

## A Study Of Ascription Of Responsibility and Environmental Value In Relation To Energy Conservation Behavior Among Adolescents

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### Abstract

*The current study was explore the relationships between energy conservation behavior, awareness of consequences, and personal beliefs among adolescents. A correlational research design was used to measure the relationships between these variables, as there is no control over them. Data were collected on a total of 200 adolescents from different rural and urban school of Bihar Two tools were be used for data collection in this research. The following results were obtained: The fact that the coefficient of correlation has a positive value indicates that the two variables are in fact connected to one another in a direct manner. It indicates that there will be an increase in the attribution of blame in the same direction if there is an increase in understanding of the consequences. According to these findings, it is reasonable to assume that there is a positive and substantial association between the ascription of responsibility and the energy conservation behaviour of adolescents to one another. These finding suggest presuming relationship between values and energy conservation behavior of adolescences were found positive and significantly related to each other. The coefficient of correlation was positive, indicating a direct relationship between the two variables. An increase in the ascription of responsibility is likely to correlate with a rise in energy conservation behavior in a similar manner. The findings indicate a positive and significant relationship between the ascription of responsibility and energy conservation behavior among adolescents.*

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**Keywords:** Ascription of Responsibility, Environmental value, Energy Conservation Behavior and Adolescents etc.

## Introduction:

Environmental problems and concerns are the major thrust area of the research in 21<sup>st</sup> century. Human behavior is directly as well as indirectly linked with the problems of environment. Understanding such behaviors and their determinants are very important to understand the environmental problems as a whole. Adolescents' are main drivers of the society to bring any kind of the everlasting change.

Due to a lot of changes during recent years, environmental concerns become more prime and important than ever before. All human behaviours (may be called as environmental behaviours) are by-product of the constant interaction between human being and their environment and it has direct or indirect impact upon environment. Therefore, environmental behavior is all such behaviours which have some significant impact upon environment either positive or negative. In this sense, the term "environmentally-relevant behaviours" is also sometimes used (Bechtel, Churchman 2002, Stern, 2000). These environmental behaviours may be unintentional as well as intentional. Thus, present study is planned to uncover the personal norms and belief underlying the pro-environmental behaviors of adolescents.

## Ascription of Responsibility (AR)

Ascriptions of responsibility (AR) are the convictions held by a person that they are capable of reducing danger and returning things to their previous condition or that they bear a major portion of the blame for outcomes (Stern et al., 1999; Stern, 2000). The notion held by trainee instructors that they bear responsibility for the outcomes of not practicing environmentally conscious conduct is operationalized in this research. Personal norms are developed as a result of sentiments of responsibility, according to Stern (2000) and Hopper & Nielsen (1991). Accordingly, this research predicts that those who feel morally required to engage in environmental action will be those who feel accountable for the consequences (AR). AR gauges a person's bad feelings towards oneself or other persons who they believe are causing unfavorable environmental effects. Researchers in the past and present have used augmented reality (AR) to study behaviors like energy conservation and recycling (Scherbaum et al., 2008).

## ENVIRONMENTAL VALUE:

Values refer to the worth, usefulness, or significance of an object or issue. Value is a crucial aspect that shapes societal norms and behaviours, serving as a guiding principle for what is considered desirable and worthwhile. These fundamental standards have a significant impact on social conduct and the functioning of organisations. Values play a significant role in shaping our behaviour, but our actions can also be influenced by the society, culture, and circumstances we find ourselves in. Values in a cultural context represent shared abstract ideas that guide individuals in determining what is considered "good."

Value has been thoroughly researched as a significant concept in the context of environmental behavior. Universalist and altruistic values are more significant than those of power, ambition, and hedonism, according to some research on the link between values and environmental challenges (Dietz, Stern, & Guagnano, 1998). Transcendence of self and receptivity to change was positively correlated with eco-friendly behavior (Karp, 1996). Based on previous studies conducted by Schultz et al. in 2005, it has been observed that individuals who possess self-transcendent values also demonstrate stronger pro-environmental beliefs, norms, and behaviors.

