



Research Paper

Explaining the Model of Tendency Towards Green Entrepreneurship Based on Green Transformational Leadership with the Mediating Role of Environmental Attitude



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Abstract

This study aimed to explain the model of green entrepreneurship orientation based on green transformational leadership with the mediating role of environmental attitudes. The research method was a descriptive correlational research using the structural equation modeling method. The statistical population of the study included 1252 employees of the Kermanshah Education Headquarters, of whom 300 were selected as samples using the convenience sampling method. The Chen and Chang Green Transformational Leadership Questionnaire (2013), Thompson and Burton Environmental Attitudes (1994), and Cowin and Miller Green Entrepreneurship Orientation (2014) questionnaire were used to collect data. The data were analyzed using SMART PLS software. The results of data analysis showed that green transformational leadership has a direct effect on the tendency to green entrepreneurship, green transformational leadership has a direct effect on environmental attitudes, environmental attitudes have a direct effect on the tendency to green entrepreneurship, and the indirect effect of green transformational leadership has an indirect effect on the tendency to green entrepreneurship, and the mediating role of environmental attitudes is confirmed. Therefore, it can be said that green transformational leadership and environmental attitudes are effective factors on the tendency to green entrepreneurship.

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Introduction

In today's world, green entrepreneurship is considered an effective strategy for the economic and social development of countries, and its development can play an important role in reducing environmental degradation and reducing diseases caused by consuming unhealthy food (Khosravipour, Roshani, & Kourehpaz, 2022). The term green entrepreneur or environmental entrepreneur was first introduced by Bennett (1991). The tendency towards green entrepreneurship refers to the everyday behaviors of an organization that include risk-taking, initiative, competitiveness, and autonomy (Makhloufi, 2024). In general, it can be said that the tendency towards green entrepreneurship is a strategic tool that helps small companies to gain new opportunities in the market (Ato Sarsah, Tian, Dogbe, Bamfo, & Pomegbe, 2020). Luu (2021) believes that the tendency towards green entrepreneurship refers to the extent to which a company's activities are strategically aligned, risk-taking, and creative in starting and introducing green products and services. This type of entrepreneurship leads to the creation of sustainable jobs called green jobs that empower the sustainable economic development of societies (Misztal & Kowalska, 2024). Therefore, paying attention to green entrepreneurship as a solution to mitigate the negative consequences of business development can be effective in reducing these damages (Bell & Bell, 2023). Therefore, identifying the factors affecting it is important.

Green transformational leadership is a variable that affects the tendency towards green entrepreneurship (Majali, Alkaraki, Asad, Aladwan, & Aledeinat, 2022). Among the new leadership styles, the green

transformational leadership style can have the greatest impact on the emergence of green behaviors. Robertson (2018) consider green transformational leadership to be a leadership style that encourages its followers to achieve environmental goals and creates the necessary motivation for them to demonstrate high-level environmental behaviors. Green transformational leadership is one of the most important leadership functions that encourages the organization's human resources to achieve organizational goals and increases their motivation to increase organizational performance (Farhadi Nejad, Alikarami, & Abdi, 2019). This leadership style focuses on creating motivation to encourage and develop individual and group green behaviors and, by mentally encouraging and stimulating green and new thoughts in employees, increases the commitment and responsibility of employees towards the environment (Rizvi & Garg, 2021). By paying special attention to their followers and establishing friendly relationships with them, these leaders can consider environmental values and strengthen environmental behaviors in them (X. Chen, Chen, Zhang, & He, 2025). Therefore, it can be said that green transformational leadership can pave the way for the growth of green behaviors and strengthen the tendency towards green entrepreneurship among employees of any organization (Khosravipour et al., 2022). Shabeeb Ali, Ammer, and Elshaer (2023), Cai, Hussain, and Zhang (2022), and X. Chen et al. (2025) have also pointed out in their research the relationship between green transformational leadership and green entrepreneurship orientation.

