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The effect of strategic orientation, internal environmental management, and environmental performance on green supply chain management

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ABSTRACT

Purpose-Basically, the process of fulfilling human activities will certainly have impacts, including environmental pollution. Environmental pollution carried out by irresponsible parties will cause environmental damage. Therefore, every business actor is expected to consider production activities in a more mature and planned manner, which in turn can have a positive economic, environmental and social impact. This study aims to analyze the factors that influence the implementation of green supply chain management, namely strategic orientation, internal environmental management, and environmental performance.

Design/Methodology/Approach-Using the purposive sampling technique, 110 micro, small, and medium-sized businesses in Yogyakarta, Indonesia's batik industry made up the study's sample. Questionnaires were distributed to respondents in order to collect data. The Likert scale is used to measure the respondents' responses. To ensure data validity, reliability, and hypothesis testing, Smart PLS analytic techniques were used.

Findings-The findings show that green supply chain management benefited from strategic direction, internal environmental management, and environmental performance. These findings show that, according to the three influencing criteria, micro, small, and medium-sized businesses in Yogyakarta, Indonesia's batik industry have successfully incorporated green supply chain management into their daily operations.

Research limitations/implications-This study is limited to micro, small, and medium-sized businesses in Yogyakarta, Indonesia's batik industry. The application of green supply chain management to Indonesia's micro, small, and medium-sized business sector as a whole cannot be extrapolated from the study's findings.

Originality/value-Previous research has not used objects like those in this study. Previous research used micro, small and medium enterprises with different sectors in other regions of Indonesia.

1. The Introduction

The willingness of businesses to transition to green growth to attain sustainable development is referred to as the creation of a national plan for green growth (Engelmann et al., 2019). Green supply chain management (GCSM) is mandated by laws that safeguard the environment from increasing environmental impacts (Al-Shboul et al., 2017). In addition to gaining social legitimacy, several corporate groups are currently dedicated to implementing GSCM (Hijjawi, 2020). Therefore, to attain environmental performance, the GSCM incorporates environmental issues (Al-Ma'aitah, 2018). Malviya and Kant (2015) claimed that the concept of integrating environmental thinking into supply chain management gives rise to GSCM. This covers the product design, end-of-life management, material sourcing and selection, production procedures, and product delivery stages.

According to Cherrafi et al. (2018), green supply chain management is the process of creating products while keeping the environment in mind at every step of the manufacturing process. Both internal and external motivators are required for firms to adopt green supply chain management (Agyabeng-Mensah et al., 2020). Jermsittiparsert et al. (2019) state that organizational strategy, internal environmental management, and green knowledge management competencies are the driving elements that are internal to the company. According to Yang et al. (2020), an organization's performance improves when green supply chain management is implemented. Consequently, the application of GSCM improves organizational competitiveness and sustainable growth in addition to lowering environmental consequences (Mehdikhani & Valmohammadi, 2019).

Strategic orientation is a well-known concept in the corporate management literature (Chu, 2016; Bu et al., 2020). According to Bu et al. (2020), strategic orientation is an organizational action that combines valuable resources to establish a durable competitive advantage and the right behaviour for consistently high business performance. The motivation behind GSCM adaptation has been a subject of increasing research interest in recent years. Previous studies examined the connection between GSCM adaptation and strategic orientation (Habib et al., 2020). Only a small number of studies have evaluated the impact of strategic orientation on GSCM adoption.

Strategic direction is crucial to green supply chain management because it can enhance organizational effectiveness. Furthermore, strategic orientation aids executives in making choices regarding how businesses interact with the environment. Masa'deh et al. (2018) define strategic orientation as the company's strategy direction for establishing the right behaviour and, thus, attaining better performance. Strategic orientation, on the other hand, is a broad plan supported by implementation and detailed strategy substance. Prior studies demonstrate that green supply chain management benefits from a strategic orientation (Butt et al., 2021).

Cultural norms and resources constitute an internal environment. The company's low environmental performance is a result of management's continued lack of awareness of environmental management, which eventually discourages businesses from implementing the idea of green supply chain management. Internal environmental management is used to describe a company's environmental protection program (Welford, 2016). Through internal environmental management practices, environmental management and protection are supported at all organizational levels (Çankaya & Sezen, 2019). This requires collaboration among various stakeholders in the organization (Jermsittiparsert et al., 2019). Previous research has indicated that internal environmental management is beneficial for green supply chain management (Yang et al., 2020). It is advised that MSMEs support the creativity of their owners and staff to adopt eco-friendly procedures that can enhance their overall performance (Khan et al., 2021).