### **Pro Environmental Behaviour:**

Researchers and scholars have typically used different terms to describe behaviours that promote environmental protection. According to Lee, Jan, and Yang (2013), the relationship between human activity and the environment is referred to by several different names. Some of these phrases include environmentally concerned behaviors, environmentally important behaviors, environmentally responsible behaviors, and ecologically responsible behaviors. However, in this study, the term Pro Environmental Behaviour is used to describe actions in response to environmental concerns to reduce the negative impact and enhance positive environmental behaviour towards environmental conservation, waste management, environmental pollution and social concern for sustainable development. To have a better understanding of this term, let us study some of the definitions given by researchers.

According to Kollmuss and Agyemen (2002), "pro-environmental behavior" refers to any deliberate action to reduce the negative impact of human activities on the natural and built environments. This includes reducing energy and resource consumption, using non-toxic chemicals, and limiting trash output. These two scholars investigated the factors that have been shown to affect environmentally conscious actions, both favorably and adversely. Demographics, external factors (such as institutions, economies, societies, and cultures), and internal elements (such as intrinsic drive, awareness of one's surroundings, values, attitudes, emotions, sense of agency, duties, and priorities) were all part of the equation.

According to Steg and Vlek (2009), Pro-Environmental Behaviour is characterized by actions that minimize harm to the environment or even have a positive impact on it. The effectiveness of promoting behavioral modification is enhanced by a systematic approach. In order to enhance environmental quality, this entails carefully choosing the behaviours that need to change. In order to effect the intended change, it's also critical to look into the variables that lead to these behaviours and implement specific interventions. It is important to conduct a methodical assessment of the outcomes of these interventions concerning the behaviors in question, their precursors, the quality of the environment, and the well-being of individuals.

### **Significant of the study:**

The review of literature suggests that VBN model of pro-environmental behavior is a critical framework in determining such behavior and its outcomes. Studying which values are preferred in Indian Adolescents' and how these values shape their attitude towards energy conservation behavior is important. Thus, exploring various psycho-social determinants of values and attitude of adolescents towards energy conservation behavior is the need of the hour. Therefore, a study has been designed to systematically examine the relationship of values and energy conservation behavior among adolescents.

### **Hypothesis:**

- There would be significant relationship between environmental value of responsibility and energy conservation behavior.
- There would be significant relationship between ascription of responsibility and energy conservation behavior

### **SAMPLE:**

Data were collected on a total of 200 adolescents from different rural and urban school of Bihar. Out of which 100 were rural adolescences and 100 urban adolescences. Further the age group

of the participants was 12 to 18 years of age. The respondents of the research were selected using a purposive sampling method.

### RESEARCH DESIGN:

In the current research, a correlational design was used. In this research, the relationships between energy conservation behavior and ascription of responsibility & environmental value. Because it provides a measure of the connection between variables and allows for no control over them, a correlational study design was used.

### Tool used for data collection:

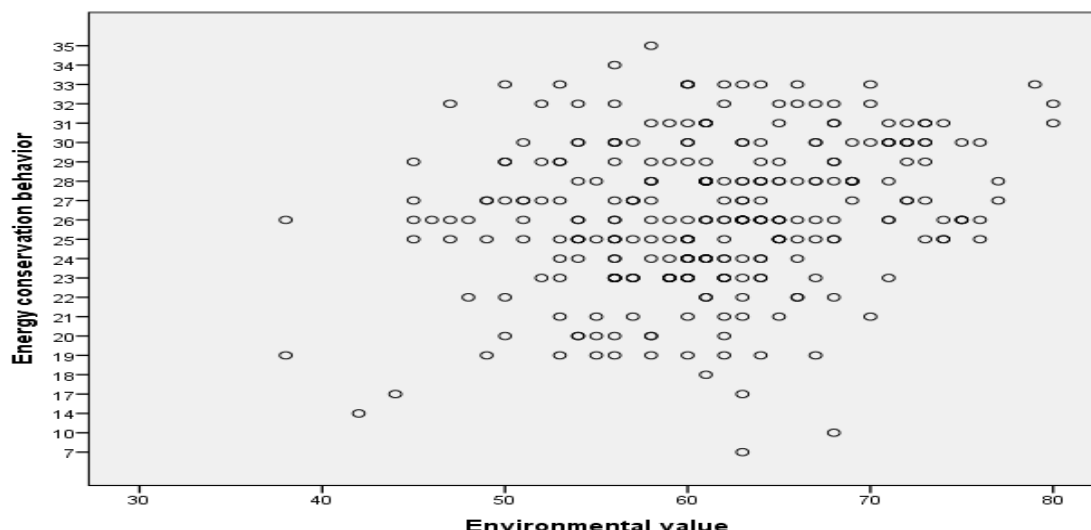
1. **Demographic Information Sheet (DIS)** - A demographic profile (age, gender, education and family type etc.) was used in the present study, along with Consent form and four scales to measure different variables.
2. **Environmental Schwartz's value scale (E-SVS)** – E-SVS was created by De Groot and Steg (2008). The current scale had 16 values on a 9-point scale ranging from -1 (opposed to my ideals), 0 (not important), and 7 (very essential).
3. **Scale for Ascription of Responsibility (Ibtissem, 2010)** - The survey included six items to assess ascription of responsibility and based upon Stern, Dietz and Black (1986) scale and modified for the energy conservation behavior. This scale of the 6 items has an alpha reliability of 0.836. All items are required to be rated on a 4 point scale.
4. **Pro-environmental behavior scale (Markle, 2013):** This scale was developed by Markle, 2013 to assess pro-environmental behavior. 7 items of this scale (conservation sub scale) has been selected for this study to assess energy conservation behavior. Out of 7 items, 6 items are required to be rated on five point scale and one item is required to be rated on 3 point scale. Reliability of the present subscale was found to be 0.74.

