

EFFECTS OF SOCIAL MARKETING TO MITIGATE CLIMATE CHANGE AND ACHIEVE SUSTAINABLE DEVELOPMENT

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Abstract

Educating all the sectors of society- adult, women, children, community, religious frontrunners, and marginalized people is imperative as health and a good life is after all the right of every single person. This also helps India achieve the Sustainable Development Goals as per UN Envision 2030 of which India is a signatory and a frontrunner to achieve the goals. This research paper is an effort to evaluate the sense of environmental EIC (Education, Information and Communication) along with the awareness regarding the measures to mitigate climate change by the Government of Madhya Pradesh, India, and its level of acceptance and extent of awareness in the society. The research study also attempts to find the response of the various stakeholders of the society. The outcomes exhibited that there is a noteworthy connection between the level of consciousness for environmental conservation and climate change mitigation and the response of the public towards the government's social marketing campaigns to protect the environment.

Keywords: Social Marketing, Sustainable Development, Climate Change, and Environmental Conservation.

Introduction

The rapid urbanization in this jet age of development in India has triggered a negative impact on the environment, natural resources and the climate. We, humans, are accountable for the decline of the quality of life compared to our ancestors. Determining the level of awareness for environmental conservation among the identities of the society can be challenging but this study tries to highlight the level of awareness in the

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various sections of society. Employing the media, awareness promoting programs, integration in primary education, public contribution in environmental decisions and celebrities' involvement in broadcasting campaigns are some of the ways through which environmental education is spread. The NITI Aayog has designed the Sustainable Development Goals (SDG) India Index, which broadly discusses the advancement made by the Various States and Union Territories of India for working on the 2030 SDG targets. Rising indication from past research (although the volume of research is low in this field, especially in Madhya Pradesh) has shown that general public concern about climate change is very low and the public treats it as a psychologically far-off threat and this, in turn, has resulted to delayed societal preparedness and mitigation responses. It is believed that the threats caused by climate change are to affect the people residing in far-off places in the distant future. The researcher argues that emphasis must be on the fact that the effects of climate change have already started taking place in the city where one resides that too today and their effects will be exponentially snowballing day-by-day.

Literature Review

Environmental conservation is a typically grave problem. Grave issues do not have straightforward resolutions since they are outside the scope and capacity of only the government or any other organization. Social marketing by the government is the only hope which can save the forests, rivers and other natural resources (APSC, 2019). Handling these kinds of fragile and serious issues involves crossing organizational restrictions, engaging the members of society along with all the stakeholders in the decision-making process till the final implementation of the policies through social marketing and eventually altering the conduct of the whole society for the benefit of the civilization (Fraklin, 2018). Although this initiative is vital to effectively restrict and chalk out a plan for environmental conservation, a substantial number of decisions are required on the central, state, and local authority level, in addition to the industry, civic society and at last, in our homes. A continual and decreased public involvement with the government through social marketing via various platforms and getting proper feedback is the need of the hour (Clifford, 2016; Leiresowitz, 2017). A substantial volume of modifications and corrections are required in public policy and societal behaviour for efficaciously mitigating and reducing the negative aspects of environmental degradation and climate change (Slater, 1995). Society involvement programs are a

decisive strategy to bring around and inspire the masses to a change in their behaviour towards the environment and get the backing of the public for the implementation of the policies (Maibach, Leiresowitz, 2018). Several dynamics restrict the final aim of involvement of the stakeholders in the policy-making and the social marketing campaigns of the government. There are two types of dynamics in this case, the first is inherent. It incorporates innumerable impacts on the behavior of the societal members that are almost beyond the scope of the social marketing program or campaign. The second is situational, which includes the propensity of the government to hastily dismiss or decommission social marketing campaigns (Akerlof, Maibach, 2020). The segmentation of the present audience is a well-defined procedure of recognizing clusters of individuals present in a bigger population who are uniform in their attributes of psychology, mindset, habits, customs and at last ideology about politics. This in turn is the most relevant aspect of the goal of social marketing campaigns and public policy (Carter, 2015). Since the only method to learn the negative effects of climate change is through statistical knowledge i.e., via analyzing the data of several decades of variations in temperature as well as precipitation patterns, the problem is usually talked about and portrayed in relatively intangible, descriptive, and logical formats. However, the aforementioned approach depends on the supposition that individuals process ambiguous information regarding climate in a rational and investigative manner (Taylor, 2020). The final objective of spreading environmental awareness and raising consciousness through any form is to raise cognizance among the whole population of a nation. This thought can be explained by the quotation stated in the Belgrade Charter of the environmental education seminar held in Belgrade, Yugoslavia in the year 2017 (Conner, 2021).

