

ORIGINAL ARTICLE

Analyzing the Impact of Green Policies on Employees' Eco-Initiatives: The Mediating Role of Environmental Concerns and Effective Commitment to the Organization

Shayan Rouhani Rad¹ (ORCID: 0000000171685105), Mohammad Keshavarz², Shahin Rouhani Rad³

1. Ph.D. Candidate in Finance, Faculty of Management and Accounting, Allameh Tabatabaee University, Tehran, Iran

2. Ph.D. in Organizational Behavior Management, Faculty of Economics, Management and Administrative Sciences, Semnan University, Semnan, Iran

3. Ph.D. Candidate in Business Management, Faculty of Economics, Management and Accounting, Yazd University, Yazd, Iran.

Correspondence:

Shayan Rouhani Rad

Email: s_rouhani@atu.ac.ir

Received: 24/Dec/2022

Accepted: 10/Jun/2023

How to cite:

Rouhani Rad, Sh., Keshavarz, M., & Rouhani Rad, Sh. (2024). Analyzing the Impact of Green Policies on Employees' Eco-Initiatives: The Mediating Role of Environmental Concerns and Effective Commitment to the Organization. *Quarterly Journal of Environmental Education and Sustainable Development*, 12(4), 37-51.

(DOI: [10.30473/ee.2023.65056.2556](https://doi.org/10.30473/ee.2023.65056.2556))

ABSTRACT

This study aims to analyze the effect of green policies on employees' eco-initiatives with the mediating role of environmental concerns and effective commitment to the organization. This study is applied in purpose and uses descriptive and survey methods. The statistical population consisted of 350 employees of environmental organizations in Semnan province. According to Cochran's formula, a sample of 189 individuals was determined using convenience sampling. The data was analyzed using SPSS 16 and Smart PLS-2 software, employing the structural equation modeling approach with the partial least squares method. The results suggest that content validity was assessed through an expert panel, while reliability was evaluated and confirmed using Cronbach's alpha coefficient method and composite reliability. The results indicate that green policies have a positive and significant effect on environmental concerns, effective commitment to the organization, and employees' eco-initiatives. Additionally, environmental concerns have a positive and significant effect on the effective commitment to the organization and employees' eco-initiatives. Moreover, environmental concerns and effective commitment to the organization do not mediate the relationship between green policies and employees' eco-initiatives. Therefore, it is suggested that managers of environmental organizations pay adequate attention to being green in formulating organizational policies so that they can create more commitment and responsibility in employees and thus produce more initiatives in the environmental field.

KEYWORDS

Initiatives, Commitment, Green Policies, Environment.



Introduction

In recent decades, environmental protection has become a very important and fundamental discourse in organizations, and all members of an organization, from the top leaders to the employees at the operational levels, are responsible for creating an organization that follows environmental principles (Damghanian et al., 2019). Leaders of countries and environmental activists are trying to establish policies to improve the environmental condition of their land (Maleki, 2018). In recent years, management scholars have grown interested in environmental protection and sustainable development. Accordingly, environmental issues are considered one of the most important social challenges in the world (Yafi et al., 2021).

There are several indicators within the local community that suggest an organization is moving towards conducting its daily activities in an environmentally friendly manner: Reducing operating costs by decreasing environmental inefficiencies, increasing the legitimacy of organizations and their social responsibilities, creating a competitive advantage among environmentally conscious consumers, promoting the organization's brand through responding to environmental issues, reducing production threats or reducing resources, reducing energy costs, improving pollution management practices, and reducing health risks. For some organizations, environmental protection plays an important role in strategic planning. Some other organizations have included environmental issues to evaluate different dimensions of environmental performance and their performance reporting systems, such as balanced scorecards (Stritch & Christensen, 2016). In addition, eco-initiatives are often related to the behaviors of employees who, by engaging in socially responsible behaviors, perform correct actions to protect the environment (Kim et al., 2017).

Regardless of the existing management systems, employees' eco-initiatives play an important role in preventing pollution and promoting the green atmosphere of organizations (Raineri et al., 2016). When organizations show a set of environmental

concerns, employees may interpret it as positive support and increase their environmental behaviors in the organization (Ribeiro et al., 2022). Environmental concerns, which reflect employees' sense of personal environmental responsibility, are also strong predictors of their willingness to participate in eco-initiatives (Stritch & Christensen, 2016).

Effective commitment is also a communication structure that determines the quality of employees' relationships with organizations or supervisors (Van Knippenberg & Sleebos, 2006). Features that are usually related to the effective commitment of employees to the organization include self-confidence, social identity, sense of trust, stability, security and belonging (Schmidt, 2007). One of the fundamental questions in the field of social responsibility of organizations is identifying the core factors that drive employees' eco-initiatives and understanding how to motivate employees to engage more in environmental behaviors and initiatives.

In the existing literature of management, the concept of employees' eco-initiatives has received scant attention, and so has the concept of green policies. To the best of the researchers' knowledge, this study is the first attempt in employing these concepts in the field of organizational behavior management. The findings aim to bridge the gap in the literature on organizational behavior and to enhance the understanding of environmental concerns, eco-initiatives, and green policies. Today, government organizations such as the Environmental Organization, which is the front line of the environmental issues of society, are involved in environmental issues and are currently spending a lot of money to fulfill this responsibility. Therefore, it is crucial to formulate effective green policies to propagate a green culture from the organization to the broader society.

If organizations' employees do not pay attention to green practices and organizational productivity, including resource and energy consumption, we may face a productivity and environmental crisis in both organizational and societal contexts in the near future. Therefore, this study aims to measure the effect of green policies on employees' eco-initiatives, with the mediating role of environmental concerns and

effective commitment to the organization, within environmental organizations located in Semnan province. Additionally, the study aims to investigate the effect of environmental concerns on effective commitment to the organization. To achieve this, each of these variables will first be described, followed by the hypotheses and the conceptual framework of the study.