### Result and Discussion:

**Hypothesis:** There would be significant relationship between environmental value of responsibility and energy conservation behavior.

**Table-** Results of Correlation between energy conservation behavior and value of adolescences.

Variables	Correlation	Significance level
Energy conservation behaviour	.233	<.01
Value		



**Figure: Graphic representation of correlation between energy conservation behavior and value of adolescences.**

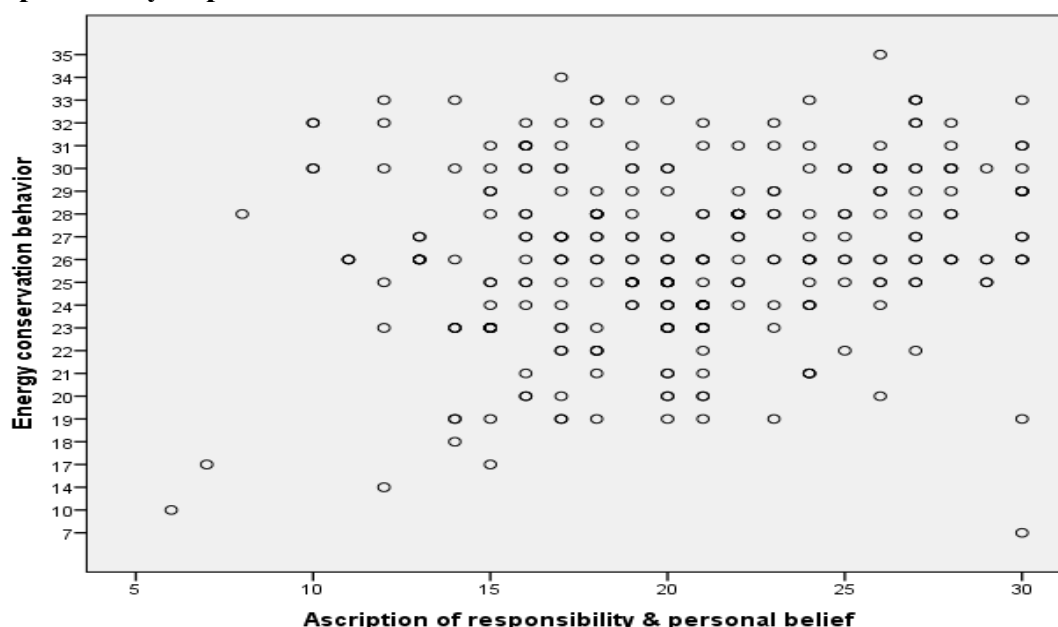
In table, an analysis revealed that the coefficient of association between energy conservation behavior and value ratings of adolescents was calculated to be 0.233, which was statistically significant at the 0.01 level of significance. The positive coefficient of correlation suggests a direct relationship between the two variables, indicating that changes in value ratings parallel changes in energy conservation behavior. These finding suggest presuming relationship between values and energy conservation behavior of adolescences were found positive and significantly related to each other. Hence, the hypothesis that says that “there would be significant positive relationship between different values and energy conservation behavior” was accepted.

