



Impact of Environmental Concerns on Environmental Attitudes among University Employees

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ABSTRACT

The ecosystem of the world required immediate and effective actions against environmental threats. The purpose of the study was to assess the impact of environmental concerns on environmental attitudes. This is a quantitative study using a correlational design. The target population was the employees of the Institute of Southern Punjab, Multan, Pakistan. The sample size was 107 employees from the Institute of Southern Punjab, Multan, Pakistan. Instruments for collecting data were the Environmental concern scale (Diekmann & Preisendörfer, 2003) and Environmental Attitude (Dunlap, Van Liere, Mertig, & Jones, 2000). Statistical Package for Social Sciences (SPSS 23) was used to analyze data. The environmental concerns and environmental attitudes are positively correlated. Regression analysis shows a positive significant impact of environmental concerns on environmental attitudes up to 22%. There is no significant difference between genders of respondents (male, female) on environmental concerns while the significant difference is reported between genders concerning environmental attitudes. A better understanding of the beliefs and attitudes of individuals is recommended for effective eco-friendly behavior and activities.



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1. Introduction

Ecosystems are becoming unsustainable due to the human impact (Vorosmarty et al., 2010). The human effect on the causation or acceleration on many environmental issues like climate change is of global recognition (IPCC, 2018). The human effect on the causation or acceleration on many environmental issues like climate change is of global recognition (Mohsin, Kamran, Nawaz, Hussain, & Dahri, 2021; Stern, Sovacool, & Dietz, 2016). It stands that the actions of the common people can directly impact these issues. Some countries have already begun taking steps to reduce the human acceleration of climate change (EEA, 2015), though these steps have been taken at different levels and are been given varied intensities of focus across the different countries of the world (IPCC, 2018). These steps can be made much more fruitful if the focus is directed towards enabling the masses to make pro-environmental decisions

rather than just suggesting or forcing them (Linda Steg, Keizer, Buunk, & Rothengatter, 2017). This raises the question of the difference in pro-environmental actions across the different nations of the world and different climates (Morren & Grinstein, 2016; Nawaz, Seshadri, et al., 2021). The answer to this question provides important guidance to the authorities of the world and the masses in how to best deal with these environmental problems (IPCC, 2018).

Many environmental issues can be readily dealt with by addressing the actions of the people relevant to the issue. The actions of people need to change for the conservation of our environment to be possible. For example, a pro-nature individual may follow the three R's (reuse, reduce and recycle) more proactively and more strictly limiting their electricity and water usage and completely avoiding the usage of fossil fuels. They try to minimize their harm to the environment while trying to fix the present damage (Li et al., 2021; Linda Steg & Vlek, 2009). This sort of behavior can greatly assist in dealing with many environmental problems. The behaviors of individuals regarding their environments are directly influenced by three factors, their environmental attitude, concern, and awareness (Ari & Yilmaz, 2017; Nawaz, Hussain, et al., 2021). A good attitude towards the environment leads to proper behavior towards it (Geiger, Dombois, & Funke, 2018). Gao (2018) also proposed the attitudes of individuals affect their concerns regarding environmental issues and which ultimately leads to better environmental behavior. Similarly, Onur, Sahin, and Tekkaya (2012) also suggested environmental attitude and behavior to be positively co-related when studying situations where the ecology of the individuals was greatly disturbed (Chien, Sadiq, Kamran, et al., 2021).

Furthermore, proper environmental behavior can also be expected from individuals with greater environmental concern. These are the concerns of individuals regarding different environmental issues. Studies showed environmental activists to have a greater environmental concern as compared to non-activists (Chien, Sadiq, Nawaz, et al., 2021; Diekmann & Franzen, 2019; Shair et al., 2021).

Studies have shown that masses of environmental considerations affect their environmental behavior. A pro-environmental behavior is one where one's actions are determined by their effects on the environment and as such, negatively impacting decisions are avoided (Linda Steg et al., 2017), whether they are public actions (like taking part in pro-environment rallies) or private actions (like recycling) (Hadler & Haller, 2011). Personal values are found to be an important factor in determining the pro-environmental behavior of a person (Chien, Kamran, et al., 2021; L Steg, Perlaviciute, & van der Werff, 2015).