Organizations are increasingly under pressure to reduce environmental effects due to many environmental problems caused by production and service activities. A strategic approach for organizations is to influence changes in employees' behavior (Lülfes & Hahn, 2013). Nowadays, policies have been adopted in government organizations to reduce environmental effects. However, due to the lack of official policies, government employees may engage in a number of voluntary behaviors to protect the environment, which are known as eco-initiatives (Stritch & Christensen, 2016). Due to the diversity, complexity and nature of environmental issues, some researchers have proposed vital environmental behaviors and activities to create a green atmosphere in organizations, which often relies on employees' tacit knowledge, relationships, and cooperation (Raineri et al., 2016). Eco-initiatives act as a tool that companies can utilize to make their activities more environmentally friendly and economically sustainable (Tuân et al., 2014). The concept of eco-initiatives includes any action taken by employees that they believe improves the environmental performance of the organization. Eco-initiatives are individual behaviors that can happen at any level of the organization and depend on employees who provide creative ideas and suggestions to improve the status quo. Employees' eco-initiatives represent innovation or initiative in employees' environmental activities and help green companies in three main ways:

- (a) Reducing the organization's environmental impacts
- (b) Solving environmental problems
- (c) Creating higher quality products or services (Tuân et al., 2014).

Also, some scholars (e.g., (Tuân et al., 2014) classify environmental behaviors in the workplace under the title of the following five

main categories, which are not separate from each other:

- (a) Protection (e.g., reducing consumption, reusing, repurposing and recycling)
- (b) Sustainable activities (e.g., changing work methods)
- (c) Preventing damage (e.g., preventing pollution)
- (d) Influencing others (e.g., encouraging and supporting others)
- (e) Initiative (e.g., starting programs and policies).

There are some optional behaviors in the workplace, including recycling, waste reduction, water conservation, and energy conservation, which are done informally, personally, and at the discretion of employees, which are known as a type of eco-initiative. These behaviors are known as optional actions and suggestions for improving environmental performance (Stritch & Christensen, 2016). Employees' eco-initiatives show aspects of decision-making, are considered a kind of voluntary behavior, and seek to influence organizational performance (Raineri et al., 2016). Eco-initiatives often represent transformative organizational citizenship behavior and require employees' investment of time and energy to enhance the environment (Smith & O'Sullivan, 2012). Also, eco-initiatives are about the development of environmental programs, prioritizing environmental benefits and proposing new ideas, which are often optional (Gattiker & Carter, 2010). In other words, individual eco-initiatives are a subset of non-role and non-compulsory behaviors, which are referred to as Organizational Citizenship Behavior for the Environment (OCB-E) (Stritch & Christensen, 2016). Also, eco-initiatives describe a set of actions that show how employees move toward the initiation and promotion of environmental-related behaviors, which may be placed in different categories based on their content. In other words, people who have eco-initiatives at work can act as agents of change and their actions can be activities such as reducing resource consumption (i.e., conserving energy) and producing greener products (i.e., more sustainable work) (Raineri et al., 2016).

Although eco-initiatives can, to some

extent, be introduced in environmental management systems and policies, research has shown that formal procedures in organizations are not very integrated and employees may simply follow existing standards (Yin & Schmeidler, 2009). To move toward eco-initiatives, proactive efforts to promote environmental issues within the organization are necessary (Raineri et al., 2016). Some studies have demonstrated that supportive behaviors from employees have an impact on their desire to engage in eco-initiatives and improve their performance in reducing environmental effects (Tuân et al., 2014). Stritch and Christensen's (2016) findings showed that environmental interest, organizational commitment and public service motivation are significant predictors for employees' eco-initiatives in government organizations.

In recent years, managers of organizations have made great efforts to solve challenges in the field of environment and provide green policies and regulations (Shahab et al., 2018). However, despite the development of different ideologies to improve the environmental performance of organizations, the implementation of these regulations and policies has been relatively weak (Du, 2015). Policymakers are now examining green policies, and their success will depend on coordination and integration among all departments and policy areas within the organization. Green policies focus on managing the relationship between humans and the environment in a beneficial manner (Jordan, 2001).

The policymaking process has become complex and requires the involvement of various actors, including government, non-governmental institutions, industries, courts, scientists, and others, as current environmental centers cannot formulate policies without considering these actors (Islam et al., 2014). High participation from organizations in formulating green policies is necessary, and they should implement human resource management processes based on environmental education for employees (Chou, 2014). The study of green policies and environmental issues is extensive. Green policies are formed to address environmental issues and prevent the negative effects of human actions on the

environment (Islam et al., 2014).

In addition, the success of a company in adopting green policies depends not only on the attitude of companies toward environmental issues but also on the personal opinions of employees and their daily actions (Chou, 2014). The findings of Chou (2014) showed that individual and group factors have a significant relationship with employees' environmental beliefs and behaviors. In the same vein, personal environmental norms have a positive and significant effect on green policies, but green organizational climate does not moderate the relationship between personal environmental norms and green policies.

Additionally, Nesta et al. (2014) demonstrated that green policies have a direct and significant effect on employees' initiative to provide solutions for environmental protection. Tuân et al. (2014) found that green policies positively and significantly affect employees' willingness to engage in eco-initiatives. Elmagrhi et al.'s (2019) study in China showed that governance structures and green policies have a positive and significant effect on environmental performance, governance, regulations, and environmental management. They also concluded that managers' age and level of education affect the environmental performance of Chinese companies. In South Korea, Kim et al. (2019) showed that green policies can lead to effective and useful results for creating environmental systems. Finally, Zavalloni et al. (2019) showed in their research that environmental policies and the provision of stimuli and incentives can lead to the formation of coalitions and cooperatives to solve environmental issues.