Environmental performance is the ecological outcome of a company's efforts to protect and enhance the environment. According to Amores-Salvadó et al. (2015), environmental performance is the degree to which a business successfully manages the relationship between its operations, goods, services, and the environment. When the supply chain is connected to all facets of the ecosystem, it becomes a green supply chain (Paul et al., 2014). Green supply chain management combines supply chain management practices with consideration for environmental aspects, such as minimising the negative environmental effects of operational operations (Tseng et al., 2019). A company's dedication to protecting and enhancing the environment is reflected in

its environmental performance. Organizations that focus on environmental performance can demonstrate their concern for the environment by lowering the frequency of waste and usage of poisonous and hazardous products (Zhu et al., 2017). Environmental performance has a favorable impact on green supply chain management, according to research by Cousins et al. (2019) and Khan et al. (2021).

Therefore, for MSMEs to thrive in a competitive market, their management must undergo a number of processes, including strategic orientation, internal environmental management, and environmental performance. However, the successful implementation of green supply chain management solutions is challenging owing to a number of issues (Mangla et al., 2018). MSMEs find it difficult to integrate green supply chain management into daily operations. Batik is one of Indonesia's unique art forms that blends technology and art (Gondoputranto & Dibia, 2022). The idea behind each batik design embodies the essence of prayers and hopes, which is why Indonesians always employ batiks on formal occasions. Batik has a deep meaning for Indonesians because it is a symbol of unity and integrity.

2. Literature Review and Hypothesis Development

Supporting the adoption of green supply chain management requires strategic direction, as it will eventually improve organizational performance. Strategic orientation also supports management decision making, particularly environmental decision making (Rakhmawati et al., 2020). Green supply chain management, which eventually boosts organizational performance, requires an organizational strategy (Kirchoff et al., 2016). Green innovation initiatives are driven and coordinated by strategic orientations to guarantee performance through supply chain integration. Every business organization is compelled to operate in an environmentally conscious manner because of growing social concerns surrounding environmental deterioration. By adopting a strategic approach, businesses can reduce the amount of waste and pollution they produce. Previous research has shown that strategic orientation has a positive effect on green supply chain management (Liu et al., 2020; Butt et al., 2021).

H_1: Strategic Orientation Has a Positive Effect on Green Supply Chain Management

Internal environmental management refers to a company's policy of protecting the environment (Welford, 2016). All levels of the organization promote environmental management and protection through internal environmental management practices (Çankaya & Sezen, 2019). Cooperation between different stakeholders in the organization is undoubtedly necessary (Jermsittiparsert et al., 2019). According to previous studies, green supply chain management benefits from internal environmental management (Vanalle et al., 2017; Yang et al., 2020). It is advised that MSMEs support the creativity of their owners and staff to adopt eco-friendly procedures that can enhance their overall performance (Khan et al., 2021). Businesses are dedicated to establishing eco-friendly supply chain management and working with internal departments to preserve environmental stability. Internal organizations have initiatives to manage the environment and follow regulations related to environmental management.

H_2: Internal Environmental Management Has a Positive Effect on Green Supply Chain Management

When the supply chain is connected to all facets of the ecosystem, it becomes a green supply chain (Paul et al., 2014). Green supply chain management combines supply chain management practices with consideration for environmental aspects, such as minimizing the negative environmental effects of operational operations. A company's dedication to protecting and enhancing the environment is reflected in its environmental performance. Organizations that focus on environmental performance can demonstrate their concern for the environment by lowering the frequency of waste and usage of poisonous and hazardous products (Zhu et al., 2017). Research conducted by Cousins et al. (2019) and Khan et al. (2021) shows that green supply chain management is positively influenced by environmental performance.

H_3: Environmental Performance Has a Positive Effect on Green Supply Chain Management

Figure 1 shows the research model used to reveal the factors influencing green supply chain management. This study analyzes the factors of strategic orientation, internal environmental management, and environmental performance, all of which are thought to have a positive effect on green supply chain management.