Shabeeb Ali et al. (2023) have pointed out in their research the role of environmental attitudes in the tendency towards green

entrepreneurship. Environmental attitude includes a set of beliefs, tendencies, and feelings of an individual that are related to the environment (Khan, 2024). Environmental attitude is one of the important and predictive variables towards the environment that leads to achieving positive changes in the field of the environment, because people with positive environmental attitudes show more environmental behaviors and have a greater tendency towards green entrepreneurship (Aghighi, 2023). In other words, environmental attitude is a context, internal state, talent, or learned tendency to respond to desirable or undesirable behavior that helps individuals to have a greater commitment to environmental protection and make more efforts to protect this environment (Andersson, Jackson, & Russell, 2013). Organizational employees with a positive attitude towards the environment can pave the way for increased green behaviors and better green-based work and services (Asefi, 2021). Behzadi, Soltani, and Alinejad (2022), Rastgar, Keshavarz, Rouhani Rad, and Rouhani Rad (2021), Farhadi Nejad et al. (2019), Yasir, Babar, Mehmood, Xie, and Guo (2023), Agrawal and Pradhan (2023), and Momayez, Rasouli, Alimohammadirokni, and Rasoolimanesh (2023) have pointed out in their research the relationship between environmental attitudes and the tendency towards green entrepreneurship.

Green entrepreneurship is considered an innovative form of business activities that promote the profitability of the company by considering environmental dimensions and consider environmental values as part of their identity, which has many positive consequences (Marios, Ioannis, & Konstantina, 2011). Given that environmental

attitudes are an important and effective factor in green entrepreneurship (Aghighi, 2023; Farhadi Nejad et al., 2019; Turki, Kalantari Shahijan, & Alirezaei, 2022) also that green transformational leadership is a variable that affects both environmental attitudes and green entrepreneurship, therefore, environmental attitudes can play a mediating role in the relationship between green transformational leadership and green entrepreneurship. Therefore, the present study was designed to explain the green entrepreneurship tendency model based on green transformational leadership with the mediating role of environmental attitudes among the staff of the General Directorate of Education of Kermanshah.

Research Methodology

The method of this research was descriptive correlational with structural equation approach. The statistical population of the research included all the staff of the General Directorate of Education of Kermanshah province, 1252 people, of whom 300 people were selected as a sample based on the Cochran formula. The available sampling method was used to select the sample. A questionnaire was used to collect data, and descriptive statistics methods (frequency, mean, standard deviation) and inferential statistics methods (normality tests, Pearson correlation coefficient) were used to analyze the data under SPSS software and PLS software to examine the model fit.

Green Transformational Leadership

This questionnaire was designed by Chen and Chang (2013) with 6 questions to measure green transformational leadership and is single-factor. The questionnaire is scored on a five-point Likert scale from very low (1) to very high (5). The minimum score is 6 and the

maximum score is 30. Chen and Chang confirmed the validity of the above questionnaire and reported its reliability as 0.85. In Iran, the content validity of the questionnaire was confirmed by andervazh and razjoo (2021) and its reliability was reported as 0.90. The validity of the questionnaire was confirmed in this study and its reliability was calculated as 0.88 using the Cronbach's alpha calculation method.

Environmental Attitudes

This questionnaire was designed by Thompson and Barton (1994) in 15 questions and three dimensions of mindfulness, metacognition and control. The questionnaire is scored on a five-point Likert scale from strongly disagree (1) to strongly agree (5). The minimum score is 15 and the maximum score is 75. The content validity of the questionnaire was confirmed by Thompson and Barton (1994) and its reliability was reported as 0.78. Mafakheri (2017) confirmed the content validity of the questionnaire and reported its reliability as 0.91. The validity of the questionnaire was confirmed in this study and its reliability was calculated as 0.82 using the Cronbach's alpha calculation method.

Green Entrepreneurship Propensity

This questionnaire was designed by Covin and Miller (2014) in 10 questions and three dimensions of innovation, originality and leadership. The questionnaire is scored on a five-point Likert scale from strongly disagree (1) to strongly agree (5). The minimum score is 10 and the maximum score is 50. The content validity of the questionnaire has been confirmed and its reliability has been reported as 0.89 by Covin and Miller (2014). Masoudi and Shahin (2021) has confirmed the content validity of the questionnaire and reported its reliability as 0.77. The validity of the questionnaire has been confirmed in this study and its reliability was calculated as 0.93 using the Cronbach's alpha calculation method.