Managers in government organizations who have strong environmental concerns believe their employees' well-being is linked to the environment, and these attitudes likely foster environmentally friendly behaviors within the organization (Stritch & Christensen, 2016). Environmental concerns can be mitigated by promoting green employee management. The role of human resources is crucial in transferring the green vision and optimal management to other stakeholders (Adeel et al., 2022). The term environmental concerns is actually a very broad concept that covers a wide range of phenomena with different dimensions (Liu et al., 2014). It usually refers to the level

of people's awareness of environmental problems and their support and efforts to solve them or their desire to participate in solving them. Currently, environmental concerns are recognized as one of the most important factors for improving efficiency and achieving environmental sustainability (Sun et al., 2017). One of the benefits of environmental concerns is people's greater connection with nature (Stritch & Christensen, 2016).

Furthermore, one dimension of environmental concerns is people's emotional connection with nature and the degree to which they perceive their happiness as dependent on the environment (Gosling & Williams, 2010). Employees who have more environmental concerns are more likely to show more environmentally friendly attitudes and behaviors (Nisbet et al., 2009). When environmental recommendations are widely ignored, environmental concerns increase (Premalatha et al., 2014). The presence of environmental concerns among employees has a significant impact on operations management in such a way that it can shorten the production path of a product and reduce the conflict of interest between the company and society (Wu et al., 2018). A review of the existing literature shows that environmental concerns can significantly promote public policies and environmental behaviors (Liu et al., 2019).

The extent of concern for environmental issues varies based on characteristics such as age, gender, religion, and education (Ji et al., 2018). Rey et al. (2012) found that higher environmental concerns among public sector managers lead to more eco-initiatives. Park et al.'s (2012) results showed that demographic and social variables are related to the level of people's environmental concerns. In addition, the results of this study showed that people's income is not directly related to environmental concerns and cannot lead to the consumption of green goods. Stritch and Christensen's (2016) also found that environmental concerns are significant predictors for employees' eco-initiatives in government organizations. Finally, the findings of Liu et al. (2019) indicated that increasing environmental concerns significantly affects environmental efficiency.

Employees in an organization are valuable resources for performing daily tasks in a public organization (Stritch & Christensen, 2016). In philosophical literature, commitment is described as a relationship between the committed agent, the second agent by which the commitment is made, and an act of commitment. The obligor commits to performing the action based on their assurance, and the second agent confirms the fulfillment of the commitment under certain conditions. Commitments are one of the main characteristics of human social life. They predict the behavior of people against the fluctuations of changing demands and interests; as a result, they facilitate the planning and coordination of joint actions with different agents. For example, an employee does his work every day because his employer has guaranteed a valid commitment to pay him at the end of the month (Michael & Székely, 2018).

Commitment is defined by characteristics such as emotional attachment, identification, and participation in the organization (Astakhova, 2016). Effective commitment can be characterized by three distinct mentalities of emotional attachment, sense of commitment, and perceived cost of leaving commitment (Meyer et al., 2015). Effective commitment is achieved through a process of identification, involvement and correlation of value with a specific goal. Accordingly, effective commitment to the organization is based on impersonal and symbolic considerations, which can be recognized through the ways employees trust the organization and their supervisors (Lapointe, 2013).

The existing literature shows that positive psychological resources are related to such factors as organizational commitment, performance, job satisfaction, and happiness at work (Seyyed Javadin et al., 2015). Ramus and Steger (2000) initially examined the empirical relationship between supportive work environment dimensions and employees' willingness to promote eco-initiatives. Moreover, Tan et al. (2014) concluded that green policies have a positive and significant effect on employees' willingness to provide eco-initiatives by examining 212 employees of

middle and operational levels of Vietnamese manufacturing companies. They also showed that supportive behaviors of supervisors are effective on employees' eco-initiatives. Through analyzing two countries, namely America and South Korea, Kim et al. (2016) found that there is a direct and significant relationship between perceived organizational support and effective commitment to the organization. By examining 449 employees of universities in Mexico, Raineri et al. (2016) showed that organizational support, support from colleagues and support from supervisors have an effective role in organizational commitment. Finally, the effective commitment to the supervisor, work groups and the organization has a direct and significant effect on the employees' eco-initiatives.

The conceptual framework of the study shows the relationship between the variables. In this study, the independent variable is green policies in relation to employees' eco-initiatives and the mediating variables are environmental concerns and effective commitment to the organization. Also, environmental concerns are considered as an independent variable for the dependent variable of effective commitment to the organization. The conceptual framework of

the study can be seen in Figure 1, where the basic hypotheses of the study are shown to be as follows:

Hypothesis 1. Green policies have a positive and significant effect on employees' environmental concerns.

Hypothesis 2. Green policies have a positive and significant effect on effective commitment to the organization.

Hypothesis 3. Green policies have a positive and significant effect on employees' eco-initiatives.

Hypothesis 4. Environmental concerns of employees have a positive and significant effect on effective commitment to the organization.

Hypothesis 5. Environmental concerns have a positive and significant effect on employees' eco-initiatives.

Hypothesis 6. Environmental concerns mediate the effect of green policies on employees' eco-initiatives.

Hypothesis 7. Effective commitment to the organization has a positive and significant effect on employees' eco-initiatives.

Hypothesis 8. Effective commitment to the organization mediates the effect of green policies on employees' eco-initiatives.