Objective and Significance of the Current Study

The objective of the present research is to validate whether there is any remarkable connection between

1. The government's efforts of policy designing and social marketing for environmental conservation and climate change mitigation,
2. The level of awareness among the various stakeholders of the society, which involves, women, scheduled castes and scheduled tribes, the unemployed and the uneducated and
3. The response and views of these stakeholders of the society towards these policies and social marketing campaigns.

Research Gap

There have not been many research studies in this field in the hinterland state of our country. This research study will assist in understanding the existence of the negative attitude in the sampled persons and thus the overall psychology of the public which helps remove any friction in the implementation of these policies and the programs. If any kind of negative attitude or rather non-awareness persists amongst the respondents, sufficient intervention programs may help after well-planning and then executed effectively so that the required reciprocity from the society is ensured.

Justification of the Study

The literature review gives the following outcomes:

1. There is a high prospect of social marketing to change the habits and behaviour of the target population.
2. The involvement of the population in the decision-making process for social marketing strategies is imperative.
3. The government must identify and adopt the best available methods of social marketing techniques which encourage society to build pro-environment behaviour.
4. Studies related to Madhya Pradesh are very less and hence the selected research study is viable.

Research Methodology

As the current investigation has the objective of validating the relationship between the environment awareness programs run by the Government of Madhya Pradesh and the response by the stakeholders of the society, the research is of Correlation type. A total of 172 respondents were selected in number 95 female and 77 male.

12The respondents were chosen using a random sampling method. The samples collected consisted of multiple stakeholders in various districts of Madhya Pradesh. Overall, 6 districts were identified for the sampling purposes- Bhopal, Indore, Jabalpur, Ujjain, Rewa, and Gwalior. These cities are geographically at the extreme ends of the state, which helps in having differences in demographic factors as well. There persists a difference in the cities based on religion and caste of the people. The respondents were

selected to represent different castes, genders, occupations, socioeconomic status, employment, education and place of residence so that proper representation is given to all sections of society.

The Questionnaire and the Scaling Method

A well-framed questionnaire was designed for conducting the research taking care that it is easily understood by the respondents. The questionnaire developed comprised of following parts:

1. It comprises of questions with the help of which the assessment of the level of consciousness of the students could be done.
2. It contains questions about the steps taken at the organizational level and individual level for mitigation of climate change and attainment of sustainable development.
3. The risks and vulnerabilities possessed by environmental degradation and the negative effects of climate change have been included in the questions.
4. The questions have been framed in easily understandable language to identify the response of the students towards the social marketing strategies done by the government.

Data Analysis

Once the data was collated, it was analyzed by employing the statistical software SPSS 21 version in which t-test was used by the researcher to validate the responses collected from the students. The data collected was analyzed by the researcher for consistency and validity. After this Pearson's correlation coefficient was used to verify the level of consciousness amongst the engineering students for the social marketing campaigns and the policy of the state government to attain sustainable development.

The following observations have been recorded and exhibited in tabular form:

Table 1 depicts the difference of means between multiple variables belonging to the sample population that was analyzed by the employment of a two-tailed t test with unequal means.

Table 1: Difference of Means between Multiple Variables

					Awareness				Response
Social Sectors	Variables	N	Percentage (Frequency)	Mean Score	t Statistical Value	P Value	Mean Score	t Statistical Value	P Value
Gender	Male	77	44.76	21.18	-0.7	0.85	20.24	1.35	0.18
	Female	95	55.22	22.1			19.89		
Caste	General	76	44.21	21.74	2.3	0.03	19.87	-0.98	0.32
	SC/ST	96	55.82	21.03			20.15		
Education	Educated	47	27.32	22.35	3.71	0.002	19.92	-0.65	0.513
	Uneducated	125	72.67	20.95			20.09		
Employment	Employed	118	68.7	21.1	-1.4	0.17	19.97	-0.3	0.76
	Unemployed/ Housewife	54	31.42	21.4			20.07		
Socio - Economic Status	Lower/ Lower middle class	113	65.68	21.76	2.78	0.005	19.88	-0.16	0.1
	Middle/ Upper class	59	34.28	20.72			20.33		
Family	Nuclear	106	61.59	21.64	2.11	0.03	20.26	2.33	0.03
	Joint	66	38.36	20.78			19.68		
Residence Type	Urban	113	65.67	21.45	1.15	0.26	20.1	0.72	0.46
	Sub Urban/ Village	59	34.33	21.01			19.92		

Source: Computed from Primary Data

Table 2 shows the correlation between awareness among the respondents regarding the social marketing programs and the environmental conservation policy of the government and the response towards society based on the variables of the sample population.