The current study's findings provide important evidence that the VBN theory has described the purpose of energy conversation and the actions of adolescents well. According to Ghargkavouzi et al. (2019), the VBN model demonstrated a substantial association between the causal connection and the subsequent stages of the model variables. The idea that the environment plays a major role in human life on Earth has been strongly linked to biospheric and humanitarian principles. According to Fornara et al. (2016), it is crucial to take the required steps to lessen the influence that human activity has on the environment. The findings of this study support those of Kim and Seock (2019), who found that values continue to be significantly correlated with the ability to comprehend and take the required steps to reduce climate challenges.

**Hypothesis: There would be significant relationship between ascription of responsibility and energy conservation behavior.**

Variables	Correlation	Significance level
Energy conservation behavior	.179	<.01
Ascription of responsibility & personal belief		

**Table- Results of Correlation between energy conservation behavior and ascription of responsibility & personal belief of adolescences.**



**Figure: Graphic representation of correlation between energy conservation behavior and ascription of responsibility & personal belief of adolescences.**

From the table revealed that coefficient of correlation between energy conservation behavior and ascription of responsibility & personal belief scores of adolescences was found as .179 which was significant at .01 level of significance. But, the value of coefficient of correlation was positive meaning thereby that the two variables are directly related to each other. It means energy conservation behavior and ascription of responsibility & personal belief vary in the same direction.

This was based on the results that were obtained. The fact that the coefficient of correlation has a positive value indicates that the two variables are directly connected. Additionally, it indicates that there will be an increase in energy conservation behavior in the same direction as the ascription of responsibility there. These finding suggest presuming relationship between ascription of responsibility and energy conservation behavior of adolescences were found positive and significantly related to each other. Hence, the hypothesis that says that “there would be significant relationship between ascription of responsibility and energy conservation behavior” was accepted.

The current research findings have facilitated the identification of key factors that promote energy conservation behaviors in adolescents. The attribution of responsibility emerged as the primary factor influencing the cultivation of energy conservation behaviors, with biospheric and altruistic values following closely behind. The findings indicate that a sense of responsibility among individuals correlates with an increase in pro-environmental behaviors. Furthermore, biospheric and altruistic values significantly contribute to the activation of norms and the promotion of climate-friendly behaviors (Ogbuanya et al., 2020). The activation of norms facilitates the formation of intentions and the subsequent actions taken to participate in conservation initiatives.

## Conclusion:



The current study was explore the relationships between energy conservation behavior, environmental value and ascription of responsibility among adolescents. A correlational research design was used to measure the relationships between these variables, as there is no control over them. Three tools were be used for data collection in this research. The following results were obtained: The fact that the coefficient of correlation has a positive value indicates that the two variables are in fact connected to one another in a direct manner. It indicates that there will be an increase in the attribution of blame in the same direction if there is an increase in understanding of the consequences. According to these findings, it is reasonable to assume that there is a positive and substantial association between the ascription of responsibility and the energy conservation behaviour of adolescents to one another. The coefficient of correlation was positive, indicating a direct relationship between the two variables. An increase in the ascription of responsibility is likely to correlate with a rise in energy conservation behavior in a similar manner. These finding suggest presuming relationship between values and energy conservation behavior of adolescences were found positive and significantly related to each other. The findings indicate a positive and significant relationship between the ascription of responsibility and energy conservation behavior among adolescents.

The results were discussed in the lights of socio-cultural conditions rearing practices and environments prevailing in the school. Significantly greater energy conservation behavior of adolescences was discussed in the light of socio demographic details , rich social consciousness and expectation of the society, environments of school and college similarly.