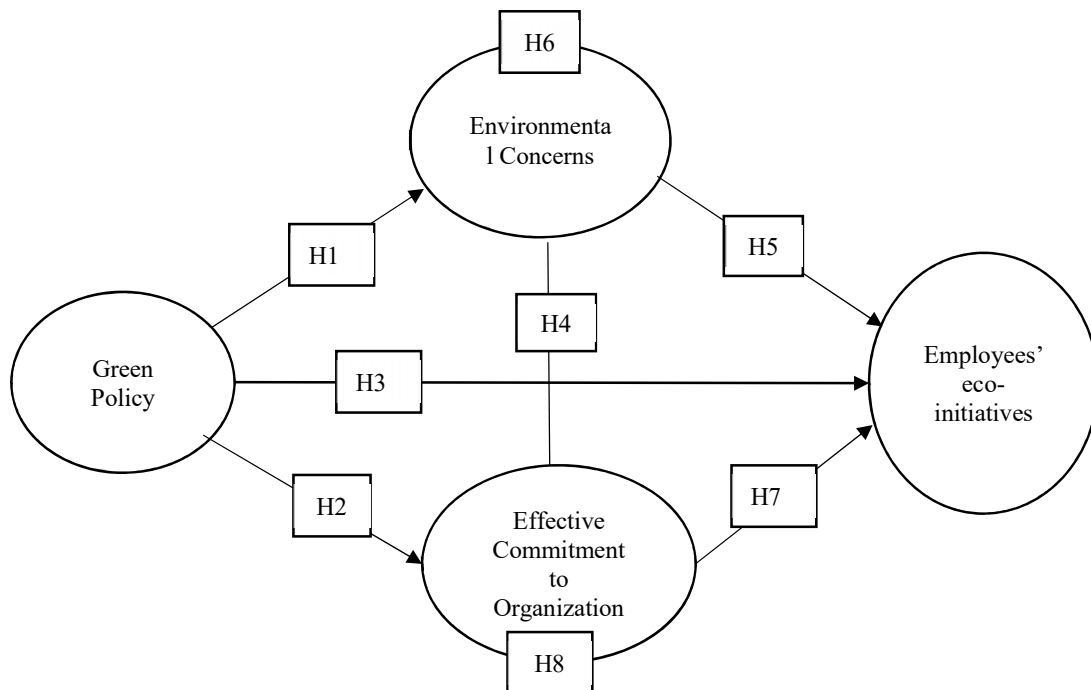


Figure 1. The Conceptual Model of the Study (from Documentary Reviews of the Research)

Research Methodology

The data for this quantitative study were collected using a survey and a questionnaire. This cross-sectional study aims to explain the effect of green policies on employees' eco-initiatives with regard to the mediating role of environmental concerns and effective commitment to the organization. The statistical population in the present study includes all the employees of the Environmental Organization of Semnan Province, whose number is 350, according to the latest statistics released by the Environmental Organization of Semnan Province announced in 2022. The participants were selected based on availability sampling, and by assuming sampling from a limited population, we used Cochran's formula to explain the sample size. Considering the accuracy rate of 0.5, and the confidence interval of 95%, the required sample was determined to be 189 people. A closed five-point Likert scale questionnaire with 32 items was used to collect the data. The questionnaire of this study consists of two parts. The first part includes demographic questions, and the second part includes the main items of the questionnaire, which were raised based on research hypotheses, whose validity and reliability were confirmed. The questionnaire includes four dimensions (green policies, environmental concerns, effective commitment to the

organization and employees' eco-initiatives). The items related to the first dimension were collected from Tuan et al.'s (2014) questionnaire, the items concerning the second and fourth dimensions were extracted from Stritch, and Christensen's (2016) questionnaire and the third dimension was derived from Bentein et al.'s (2002) questionnaire. Also, in order to check the validity of the content, the items were examined by a panel of experts. In order to check reliability, Cronbach's alpha coefficient and composite reliability were used, and Cronbach's alpha coefficient for all research constructs was more than 0.7 (Table 2). Descriptive analysis of the collected data was done using SPSS 16. In order to analyze the data inferentially, Smart PLS 2 was used. The reason for using Smart PLS 2 is the small sample size in this study and the appropriate predictive power of this software.

Research Findings

Partial least squares structural equation modeling is done in two steps. In the first step, the measurement model is examined through validity and reliability analyses and confirmatory factor analysis, and in the second step, the structural equation model is examined by estimating the path between variables. Factor loadings of the variables can be seen in Table 1.

Table 1. Factor Load Coefficients and T Value

Structure	Indicator	Factor Loading (>0.4)	T Value (>1.96)
Green Policy	GP1	0.451	7.421
	GP2	0.524	5.333
	GP 3	0.721	8.642
	GP 4	0.635	4.355
	GP 5	0.745	2.641
	GP6	0.632	3.875
	GP7	0.586	2.845
	GP8	0.743	6.478
	GP9	0.433	2.853
	GP10	0.500	6.975
	GP11	0.634	3.745
	GP12	0.449	5.592
	GP13	0.547	5.831

Structure	Indicator	Factor Loading (>0.4)	T Value (>1.96)
Environmental Concerns	EC1	0.425	6.002
	EC2	0.521	2.657
	EC3	0.489	2.345
	EC4	0.512	2.354
	EC5	0.634	3.754
	EC6	0.524	3.845
Effective Commitment to Organization	G1	0.435	2.758
	G2	0.448	3.984
	G3	0.556	5.021
Eco-initiatives of Employee	EI1	0.561	2.780
	EI2	0.488	3.751
	EI3	0.663	2.561
	EI4	0.671	4.994
	EI5	0.784	3.662
	EI6	0.742	5.447
	EI7	0.541	6.845
	EI8	0.634	3.354
	EI9	0.741	6.758
	EI10	0.577	3.888

To verify the validity of the questionnaire, content validity and convergent validity were used. Content validity was obtained by surveying experts, and the results can be seen in Table 2. In addition, in this study, two criteria (i.e., Cronbach's alpha coefficient and composite reliability coefficient) were used to

determine the reliability of the questionnaire. Cronbach's alpha coefficients of all variables in this study are more than the minimum value (0.7). In Table 2, the results of the reliability and convergent validity of the questionnaire are provided in detail.