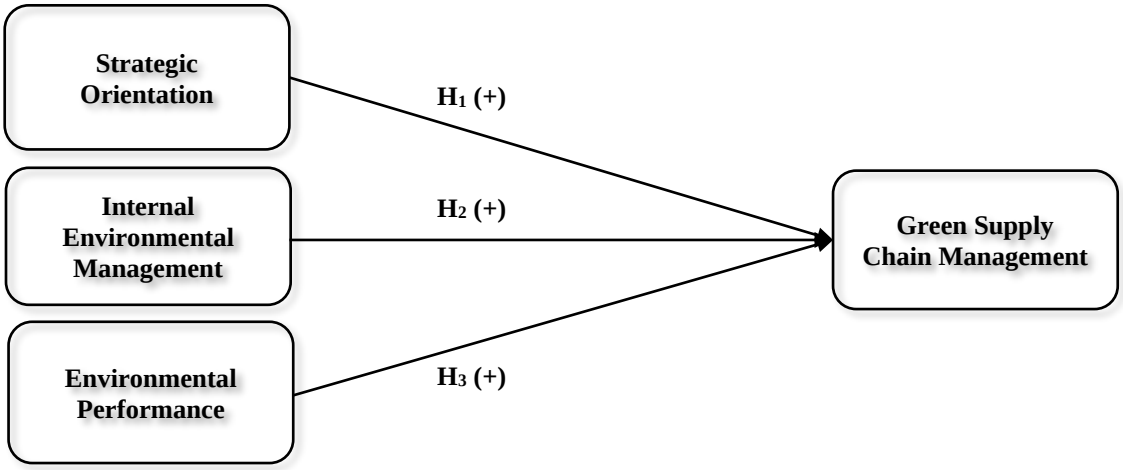

Figure 1. Research Model

3. Research Methodology

The population in this study consisted of micro, small, and medium enterprises (MSMEs) in the batik sector of Yogyakarta, Indonesia. The sample used in this study comprised 110 respondents obtained using the purposive sampling method with the criteria that MSMEs are registered at the Yogyakarta Cooperative and MSMEs Office, Indonesia, which has been running for at least three years with the assumption that it has carried out its supply chain management process perfectly. Then, data were collected using a questionnaire given to the respondents containing statement items that represent each research variable. Each statement item used a five-point Likert scale.

Strategic orientation measurements were obtained from Chu (2016) and contained six statement items. The measurement of internal environmental management comes from Zhu et al. (2010) and contains five statement items. The measurement of environmental performance comes from Dzikriansyah et al. (2023) and contains five statement items. The measurement of green supply chain management comes from Hunt and Auster (1990) and contains six statement items.

The data collected were then processed using the Smart PLS application to conduct validity, reliability, and hypothesis regression tests using the bootstrapping method. The decision taken for each data test was based on Hair et al. (2020). Data validity was assessed based on the loading factor value of each item. Statement items with a loading factor value of more than 0.6 will be declared valid, and vice versa. Next, reliability testing was performed based on Cronbach's alpha and composite reliability values for each variable. Variables can be declared reliable if they have a Cronbach's alpha value of more than 0.6 and a composite reliability of more than 0.7. After the statement items are considered valid, the variables are considered reliable and hypothesis testing is conducted. Hypothesis testing was performed based on the p-values of each hypothesis. The hypothesis was supported or accepted if it had a p-value greater than 0.05.

4. Result and Discussion

Validity Test

Table 1 presents the results of the validity tests. Based on these results, the statement items representing strategic orientation, internal environmental management, environmental performance, and green supply chain management are valid. The loading factor value of each statement item was greater than 0.6, which proved this.

Table 1. Validity Test Result

Indicator	Strategic Orientation	Internal Environmental Management	Environmental Performance	Green Supply Chain Management
SO 1	0.751			
SO 2	0.748			
SO 3	0.752			
SO 4	0.734			
SO 5	0.740			
SO 6	0.761			
IEM 1		0.770		
IEM 2		0.774		
IEM 3		0.741		
IEM 4		0.754		
IEM 5		0.768		
EP 1			0.804	
EP 2			0.790	
EP 3			0.746	
EP 4			0.711	
EP 5			0.766	
GSCM 1				0.762
GSCM 2				0.764
GSCM 3				0.725
GSCM 4				0.753
GSCM 5				0.762
GSCM 6				0.725

Source: Primary Data Processed (2024)

Figure 2 shows the measurement model of path analysis using the bootstrapping method. This figure shows the loading factor value of each statement item, representing each variable studied.

