
The Influence Of Green Innovation, Green Knowledge Management And Green Transformational Leadership Mediated By Risk On Green Corporate Performance

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Abstract

In the modern era and globalization that increasingly emphasizes the importance of sustainability, companies are required to adopt environmentally friendly business strategies to improve their competitiveness and performance. The concept of green corporate performance is one of the main indicators to measure the success of companies in implementing sustainability principles. This study examines general insurance companies, which have an important role in the financial sector and are strongly influenced by environmental factors and government regulations. The purpose of this study is to analysed the effect of green innovation, green knowledge management, and green transformational leadership on green corporate performance, with risk as a mediating variable. This research is expected to provide insight for management in formulating business strategies that are more sustainable and responsive to environmental challenges. The method used is a quantitative approach with statistical analysis to test the relationship between variables with 307 respondents. The results showed that green innovation has a direct influence on green corporate performance. Green innovation on risk has a direct influence. Green knowledge management has a direct effect on green corporate performance and green knowledge management has a direct effect on risk. Furthermore, green transformational leadership shows a direct influence on green corporate performance and green transformational leadership has a direct influence on risk. Risk has a direct influence on green corporate performance. In the mediation role analysis, it is found that green innovation mediated by risk has a partial mediation effect on green corporate performance. Green knowledge management mediated by risk has a partial mediation on green corporate performance. Green transformational leadership mediated by risk shows a partial mediation effect on green corporate performance. This finding indicates that although green innovation, green knowledge management, and green transformational leadership directly contribute to improving green corporate performance. The role of risk as a mediator also provides a partial influence (partial mediation) in strengthening the relationship. Therefore, general insurance companies need to pay attention to risk assessment and mitigation strategies in implementing green innovation, green knowledge management, and green transformational leadership to improve green corporate performance.

Keywords: *Green innovation, Green knowledge management, Green transformational leadership, Risk, Green corporate performance*

INTRODUCTION

The insurance industry is an industry that has an important role in the economy. By definition, the function of insurance is to restore the financial position as it was shortly before the risk occurred. In the current era, insurance has an important role to protect unexpected events, both in risks that affect business entities and risks that affect individuals. Technological advancements have enabled the insurance industry to leverage data analytics, sensors, and wearables, as well as mobile phone data to provide customized risk solutions is needed to identify potential models (Yu & Yen, 2018). But until now, there is still a lot of untapped potential such as the importance of digital transformation in the insurance industry (Stoekli *et al.*, 2018; Eling & Lehmann, 2017). To affecting the business processes of insurance companies, digital innovation has been instrumental in creating fully digitized suppliers that compete with traditional insurance companies. Green transformational leadership, characterized by its emphasis on inspiring pro-environmental behaviour, is emerging as a key linchpin in steering the sector towards sustainable practices. green transformational leadership because it motivates colleagues to exhibit green work behaviours and achieve green performance (Chen *et al.*, 2006;

Chen & Chang, 2013). To respond to some of these problems, the insurance industry is encouraged to adopt and optimize the use of environmentally friendly technology. For this reason, it is necessary to have a business strategy in the general insurance industry that can be optimized, one of which is by carrying out green innovation, green knowledge management, green transformational leadership to minimize risks and dynamic conditions in achieving green corporate performance (Tiep Le & Gia, 2024). Based on the explanation above, this research aims to analyse whether green innovation, green knowledge management and green transformational leadership mediated by risk have an impact on green corporate performance in General Insurance companies in Jakarta?

Some previous research will be presented as below to facilitate organization and show research variables, namely: Green innovation (GI), Green Knowledge Management (GKM), Green Transformational Leadership (GTL), Risk (RO), Green Corporate Performance (GCP); Research conducted by Pisoni (2020) explains the steps taken by a small insurance company in facing the growing digital transformation. Organizational transformation triggered by technological advances requires flexibility and adaptability to change. To ensure the sustainability of future profits, insurance companies seek new sources of revenue, reduce costs, and build competitive advantages in various aspects, such as price, quality, speed, innovation, and barriers to market entry.

RESEARCH METHODS

This study uses a quantitative approach in which the relationship between variables will be analysed to test the hypothesis developed based on previous research. Data collection in this study is cross-sectional, namely data is taken once during the research period. The unit of analysis to be studied is the company or business actor in a general insurance company in Jakarta. Based on the unit of analysis, the observation unit is: a) Respondents are high-level management. b) Decision makers in the field they are responsible.

RESULT AND DISCUSSION

Based on the analysis can describe more detail, as follows:

1: Green innovation has a positive effect on green corporate performance

Based on the results obtained, it is known that green innovation has a direct effect on green corporate performance with an estimate of 0.368 and a p-value of 0.000, which means that hypothesis 1 is supported. This finding strengthens recent literature showing that green innovation contributes to improving a company's financial performance, strengthening brand reputation, and reducing environmental risks (Dorfleitner & Grebler, 2022; Meles *et al.*, 2023).

2: Green innovation has a positive effect on risk

The results of the study show that green innovation has a direct effect on risk with an estimate of 0.263 and a p-value of 0.001, indicating that hypothesis 2 is supported. This finding is in line with research conducted by Lewis (2023), which found that the implementation of green innovation contributes to company volatility and risk levels, but also has a positive impact on company value and emission performance.

3. Green knowledge management has a positive effect on green corporate performance

Based on the results obtained, it is known that green knowledge management has a direct effect on green corporate performance with an estimate value of 0.225 and a p-value of 0.000, which means that hypothesis 3 is supported. This finding supports previous research by Abeer (2023) revealed that GKM significantly affects organizational sustainability performance, with

knowledge-based leadership acting as a mediator in the relationship between GKM and organizational sustainability performance.