As observed, there has been a decrease in the availability of freshwater for farms as well as a drop in global marine fishing yields, because of climate change. While growing road networks come at the cost of great losses in natural habitats and resources available (Laurance et al., 2014; Nawaz, Ahmadk, Hussain, & Bhatti, 2020). It is imperative to realize that the interactions of the general masses with nature directly influence their thoughts and activities regarding the future and conservation of the natural resources around them (Chien, Hsu, Zhang, Vu, & Nawaz, 2021; Devine-Wright & Clayton, 2010).

Environmental research is specifically interested in human behavior regarding their environment. Individuals' concerns about their environment directly affect their pro-environmental behaviors. Environmental concerns are individuals' awareness about the environmental issues and focus on their contribution to resolving the environmental problem. Environmental concern is what drives people to take notice of environmental issues as our anxieties and affections are what make us act (Basheer, Muneer, Nawaz, & Ahmad, 2020; Dagher & Itani, 2012).

The environment is a basic and vital place for life whether it's for animals or plants or people. A higher degree of environmental concerns is required at this time than at any other time. When a person observes the environment around them and finds the issues and problems

of their environment, a concern for their environment arises in them. Environmental concern is the degree of awareness of a person's environment and its issues and the severity of actions taken by them to solve these issues (Alibeli & Johnson, 2009; Xiang et al., 2021).

Environmental attitudes are a "collection of beliefs affect and behavioral intentions a person have about activities related to their environment" (Schultz, Shriver, Tabanico, & Khazian, 2004). "Psychological tendency expressed by evaluating perceptions or beliefs about the natural environment, including factors affecting its quality, with some degree of favor or disfavor" (Milfont, 2007). It is a cognitive assessment about valuing or protecting the environment.

Thus, environmental attitude is both the degree of affirmative or adverse attitude towards any given environmental issues as well as a system where different attitudes regarding different environmental problems can be grouped and then registered. An affirmative attitude would lead an individual to show greater care and concern for an object (Saricam & Sahin, 2015; Shah, Hussain, Nawaz, & Iqbal, 2021). For a person, their environmental attitude is developed as a result of exposure to different kinds of stimuli in the environment which are responded to either positively or negatively based upon three factors; the information or knowledge about the situation (the cognitive factor), the feelings and sentiments regarding a stimulus (the affective factor) and the inclination to act a certain way towards the stimulus (the conative factor) (Sumarsono & Giyatno, 2012).

Greater public awareness and social understanding about important factors of an environmental problem are integral in the development of solutions for such problems and to maintain such solutions for the future (Olsson, Folke, & Berkes, 2004). Furthermore, observing the interactions between the environment and people is important for authorities to make up proper plans and guidance to promote pro-environmental behavior (Vaske & Kobrin, 2001), which also includes raising awareness or concern regarding a certain aspect of the environment. People's connections with a place can be recorded simply by asking their associations with the place many environmental issues say global warming, ozone depletion, and air pollution are issues worldwide. As such, environmental awareness, concern, attitude, as well as education, are prominent factors in dealing with these issues (Arshad, Saleem, Shafi, Ahmad, & Kanwal, 2021).

2. Literature Review

An attitude is a multifaceted psychological process, including behaviors, perceptions, and emotions having constant, stable, and unswerving features. Assessment of these attitudes (environmental) is measured as the behavioral outcomes of any person (Esmaeilpour & Bahmiary, 2017). "Psychological tendency expressed by evaluating perceptions or beliefs about the natural environment, including factors affecting its quality, with some degree of favor or disfavor" (Milfont, 2007). Different variables are highlighted about environmental behavior in literature. According to Banerjee and McKeage (1994) ecological consciousness is the most influencing predictor in perceiving the severity of the environmental problem. Individuals having ecological consciousness know about the critical conditions of their current environment, considering it as a severe problem that requires thoughtful considerations. They believe that environmental hazards are threats to life on earth. In contrast, individuals with low ecological concise are not sensitive to their environment and they perceived that all the problems related to the environment will automatically resolve. These perceptions act as an indicator in developing environment-friendly behaviors that are the need of time.