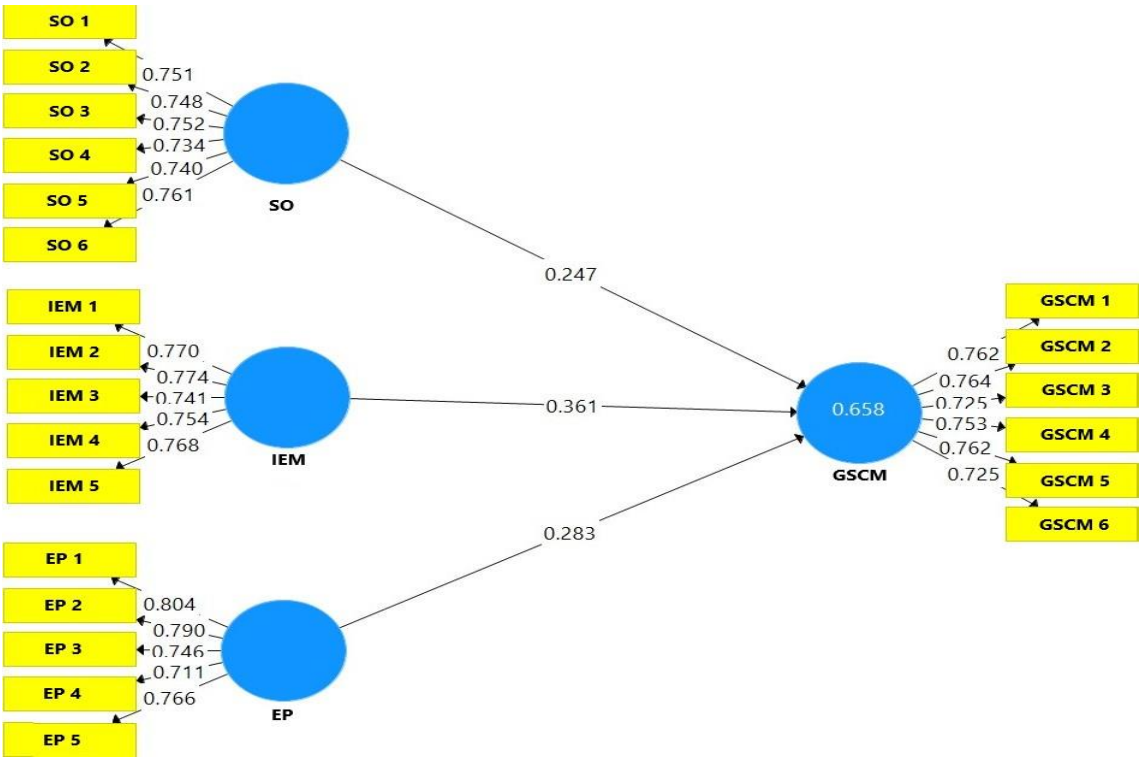

Figure 2. Measurement Model

Reliability Test

Table 2 shows that all variables used in this study were reliable. This can be proven by the Cronbach's alpha value of each variable being greater than 0.6 and the composite reliability value being more than 0.7.

Table 2. Reliability Test Result

Variable	Cronbach's Alpha	Composite Reliability
Strategic Orientation	0.842	0.884
Internal Environmental Management	0.820	0.874
Environmental Performance	0.821	0.875
Green Supply Chain Management	0.884	0.885

Source: Primary Data Processed (2024)

Hypothesis Test

The three hypotheses formulated in this study were either accepted or supported, as indicated in Table 3. The fact that each hypothesis's p-value is less than 0.05 demonstrates this. It has been demonstrated that strategic orientation positively impacts green supply chain management (first hypothesis accepted), as does internal environmental management (second hypothesis accepted), and environmental performance positively impacts green supply chain management (third hypothesis accepted).