Research Finding

300 Staff members of the General Directorate of Education of Kermanshah participated in this study, their average age was 41.47 and their average work experience was 15.69

Table 1. Descriptive statistics and correlation coefficient between research variables

Variable	M	SD	3	2	1
Green transformational leadership	19.56	3.52	0/52**	0/48**	
Environmental attitude	45.58	6.49	0/59**	1	
Green entrepreneurship orientation	32.45	5.23	1		

As can be seen in the table above, the mean and standard deviation of the green transformational leadership variable are 19.56 and 3.52, respectively, the mean and standard deviation of the environmental attitude variable are 10.78 and 13.49, respectively, the

mean and standard deviation of the communication patterns variable are 45.58 and 6.49, respectively, and the mean and standard deviation of the green entrepreneurship tendency variable are 32.45 and 5.23, respectively. The result of the

Pearson correlation coefficient test showed that there is a significant relationship between green transformational leadership and green entrepreneurship tendency ($r = 0.52, p < 0.01$), between green transformational

leadership and environmental attitude ($r = 0.48, p < 0.01$), and between environmental attitude and green entrepreneurship tendency ($r = 0.59, p < 0.01$).

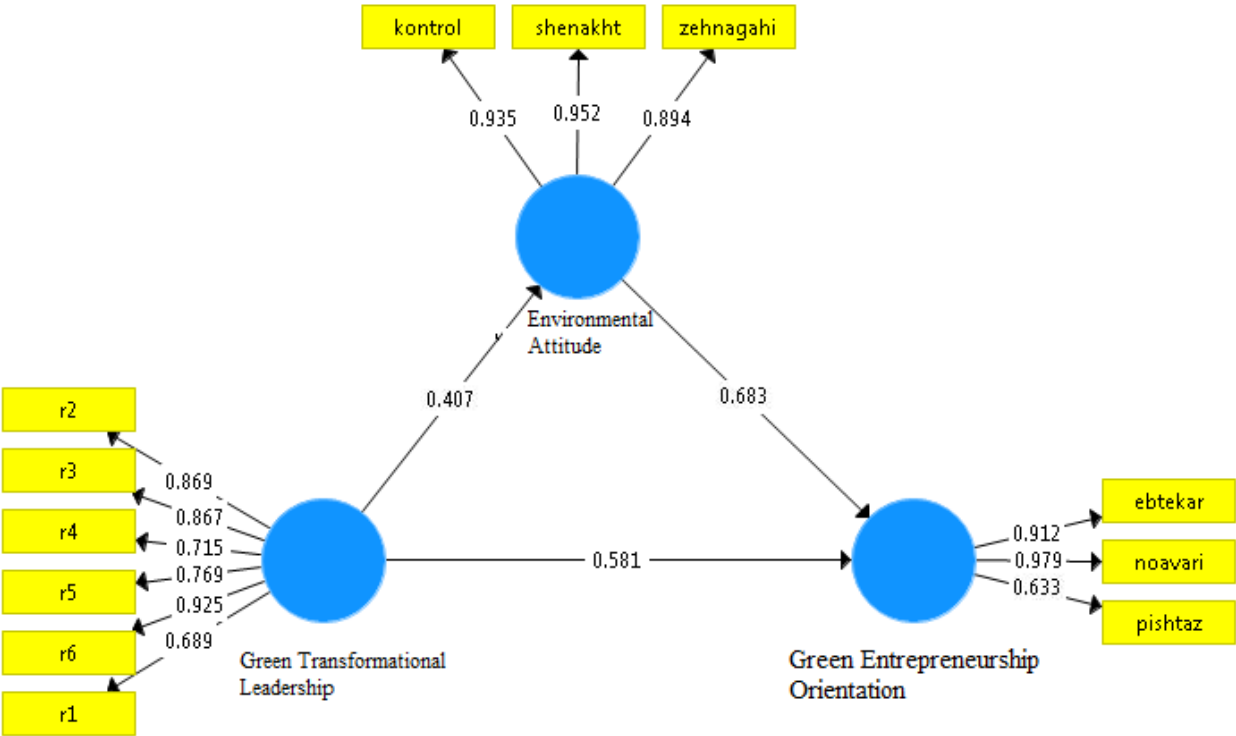


Figure 1. Structural model of research in standard form

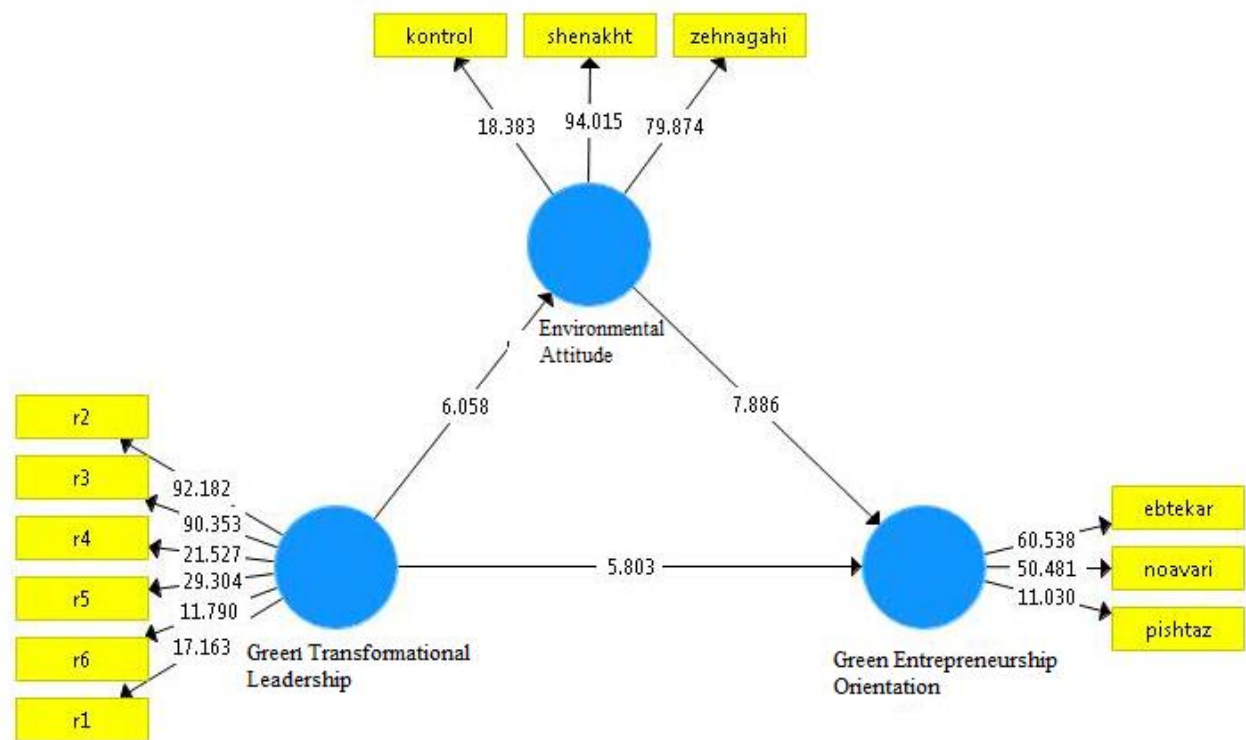


Figure 2. Structural model of the research in the t-significance

Table 1. Calculation of direct and indirect effects

from	to	Direct effect	t
Green Transformational Leadership	Green Entrepreneurship Orientation	0.58	5.80
Green Transformational Leadership	Environmental Attitude	0.40	6.05
Environmental Perspective	Green Entrepreneurship Orientation	0.68	7.88
from	to	Indirect effect	Sig
Green Transformational Leadership	Green Entrepreneurship Orientation (Environmental Attitude)	0.41	0.01
GOF	0/37		

