished out to assess the impact of stimulus of electing open defecation to figure out the success rate of open defecation free transformations.

IV RESULTS AND DISCUSSION

4.1. DEMOGRAPHICS OF RESPONDENTS

The demographics of respondents are specified in Table-1. The results unfold that 64.67% of respondents are females, while, 35.33 % of them are males and 31.67% of them constitute the age category of 31 – 40 years, while, 16.33% of the respondents fall in the age category of below 20 years.

The results explains that 34.00% of respondents are illiterates, while, 15.00 % of them have higher secondary education and 29.00% of them receiving monthly income of Rs.10, 001 – Rs.15, 000, while, 20.00% of them receiving monthly income of more than Rs.20, 000.

Table 1 Demographics of Respondents

Profile	Number of Respondents	Percentage(%)
Gender		
Male	106	35.33
Female	194	64.67
Age Category		
Below 20 years	49	16.33
21 – 30 years	84	28.00
31 – 40 years	95	31.67
Above 40 years	72	24.00
Education		
Illiterate	102	34.00
Primary	83	27.67
Secondary	70	23.33
Higher Secondary	45	15.00
Monthly Income		
Less than Rs.10,000	71	23.67
Rs.10,001 – Rs.15,000	87	29.00
Rs.15,001 – Rs.20,000	82	27.33
More than Rs.20,000	60	20.00
Marital Status		
Married	244	81.33
Unmarried	56	18.67
Type of Family		
Joint	179	59.67
Nuclear	121	40.33

The results illustrates that 81.33% of respondents are wedded, while, 18.67% of the respondents are unmarried and 59.67 % of respondents are living in joint family, while, 40.33 per cent of the respondents are living in nuclear family.

4.2. STIMULUS OF ELECTING OPEN DEFECATION FREE TRANSFORMATION

To find out stimulus of electing open defecation free transformations among respondents, an exploratory factor analysis is done and the results are given in Table-2.

Table 2 Stimulus of electing Open Defecation Free Transformations among Respondents

Determinant	Variables	Rotated Factor Loadings	Eigen Value	% of Variation	Determinant Name
I	Type of occupation	0.66	2.48	22.98	Economic Condition
	Level of income	0.69			
	Cost of construction	0.67			
	Incentives	0.65			
	Cost of maintenance	0.63			
	Inadequate credit	0.68			
II	Prestige	0.69	2.29	19.35	Values
	Resistance	0.65			
	Cultural practices	0.63			
	Social norms	0.66			
	Religious beliefs	0.64			
III	Knowledge	0.65	1.13	16.52	Awareness
	Communication	0.68			
	Campaigns	0.64			
	Messages	0.67			
IV	Sanitation facility	0.68	1.01	13.70	Environment
	Health condition	0.63			
	Proximity to open space	0.65			
	Cumulative Variation(%)	-	-	72.52	-
	Value of Cronbach's Alpha	-	-	-	0.87

Principal Component Analysis.

Varimax Rotation.

Converged in 10th iterations.

Value of Kaiser-Meyer-Olkin (KMO) test for assessment of adequacy of sampling is 0.874 and Chi-Square value of Bartlett's test for Sphericity is 0.0036 and it is significant at one per cent level. These measures display the method of factor analysis is suitable. Four determinants obtained has 72.55 per cent variation on variables under consideration and each of them shares variation of 22.98 per cent, 19.35 per cent, 16.52 per cent and 13.70 per cent as per the order of extraction.

Determinant-I: comprises of type of occupation, level of income, cost of construction, incentives, cost of maintenance and inadequate credit. Therefore, it is called as **Economic Condition**.

Determinant-II: includes prestige, resistance, cultural practices, social norms and religious beliefs. Hence, it is described as **Values**.

Determinant-III: consists of knowledge, communication, campaigns and messages. So, it is labeled as **Awareness**.

Determinant -IV: encompasses sanitation facility, health condition and proximity to open space. Thus, it is denoted as **Environment**.

Cronbach's Alpha value of the scale is 0.87, it elucidates that every measure is at respectable level of internal consistency. Economic condition, values, awareness and environment are stimulus on electing open defecation free transformation among respondents.

Table 3 Difference between Demographics of stimulus of electing open defecation free transformations

Particulars	t-Value / F-Value	Sig
Gender and stimulus of electing open defecation free transformations	4.635** (t-value)	.000
Age Category and stimulus of electing open defecation free transformations	5.740** (F-value)	.000
Education and stimulus of electing open defecation free transformations	5.584** (F-value)	.000
Monthly Income and stimulus of electing open defecation free transformations	5.806** (F-value)	.000
Marital Status and stimulus of electing open defecation free transformations	4.378** (t-value)	.000
Type of Family and stimulus of electing open defecation free transformations	4.492** (t-value)	.000

**** Significant at 1 % level**

The *t*-values and *F*-values are demonstrating remarkable distinction exists in stimulus of electing open defecation free transformations among demographics of respondents at one cent level.

4.4. IMPACT OF STIMULUS OF ELECTING OPEN DEFECTION ON ACCOMPLISHMENT OF OPEN DEFECTION FREE TRANSFORMATIONS

To assess impact of stimulus of electing open defecation free transformations on accomplishment of open defecation free transformations, multiple

4.3. DEMOGRAPHICS OF RESPONDENTS AND STIMULUS OF ELECTING OPEN DEFECTION FREE TRANSFORMATIONS

To scrutinize difference between demographics of respondents and stimulus of electing open defecation free transformations, *t*-test and ANOVA (Analysis of Variance) test are used and the results are given in Table-3.

regression analysis is carried out and the results are given in Table-4. R^2 and adjusted R^2 are 0.59 and 0.57 respectively revealing the regression model has ideal match and it is implying that 57.00 per cent of variation in dependent variable is contributed by independent variables. *F*-value of 21.790 is disclosing the model is remarkable at one per cent level of significance.

Table 4 Impact of stimulus of electing open defecation free transformations on accomplishment of open defecation free transformations

Stimulus of electing open defecation free transformations on accomplishment of open defecation free transformations	Regression Coefficients	t-value	Sig
Intercept	1.017**	10.024	.000
Economic condition (X ₁)	.448**	6.736	.000
Values (X ₂)	.325**	5.562	.000
Awareness (X ₃)	.390**	6.145	.000
Environment (X ₄)	.362**	5.820	.000
R ²	0.59	-	-
Adjusted R ²	0.57	-	-
F	21.790	-	.000

** Significant at 1 % level

The results illuminate that economic condition, awareness, environment and values have positive and remarkable knock on rate of favorable outcome of open defecation free transformations among respondents at one per cent level.

V CONCLUSION

The above findings explicate that economic condition; values, awareness and environment are stimulus of electing open defecation free transformations on accomplishment of open defecation free transformations among respondents. Significant difference is prevailing in stimulus of electing open defecation free transformations on accomplishment of open defecation free transformations among demographics of respondents. Economic condition, awareness, environment and values are positively and significantly impacting rate of success of open defecation free innovations among respondents. Therefore, adequate credit support and incentives should be given to respondents for construction of toilets and religious, social and communal groups must educate respondents to remove their cultural fear

in the use of toilets. Campaigns, advertisements and actions of community and social networks should motivate respondents to construct and use toilets regularly in order to avoid outbreak of diseases and other health related problems.

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