Table 3. Hypothesis Test Result

Hypothesis	Original Sample	Sample Mean	Standard Deviation	T Statistic	P Value
Strategic Orientation → Green Supply Chain Management	0.247	0.233	0.123	2.004	0.047
Internal Environmental Management → Green Supply Chain Management	0.361	0.381	0.107	3.366	0.001
Environmental Performance → Green Supply Chain Management	0.283	0.280	0.115	2.2462	0.015

Source: Primary Data Processed (2024)

Discussion

The Effect of Strategic Orientation on Green Supply Chain Management

This hypothesis is accepted if the first hypothesis test results demonstrate that strategic orientation improves green supply chain management. Based on these findings, an organization's strategic orientation, which is demonstrated by lowering the use of toxic or hazardous materials in operational processes, preventing work accidents, cutting operational waste, and using energy efficiently, supports the success of the company's implementation of green supply chain management. Strategic orientation also supports management decision making, particularly environmental decision making (Rakhmawati et al., 2020). Green supply chain management, which eventually boosts organizational performance, requires an organizational strategy (Kirchoff et al., 2016). The results of this study support the findings of Zhu et al. (2017) and Jalili et al. (2024) that strategic orientation can positively affect green supply chain management

The Effect of Internal Environmental Management on Green Supply Chain Management

The results of the second hypothesis test show that internal environmental management has a positive effect on green supply chain management; thus, the second hypothesis is accepted. The results of this study support those of the previous research conducted by Vanalle et al. (2017) and Jermsittiparsert et al. (2019) find that internal environmental management has a positive effect on green supply chain management. Organizations commit to implementing environmentally friendly supply chain management and collaborate with internal areas of the organization to maintain environmental stability. Internal organizations have initiatives to manage the environment and follow regulations related to environmental management. Internal environmental management describes a business's environmental protection policy. Internal

environmental management procedures guarantee that every department within a business supports environmental management and protection. This calls for collaboration among all stakeholders (Jermsittiparsert et al., 2019). The encouragement of owners' and staff's creativity in implementing eco-friendly practices is advised for MSMEs, as it might enhance their overall performance (Khan et al., 2021).

The Effect of Environmental Performance on Green Supply Chain Management

The test results for the third hypothesis prove that environmental performance has a positive effect on green supply chain management, or the third hypothesis is accepted. The findings of this study corroborate those of Cousins et al. (2019) and Khan et al. (2021), who found that environmental performance positively impacts green supply chain management. Paul et al. (2014) asserts that a supply chain will become a green supply chain once it is integrated with every aspect of the environment. Green supply chain management is a combination of supply chain management techniques that focus on environmental factors such as reducing the environmental impact of operational activities. The company's environmental record demonstrates its commitment to preserving and improving its environment. Businesses can show their concern for the environment by using fewer poisonous and hazardous materials and producing less trash by focusing on their environmental performance (Zhu et al., 2017).

5. Conclusion

Based on the results of the analysis and discussion described above, the three hypotheses of this study were proven to be accepted. Strategic orientation, internal environmental management, and environmental performance have proven to have positive effects on green supply chain management. To create and implement green supply chain management in organizations, it is necessary to cooperate from various perspectives and pay attention to the factors that can influence it. In this study, strategic orientation, internal environmental management, and environmental performance were considered to encourage the implementation of green supply chain management in the organization. In addition to these three factors, there are still many other factors that need to be examined in this study, which is a limitation of this study. Therefore, future research is expected to develop this research by analyzing other factors that are yet to be studied to determine green supply chain management practices. In addition, future research is expected to use different research objects from this study to increase the variety of research and find green supply chain management practices in the operational process.

REFERENCES

Agyabeng-Mensah, Y., Ahenkorah, E., Afum, E., Nana Agyemang, A., Agnikpe, C., & Rogers, F. (2020). Examining the influence of internal green supply chain practices, green human resource management and supply chain environmental cooperation on firm performance. *Supply Chain Management*, *25*(5). https://doi.org/10.1108/SCM-11-2019-0405

Al-Ma'aitah, N. (2018). Green supply chain management (GSCM) practices and their impact on performance: an insight from the jordanian construction sector. *International Journal of Construction Supply Chain Management*, *8*(2). https://doi.org/10.14424/ijcscm802018-87-104