Table 2. Reliability and Convergent Validity Coefficients

Title in the model	Outer model fit	Cronbach's Alpha (Alpha >0.7)	Composite Reliability (Alpha >0.7)	Average Variance extracted (AVE >0.5)
Green Policy		0.874	0.786	0.574
Environmental Concerns		0.832	0.875	0.583
Affective Commitment to Organization		0.751	0.745	0.509
Employees' Eco-initiatives		0.788	0.832	0.574

The overall model includes both measurement and structural model parts, and by confirming its fit, the fit check in a model is complete. Three values of 0.01, 0.25 and 0.36 are presented as the tested conceptual framework in Figures 2 and 3. The numbers written on the lines are actually the beta coefficients resulting from the regression

equation between the variables, which is the same as the path coefficient, and the numbers inside each circle indicate the R² value related to the endogenous hidden variables of the model. The directions of weak, medium and strong values are introduced for this criterion. In Table 3, the overall fit of the model can be seen. The significance of the path coefficient is

necessary for the t value of each path to be greater than 1.96.

Table 3. Overall Model Fit

Structure	Green Policy	Environmental Concerns	Effective Commitment to Organization	Eco-initiatives of Employee
Communalities	0.775	0.546	0.628	0.515
R Square	-	0.479	0.542	0.656
GOF	$\sqrt{\text{Communality} \times R^2} = \sqrt{0.605 \times 0.345} = 0.58$			

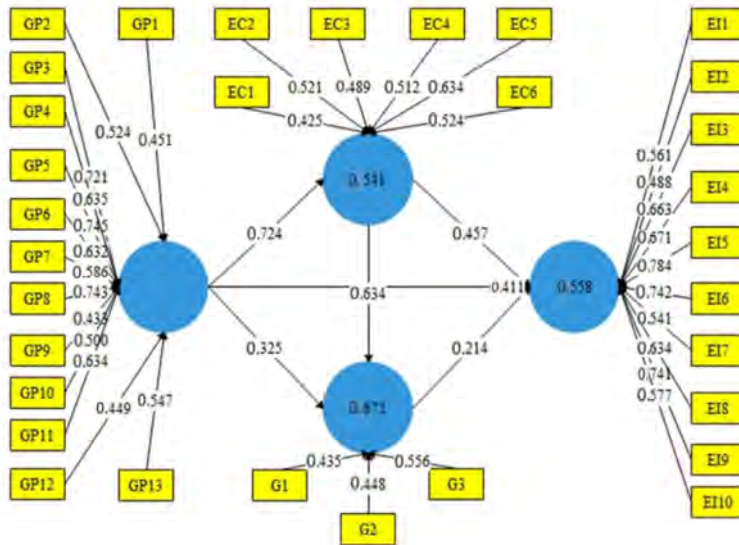


Figure 2. Model in Standard Estimation Mode

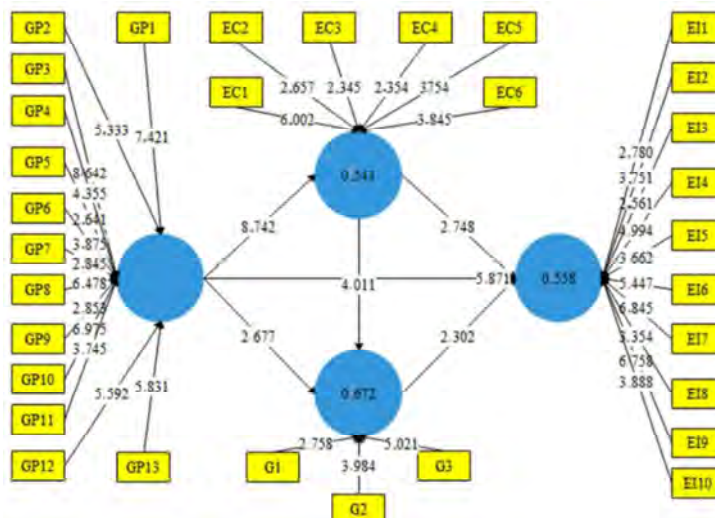


Figure 3. Model in the Mode of Significant Numbers

The internal model indicates the relationship among the variables. By using the internal model, it is possible to check the hypotheses of

the study. Table 4 shows the fitting results of the internal model.

Table 4. Internal Model Fitting Results

H	Path	Path coefficient	T-statistic	Results
H1	Environmental Concerns → Green Policy	0.724	8.742	✓Accept
H2	Effective Commitment to Organization → Green Policy	0.325	2.677	✓Accept
H3	Eco-initiatives of Employee → Green Policy	0.411	5.871	✓Accept
H4	Effective Commitment to Organization → Environmental Concerns	0.643	4.011	✓Accept
H5	Eco-initiatives of Employee → Environmental Concerns	0.457	2.748	✓Accept
H6	Green Policy → Eco-initiatives of Employee → with the mediating effect of Environmental Concerns	Check the conditions	Check the conditions	☒Reject
H7	Effective Commitment to Organization → Eco-initiatives of Employee	0.214	2.302	✓Accept
H8	Green Policy → Eco-initiatives of Employee → with the mediating effect of Effective Commitment to Organization	Check the conditions	Check the conditions	☒Reject

Conclusion

This study aims to measure the effect of green policies on employees’ eco-initiatives with the mediating role of environmental concerns and effective commitment to the organization in the Environmental Organizations of Semnan province. Investigating the effect of environmental concerns on effective commitment to the organization is another goal of this study. As Maleki (2018) emphasized, the environmental status of countries and its changes is one of the important issues of the new era.

