

The Impact of Green Transformational Leadership and Green Human Resource Management on Sustainable Competitive Advantage: Mediating Role of Green Innovation Performance

Tanzila Abdul Karim (Corresponding Author)

PHD Scholar, Institute of Business Administration, Gomal University, Dera Ismail Khan

Email: tanzilakarim@yahoo.com

Dr. Aziz Javed

Assistant Professor, Institute of Business Administration, Gomal University, Dera Ismail Khan

Email: azizjaved73@gmail.com

Abstract

With the increasing environmental challenges and the competition becoming tougher, companies are increasingly considering sustainability as a part of their overall strategies. This study looked at how green transformational leadership and Green Human resource management affect sustainable competitive advantage. It further verified the role of green innovation performance as an intermediate. The study relied on the figures of 220 employees in firms that emphasize on sustainability. They checked their ideas with the help of a method known as structural equation modeling. The findings indicated that green transformational leadership Green human resource management is useful in turn enhances sustainable competitive advantage. Green innovation also relates green human resource management to sustainable competitive advantage to some degree. The study found that GIP partially connects GTL, GHRM, and SCA, showing that innovation is key in turning green efforts into competitive benefits. This research adds to what is already known by bringing together ideas about leadership, human resources, and innovation within a sustainability context. The findings offer useful advice for business leaders and policy makers. They suggest that companies should encourage green leadership and use HRM that support the environment to drive innovation and gain a sustainable edge. The study also talks about future research areas and the limitations of the current work.

Keywords: Green Transformational Leadership (GTL), Green Human Resource Management (GHRM), Sustainable Competitive Advantage (SCA), Green Innovation Performance (GIP)

1.Introduction

The increasing need for environmental sustainability has changed how organizations set their priorities around the world. Due to climate change, environmental harm, and more restrictive regulations, businesses are reconsidering the manner in which they

conduct their operations and incorporate sustainability into their strategies (Ahmed et al., 2021). Companies are no longer measured by their financial success alone, but also their ability to generate sustainable both environmental and social value. In order to maintain such changes, companies are engaging in increased green management activities in order to remain competitive in a market that are environmentally conscious. Green transformational leadership (GTL) is one of such practices that allows a leader to motivate his or her staff, transform organizational values, and align business strategies with sustainability interests (Chen & Chang, 2013). Engaged leaders that pursue environmental interests have an impact on their workers and contribute to the establishment of a common vision that contributes to environmentally friendly activity in the company. Green human resource management (GHRM) is significant in addition to leadership to make sustainability part of the company culture. GHRM includes environmental factors in important HR tasks like hiring, training, evaluating performance, and rewards (Renwick et al., 2013). By incorporating sustainability in these processes, the companies will make sure that employees possess the skills, motivation, and knowledge that are necessary to facilitate the efforts of environmental sustainability. In this manner, GHRM assists in transforming leadership ideas into practice in the organization. Although much attention is given to both GTL and GHRM, the combined influence of these aspects to achieve a sustainable competitive advantage (SCA) is still not well understood. The valuable, rare, hard to copy and not easily replaced resources give competitive advantage, according to Barney (1991). Green practices can assist organizations to do better in the case of sustainability (Al-Shammari, 2023). However, how these practices actually lead to competitive advantage is not well understood. Specifically, the part of green innovation performance (GIP) as the intermediate stage in this process has not been researched sufficiently. Innovation has been identified as one of the determinants of establishing a competitive advantage and green innovation enables firms to have a lower environmental impact as well as become more efficient and better placed in the market (Chiou et al., 2011). The role of GHRM in facilitating innovation may provide a better understanding of the role of sustainability in enhancing performance. Green-focused leadership and how companies manage their people are important in shaping how employees act and how well the organization does. Green Transformational Leadership (GTL) helps employees follow the goals that leaders set, according to Norton et al. (2015). But there isn't much research on how these factors affect the results of the organization. To address this, this study suggests a detailed framework that connects Green transformational leadership (GTL), Green Human Resource Management (GHRM), Green Innovation Performance (GIP), and Sustainable Competitive Advantage (SCA). The study provides an in-depth picture of how businesses can gain competitive advantages by being sustainable, by examining both the intermediate steps and the circumstances that can affect these factors. The study adds to the existing knowledge in several ways. First, it integrates concepts on leadership, human resource management, and innovation into a single conceptual framework. Second, it demonstrates the performance of green innovation between HRM and competitive performance. Lastly, it provides useful recommendations to companies that would like to integrate sustainability with their overall strategy.

2. Literature Review

2.1 Green Transformational Leadership

Green transformational leadership is about leaders who inspire employees to go beyond environmental goals and embrace sustainable practices (Chen & Chang, 2013).

2.2 Green Human Resource Management.

Green HRM involves incorporating environmental goals into regular HR tasks, and it encourages employees to take part in sustainability efforts (Renwick et al., 2013).