Al-Shboul, M. A. R., Barber, K. D., Garza-Reyes, J. A., Kumar, V., & Abdi, M. R. (2017). The effect of supply chain management practices on supply chain and manufacturing firms' performance. *Journal of Manufacturing Technology Management*, *28*(5). https://doi.org/10.1108/JMTM-11-2016-0154

Amores-Salvadó, J., Martin-de Castro, G., & Navas-López, J. E. (2015). The importance of the complementarity between environmental management systems and environmental innovation capabilities: A firm level approach to environmental and business performance benefits. *Technological Forecasting and Social Change*, *96*. https://doi.org/10.1016/j.techfore.2015.04.004

Bu, X., Dang, W. V. T., Wang, J., & Liu, Q. (2020). Environmental orientation, green supply chain management, and firm performance: Empirical evidence from Chinese small and medium-sized enterprises. *International Journal of Environmental Research and Public Health*, *17*(4). https://doi.org/10.3390/ijerph17041199

Butt, P., Kamran, M., Afzal, F., & Haque Mukit, M. M. (2021). Being agile in market orientation to enhance firm performance: The role of green supply chain management. *International Journal of Agile Systems and Management*, *14*(4). https://doi.org/10.1504/IJASM.2021.120237

Çankaya, S. Y., & Sezen, B. (2019). Effects of green supply chain management practices on sustainability performance. *Journal of Manufacturing Technology Management*, *30*(1). https://doi.org/10.1108/JMTM-03-2018-0099

Cherrafi, A., Garza-Reyes, J. A., Kumar, V., Mishra, N., Ghobadian, A., & Elfezazi, S. (2018). Lean, green practices and process innovation: A model for green supply chain performance. *International Journal of Production Economics*, *206*. https://doi.org/10.1016/j.ijpe.2018.09.031

Chu, K. M. (2016). The role of a strategic and sustainable orientation in green supply chain management. *International Journal of Sustainable Entrepreneurship and Corporate Social Responsibility*, *1*(2). https://doi.org/10.4018/ijsecsr.2016070103

Cousins, P. D., Lawson, B., Petersen, K. J., & Fugate, B. (2019). Investigating green supply chain management practices and performance: The moderating roles of supply chain ecocentricity and traceability. *International Journal of Operations and Production Management*, *39*(5). https://doi.org/10.1108/IJOPM-11-2018-0676

Dzikriansyah, M. A., Masudin, I., Zulfikarijah, F., Jihadi, M., & Jatmiko, R. D. (2023). The role of green supply chain management practices on environmental performance: A case of Indonesian small and medium enterprises. *Cleaner Logistics and Supply Chain*, *6*. https://doi.org/10.1016/j.clscn.2023.100100

Engelmann, J., Al-Saidi, M., & Hamhaber, J. (2019). Concretizing green growth and sustainable business models in the water sector of Jordan. *Resources*, *8*(2). https://doi.org/10.3390/resources8020092

Gondoputranto, O., & Dibia, I. W. (2022). Use of technology in capturing various traditional motifs and ornaments: A case study of Batik Fractal, Indonesia and TUDITA-Turkish Digital Textile Archive. *Humaniora*, *13*(1). https://doi.org/10.21512/humaniora.v13i1.7408

Habib, M. A., Bao, Y., & Ilmudeen, A. (2020). The impact of green entrepreneurial orientation, market orientation and green supply chain management practices on sustainable firm performance. *Cogent Business and Management*, *7*(1). https://doi.org/10.1080/23311975.2020.1743616

Hair, J. F., Howard, M. C., & Nitzl, C. (2020). Assessing measurement model quality in PLS-SEM using confirmatory composite analysis. *Journal of Business Research*, *109*. https://doi.org/10.1016/j.jbusres.2019.11.069

Hijjawi, G. S. (2020). The moderating role of supply chain complexity on the relationship between reverse logistics and supply chain sustainability in Jordan. *Engraining and Management Journal*.

Hunt, C. B., & Auster, E. R. (1990). Proactive environmental management: Avoiding the Toxic Trap. *Sloan Management Review*, *31*.