A study by Schwegker Jr and Cornwell (1991) reported a significant relationship between environment attention and environmental concerns. When individuals create environmentally friendly concerns it will help to direct them to behave in a friendly manner. In another study carried by Qader and Zainuddin (2011), environmental attitudes combine with environmental knowledge to investigate the environmental issues. Numerous scientific researches focus on demographic predictors rather than explaining prevalent environmental problems. There are

different results about the impact of gender on environmental attitudes. In studies carried by Akilli and Yurtcan (2009); Cavusoglu, Chen, Gentine, and Sahin (2017); Ip and Miller (1970) highlights greater female perception and behavior in pro-environmental activities and reported to have a greater score on environmental attitudes. While some studies do not report any gender differences in environmental attitudes (Akilli & Murat, 2015). In some studies, males have been reported to have higher scores in positive environmental attitudes and behaviors (Karaçar, 2016).

Many environmental issues have risen with the beginning of a new century. These problems concern not only our lives but the balance of nature as a whole. The study began believing in the power of collective small steps by individuals to have a great impact on environmental issues and as such, studied the effects of environmental attitudes on environmental actions to see how to make people act more conscious about their environment and to guide them to act in a more environmentally friendly way. Pro-environment individuals tend to act in a more pro-environment way by focusing on the environmental footprints of their actions and trying to recycle their waste but an important step in this regard is not to develop concern for the environment, it is to make that concern amount up to physical action (Linda Steg et al., 2017). Global warming, ozone depletion, air, and water pollution are major environmental threats that became global challenges. Conversely, environmental behavior, awareness, attitudes, and environmental concerns have the potential to aid in coping with these challenges. Formal as well as informal education in environmental studies is a small step in shaping a healthier environment.

3. Methodology

This is a correlational research design accomplished by the survey method. A convenient sampling technique was used. The sample size was 107 employees of the Institute of Southern Punjab, Multan, Pakistan. The sample size was determined through G-power software. Data was gathered from institutional employees at an institutional setting.

The following tools were used as an instrument for data collection.

1. Environmental concern scale (Diekmann & Preisendörfer, 2003).
2. Environmental Attitude (Dunlap et al., 2000).

Environmental Concern scale

This scale was normalized by Diekmann and Preisendörfer (2003) on university employees. It consists of 9 items. A five-point Likert scale was used for this scale range from 1. Strongly agree to 5. Agree. Numbers related proportion of respondents in percent; * disagreement is seen as indicating higher environmental concern...

Environmental Attitude

This scale was developed by Dunlap et al. (2000). It is a four-point Likert-type response scale. (1= Strongly Disagree, 2= Disagree, 3= Agree, and 4= Strongly Agree) to measure the attitudes toward the environment. The questions alternate statements that classify a participant's attitude from a pro-environmentalist to an anthropocentric point of view as was intended in the original instrument (Dunlap et al., 2000).

3.1. Material and Method

This is a quantitative study based on a correlational study design with a survey method. The sample consists of employees from an educational organization, Institute of Southern Punjab, Multan, Pakistan. The sample size was 107 employees (male and female) determined

through G-Power software and a simple random sampling technique of probability sampling was used for data collection. Data was gathered from institutional employees in an institutional setting. Job experience is used to assess the interaction effect between perceived organizational support and organizational commitment.

3.2. Procedure

Employees of the Institute of Southern Punjab were approached and informed consent was provided to each respondent. It was ensured that the quality of confidentiality will be maintained. The questionnaire was given to the participant after proving their informed consent. Participants were asked to fill all the items on the scales according to the given instruction. SPSS-23 was used to analyze data with a significance level of 0.05. With the help of descriptive and inferential statistics, results were concluded. Regression analysis was used to measure the role of environmental concern on environmental attitudes.

4. Results

Table 1
Gender distribution of respondents

Gender	Frequency	Percent	Cumulative percent
Male	34	31.8	31.8
Female	73	68.2	100.0
Total	107	100.0	

In table 1, frequency distribution highlights 31.8% male and 68.2% female respondents for the current study.

Table 2
Marital status of respondents

Status	Frequency	Percent	Cumulative percent
Un Married	39	36.4	36.4
Married	68	63.4	100.0
Total	107	100.0	

Table 2, shows the frequency distribution between respondents' marital status. There were 36.4% unmarried respondents and 63.4% married respondents.

Table 3
Mean, Standard Deviation and Correlation Matrix

Variables	M	SD	EAT	EAC
EAT	41.0841	4.98511	1	0.477
EC	34.6636	5.48573		1

Note: EAT stands for environmental attitudes, EAC stands for environmental concerns

Table 3 shows the significant positive correlation between environmental attitude and environmental concerns. * $p \leq .05$. **, $p = .001$.