Leaders of countries and environmental activists are trying to establish policies to improve the environmental condition of their land. Managers should pay special attention to their policies and management style in order to create eco-initiatives among employees. If organizations are looking for more changes in behavior and employees’ eco-initiatives, they should identify the predictive factors of these variables. Regarding the first hypothesis, a positive and significant relationship between green policies and environmental concerns was confirmed, which is consistent with Gao and Zheng’s (2017) findings. Therefore, it can be concluded that the more the organization tends toward green policies in its policy-making style, the more employees will understand the importance of environmental issues, and the more concerned and worried they will be about these issues. It is suggested that managers and

officials of organizations take environmental issues very seriously and be aware of the impact of their policies on these issues.

The results of this study, in line with the second hypothesis, showed a positive and meaningful relationship between green policies and effective commitment to the organization. This is supported by Tillman's research (2012). If the organization considers greenness in the policy-making process and formulates green policies, its employees will be aware of the role of the organization's social responsibility toward the environment and realize its special attention to these issues. As a result, they will exhibit greater commitment to their organization, which can become a key element in achieving other organizational results. Thus, it is suggested that managers implement green policies and foster effective commitment among employees.

The third hypothesis of this study, which expressed the positive and significant effect of green policies on employees' eco-initiatives, was also confirmed. This aligns with the findings of Tuân et al. (2014) and Nesta et al. (2014). Therefore, it can be concluded that if managers seek to increase eco-initiatives, they should integrate environmental issues into policy-making and aim to boost innovation and employees' green initiatives through green policies. Consequently, as eco-initiatives increase, the organization's status and social brand improve among citizens, which can directly impact service delivery. Managers

should use green policies as a guide for employees' actions to generate ideas and eco-initiatives.

The fourth hypothesis of this study was also confirmed, showing that environmental concerns have a positive and significant effect on effective commitment to the organization. If there is more concern for the environment within an organization, employees will exhibit greater commitment to that organization. Effective methods will be employed to reduce environmental waste, leading to significant resource savings. Therefore, the more concerned employees are about the environment, the stronger their commitment to the organization will be. It is suggested that strategies such as creating a suitable work environment, involving employees in environmental profits and losses, and fostering a sense of environmental identity should be used to enhance environmental concern and expand effective commitment.

The fifth hypothesis of this study was confirmed, indicating that increased attention to environmental concerns within the organization can lead to a rise in employees' eco-initiatives. These results are consistent with the findings of Stritch and Christensen (2016) and Rey et al. (2012). Therefore, if managers cultivate an environment where employees' environmental concerns are elevated, these concerns will not only become a pressing need but also generate more ideas and innovations to address environmental problems. It is suggested that employees' eco-initiatives are a direct result of the organization's general orientation and the level of environmental concern and commitment. The greater the concern employees have for the environment, the more their efforts in this area will increase.

The sixth hypothesis was examined for the first time, to the best of the researchers' knowledge, and its findings showed that environmental concerns do not mediate the relationship between green policies and employees' eco-initiatives. Based on these findings, managers should focus on strengthening employees' eco-initiatives by enhancing the spirit of environmental social responsibility.

Regarding the seventh hypothesis, which

aligned with the findings of Stritch and Christensen (2016) and Raineri et al. (2016), the results showed a positive and significant effect of effective commitment to the organization on employees' eco-initiatives. When employees experience effective commitment to the organization, they develop a better emotional relationship with it and become more invested. As a result, increased commitment to the organization can drive greater efforts to find solutions and innovations, leading to more environmental behaviors and initiatives. Therefore, it is suggested that effective commitment to the organization, influenced by various organizational factors, can be a crucial variable for managers aiming to achieve the goals of organizational green policies.

The findings of the eighth hypothesis also revealed that effective commitment to the organization does not mediate the relationship between green policies and employees' eco-initiatives. This hypothesis was investigated for the first time in this study and showed that effective commitment does not mediate the relationship between green policies and employees' eco-initiatives. Policies in the organization are a major mechanism for directing employees' behavior, which can lead to increased eco-initiatives. Thus, it is suggested that managers use green policies to foster effective commitment to the organization, align with organizational goals, and enhance cooperation to strengthen eco-initiatives.

This study faced some limitations, and suggestions for future research are provided. One limitation was that respondents used generally accepted norms rather than reporting their thoughts and actions in detail. Another limitation was the lack of accurate understanding of two key concepts (i.e., eco-initiatives and green policies), which were not very clear among employees due to their novelty. Future researchers are encouraged to collect and analyze longitudinal data to address the causal effects investigated in this study, as this study was limited to cross-sectional data. Additionally, as this study was conducted on a specific sample of Environmental Organization employees with similar culture and

background, future researchers should confirm these relationships in other cities, countries, and industries. Finally, future researchers should

explore other variables and factors that could enhance eco-initiatives within organizations.