Jalili, S., Amerzadeh, M., Moosavi, S., Keshavarz, A., Zaboli, R., Tabatabaee, S. S., & Kalhor, R. (2024). Relationship between strategic orientation and performance: The mediating role of green supply chain management for better performance. *International Journal of Human Rights in Healthcare*, *17*(2). https://doi.org/10.1108/IJHRH-03-2022-0018

Jermsittiparsert, K., Siriattakul, P., & Sangperm, N. (2019). Predictors of environmental performance: Mediating role of green supply chain management practices. *International Journal of Supply Chain Management*, *8*(3).

Khan, N. U., Anwar, M., Li, S., & Khattak, M. S. (2021). Intellectual capital, financial resources, and green supply chain management as predictors of financial and environmental performance. *Environmental Science and Pollution Research*, *28*(16). https://doi.org/10.1007/s11356-020-12243-4

Kirchoff, J. F., Tate, W. L., & Mollenkopf, D. A. (2016). The impact of strategic organizational orientations on green supply chain management and firm performance. *International Journal of Physical Distribution and Logistics Management*, *46*(3). https://doi.org/10.1108/IJPDLM-03-2015-0055

Liu, S., Eweje, G., He, Q., & Lin, Z. (2020). Turning motivation into action: A strategic orientation model for green supply chain management. *Business Strategy and the Environment*, *29*(7). https://doi.org/10.1002/bse.2580

Malviya, R. K., & Kant, R. (2015). Green supply chain management (GSCM): A structured literature review and research implications. *Benchmarking*, *22*(7). https://doi.org/10.1108/BIJ-01-2014-0001

Mangla, S. K., Luthra, S., Mishra, N., Singh, A., Rana, N. P., Dora, M., & Dwivedi, Y. (2018). Barriers to effective circular supply chain management in a developing country context. *Production Planning and Control*, *29*(6). https://doi.org/10.1080/09537287.2018.1449265

Masa'deh, R., Al-Henzab, J., Tarhini, A., & Obeidat, B. Y. (2018). The associations among market orientation, technology orientation, entrepreneurial orientation and organizational performance. *Benchmarking*, *25*(8). https://doi.org/10.1108/BIJ-02-2017-0024

Mehdikhani, R., & Valmohammadi, C. (2019). Strategic collaboration and sustainable supply chain management: The mediating role of internal and external knowledge sharing. *Journal of Enterprise Information Management*, *32*(5). https://doi.org/10.1108/JEIM-07-2018-0166

Paul, I. D., Bhole, G. P., & Chaudhari, J. R. (2014). A review on green manufacturing: It's important, methodology and its application. *Procedia Materials Science*, *6*. https://doi.org/10.1016/j.mspro.2014.07.149

Rakhmawati, A., Kusumawati, A., Rahardjo, K., & Muhammad, N. (2020). The role of government regulation on sustainable business and its influences on performance of medium-sized enterprises. *Journal of Sustainability Science and Management*, *15*(2).

Tseng, M. L., Islam, M. S., Karia, N., Fauzi, F. A., & Afrin, S. (2019). A literature review on green supply chain management: Trends and future challenges. In *Resources, Conservation and Recycling*, *141*. https://doi.org/10.1016/j.resconrec.2018.10.009

Vanalle, R. M., Ganga, G. M. D., Godinho Filho, M., & Lucato, W. C. (2017). Green supply chain management: An investigation of pressures, practices, and performance within the Brazilian automotive supply chain. *Journal of Cleaner Production*, *151*, 250–259. https://doi.org/10.1016/j.jclepro.2017.03.066

Welford, R. (2016). *Corporate environmental management 1: Systems and strategies*. Routledge.

Yang, Z., Sun, J., Zhang, Y., & Wang, Y. (2020). Synergy between green supply chain management and green information systems on corporate sustainability: An informal alignment perspective. *Environment, Development and Sustainability*, *22*(2). https://doi.org/10.1007/s10668-018-0241-9

Zhu, Q., Feng, Y., & Choi, S. B. (2017). The role of customer relational governance in environmental and economic performance improvement through green supply chain management. *Journal of Cleaner Production*, *155*. https://doi.org/10.1016/j.jclepro.2016.02.124

Zhu, Q., Geng, Y., & Lai, K. hung. (2010). Circular economy practices among Chinese manufacturers varying in environmental-oriented supply chain cooperation and the performance implications. *Journal of Environmental Management*, *91*(6). https://doi.org/10.1016/j.jenvman.2010.02.013