



# IMPACT OF ENVIRONMENTAL RISK PERCEPTION ON ORGANIZATIONAL CITIZENSHIP BEHAVIOR FOR ENVIRONMENT (OCBE): MEDIATION OF ENVIRONMENTAL CORPORATE SOCIAL RESPONSIBILITY

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## ABSTRACT

As the global focus on environmental sustainability intensifies, manufacturing firms in Pakistan are facing increasing pressure to adopt environmentally responsible practices. This study examines the impact of risk perception on organizational citizenship behavior for the environment (OCBE). Additionally, it investigates the mediating role of environmental corporate social responsibility (ECSR) in the relationship between the above relations. A study model was developed for this study and 224 surveys were collected from employees of different manufacturing industries of Pakistan. The findings of this study provide valuable insights and guidelines for manufacturing firms in Pakistan to enhance their environmental performance and promote sustainable practices. By addressing risk perception, and integrating ECSR practices, organizations can enhance their environmental performance and contribute to sustainability efforts. This study provides the importance of integrating ECSR practices in organizational strategies, employee engagement and training programs for fostering OCBE.

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**Keywords:** Environmental corporate social responsibility; environmental risk perception; organizational citizenship behavior for environment.

## INTRODUCTION

Ozone-depleting substances and greenhouse gases are among the most critical environmental challenges facing the world today (Winter & Koger, 2004). The manufacturing sector plays a significant role in these issues by consuming natural resources, raw materials, and energy (Zhang & Guan, 2016). In response, many organizations strive to reduce their environmental impacts and promote themselves as environmentally responsible (Tebini et al., 2015). To effectively enhance eco-friendly practices, industries must not only reduce the environmental impact of their production and organizational processes but also encourage pro-environmental behavior among their employees (Dixon et al., 2015). Pro-environmental behavior refers to actions that minimize environmental harm or even contribute positively to it (Steg & Vlek, 2009). While much research has focused on individual behaviors in the private sphere, such as recycling or energy conservation at home, fewer studies have explored pro-environmental behavior in the workplace (Steg et al., 2015). However, evidence suggests that employees engage in eco-friendly actions at work to meet organizational expectations (Zhang et al., 2013). Likewise, management makes pro-environmental decisions to meet societal and industry expectations and address environmental challenges (Zhang et al., 2015).

Environmental degradation has become a pressing issue for individuals, organizations, and societies globally, encompassing problems like the depletion of nonrenewable resources, globalization, and industrialization (Peng & Yew, 2019). To address these challenges, various traits are identified as crucial for employees to be considered environmentally conscious, including being a preservationist of nonrenewable resources, a conservationist of renewable resources, a

non-polluter, and a creator of green spaces. Conservationists focus on using natural resources sustainably, ensuring that future generations are not compromised. Preservationists work to protect natural habitats from depletion or damage. Creators contribute to expanding green areas, such as parks with trees and plants, while non-polluters focus on preventing contamination of the air, water, and climate through protective measures.

Jackson et al. (2011) emphasized that individuals' contributions to environmental sustainability are shaped by their positive actions that support organizational goals. Boiral (2009) developed a structural framework for Organizational Citizenship Behavior for the Environment (OCBE), which highlights voluntary behaviors that contribute to environmental management systems but are not recognized by traditional reward systems. These voluntary green activities include walking instead of driving, creating green spaces in homes and workplaces, reducing light usage, promoting organic food production, conserving energy by turning off unnecessary lights and appliances, and implementing waste recycling practices. OCBE is categorized into six classes. True honesty towards OCBE incorporates individual's ability to accept the tasks that are beneficial for organization. With proper time management and the capacity to bear difficulties in regard to environmental issues. Hierarchical loyalty in any organization incorporates supporting authoritative ecological exercises help with environmental hierarchical citizenship conduct including positive industrial ecological designation in open cooperation. Authoritative consistence incorporates with all options that are in favor of environment in an organization. This focus on inside cooperation and contribution in an organization for information sharing, ecological exercises and recycling of waste. By taking into account the improvement of customized understanding for better environment and self-advancement can be enhanced.

