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Antecedents of export marketing performance: The moderating role of environmental knowledge and government intervention

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Abstract

This research aims to investigate effect green market orientation (GMO) and green intellectual capital (GIC) on green innovation (GI) and its impact on export marketing performance (EMP) and testing moderating role effect GI on EMP. Research Methods: samples 116 Micro, Small, and Medium Enterprises (msmes) Central Java Indonesia, Partial Least Squares Structural Equation Modeling (PLS-SEM) used to data analyzing. Findings: GMO and GIC Impact on GI: Both green market orientation and green intellectual capital have a significant positive effect on green innovation. Impact on EMP: Green market orientation and green innovation significantly influence export marketing performance. Green intellectual capital does not have a significant direct effect on export marketing performance. Moderating Role of Environmental Knowledge and Government Intervention: Environmental knowledge and government intervention positively moderate the relationship between green innovation and export marketing performance, strengthening the impact of green innovation on EMP. Values**:** Insight for msmes: The study provides valuable insights for MSME coffee exporters in Central Java, emphasizing the importance of focusing on enhancing environmental knowledge and leveraging government intervention to achieve better marketing success in the global market.

Keywords green innovation; knowledge; intervention; performance

INTRODUCTION

In an era of global competition that increasingly demands sustainable business practices, green market orientation (GMO) and green intellectual capital (GIC) play a strategic role in determining export marketing performance (EMP). GMO reflects a company's strategy in understanding the needs of customers and competitors by considering environmental sustainability aspects, while GIC includes the organization's knowledge, skills, and intangible assets that contribute to environmental management and competitive advantage. These two factors are seen as important internal strengths that can drive optimal MSME export performance, especially in the context of the coffee industry which increasingly emphasizes product and process sustainability. However, empirical findings regarding the influence of GMO and GIC on EMP still show inconsistent results. Several previous studies have shown that GMO has a positive effect on innovation and overall business performance (Tjahjadi et al., 2020; Lin et al., 2020), but other studies have not found a significant effect (Zulfikar, 2019; Desy et al., 2022). The same thing also happened with GIC. Several studies have shown that GIC plays an important role in driving innovation and sustainability (Yusliza et al., 2019; Sarwar & Mustafa, 2023), but several other studies state that GIC does not have a strong direct influence on company performance, especially in the context of MSMEs (Renaldo & Augustine, 2022; Anna & Dianawati, 2023). This inconsistency indicates a literature gap that needs further research, especially in the context of MSMEs in developing countries such as Indonesia.

In bridging the influence of GMO and GIC on EMP, green innovation (GI) is seen as a potential mediating mechanism. Green innovation includes the development of products, processes, and

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systems that are oriented towards reducing environmental impacts and increasing sustainable efficiency. GI enables MSMEs to adopt more environmentally friendly production practices, which in turn can improve reputation, market differentiation, and access to global markets that are sensitive to environmental issues. Thus, GI can be an important link between internal strategies (GMO and GIC) and external outcomes in the form of export marketing performance. In addition to the mediating influence of GI, two external factors—environmental knowledge and government intervention—are also thought to act as moderating factors that strengthen the relationship between GI and EMP. Environmental knowledge enables MSMEs to understand ecological issues and apply them effectively in innovative practices. Without this knowledge, green innovation may not be implemented optimally. On the other hand, government intervention, through incentive policies, ease of licensing, subsidies, and expansion of market access, is very important in creating a conducive business environment for MSMEs to innovate and penetrate export markets. These two variables are believed to strengthen the effectiveness of green innovation in driving increased export performance. Indonesia as one of the largest coffee producing countries in the world, especially with Arabica and Robusta types, has a very large coffee export potential. However, in the last decade, the volume and value of Indonesian coffee exports have decreased. Central Java as one of the coffee production centers also faces the same challenges, especially at the MSME level. Production instability, low quality, and minimal innovation and external support are the main obstacles in improving export performance. Therefore, focusing on the Indonesian coffee industry, especially coffee MSMEs in Central Java, is very relevant to understand the internal and external dynamics that influence their export marketing performance.