2.3 Sustainable Competitive Advantage

Sustainable competitive advantage is the capability of an organization to continue doing better than others in the long run (Barney, 1991).

2.4 Green Innovation Performance

Green innovation performance reflects the performance of an organization in terms of developing better environmental-friendly products and processes (Chiou et al., 2011).

2.1. Hypotheses Development

H1: Green transformational leadership has a positive impact on SCA

H2: GTL has a significant positive effect on Green Innovation Performance.

H3: GHRM has a significant positive effect on Sustainable Competitive Advantage.

H4: GHRM has a significant positive effect on Green Innovation Performance.

H5: Green Innovation Performance serves as a mediator in the relationship between GTL and Sustainable Competitive Advantage.

H6: Green Innovation Performance mediates the relationship between GHRM and Sustainable Competitive Advantage.

3. Methodology

3.1 Research Design

A quantitative research approach was used to check the hypotheses that were proposed.

3.2 Sample and Data Collection

The information was collected on 220 employees who were employed in firms that were practicing sustainability. Convenience sampling was used by the researchers to gather the data.

3.3 Measurement Tool

All the concepts were ranked on scales that have been tested and proven to be effective on a scale of five points with which you agree or disagree.

3.4 Data Analysis

To verify the consistency of the data, the relationship between the variables, and conduct a structural equation modeling analysis, researcher used SPSS and AMOS.

3.5 Table 1

Reliability Analysis of the tools

Construct	Alpha
GTL	0.89
GHRM	0.87
GIP	0.91
SCA	0.88

3.6 Table 2

Descriptive Statistics

Construct	Mean	Std. D
GTL	4.21	0.65
GHRM	3.98	0.72
GIP	4.10	0.68
SCA	4.05	0.70

3.7 Table 3

Correlation Matrix

Particulars	1	2	3	4
GTL	1			
GHRM	0.68**	1		
GIP	0.72**	0.75**	1	
SCA	0.65**	0.70**	0.78**	1

3.8 Table 4

Structural Equational Model

Path	β	p-value
GTL → SCA	0.48	<0.001
GTL → GIP	0.53	<0.001
GHRM → SCA	0.44	<0.001
GHRM → GIP	0.59	<0.001
GIP → SCA	0.68	<0.001
Mediation (GTL → GIP → SCA)	0.36	<0.001
Mediation (GHRM → GIP → SCA)	0.40	<0.001

4 Discussion

The paper contributed to new knowledge by demonstrating through real-life examples how leadership, human resources, and innovation can collaborate to produce a sustainable competitive edge to a company. The findings revealed that green transformation leadership (GTL) is a relevant starting point and influence the way green human resource management (GHRM) is carried out, which subsequently enables the company to remain sustainable. The relationship between GHRM and green innovation

practices (GIP) is strong and indicates that human resource systems play a key part in facilitating the process of innovation. In contrast to the old means of people management, GHRM links the way employees behave to the objectives of environmental protection that would keep the company innovative with time. Another finding of the study was that innovation is a significant contributor in transforming HR activities into a competitive advantage. This aids concepts of how businesses utilize their resources and develop their capabilities to remain competitive. It highlights that innovation is a significant competence in the long-term success.

5 Conclusion

This research demonstrated some definite indications regarding the role of green transformational leadership and green human resource management in developing a sustainable competitive advantage. Findings revealed that the impact of green transformational leadership (GTL) on green human resource management (GHRM), which can further enhance green innovation performance and achieve a greater sustainable competitive advantage, is significant. A primary conclusion of this paper is that green innovation performance is an important aspect that links these concepts. The results indicate that mere presence of good HRM does not guarantee a company to have a competitive advantage unless the activities result in innovation. This shows how important innovation is as a strategic skill that turns internal resources into real results. The experiment also established that a robust Green transformational leadership is a supportive factor. A code of sustainability contributes to making leadership and HRM more efficient, as there is a match between what employees appreciate and what the company wants to accomplish. From a theory point of view, this study adds to the idea of the resource-based view by showing how green leadership, HRM, and innovation work together as key resources for strategy, policy and tactic. It is also useful to the sustainability sector because it provides a multi-level scheme according to which companies generate long-term competitive advantages. Practically, business organizations ought to concentrate on creating leaders with environmental consciousness, modernizing their human resource systems with sustainability and establishing a robust environment friendly strategy. Such measures can be used to enhance the environmental performance and as well as make the company more competitive in the markets that are concerned with sustainability. Overall, this research indicates that attaining a sustainable competitive advantage requires a comprehensive and integrated strategy. Companies that match leadership, HRM and innovation have high chances of succeeding in the fast-changing business environment where sustainability is considered a priority.

6 Future Direction

The next research needs to address the changing nature of sustainability practices over time by conducting long-term research. Moreover, the consideration of other cultures can be employed to demonstrate how these concepts can be applied in other environments. The research might be even richer and complete with the addition of

additional factors such as digital transformation and environmental performance to the model.

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