### **Organizational Citizenship Behavior for Environment (OCBE)**

Jackson et al. (2011) in his work depicted that an individual's commitment is formed to great and positive exercises that support the organization with accomplishing its objectives economically. A structural framework for OCBE was created to express the singular willful way of behaving adding to ecological administration frameworks not recognized by the conventional prize framework (Boiral, 2009). Deliberate green exercises incorporate; most extreme stroll as opposed to utilizing vehicle/transport at work and home, creating green areas in homes and offices to absorb pollutants, lessen the usage of light at workplace, producing more organic food, sustainable consumption of light energy at homes and workplace by turning off extra bulbs, forced air systems, implementation of waste recycling by utilizing different things like sacks, containers, jars instead of disposal.

### **Environmental Risk Perception (ERP)**

Environmental risk is an intuitive judgment of individuals or social groups about environmental issues characterized by high complexity and uncertainty (Slovic, 1987; Xu et al., 2017). Moreover, it identifies and understands the risk for environmental issues (Olstedal et al., 2007). The severity of risk for environmental issues such as high environmental risk for air pollution, smog, climate change, greenhouse gases emission, can negatively impact human health and create social and economic threats (Weber et al., 2000; Zhang et al., 2021). The emissions from the firms pollute the environment. Hence, the environmental risk perception may be an important factor in encouraging employees' OCBE. The theoretical support for environmental risk perception is studied under the theory of social risk perception (Zavareh et al., 2020). The previous studies show the direct influence of environmental risk perception on PEB (Bradley et al., 2020; Zeng et al., 2020). Although employees may have a deep appreciation for nature and the environment, previous study has shown that they do not believe they are ecologically aware (Calculli et al.,

2021). This gap might be caused by employee's refusal to take personal responsibility for environmental problems because they don't believe humans can address them. Understanding the environmental consequences, evaluating perceptions of environmental problems and hazards, and being prepared to take responsibility are crucial factors that determine whether someone would act in an environmentally responsible manner (Mansoor & Wijaksana, 2021).

### **Mediation of Environmental Corporate Social Responsibility**

The proposed mediating predictor for the model of this study is environmental corporate social responsibility (environmental CSR). CSR refers to organizational actions and policies that consider stakeholders' expectations and the triple bottom line of economic, social, and environmental performance (Aguinis et al., 2012). There is a widespread belief that for-profit businesses have a responsibility to the society from which they benefit. The concept of CSR was born out of this. Of course, the primary goal of a for-profit organization is to make money. One of the most critical employee behaviors within the framework of CSR policy to enhance environmental performance is employees' engagement in pro-environmental behaviors. The business and management literature suggests that researchers have examined the effect of CSR on OCBE directly as well as indirectly. For example, the effect of CSR on OCBE through the mediation of individual environmental responsibility (Wang et al., 2017; Wang & Sarkis, 2017). Another study examined the effect of CSR perception on OCBE along with the mediation of organizational identification and environmental orientation fit (Cheema et al., 2020) suggesting that employees' alignment with an organization's environmental values and their sense of belonging play a critical role in fostering OCBE.

Previous research has looked at the impact of CSR on organizational performance (Claver-Cortés et al., 2020), using behaviors like supportive behavior (Li et al., 2020), OCBE (Cheema et al.,

2020), and pro-environmental behavior (Suganthi, 2019; Zhang et al., 2021). According to theorists, defending the interests of stakeholders and employees helps businesses function better (Harrison & Wicks, 2013). Besieux et al. (2018), Huang et al. (2021) and Zaragoza-Sáez et al. (2020) reveal that the CSR has been employed as a mediator in several researches. The association between employee OCBE and environmental CSR is mediated by environmental CSR (Zhang et al., 2021). This suggests that when organizations actively engage in environmentally responsible practices, employees are more likely to align their behaviors with these initiatives, promoting OCBE. As a result, understanding how environmental CSR interacts with these psychological mechanisms provides valuable insights into the development of sustainable organizational cultures.