Another important resource for companies is green intellectual capital (GIC), which is defined as the total knowledge about the use of environmental management processes for competitive advantage (Fitri et al., 2022). GIC is increasingly recognized for its role in improving organizational performance (Yusliza et al., 2019), although its importance is often overlooked by academics (Yong et al., 2019). Studies show that GIC positively influences environmental and sustainability performance (Sarwar & Mustafa, 2023; Fitri et al., 2022; Rana & Hossain, 2023; Alvino & Di-Vaio, 2021; Rundengan & Tjahjadi, 2023), but some studies report no significant effect on company performance (Erinos & Yurniwati, 2019; Renaldo & Augustine, 2022; Anna & Dianawati, 2023). There is a research gap regarding the influence of GMO and GIC on EMP. The differences in findings in the literature regarding the influence of green market orientation (GMO) and green intellectual capital (GIC) on firm performance, especially export marketing performance (EMP), may be due to different organizational contexts, including the characteristics of MSMEs that have limited resources. In the context of MSMEs, although they have a progressive market orientation and adequate green intellectual capital, limited resources such as technology, access to information, and institutional support often hinder the achievement of optimal performance (Kusyk & Lozano, 2007; Hajipour et al., 2010). Therefore, additional mechanisms such as green innovation are needed to link internal capabilities with export-oriented market performance.

From the resource-based theory, green innovation (GI) can create competitiveness, which impacts the environmental, social, and economic performance of businesses (Muangmee, 2022). Studies show that GIC has a positive impact on firm performance, improving economic performance, corporate social responsibility, and environmental performance (Asadi et al., 2020; Zahid et al., 2018; Xie et al., 2019). Market orientation has also been linked to innovation (Wang et al., 2015).

Liu et al. (2022) highlighted the importance of GIC in green innovation practices, noting that intangible assets such as knowledge, information, and technology create sustainable competitive advantages. Various studies support the positive effects of GIC on GI, emphasizing its role in innovation and addressing ecological challenges (Arie et al., 2019; Liu et al., 2022; Tran, 2023; Asiaei, 2023).

Environmental issues are increasingly affecting the industrial sector, so that alignment between competition and environmental strategies is needed for sustainable performance (Chen et al., 2015). Environmental innovation can improve competitiveness and performance in the

global market (Meneto & Siedschlag, 2020). However, MSME coffee exporters in Central Java face challenges in green innovation due to limited environmental knowledge. A research survey showed low environmental management knowledge among MSMEs, highlighting the need for environmental knowledge in green innovation practices (Neruja & Arulrajah, 2021).

Zuhdi et al. (2021) noted that Indonesian coffee exports are hampered by globalization and global market competition. This study used a sample of 116 MSMEs from Central Java, Indonesia. Data analysis was carried out using Partial Least Squares Structural Equation Modeling (PLS-SEM) to test the hypothesis of the relationship between variables.

The findings of this study are multifaceted and provide a comprehensive understanding of the factors that influence export marketing performance among coffee MSMEs in Central Java.

Green market orientation and green intellectual capital have a significant positive impact on green innovation. This suggests that MSMEs that focus on environmentally friendly practices and utilize their intellectual resources are more likely to innovate environmentally beneficially (Li et al., 2018; Tjahjadi et al., 2020).

Green market orientation and green innovation significantly affect export marketing performance, indicating that environmentally focused market strategies and innovations positively contribute to the success of MSMEs in the global market (Lin et al., 2020; Asadi et al., 2020). Green intellectual capital does not have a significant direct effect on export marketing performance, highlighting that although GIC is important for innovation, it may not directly lead to improved marketing performance without the mediating effect of innovation (Sarwar & Mustafa, 2023).

Environmental knowledge and government intervention positively moderate the relationship between green innovation and export marketing performance. This means that the benefits of green innovation on export performance are strengthened when MSMEs have substantial environmental knowledge and receive adequate support from the government (Zuhdi et al., 2021). These findings contribute to the literature in several ways. First, it provides insights for MSME coffee exporters in Central Java, emphasizing the importance of increasing environmental knowledge and government intervention as strategies for global market success. The moderation of these two variables is rare in coffee export by MSMEs in Central Java. Second, by integrating internal resources such as green intellectual capital with external support like government intervention, MSMEs can enhance their competitiveness and performance in the global market. Third, this research fills gaps in the literature regarding the impact of GMO and GIC on business performance and highlights the need for comprehensive strategies to support green innovation in MSMEs.

LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

Export marketing performance

Keegan (2016) argues that export performance is the achievement of sales abroad, with support such as price or promotion. Acikdilli (2015) said that in marketing products abroad, capabilities and strategies are needed to improve better performance. Zuhdi et al., (2021) argue that activities in the export market will improve performance if supported by proper management accompanied by a strategic plan, with indicators for four aspects, namely strategy achievement, sales growth, profit increase and management quality.

Green market orientation

This factor refers to relevant market information that a company has about what its customers need, how its competitors operate, and its strategies, thus involving a coordinating role within the organization. This pressure factor is associated with a culture in which the company encourages behavior to create superior value and performance that will satisfy its customers (Tjahjadi et al., 2020).

The definition of green market orientation is a strategy and business activity that is perceived to provide goods or services that focus on environmentally friendly consumers (Tjahjadi et al., 2020). Green market orientation is conceptualized as the use of process management in analyzing, identifying, creating, and satisfying consumer and community needs profitably and sustainably by adopting sustainable practices from production to after-sales service.

Companies that adopt a green market orientation can reorganize the information or knowledge obtained by the company to detect opportunities and understand customer needs through their employees (Li et al., 2018).

Green intellectual capital (GIC)

Intellectual capital is an intangible corporate asset that plays an important role in creating innovation in an organization. Intellectual capital is also an important factor in overcoming the ecological challenges of society (Asiaei, 2023). Over the past few decades, the emergence of several pressures from stakeholders such as institutional pressures, laws and regulations related to consumers has encouraged organizations to place environmental and social issues as top priorities, so that a concept of intellectual capital emerged that emphasizes the concept of "green". GIC is a concept of unifying three components, namely GHC, GSC, and GRC which tries to unite knowledge, information, capacity, corporate structure with environmental issues. GHC is a combination of knowledge instruments, skills, abilities, capabilities, experience and employee commitment to environmental protection that is strongly embedded in employees and is not in the organization that allows organizations to recognize intangible assets related to the environment and help implement green strategies in certain competitive environments (Marco-Lajara, 2022).

Green innovation

This factor is related to the activities of marketers to launch new products for green consumers, but is also focused on processes or methods. Green innovation is also related to technological innovation that contributes to pollution prevention and recycling activities so that these practices will increase the value of the company (Muangmee, 2022).

According to Tjahjadi et al., (2020) this factor can mean product innovation that is oriented towards efforts to reduce environmental pollution and the creation of new techniques in the field of production processes by paying attention to environmental aspects.

Environmental knowledge

Environmental knowledge according to Wang et al., (2020) can be interpreted as a person's general knowledge of facts, concepts, and relationships related to environmental protection and its main ecosystems. In addition, more information about environmental issues can strengthen a person's environmental knowledge and strengthen customer behavior towards environmentally friendly products and services.

A person's green knowledge is related to knowledge of green brands, consumer expectations about green products for the environment, and positive consumer attitudes towards green brands (Amin & Tarun, 2019).

Government intervention

Government intervention is a deliberate government action to influence resource allocation and market mechanisms (Diva, 2019). This factor refers to government activities aimed at helping MSMEs achieve prosperity and business development. Indicators for measuring government intervention in empowering MSMEs are tax tolerance, loan interest relief, business development, acceleration of licensing, and expansion of market access (Miar, 2024). Diva (2019) added that the role of government is important for MSME businesses, such as as a facilitator (development), regulator (ease of licensing), catalyst (development process) for MSMEs.

Green market orientation and green innovation

Market orientation according to Tjahjadi et al., (2020) not only focuses on competitors but also customers, so a complete understanding of both dimensions is needed to then determine an effective strategy to create green innovation.