#### References:

- Ajzen, I., & Fishbein, M. (1985). A Bayesian analysis of attribution processes. *Psychological bulletin*, 82(2), 261.
- Bamberg, S., Ajzen, I., & Schmidt, P. (2003). Choice of travel mode in the theory of planned behavior: The roles of past behavior, habit, and reasoned action. *Basic and applied social psychology*, 25(3), 175-187.
- Collins, W., Colman, R., Haywood, J., Manning, M. R., & Mote, P. (2007). The physical science behind climate change. *Scientific American*, 297(2), 64-73.
- De Groot, J. I., & Steg, L. (2008). Value orientations to explain beliefs related to environmental significant behavior: How to measure egoistic, altruistic, and biospheric value orientations. *Environment and behavior*, 40(3), 330-354.
- Dietz, T., Fitzgerald, A., & Shwom, R. (2005). Environmental values. *Annu. Rev. Environ. Resour.*, 30(1), 335-372.
- Fornara, F., Pattitoni, P., Mura, M., & Strazzera, E. (2016). Predicting intention to improve household energy efficiency: The role of value-belief-norm theory, normative and informational influence, and specific attitude. *Journal of environmental psychology*, 45, 1-10.
- Gkargkavouzi, A., Halkos, G., & Matsiori, S. (2019). Environmental behavior in a private-sphere context: Integrating theories of planned behavior and value belief norm, self-identity and habit. *Resources, Conservation and Recycling*, 148, 145-156
- Gatersleben, B., Steg, L., & Vlek, C. (2002). Measurement and determinants of environmentally significant consumer behavior. *Environment and behavior*, 34(3), 335-362.

- Hopper, J. R., & Nielsen, J. M. (1991). Recycling as altruistic behavior: Normative and behavioral strategies to expand participation in a community recycling program. *Environment and behavior*, 23(2), 195-220.
- Ibtissem, M. H. (2010). Application of value beliefs norms theory to the energy conservation behaviour. *Journal of Sustainable Development*, 3(2), 129.
- Kim, S. H., & Seock, Y. K. (2019). The roles of values and social norm on personal norms and pro-environmentally friendly apparel product purchasing behavior: The mediating role of personal norms. *Journal of Retailing and Consumer Services*, 51, 83-90.
- Kollmuss, A., & Agyeman, J. (2002). Mind the Gap: Why do people act environmentally and what are the barriers to pro-environmental behaviour? *Environmental Education Research*, 8(3), 239-260. doi: 10.1080/13504620220145401
- Karp, D. G. (1996). Values and their effect on pro-environmental behavior. *Environment and behavior*, 28(1), 111-133.
- Lee, T. H., Jan, F. H., & Yang, C. C. (2013). Conceptualizing and measuring environmentally responsible behaviours from the perspective of community-based tourists. *Tourism Management*, 36, 454-468.
- Markle, G. L. (2013). Pro-environmental behavior: Does it matter how it's measured? Development and validation of the pro-environmental behavior scale (PEBS). *Human ecology*, 41, 905-914.
- Ogbuanya, T. C., & Nungse, N. I. (2021). Effectiveness of energy conservation awareness package on energy conservation behaviors of off-campus students in Nigerian universities. *Energy Exploration & Exploitation*, 39(5), 1415-1428.
- Saikia, M. (2008). *Environmental Education*. Guwahati: LBS Publication.
- Scherbaum, C. A., Popovich, P. M., & Finlinson, S. (2008). Exploring individual-level factors related to employee energy-conservation behaviors at work 1. *Journal of Applied Social Psychology*, 38(3), 818-835.
- Schultz, P. W. (2005). Inclusion with nature: the psychology of human-nature relations. *Psychology of sustainable development/Kluwer Academic Publishers*.
- Steg, L., & Vlek, C. (2009). Encouraging pro-environmental behaviour: An integrative review and research agenda. *Journal of Environmental Psychology*, 29, 309-317. doi:DOI: 10.1016/j.jenvp.2008.10.004
- Steg, L., Dreijerink, L., & Abrahamse, W. (2005). Factors influencing the acceptability of energy policies: A test of VBN theory. *Journal of environmental psychology*, 25(4), 415-425
- Stern, P. C. (2000). New environmental theories: toward a coherent theory of environmentally significant behavior. *Journal of social issues*, 56(3), 407-424.
- Stern, P. C., Dietz, T., Abel, T., Guagnano, G. A., & Kalof, L. (1999). A value-Belief-Norm Theory of Support for Social Movements: The case of Environmentalism. *Human ecology Review*, 6(2), 81-97. Retrieved from <https://humanecologyreview.org/pastissues/her62/62sternetal.pdf>



- Vining, J., Ebreo, A., Bechtel, R. B., & Churchman, A. (2002). Emerging theoretical and methodological perspectives on conservation behavior. *Handbook of environmental psychology*, 2, 541-558.