## LITERATURE REVIEW

According to Mittal and Sangwan (2014), the industrial sectors have caused different types of contamination, and all areas of society are needing a green transformation of the production sites. Williamson et al. (2006) proposed the strategy to decrease the effect of industrial activities on ecosystem through CSR trainings in a short period of time this changes the traditional production activities to green activities in manufacturing sectors. The outcomes of CSR frequently rely upon employee's industrial hierarchical strategy, will for the most part convert into individual way of behaving (Raineri & Paillé, 2016). Zientara and Zamojska (2018) and Wells et al. (2015) confirmed the significant job of representatives' ecological ways of behaving in natural administration the connection among CSR and worker natural way of behaving has turned into another exploration center. Numerous studies confirm that CSR can advance representatives' ecological way of behaving (Wells et al., 2015). CSR affects employees' environmental consideration through workers' hierarchical distinguishing proof, ecological responsibility,

employee's prosperity, natural orientation fit (Cheema et al., 2020b), worker-corporate relationship, and green practices (Suganthi, 2019).

Previous researches have shown that the execution of environmental CSR can affect representatives' perspectives toward the environment, including improving the positive natural close to home insight of workers as per Junot et al. (2017). Cheasakul and Varma (2016) explained in their study that along these lines, specialists can construe that natural CSR can improve workers' environmental behavior that gives an approach to overseeing reliance between individuals from the work unit, as per which works on common results and eliminates the requirement for associations to allot restricted assets to fundamental consideration capabilities, opening up assets to be more effective and expanding capacities. By setting aside some margin for more useful preparation, planning, critical thinking, etc., others do their works.

Existing researches suggest that CSR can advance individual's way of behaving directly and indirectly. Nonetheless, common agreement hypothesis proposes that CSR includes a political way of thinking (Sacconi, 2007). As an essential device, it assists construct a business by laying out great associations with partners with the assumption for carrying advantages to the association by implication. The motivation behind CSR systems isn't simply to tackle environmental issues. CSR incorporates different aspects, like financial aspects, regulation, morals, the climate, and charity works; exercises in various regions will bring various outcomes (Turker, 2009). For instance, social exercises connected with CSR bring more environmentally friendly impacts; legal trainings connected with CSR are bound to strengthen a person's environmental awareness. At the point when the association believes workers should deliver ecological related mentalities and ways of behaving, this objective accomplished by natural related CSR. Environmental CSR as the combination of environmental administration awareness that modify a business' working way of

thinking, items, exercises, and gear to diminish the effect on the environment (Rahman & Post, 2012). Though many results by researchers have clearly linked the relation of environmental CSR with industrial activities and authoritative environmental performance (Chuang & Huang, 2018), this also affects an organization's notoriety, and benefits as per studies of Khojastehpour and Johns (2014), but still there is not sufficient data available on relation between ecological CSR's and individual environmental concern.

Ecological issues are highly complex in nature as it has many varieties and possibilities. An organizational greening cannot be accomplished exclusively by an exhibition job. It requires workers' unconstrained participation and intentional ecological way of behaving (Gattiker & Carter, 2010). Representatives' deliberate cooperation in natural security ways of behaving can turn into the vitally main force of the industrial continuous environmental activities. In this manner, environmental citizenship behavior has drawn in expanding consideration. Studies of Moon and Deleon (2007) revealed that environmental citizenship behavior is willful way of behaving completed by representatives past work prerequisites and can carry natural advantages to the association and society. Existing examinations have demonstrated the way that many elements can advance natural citizenship conduct. Cheema et al. (2020a) explained these incorporate individual elements, like ecological responsibility, full of feeling hierarchical responsibility, individual natural standards, authoritative distinguishing proof (Cheema et al., 2020a), ecological direction fit, and individual natural convictions (Raineri & Paillé, 2016). Khan et al. (2019) has explained the setting factors, which incorporate authority factors, like moral administration and administrative help ways of behaving (Cheema et al., 2020a). Environmental citizenship behavior can likewise be advanced by authoritative social environment factors, for

example, relational circle power (Mi et al., 2019) and the green mental environment (Khan et al., 2019). Moreover, corporate natural strategy and CSR are the other insight hierarchical factors.