There have been many studies examining the relationship between market orientation and innovation that have provided sufficient evidence. Innovation is the ability of a company to find something new by carrying out activities in services, systems, processes, and so on (Ho et al., 2017). The findings of Wang et al. (2015) and Ho et al. (2017) found that market orientation has a positive relationship with innovation.

The relationship between market orientation and innovation related to environmental issues states that there is a positive influence of market orientation on green innovation, green market orientation encourages companies to carry out green innovation (Tjahjadi et al., 2020).

H1 : Green market orientation has a significant effect on green innovation.

Green intellectual capital and green innovation

Several reports have identified that green intellectual capital is essential in enabling environmentally friendly innovation processes. However, very few studies have explored the specific mechanisms that influence GIC on green innovation in companies (Arie et al., 2019). Tran's (2023) findings prove that there is a positive influence of GIC capital on green innovation. The model states that GIC enables green innovation which in turn generates competitive advantages for companies.

In addition, the results of Yusliza et al., (2019) research GIC can be used as a strategy for developing green innovation. Research conducted by Liu et al., (2022) on 328 manufacturing companies in China shows that the three dimensions of green intellectual capital have a positive effect on green innovation.

H2 : Green intellectual capital has a significant effect on green innovation.

Green market orientation and export marketing performance

The relationship between customer orientation and company performance has been widely revealed in previous studies. For example, Acikdilli et al. (2020) who studied the direct impact of market orientation on the performance of Small and Medium Enterprises (SMEs) in Turkey, the findings showed that market orientation had a positive effect on SME performance. Similar findings were also stated by Udriyah et al. (2019) who studied the effect of market orientation on the business performance of textile SMEs in Malaysia, showing that market orientation had a positive effect on business performance. The findings of Nguyen et al. (2018) stated that market orientation has a positive relationship with innovation. Market orientation as part of organizational culture, customer-oriented companies will try to meet the desires and needs of current and future customers through product innovation.

In line with environmental issues, the relationship between market orientation and sustainable performance has attracted the interest of researchers. Like Tjahjadi et al., (2020) GMOs encourage awareness of environmental pollution because GMOs are also beneficial for environmental performance.

H3 : Green market orientation has a significant effect on export marketing performance.

Green intellectual capital and export marketing performance

According to Alvino & Di-Vaio (2021), environmentally friendly intellectual capital is a composition of knowledge, experience, and skills related to environmental management that will provide benefits for the competitiveness of an organization. Intellectual capital can ensure the profitability of the company by applying the right real resources to increase the company's competitive advantage in the longer term so that intellectual capital can provide a foundation for long-term growth and business sustainability (Rana & Hossain, 2023).

Previous research conducted by Fitri et al (2022); Rana & Hossain (2023); Alvino & Di-Vaio (2021); and Rundengan & Tjahjadi (2023) stated that there is a positive influence of intellectual capital on corporate sustainability. Intellectual capital can be used to increase competitive advantage so that it will make a positive contribution to business sustainability. Yusliza et al. (2019) obtained significant evidence of a positive influence of green intellectual capital on the dimensions of sustainable performance (economic, environmental, and social).

H4 : Green intellectual capital has a significant effect on export marketing performance

Green innovation and export marketing performance

Green product innovation increases consumer demand and provides good benefits to consumers. This innovation also increases

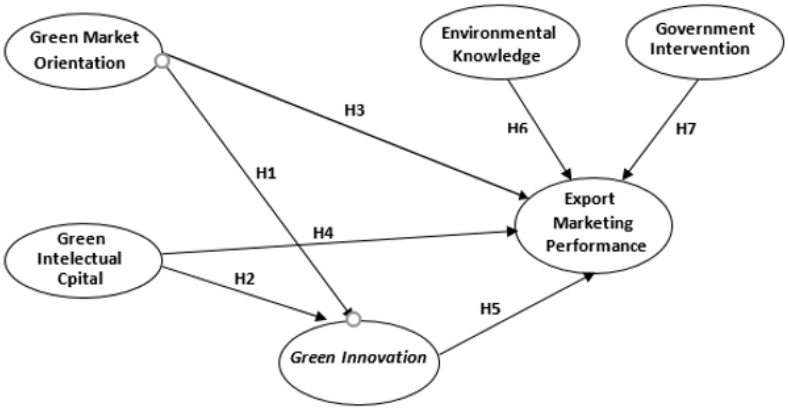

Figure 1.
Conceptual framework

productivity, thus offsetting environmental costs (Utama et al., 2020).