4. Green knowledge management has a positive effect on risk

Based on the results obtained, it is known that green knowledge management has a direct effect on risk with an estimate value of 0.409 and a p-value of 0.000, which means that hypothesis 4 is supported. This finding strengthens previous research by Eva (2024) emphasizes the importance of collaboration and implementation of GKM through knowledge sharing among insurance companies, policy makers, regulators, and other stakeholders in addressing climate change risks. This finding reinforces the view that green knowledge is a strategic asset in anticipating dynamics and uncertainties related to sustainability aspects.

5. Green transformational leadership has a positive effect on green corporate performance

Based on the results obtained, it is known that green transformational leadership (GTL) has a direct effect on green corporate performance with an estimate value of 0.132 and a p-value of 0.003, which means that hypothesis 5 is supported. The magnitude of the influence of green transformational leadership on green corporate performance is 0.132. Asadi *et al.* (2020) showed similar results, namely testing the relationship between green transformational leadership (GTL), motivation, and business performance. The study revealed that GTL has a significant influence on improving business performance. Furthermore, There is a positive and significant relationship between green transformational leadership and environmentally oriented corporate performance.

6. Green transformational leadership has a positive effect on risk

Based on the results obtained, it is known that green transformational leadership has a direct effect on risk with an estimate value of 0.174 and a p-value of 0.018, which means that hypothesis 6 is supported. Previous research by Bhati *et al.* (2023) also found that green transformational leadership has a significant impact on improving risk management and sustainable company performance.

7. Risk has a positive effect on green corporate performance

Based on the results obtained, it is known that risk has a direct effect on green corporate performance with an estimate value of 0.343 and a p-value of 0.000, which means hypothesis 7 is supported. These findings are in line with previous research by Sylvester *et al.* (2022), who found a positive influence between total risk management and performance measures, especially in companies that implement more green innovation and invest in intellectual capital.

8. Green innovation mediated by risk has a positive effect on green corporate performance

Based on the results obtained, it is known that risk mediates the effect of green innovation on green corporate performance with an estimate of 0.090 and a p-value of 0.003, which means that hypothesis 8 is supported. This finding is in line with research conducted by Muhammad Kashif (2019) found that Enterprise Risk Management (ERM) plays a crucial role in driving sustainable innovation in organizations. ERM helps companies identify, measure, and manage various risks that are directly related to achieving sustainability performance.

9. Green knowledge management mediated by risk has a positive effect on green corporate performance

Based on the results obtained, it is known that risk mediates the effect of green knowledge management on green corporate performance with an estimate value of 0.140 and a p-value of 0.003, which means that hypothesis 9 is supported. Findings from previous research by Zhara & Mazreku (2014) showed that demands from regulatory and supervisory authorities in the implementation of green knowledge management (GKM) have a significant impact on insurance companies in improving risk management practices. This means that although GKM directly contributes to the company's green performance, the existence of risk as an additional mediation pathway also has a significant influence where good risk management is needed to maximize the effectiveness of GKM in improving corporate performance.

10. Risk-mediated green transformational leadership has a positive effect on green corporate performance

Based on the results obtained, it is known that risk mediates the effect of green transformational leadership on green corporate performance with an estimate value of 0.060 and a p-value of 0.000, which means that hypothesis 10 is supported. Previous research conducted by Adams *et al.* (2019) supports the argument that risk assessment and mitigation (underwriting) and pricing strategies can provide economic benefits when supported by leadership that is able to drive innovation in products and processes, including the use of new technologies to improve company performance. Although GTL has a significant direct contribution to green corporate performance, risk still functions as an additional pathway that also influences the relationship.

CONCLUSION

Green innovation, green knowledge management and green transformational leadership have a significant effect on the implementation of risk assessment and mitigation, and have positive implications for green corporate performance. The variable that has the greatest influence on green corporate performance is green innovation. The greatest risk mediation role is green knowledge management on green corporate performance, several research findings can be concluded as follows:

1. Green innovation has a positive and significant influence on green corporate performance. The implementation of green innovation can improve the company's performance in terms of sustainability.
2. Green innovation has a positive and significant influence on risk. Increasing green innovation encourages effectiveness in assessing and mitigating risks.
3. Green knowledge management has a positive and significant influence on green corporate performance. The management and implementation of green knowledge management contribute to improving the performance of environmentally friendly companies.
4. Green knowledge management has a positive and significant influence on risk. The implementation of green knowledge management improves the company's ability to assess and mitigate risks.
5. Green transformational leadership has a positive and significant impact on green corporate performance. Green transformational leadership that is implemented properly can improve green corporate performance.
6. Green transformational leadership has a positive and significant influence on risk. The strategic implementation of green transformational leadership supports the company's success in assessing and mitigating risks.
7. Risk has a positive and significant effect on green corporate performance. Increasing effectiveness in risk assessment and mitigation can strengthen green corporate performance.
8. Green innovation mediated by risk has a positive and significant effect on green corporate performance. The role of risk as a partial mediator influenced the relationship between green innovation and green corporate performance, especially through increasing effectiveness in risk evaluation and mitigation.
9. Green knowledge management mediated by risk has a positive effect on green corporate performance. The role of risk as a partial mediator influenced the relationship between better risk management can increase the impact of green knowledge management on green corporate performance.

10. Green transformational leadership mediated by risk has a positive effect on green corporate performance. The role of risk as a partial mediator (partial mediation) influenced with an effective strategy in risk assessment and mitigation

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