REFERENCES

- Adeel, M., Mahmood, S., & Khan, K. I. (2022). Green HR Practices and Environmental Performance: The mediating Mechanism of Employee outcomes and Moderating Role of Environmental Values. *Frontiers in Environmental Science*, 10, 1793. <https://doi.org/10.3389/fenvs.2022.100110>
- Astakhova, M. N. (2016). Explaining the effects of perceived person-supervisor fit and person-organization fit on organizational commitment in the US and Japan. *Journal of Business Research*, 69(2), 956–963. <https://doi.org/10.1016/j.jbusres.2015.08.039>
- Bentein, K., Stinglhamber, F., & Vandenberghe, C. (2002). Organization, supervisor, and workgroup-directed commitments and citizenship behaviours: A comparison of models. *European Journal of Work and Organizational Psychology*, 11(3), 341–362. <https://doi.org/10.1080/13594320244000201>
- Chou, C. J. (2014). Hotels' environmental policies and employee personal environmental beliefs: Interactions and outcomes. *Tourism Management*, 40, 436–446.
- Damghanian, H., Keshavarz, M., Ebrahimi, S. A., & Rastgar, A. (2019). Investigating the role of identity, environmental attitudes and green psychological climate in creating environmental citizenship behavior. *Journal of Environmental Science Studies*, 5(2), 2597–2607. [in persian]
- Du, X. (2015). How the market values greenwashing? Evidence from China. *Journal of Business Ethics*, 128(3), 547–574. <https://doi.org/10.1007/s10551-014-2122-y>
- Elmagrhi, M. H., Ntim, C. G., Elamer, A. A., & Zhang, Q. (2019). A study of environmental policies and regulations, governance structures, and environmental performance: The role of female directors. *Business Strategy and the Environment*, 28(1), 206–220. <https://doi.org/10.1002/bse.2250>
- Gao, X., & Zheng, H. (2017). Environmental concerns, environmental policy and green investment. *International Journal of Environmental Research and Public Health*, 14(12), 1570. <https://doi.org/10.3390/ijerph14121570>
- Gattiker, T. F., & Carter, C. R. (2010). Understanding project champions' ability to gain intra-organizational commitment for environmental projects. *Journal of Operations Management*, 28(1), 72–85. <https://doi.org/10.1016/j.jom.2009.09.001>
- Gosling, E., & Williams, K. J. (2010). Connectedness to nature, place attachment and conservation behaviour: Testing connectedness theory among farmers. *Journal of Environmental Psychology*, 30(3), 298–304. <https://doi.org/10.1016/j.jenvp.2010.01.005>
- Islam, M. J., Ferdous, L., & Begum, M. A. (2014). The environmental policies and issues to ensure safe environment. *International Journal of Innovative Research in Engineering & Science*, 3(10), 1–9.
- Ji, X., Wu, J., Liang, L., & Zhu, Q. (2018). The impacts of public sustainability concerns on length of product line. *European Journal of Operational Research*, 269(1), 16–23. <https://doi.org/10.1016/j.ejor.2017.07.011>
- Jordan, A. J. (2001). Environmental policy: protection and regulation. *International Encyclopaedia of the Social and Behavioural Sciences*, 7, 4644–4651.
- Kim, A., Kim, Y., Han, K., Jackson, S. E., & Ployhart, R. E. (2017). Multilevel influences on voluntary workplace green behavior: Individual differences, leader behavior, and coworker advocacy. *Journal of Management*, 43(5), 1335–1358. <https://doi.org/10.1177/0149206314547386>
- Kim, I., Arnhold, S., Ahn, S., Le, Q. B., Kim, S. J., Park, S. J., & Koellner, T. (2019). Land

- use change and ecosystem services in mountainous watersheds: Predicting the consequences of environmental policies with cellular automata and hydrological modeling. *Environmental Modelling & Software*, 122, 103982. <https://doi.org/10.1016/j.envsoft.2017.06.018>
- Kim, K. Y., Eisenberger, R., & Baik, K. (2016). Perceived organizational support and affective organizational commitment: Moderating influence of perceived organizational competence. *Journal of Organizational Behavior*, 37(4), 558–583. <https://doi.org/10.1002/job.2081>
- Lapointe, É., Vandenberghe, C., & Boudrias, J. S. (2013). Psychological contract breach, affective commitment to organization and supervisor, and newcomer adjustment: A three-wave moderated mediation model. *Journal of Vocational Behavior*, 83(3), 528–538. <https://doi.org/10.1016/j.jvb.2013.07.008>
- Liu, X., Ji, X., Zhang, D., Yang, J., & Wang, Y. (2019). How public environmental concern affects the sustainable development of Chinese cities: An empirical study using extended DEA models. *Journal of Environmental Management*, 251, 109619. <https://doi.org/10.1016/j.jenvman.2019.10.9619>
- Liu, X., Vedlitz, A., & Shi, L. (2014). Examining the determinants of public environmental concern: Evidence from national public surveys. *Environmental Science & Policy*, 39, 77–94. <https://doi.org/10.1016/j.envsci.2014.02.006>
- Lülfes, R., & Hahn, R. (2013). Corporate greening beyond formal programs, initiatives, and systems: A conceptual model for voluntary pro-environmental behavior of employees. *European Management Review*, 10(2), 83–98. <https://doi.org/10.1111/emre.12008>
- Maleki, A. (2018). Environmental policies in the Middle East. *Strategic Studies of Public Policy*, 8(27), 359–349. [In Persian]
- Meyer, J. P., Morin, A. J., & Vandenberghe, C. (2015). Dual commitment to organization and supervisor: A person-centered approach. *Journal of Vocational Behavior*, 88, 56–72. <https://doi.org/10.1016/j.jvb.2015.02.001>
- Michael, J., & Székely, M. (2018). The developmental origins of commitment. *Journal of Social Philosophy*, 49(1), 106–123. <https://doi.org/10.1111/josp.12220> ISSN 0047-2786
- Nesta, L., Vona, F., & Nicolli, F. (2014). Environmental policies, competition and innovation in renewable energy. *Journal of Environmental Economics and Management*, 67(3), 396–411. <https://doi.org/10.1016/j.jeem.2014.01.001>
- Nisbet, E. K., Zelenski, J. M., & Murphy, S. A. (2009). The nature relatedness scale: Linking individuals' connection with nature to environmental concern and behavior. *Environment and Behavior*, 41(5), 715–740. <https://doi.org/10.1177/0013916508318748>
- Park, S. J., Choi, S., & Kim, E. J. (2012). The relationships between socio-demographic variables and concerns about environmental sustainability. *Corporate Social Responsibility and Environmental Management*, 19(6), 343–354. <https://doi.org/10.1002/csr.284>
- Premalatha, M., Abbasi, T., & Abbasi, S. A. (2014). Wind energy: Increasing deployment, rising environmental concerns. *Renewable and Sustainable Energy Reviews*, 31, 270–288. <https://doi.org/10.1016/j.rser.2013.11.019>
- Raineri, N., Mejía-Morelos, J. H., Francoeur, V., & Paillé, P. (2016). Employee eco-initiatives and the workplace social exchange network. *European Management Journal*, 34(1), 47–58. <https://doi.org/10.1016/j.emj.2015.10.006>
- Ramus, C. A., & Steger, U. (2000). The roles of supervisory support behaviors and environmental policy in employee “ecoinitiatives” at leading-edge European companies. *Academy of Management Journal*, 43(4), 605–626.
- Rey, J. R., Carlson, D. B., & Brockmeyer, R. E. (2012). Coastal wetland management in Florida: environmental concerns and human health. *Wetlands Ecology and*