Table 4
Standard Regression Model

Predictor	B	Std.Error	Beta	t-test	P-value
(Constant)	26,055	2.735		9.527	.000***
EC	.434	.078	.477	5.563	.000***

Table 4 showing positive significant impact of environmental concerns toward environmental attitudes ($R^2 = .228$, Adjusted $R^2 = .220$, ($F = 30.945$), $p < 0.05$).

Table 5
Mean, Standard Deviation, t-value, and scores of environmental concerns and environmental attitudes concerning the gender of respondents (n=107)

Variable	M S	N	M	St. Deviation	df	t-test	p-value
EC	Male	34	33.2647	5.66386	105	-1.778	.080
	Female	73	35.3151	5.31475			
EAT	Male	34	39.3529	6.53606	105	-2.512	.014
	Female	73	41.8904	3.86423			

Table 5 shows that there is no significant difference between genders of respondents (male, female) on environmental concerns while the significant difference is reported between genders for environmental attitudes.

5. Results and Discussion

The outcome of the study shows that there is a significant relationship between individuals' concerns about environmental concerns and environmental attitudes. Environmental concerns were positively correlated (.477) with environmental concerns as reported in previous researches (Dagher & Itani, 2012; Linda Steg et al., 2017). Furthermore, environmental concerns predict environmental attitudes up to 22%. This result is consistent with the studies of Onur et al. (2012) and Geiger et al. (2018) results, which reported to have a significant impact of environmental concerns on environmental attitudes. There is no significant difference between genders of respondents in environmental concerns scale while significant differences are found in environmental attitude scale favoring females more having positive environmental attitudes as compared to male respondents. These results are consistent with previous researches (Akilli & Yurtcan, 2009).

The study aimed to identify the impact of environmental concerns on environmental attitudes among university employees, Multan, Pakistan. The respondents were employees of an educational institute, the Institute of Southern Punjab. The demographic variables were gender and marital status of respondents. The frequency distribution of demographic variables was presented in table 1 and table 2, showing 34 male and 73 female respondents, while the marital status of respondents was married (39) and unmarried (68). A positive correlation was found between environmental concerns and environmental attitudes. A significant positive correlation indicates as the environmental concern increase the environmental attitudes also increased. Peoples are aware of environmental hazards and value better environmental conditions. To assess the impact of environmental concerns on the environmental attitude the regression analyses were carried (Table 4), highlighting those environmental concerns contribute 22% in predicting environmental attitudes ($p < 0.05$). Table 5 displays the difference in gender on the scales of environmental concerns and environmental attitudes. Environmental concerns show no mean difference concerning the gender of the respondents (male, female) means both genders equally reported to have a similar level of environmental concerns about environmental issues but there was a significant difference of gender in environmental attitudes. Women were reported to have greater environmental attitudes as compared to male participants. Similar results were reported by Cavusoglu et al. (2017) favoring females to more positive environmental attitudes.

6. Conclusion

The study was designed to assess the impact of environmental concerns on environmental attitudes among employees. Environmental concerns were positively correlated with environmental attitudes among employees. Environmental concerns were found to be the

predictors of environmental attitudes in a positive aspect. Male employees reported having a low degree of environmental attitudes than female employees.

6.1. Limitations of the Study

There are some limitations of the study, first of all, the results of the study cannot be generalized, as the sample size was small and only one institution of Multan was approached for data collection. Therefore, to generalize the results much larger sample size is recommended. Secondly, this study only investigates the impact of environmental concerns on environmental attitudes, other intermediating variables are ignored such as convenience level, environmental knowledge, socioeconomic status, education level, etc. Introducing these constructs will help understand the environmental construct and environmental attitudes better.

6.2. Recommendation

Based on study conclusions and findings, it is recommended, to educate environmental courses in the curriculum at an initial level of studies and to provide environmental training. Implementation of green strategies, recycling plans, buying reusable items, going paperless, and turning off appliances should be practiced at the individual as well as the collective level of everyday lives. Promoting environmental awareness about environmental issues (deforestation, oil drilling et) helps to increase environmental concerns that would help in positive environmental attitudes.

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