From an economic perspective, the implementation of green innovation can improve economic performance. The impact of green innovation on companies can be assessed from the level and index of finance, suppliers, customers, and government (Asadi et al., 2020).

The company's actions in providing information about green innovation through the company's website, local newspapers, and social media accounts are called green publicity. News and social media are used by companies to convince consumers about environmental services and to increase positive publicity for green products to reduce pollution (Zahid et al., 2018).

Environmental performance is closely related to matters relating to the use of energy, resources, waste, and emissions. The existence of green innovation can have a significant impact on the environmental performance and competitive advantage of a company (Xie et al., 2019). Overall, green innovation has opened up new opportunities for companies to gain a positive active reputation through the green products they produce which can drive the company's sustainability performance. This can help develop consumer awareness of the company, so that consumers can see the company's contribution in helping with some ecological problems and increasing environmental awareness (Lin & Niu, 2018).

H5: Green innovation has a significant effect on export marketing performance

Green innovation and export marketing performance: The moderating role of environmental knowledge

Muangmee (2022) in his research stated that green innovation can have a positive and significant impact on sustainability performance. Previous researchers concluded that green innovation directly affects operational performance which leads to the economic success of the company (Asadi et al., 2020).

Khan & Bashir's (2022) research states the importance of environmental knowledge for producers of environmentally friendly products worldwide and provides important insights for SMEs. Environmental knowledge is needed to change the attitudes and behavior of producers in implementing environmentally friendly innovation practices, thereby providing better results in corporate sustainability. In the view of Xu et al., (2022) environmental knowledge contains general insights about the environment, more specifically producing new products that contribute to the environment so as to provide sustainable benefits.

Narayanan & Boyce (2019) stated that environmental knowledge increases pro-environmental attitudes and sustainability performance. The empirical findings of Neruja & Arulrajah (2021) show that environmental knowledge improves banking performance in Sri Lanka.

Table 1.
Operational definition and variable measurement

Operational Definition of Variables	Indicator	Source
GMO, a strategy and business activity that is perceived to provide goods or services that focus on environmentally friendly consumers.	GMO1: Eco-friendly customer satisfaction GMO2: Commitment to serving environmentally friendly customers GMO3: Communicate customer satisfaction data to all employees GMO4: Eco-friendly products and services superior to competitors.	Tjahjadi et al., (2020)
Green intellectual capital is the total amount of knowledge that can be utilized by an organization in the environmental management process to gain a competitive advantage.	GIC1: Contribution to environmental protection GIC2: Benefits of environmental protection activities GIC3: Competence in developing environmentally friendly products GIC4: Environmental management knowledge management system	Yusliza et al., (2019)
Green innovation, green-minded MSME business practices as product development strategies and improving production processes contribute to increasing company value.	GI1: Green raw materials GI2: Green packaging GI3: Recycling GI4: Process efficiency GI5: Waste reduction GI6: Recycling process	Muangmee (2022)
Environmental knowledge is knowledge of MSME actors about environmentally friendly practices.	EK1:Know the types of environmental pollution problems. EK3:Know environmental problems caused by industry. EK3:Know the environmental problems that occur around the industry. EK4:Know how to identify the causes of environmental damage EK5: Know strategies to protect the industrial environment from damage	Tran (2023)
Government intervention is the government's effort to help empower MSMEs in improving export marketing performance.	GOVI1:Tax tolerance GOVI2:Loan interest concessions GOVI3:Business development GOVI4: Acceleration of licensing GOVI5:Expanding market access	Miar (2024)
Export Marketing Performance, coffee export sales results achieved by Indonesian Central Java MSMEs in the global market	EMP:Increased export profits EMP2:Export sales growth EMP3:Increase in export sales frequency EMP4: Export marketing area	Tjahjadi et al., (2005)

H6 : Environmental knowledge moderates the influence of green innovation on export marketing performance