- Management*, 20(3), 197–211. <https://doi.org/10.1007/s11273-011-9235-1>
- Ribeiro, N., Gomes, D. R., Ortega, E., Gomes, G. P., & Semedo, A. S. (2022). The Impact of green hrM on employees' eco-friendly behavior: The mediator role of organizational identification. *Sustainability*, 14(5), 2897. <https://doi.org/10.3390/su14052897>
- Schmidt, K. H. (2007). Organizational commitment: A further moderator in the relationship between work stress and strain?. *International Journal of Stress Management*, 14(1), 26–40. <https://psycnet.apa.org/doi/10.1037/1072-5245.14.1.26>
- Seyyed Javadin, S. R., Fayyazi, M., Baluchi, H. (2015). Investigating the effect of psychological capital on the quality of delivered services to customers by counter employees with mediation of organizational commitment. *Journal of Public Administration*, 7(2), 277–302. [in persian]
- Shahab, Y., Ntim, C. G., Chengang, Y., Ullah, F., & Fosu, S. (2018). Environmental policy, environmental performance, and financial distress in China: Do top management team characteristics matter?. *Business Strategy and the Environment*, 27(8), 1635–1652. <https://doi.org/10.1002/bse.2229>
- Smith, A. M., & O'Sullivan, T. (2012). Environmentally responsible behaviour in the workplace: An internal social marketing approach. *Journal of Marketing Management*, 28(3-4), 469–493. <https://doi.org/10.1080/0267257X.2012.658837>
- Stritch, J. M., & Christensen, R. K. (2016). Going green in public organizations: Linking organizational commitment and public service motives to public employees' workplace eco-initiatives. *The American Review of Public Administration*, 46(3), 337–355. <https://doi.org/10.1177/0275074014552470>
- Sun, J., Yuan, Y., Yang, R., Ji, X., & Wu, J. (2017). Performance evaluation of Chinese port enterprises under significant environmental concerns: An extended DEA-based analysis. *Transport Policy*, 60, 75–86. <https://doi.org/10.1016/j.tranpol.2017.09.01>
- Tilleman, S. (2012). Is employee organizational commitment related to firm environmental sustainability?. *Journal of Small Business & Entrepreneurship*, 25(4), 417–431. <https://doi.org/10.1080/08276331.2012.10593582>
- Tuân, N. P., Mai, N. T. T., & Yoshi, T. (2014). The roles of supervisory support behaviors and environmental policy in employee “eco-initiatives” at manufacturing companies in Vietnam. *Journal of Economic Development*, (JED, 221), 105–126.
- Van Knippenberg, D., & Sleebos, E. (2006). Organizational identification versus organizational commitment: self-definition, social exchange, and job attitudes. *Journal of Organizational Behavior: The International Journal of Industrial, Occupational and Organizational Psychology and Behavior*, 27(5), 571–584. <https://doi.org/10.1002/job.359>
- Wu, J., Chen, Z., & Ji, X. (2018). Sustainable trade promotion decisions under demand disruption in manufacturer-retailer supply chains. *Annals of Operations Research*, 1–29. <https://doi.org/10.1007/s10479-018-2964-2>
- Yafi, E., Tehseen, S., & Haider, S. A. (2021). Impact of green training on environmental performance through mediating role of competencies and motivation. *Sustainability*, 13(10), 5624. <https://doi.org/10.3390/su13105624>
- Yin, H., & Schmeidler, P. J. (2009). Why do standardized ISO 14001 environmental management systems lead to heterogeneous environmental outcomes?. *Business Strategy and the Environment*, 18(7), 469–486. <https://doi.org/10.1002/bse.629>
- Zavalloni, M., Raggi, M., & Viaggi, D. (2019). Agri-environmental policies and public goods: An assessment of coalition incentives and minimum participation rules. *Environmental and Resource Economics*, 72(4), 1023–1040. <https://doi.org/10.1007/s10640-018-0237-9>