In today's world, manufacturing industries are trying to change natural strategies into worker's ecological way of behaving. In this manner, it is important to understand any case, how environmental CSR advances ecological citizenship behavior. Environmental citizenship behavior is a non-obligation and intentional way of behaving (Raineri & Paillé, 2016). Environmental citizenship behavior is an intentional and non-obligatory way of behaving (Moon & Deleon, 2007). Accordingly, to advance representatives' ecological citizenship conduct, it is especially vital to comprehend the psychological instrument basic how natural CSR inspires natural citizenship conduct.

Likewise, Moon and Deleon (2007) stated environmental citizenship behavior is an intentional way of behaving past work necessities. It won't carry advantages to the representatives and may try and be expensive for time being. This might act as a key component for executing environmental citizenship behavior by workers. That may ruin representatives from executing environmental citizenship behavior. this improves the behavior and individual's work mentalities in an organization (Resick et al., 2007). Environmental behavior will be helpful for organizational achievement, but it might be in opposition to individual's interests. On the off chance that an association makes up for the expense of natural ways of behaving, workers and associations will be more viable and will be better at advancing ecological way of behaving, as it is advantageous together; this is likewise steady with the idea of common advantage proclaimed by friendly trade hypothesis. CSR coordinated toward representatives implies that associations assist individuals with creating abilities and vocations and to train them to create this organization a solid and safe workplace. This helps in compensation and open new doors. Which can provide a framework for

ecological way of thinking. This can further be explained by Deci and Ryan (2000) as self-assurance hypothesis holds that the blend of independent (characteristic) and controlled (outward) inspiration decides a singular's ways of behaving and perspectives (Deci & Ryan, 2000).

Independent inspiration, for example, from representatives' qualities and feelings (Ruepert et al., 2017), are concerned with environmental citizenship behavior, however some factors of controlled inspiration were unnoticed. This research is proposed to fill this data gap. In which independent factors and mediating environmental CSR behavior associated to all the more likely advance employees. For OCBE, environmental risk perception referenced in this research as independent variables. CSR is helpful for coordination with representative to ensure the awareness among workers. This enhances the representative's sustainable way of behaving, so this study presents OCBE toward employees as a dependent variable and to assess its impacts on the connection between environmental citizenship behavior and inner state. This study is focused on individual's ecological way of behaving and how it might make natural CSR more powerful.

## RESEARCH OBJECTIVES

- To investigate the impact of environmental risk perception on OCBE via the mediation of environmental CSR in manufacturing industries in Pakistan.

## HYPOTHESIS DEVELOPMENT

This research is based on social cognitive theory to improve employee's environmental risk perception on OCBE. For this purpose, environmental CSR mediates the following hypothesis proposed as:

**H<sub>1</sub> →** Environmental CSR mediates the relationship between environmental risk perception and OCBE.

## RESEARCH METHODOLOGY

For this research a quantitative technique was included. This study was planned with questionnaire technique in accordance with positivist epistemology, objectivist, ontology and rational methodology. It depends on quantitative information that requires irregular inspecting and research inquiries to be fixed. It involves organized information assortment instruments like surveys. It is concerned about the assumption of the review results. All things considered, a design for research survey was planned and for this, data was collected through questionnaires. We used a non-probability convenience sample design to distribute 250 self-reported surveys to full-time employees (regardless of employment requirements, possess reading and comprehension skills in English) from 27 organizations of manufacturing sector (Abbasi et al., 2023). Out 250 questionnaires, 224 valid responses were returned with a response rate of 89.5%. The data collection process included assessments of environmental risk perception, environmental CSR, and organizational citizenship behavior for the environment. Additional information that was collected included demographic details such as age, gender, experience, marital status, education, employment status, and income.

### **Measures**

The scales of construct of this study have been adopted from the exiting literature. The responses on all three scales of this study have been measured on five points Likert scales ranging from 1 (strongly disagree) to 5 (strongly agree).