Green innovation and export marketing performance: The moderating role of government intervention

Government intervention studies have linked MSME innovation to business actor performance. For example, Caballero-Morales (2021) in his research reported that government intervention as

Table 2.
Convergent validity test

	GMO	GIC	GI	EK	GOVI	EMP
GMO1	0.913					
GMO2	0.896					
GMO3	0.839					
GMO4	0.917					
GIC1		0.869				
GIC2		0.876				
GIC3		0.776				
GIC4		0.921				
GI1			0.844			
GI2			0.861			
GI3			0.827			
GI4			0.868			
GI5			0.877			
GI6			0.848			
EK1				0.832		
EK2				0.849		
EK3				0.895		
EK4				0.853		
EK5				0.884		
GOVI1					0.848	
GOVI2					0.684	
GOVI3					0.844	
GOVI4					0.789	
GOVI5					0.843	
EMP1						0.850
EMP2						0.863
EMP3						0.826
EMP4						0.841

a facilitator is shown through assistance in the use of digital resources aimed at encouraging MSME innovation as a result of the COVID-19 pandemic, thus providing benefits for sustainability performance.

Sadeh et al. (2021) in his research stated that the role of government intervention in various countries has become increasingly important due to the COVID-19 situation, so since the pandemic, the government has been looking for alternatives to maintain the economy which will have an impact on MSME growth.

Research conducted by Li & Rao (2023) reported that government intervention in the form of environmental tax relief and government subsidies is an important means for MSMEs to encourage innovative practices so that it has an impact on MSME sustainability performance.

Harjowiryono & Siallagan (2021) stated that in Indonesia, government intervention in supporting MSMEs is quite varied, for example government programs during the COVID-19 pandemic that are beneficial for MSMEs, with the following scope: (1) People's Business Credit, (2) Ultra Micro, (3) Interest Subsidies/Margin Subsidies, and (4) Assistance for Micro Business Actors.

Wirba (2021) in his research stated that government intervention in the form of CSR promotion encourages MSME awareness to comply with regulations and encourages environmental innovation practices so that it has an impact on improving business performance. Government intervention in the form of CSR promotion provides benefits in encouraging awareness and increasing corporate responsibility to be actively involved in carrying out social activities so that the impact is not only to improve reputation but also to encourage better company performance.

H7 : Government intervention moderates the influence of green innovation on export marketing performance

Table 3.
Average variance extracted value

	Average Variance Extracted (AVE)
Environmental Knowledge	0.745
Export Marketing Performance	0.714
Government Intervention	0.646
Green Innovation	0.730
Green Intellectual Capital	0.743
Green Market Orientation	0.795

Table 4.
Composite reliability

	Cronbach's Alpha	Composite Reliability
Environmental Knowledge	0.915	0.936
Export Marketing Performance	0.867	0.909
Government Intervention	0.868	0.901
Green Innovation	0.926	0.942
Green Intellectual Capital	0.883	0.920
Green Market Orientation	0.914	0.939

METHODS

This study uses a causal explanatory method, from 241 Central Java Coffee SMEs (population), 116 were taken as samples using the purposive method, only SMEs that have ever exported. The measurements for each variable are presented in Table 1 and the conceptual framework is illustrated in Figure 1.

RESULTS AND DISCUSSION

Table 2 presents the convergent validity of all constructs. The indicators for all constructs are valid because they have an outer loading > 0.7. These results have met the required assumptions. Table 3 presents the discriminant validity of all constructs. All constructs have an AVE value > 0.5, meaning they meet the discriminant validity requirements. Table 4 indicates the reliability test for all measurements. Cronbach alpha for all constructs > 0.6 means reliable and has met the required conditions.

Hypothesis testing

Table 7 presents the summary of the hypothesis testing, while Figure 2 illustrates the inner model. The results show that GMO has a significant positive effect on GI (t = 2.899, p = 0.004) and EMP (t = 2.374, p = 0.018). GIC significantly affects GI (t = 2.825, p = 0.005) but does not significantly influence EMP (t = 0.490, p = 0.624). In contrast, GI has a strong and significant positive effect on EMP (t = 3.528, p = 0.000). Furthermore, the interaction terms indicate significant moderating effects, where GIEK (t = 2.894, p = 0.004) and GIGOVI (t = 2.359, p = 0.019) both enhance the impact of GI on EMP. Overall, these findings highlight the central role of GI in mediating the effects of GMO and GIC on EMP, while EK and GOVI strengthen the contribution of GI toward improving EMP.