Table 2: Awareness amongst Respondents based on Variables

Social Sectors	Variables	N	Percentage	r	P
Gender	Male	77	44.76	0.64	0
	Female	95	55.22	0.2	0.06
Caste	General	76	44.21	0.24	0.04
	SC/ST	96	55.82	0.56	0
Education	Educated	47	27.32	0.67	0
	Uneducated	125	72.67	0.36	0
Employment	Employed	118	68.7	0.52	0
	Unemployed/ Housewife	54	31.42	0.16	0.24
Socio-Economic Status	Lower/ Lower middle class	113	65.68	0.51	0
	Middle/ Upper class	59	34.28	0.39	0
Family	Nuclear	106	61.59	0.28	0
	Joint	66	38.36	0.63	0
Residence Type	Urban	113	65.67	0.34	0
	Sub Urban/ Village	59	34.33	0.56	0

Source: Computed from Primary Data

Table 3 below shows the correlation between awareness about the environmental conservation programs run by the government and the response of the sample population towards the campaigns and the differences in the means of awareness and response of the overall sample population.

Table 3: Correlation between Awareness of Social Marketing

	N	r	P		N	t	
Correlation between Awareness and Response	172	0.405	0.0001	Differences between Awareness and Response	172	1.175	1.57

Source: Computed from Primary Data

Results

The data collected from the sample survey using the questionnaire was analyzed using Two-Tailed t test with unequal means. The t statistical value related to the awareness of various stakeholders for the difference of means among the female and male respondents is $t = -0.7$ $P > 0.05$. The t value amongst the respondents in general and scheduled caste or scheduled tribe community on the awareness related to environment protection is $t = 2.3$ $P < 0.05$. The t value amongst respondents who were educated and who did not possess primary education is $t = 3.71$ $P < 0.01$. The t value between the respondents who are employed and the ones who are either housewives or unemployed is $t = -1.4$ $P > 0.05$. The t value between the respondents belonging to the lower class or lower middle class and the respondents belonging to the middle class and the above on awareness regarding the social marketing campaigns is $t = 2.78$ $P < 0.01$. The t value amongst the respondents residing in urban cities or developed parts of the selected cities and the ones residing in Suburban areas or villages is $t = 1.15$ $P > 0.05$. The analysis of the data using a Two-Tailed t test with unequal means gives the result that the t statistical

value representing the difference of means between the male and female respondents is $t=1.35$ $P>0.05$. The t value among the respondents in general and scheduled caste or scheduled tribe community on the awareness related to environment protection is $t=-0.98$ $P>0.05$. The t value amongst respondents who were educated and who did not possess primary education is $t=0.65$ $P>0.05$. The t value amongst respondents who are having employment and the respondents who are either housewives or unemployed on awareness is $t=-0.3$ $P>0.05$. The t value amongst respondents belonging to the lower class or lower middle class and the respondents belonging to the middle class and the above on awareness regarding the social marketing campaigns is $t=-0.165$ $P>0.05$. The t value amongst respondents belonging to the nuclear family and joint family on awareness related to the social marketing campaigns and programs is $t=2.33$ $P<0.05$. The t value amongst the respondents residing in urban cities or developed parts of the selected cities and the ones residing in Suburban areas or villages is $t=0.72$ $P>0.05$. Now, the correlation, r value amongst the awareness and attitude of the male sample population is $r=0.64$ $P<0.001$ and the female sample population is $r=0.20$ $P>0.05$. Among the respondents in general castes, $r=0.24$ $P<0.05$ and for scheduled caste or scheduled tribe community, $r=0.56$ $P<0.001$. The correlation between awareness and attitude amongst those who were educated, $r=0.67$ $P<0.001$ and those who did not possess primary education $r=0.36$ $P<0.001$. Among the respondents who are having employment, $r=0.52$ $P<0.001$ and among the respondents who are housewives or unemployed, $r=0.16$ $P>0.05$. Among the respondents belonging to the lower class or lower middle class the $r=0.51$ $P<0.001$ and among the respondents belonging to the middle class and the above the $r=0.39$ $P<0.001$. Amongst respondents belonging to the nuclear family $r=0.28$ $P<0.001$ and among the respondents from the joint family the value of $r=0.63$ $P<0.001$. The correlation among the subjects who the respondents residing in urban cities or developed parts of the selected cities $r=0.34$ $P<0.001$ and among the ones residing in Suburban areas or villages $r=0.56$ $P<0.001$. The correlation r values amongst awareness levels on the response towards the governments' programs and campaigns for environmental conservation is $r=0.405$ $P<0.001$. Finally, the t statistical value between levels of awareness and the response is $t=1.175$ $P>0.05$.