**Environmental risk perception:** The scale was taken from Liobikiene and Juknys (2016) to measure environmental risk perception (ERP) using eight items, such as “*Environmental pollution is dangerous for people’s health.*” The reliability score of environmental risk perception is 0.88.

**Environmental CSR:** Environmental CSR scale has been measured through first order scale adopted from the study of Cheema et al. (2020). The scale consists of four items with the reliability score of 0.803. The sample item includes “*Our firm implements special programs to minimize its negative impact on the natural environment.*”

**Organizational citizenship behavior for the environment:** OCBE was measured by employing first order ten-items scale adopted from Boiral et al. (2012). The reliability score was found at 0.730. The sample item included: “*In my work, I weigh the consequences of my actions before doing something that could affect the environment.*”

## RESULTS AND DISCUSSION

Quantitative information investigation presents results and understanding of information examined through structural equation modelling (SEM). Quantitative information analysis comprised of information screening, finding of missing values and outliers, normality evaluation, linearity, and multicollinearity, lastly, assessment of estimation and primary models through SEM procedure. Initially, a sum of 250 self-administrated questionnaires (SAQs) were distributed among representatives of various manufacturing sectors in Pakistan. Accordingly, 224 questionnaires were returned, showing an 89.5% reaction rate. The study surveyed 224 employees, achieving an 86.6% response rate. The sample was predominantly male (69.3%), with 49% aged between 29 and 38. Most had less than five years of work experience, and 73% were full-time employees. Educationally, 34% held graduate degrees and 40% post-graduate degrees. The majority were professionals earning between 36,000 and 45,000, with 65% in management positions and 35% in non-management roles. Previous research has explored how environmental risk perception—defined as a deep emotional connection and commitment to environmental sustainability—can drive proactive, individual-level behaviors aimed at environmental preservation (Afsar et al., 2019;

Li et al., 2020; Robertson & Barling, 2013; Zhao & Zhou, 2019). From this study it was analyzed that to enhance green manufacturing in the production sites, different administration designs should be used and created to increase the impact of environmental CSR in any organization, environment is considered as backbone of CSR, and green production can increase the improvement of CSR for industrial activities.

## CONCLUSION

This study concluded that employee's environmental behavior and CSR's relation has gotten extra ordinary considerations. This study significantly contributes to the literature on environmental risk perception on OCBE via environmental CSR by providing evidence of a causal relationship between these concepts. In today's workplaces, OCBE aligns with the promotion of sustainable practices (Boiral, 2009; Daily et al., 2009). Additionally, environmental risk perception—the degree to which individuals perceive environmental threats and risks—plays a crucial role in shaping employees' willingness to adopt OCBE. Employees who perceive higher risks associated with environmental degradation are more likely to engage in environmentally responsible behaviors, as they feel a stronger sense of urgency and responsibility. This study demonstrates that environmental risk perception are critical drivers of exceptional citizenship behavior within organizations, filling a gap in the literature on how emotional and cognitive factors influence OCBE. This research also affirms that individual's environmental citizenship behavior encouraged through the implementation of environmental CSR system. On the basis of results from questionnaire-based survey, the micro-foundation of CSR can be formulated that advances the environmental organization works. The results further provide the information about how to improve the effect of micro-CSR on primary level that added to the information base of micro-CSR and the environmental organization works. Moreover, this research further explains the

exploration on the strengths of OCBE and predecessors. This studies the social-psychological system of ecological CSR's effect of environmental citizenship behavior. In this model, employees are motivated by their commitment to the organization's success and the well-being of their colleagues, reducing the need for strict supervision (Tosi et al., 2003).

## LIMITATIONS & FUTURE SUGGESTIONS

Future research should develop an integrated model to better understand the mechanisms by which environmental activities influence outcomes. The findings may not generalize to other cultures, as this study was conducted in a specific cultural context. Additionally, the reliance on self-reported data may introduce bias. Future studies can address these limitations by using more diverse samples, gathering data from multiple sources, and including objective measures. Longitudinal designs could explore the long-term effects of environmental risk perception on OCBE and environmental CSR. Since environmental CSR is a partial mediator, future research should also consider other mediating or moderating factors, such as contextual influences.

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