Discussion

This finding proves that these two variables have a positive link. Msmes must increasingly understand the needs of green customers, because this information is needed to help design innovation strategies to launch new products or improve production processes to make them more green-oriented. Tjahjadi et al., (2020) are also in line with these findings, green market orientation can encourage marketers' creativity to carry out green product innovation practices.

These two variables are proven to have a positive link. GIC is important to have as a strategy for msmes to be able to create competitiveness through green innovation, both product development and production processes that support the environment. These findings support the research of Tran (2023); Yusliza et al., (2019); and Liu et al., (2022) prove that there is a positive influence of green intellectual capital on green innovation, green intellectual capital allows green innovation to occur in companies.

The relationship between these two variables also has a positive link, the contribution of gmos is very large to the export performance of msmes. Research by Amegbe (2017) also supports the findings, the success of GMO practices produces good results on sales performance. Research by Tjahjadi et al., (2020) also holds almost the same

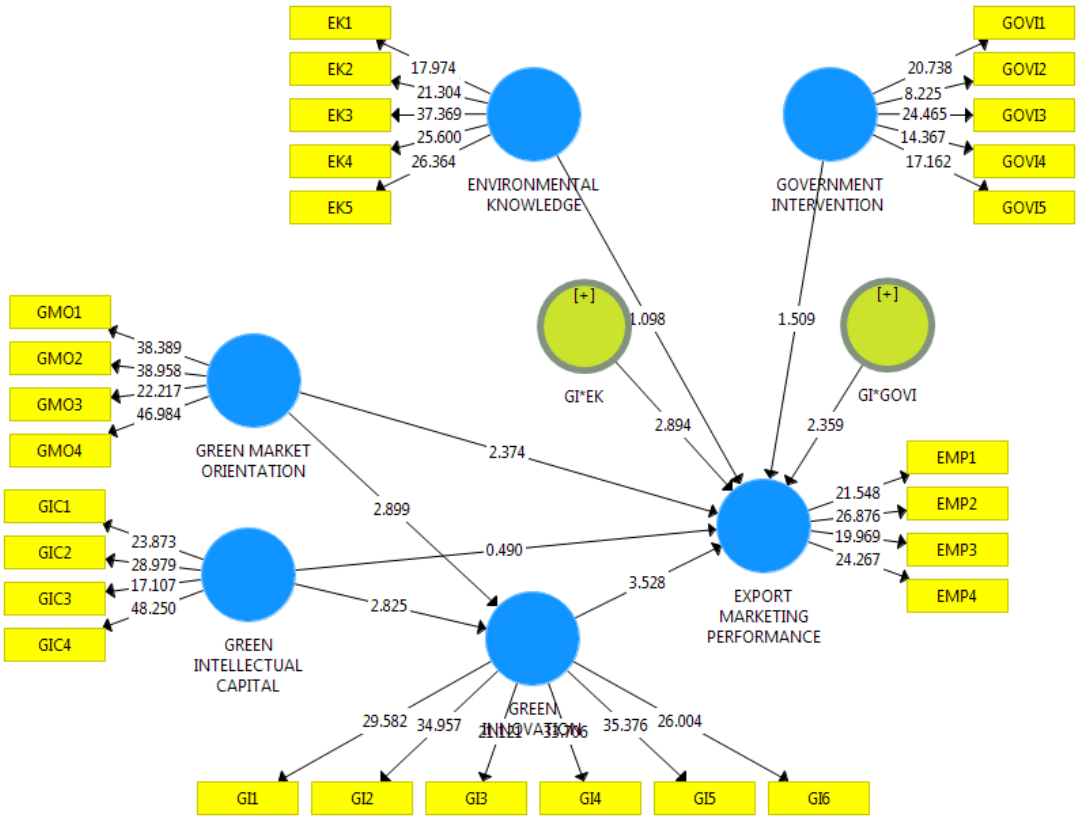

Figure 2.
Inner model

Table 5.
Hypothesis testing

	T Statistics (|O/STDEV|)	P Values
GMO -> GI	2.899	0.004
GIC-> GI	2.825	0.005
GMO -> EMP	2.374	0.018
GIC -> EMP	0.490	0.624
GI -> EMP	3.528	0,000
GI*EK -> EMP	2.894	0.004
GI*GOVI -> EMP	2.359	0.019