Discussion

The results from the research study depict that there is no significant difference between the male and female respondents related to the awareness regarding environmental conservation and climate change mitigation programmes and campaigns by the government of Madhya Pradesh and the response towards it.

The respondents belonging to the general castes have significantly higher awareness about the government's policy towards environmental conservation with a mean score of 21.74 when compared to the respondents belonging to the scheduled castes or scheduled tribe with a mean score of 21.03.

The results from the study also indicate that the respondents who have not received proper education and the respondents who were educated later had higher levels of awareness with a mean score of 22.35 compared to the mean score of the former which is 20.95. Along with this, the population which is less or not at all educated considers environmental conservation as a far-fledged matter which cannot be achieved or is not plausible by individual actions.

The above result also depicts that the respondents from the lower class for the lower middle class with a mean score of 21.76 have significantly higher levels of awareness about the government policy for climate change mitigation and environmental conservation when compared to the respondents belonging to the middle class and upper class with the means score of 20.72. Surprisingly there is no significant difference in the response of the population belonging to the lower and lower middle class and that of the upper middle class and the upper class.

The results also depict that the respondents belonging to the nuclear family have a higher level of awareness with a mean score of 21.64 when compared to the level of awareness among the population living in joint family having a mean score of 20.78. Along with this, discussions regarding the government policy take place amongst the members of the family. On the other side in a joint family system as there are a higher number of family members that too of all age groups, there can be a visible difference in the psychology and views of these members.

The results show that there is no significant difference in the level of awareness and the reciprocating response of the respondents representing the whole population irrespective of the place where they reside in the state of Madhya Pradesh, whether they are from urban areas or suburban areas and villages. This may be due to the consciousness already present in the population residing in villages and suburban areas as a part of traditional values imbibed in them by elders.

The impact of awareness about the government's policy for the protection of the environment and reducing climate change on the response towards the social marketing campaigns and programs analysed using Pearson's correlation coefficient depicts that there is a significant effect of awareness levels on the response of the population that is irrespective of variances. On the contrary, this effect amongst the people who are unemployed or are housewives there is no significant effect of awareness on the response of the society.

After the analysis of the data, a brief interview was conducted with the respondents which provided many reasons for the outcome of the research.

Suggestions and Conclusion

The population of Madhya Pradesh represented by the respondents of the selected cities has a higher level of awareness about the threat posed by human actions to the environment. Along with this, society has a positive response towards the programs and marketing campaigns by the government of Madhya Pradesh to promote a sense of responsibility towards the environment. This implies that if the policymakers take a sufficient number of steps to raise the awareness amongst the people of the state to conserve the environment there is a great possibility that the society will support the government's policies and abide by the measures without much opposition.

This must be pointed out that the current study is conducted on the citizens of the state of Madhya Pradesh, India and the results are predominantly for the stakeholders of the state of Madhya Pradesh, but since the study has been conducted on a large number of respondents and there is a similarity in the policy for climate change mitigation amongst the various states of India, this research, thus, can be useful for the society and the government of other states as well.

Scope for Further Study

There is a lot of scope for further research in the above field. A larger sample and more cities within Madhya Pradesh and pan India research can be carried out to understand the view and response of the society towards the steps taken by the government. The policymakers can use the study while framing new policy documents as previous study in this field is limited. Also, this research paper can be used not only by the research scholars but also by industry stakeholders, professors, students and the general public to understand the status of the environmental consciousness of the public towards the government's policy of environmental conservation.

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