The results of data analysis showed that the standard factor loading of the variable green transformational leadership and green

entrepreneurship tendency was 0.58 and the factor loading of the t statistic was 5.80, which indicates that green transformational

leadership has a direct and significant effect on entrepreneurship tendency. The standard factor loading of the variable green transformational leadership and environmental attitude was 0.40 and the factor loading of the *t* statistic was 6.05, which indicates that the direct effect of green transformational leadership on environmental attitude was significant. The standard factor loading of environmental attitude and green entrepreneurship tendency was 0.68 and the factor loading of the *t* statistic was 7.88, which indicates that the direct effect of environmental attitude on entrepreneurship tendency was significant. Also, the indirect effect of the variable of green transformational leadership on the tendency to green entrepreneurship on the mediating role of environmental attitude was obtained to be 0.37, which indicates that green transformational leadership has an indirect effect on the tendency to green entrepreneurship on the mediating role of environmental attitude, which is significant at the 0.01 level. Also, an index called goodness of fit (GOF) was used to evaluate the overall research model. Obtaining a value of 0.37 for the GOF index showed that the model has a relatively strong and appropriate fit.

Discussion & Conclusions

This study aimed to explain the model of green entrepreneurship orientation based on green transformational leadership with the mediating role of environmental attitude. The results of data analysis to examine the first hypothesis showed that green transformational leadership has a positive and direct effect on green entrepreneurship orientation. This result is consistent with the results of studies by Shabeeb Ali et al. (2023) on the relationship between green transformational leadership and green

entrepreneurship orientation. In explaining the relationship between green transformational leadership and the tendency towards green entrepreneurship, it can be said that green transformational leadership, by inspiring, motivating followers and setting an example, is a prominent factor in the growth of green beliefs and behaviors and stimulates its followers to cultivate environmental behaviors in employees and increase their tendency to increase green behaviors. By increasing the tendency of employees towards green behaviors and strengthening their positive attitudes towards the environment, they direct their creative and innovative activities towards green behaviors or green entrepreneurship. These leaders encourage employees to display green behaviors and increase the level of green innovative behaviors in them.

The results of data analysis to examine the second hypothesis showed that green transformational leadership has a positive and direct effect on the tendency to environmental attitudes. This result is consistent with the results of research by Farhadi Nejad et al. (2019), Aghighi (2023) and Turki et al. (2022) on the relationship between green transformational leadership and the tendency to environmental attitudes. In explaining the relationship between green transformational leadership and environmental attitudes, it can be said that transformational leaders, with the influence they have on their employees, can transfer their green and environmental attitudes to employees and strengthen their awareness and knowledge about the environment and methods of preserving it. In fact, these leaders can strengthen their environmental attitudes and encourage their green behaviors by encouraging employees,

which will lead to the consolidation of these attitudes in them.

Also, the results of data analysis to examine the third hypothesis showed that environmental attitude has a positive and direct effect on the tendency towards green entrepreneurship. This result is consistent with the results of studies by Behzadi et al. (2022), Rastgar et al. (2021), Farhadi Nejad et al. (2019), Yasir et al. (2023), Agrawal and Pradhan (2023) and Momayez et al. (2023) on the relationship between environmental attitude and the tendency towards green entrepreneurship. In explaining the relationship between environmental attitudes, it can be said that environmental attitudes refer to an individual's beliefs, tendencies, and feelings towards the environment and help them make more efforts to protect the environment and demonstrate more green behaviors. When they want to start a new and entrepreneurial business, they pay attention to the consequences of their work and products

on the environment and take their entrepreneurship in a direction that is green and does not have negative impacts on the earth.

According to the results of the research, it is recommended that education managers strengthen their green beliefs, attitudes, and behaviors and use the green transformational leadership style to manage their organizations, hold training courses with the aim of increasing awareness and changing employees' attitudes towards environmental protection, and strengthen green entrepreneurship tendencies among employees by considering incentive policies. It should be noted that this research was designed among education employees in Kermanshah province, so caution should be exercised in generalizing it to other communities.

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