view, both variables have a positive influence in the context of environmental insight.

These two variables have no real influence. GIC owned by msmes still does not contribute to increasing export performance. Msmes must be wiser in encouraging increased GIC because knowledge is an asset that has a big contribution to export performance. Research by Fitri et al (2022); Rana & Hossain (2023); Alvino & Di-Vaio (2021); Rundengan & Tjahjadi (2023); Yusliza et al. (2019) contradicts these findings. The different results are due to the uniqueness of the phenomena and resource characteristics of the object of observation.

The findings prove that GI and EMP have a positive link, GI needs to be improved because its contribution to export performance is very large. Msmes that are open to innovation gain opportunities in the global market because their products will be able to compete and the impact on performance will also be better. These findings support the research of Xie et al.,(2019), green innovation has opened up new opportunities for companies to gain a positive active reputation through the green products they produce which can encourage the company's sustainability performance. This can help develop consumer awareness of the company, so that consumers can see the company's contribution in helping several ecological problems and increase environmental awareness (Lin & Niu, 2018).

These findings prove that environmental knowledge moderates the effect GI on EMP. Implication, msmes that have high green innovation and high environmental knowledge tend to have higher export marketing performance

compared to msmes that have high green innovation but low environmental knowledge. These findings support the research of Khan & Bashir (2022) that environmental knowledge is needed to change the attitudes and behavior of producers in implementing environmentally friendly innovation practices, thereby providing better results in company sustainability. These findings also support Neruja & Arulrajah's (2021) research that environmental knowledge has a positive and significant effect on sustainability performance in banking in Sri Lanka.

These findings prove that government intervention moderates the effect GI on EMP. Implication, that msmes that have high green innovation and are supported by high government intervention will tend to have higher export marketing performance compared to msmes that have high green innovation but low government intervention. These findings support Caballero-Morales' (2021) research that government intervention through assistance in using digital resources aims to facilitate the recovery of msmes due to the COVID-19 pandemic so that they can survive through innovative practices, so that this provides benefits to sustainability performance.

Study Sadeh et al. (2021); Li & Rao (2023) government intervention on sustainability of msmes has helped GI implementing and can increasing performance. Harjowiryono & Siallagan's (2021) study states that Government intervention in Indonesia in supporting the resilience of msmes during pandemic, it is provided in the form of People's Business Credit, Ultra Micro, Interest Subsidy and assistance from Micro Business actors makes a positive contribution to the performance of MSMEs.

CONCLUSION

The main findings of this study are that green market orientation (GMO) and green intellectual capital (GIC) have a significant positive effect on green innovation (GI), and that GMO and GI contribute positively to export marketing performance (EMP). However, GIC is not proven to directly affect EMP. In addition, it was also found that two moderating variables environmental knowledge and government intervention play a significant role in strengthening the relationship between green innovation and export performance.

Theoretically, this study contributes to the literature by filling the gap in previous studies that are still diverse regarding the effects of GMO and GIC on export performance. This study also adds a new perspective by testing the moderating role of two contextual variables, namely environmental knowledge and government intervention, which have not been widely revealed in the context of coffee MSMEs in Indonesia.

The practical implications of this study are to emphasize the importance of increasing the internal capacity of MSMEs, especially through strengthening green innovation based on market orientation and intellectual capital, as well as strengthening external support from the government. MSMEs that develop green innovation proactively and receive regulatory and educational support from the government tend to be better prepared to compete in the global market. Therefore, MSMEs need to be encouraged to continue developing environmental competencies and optimally utilize government intervention programs. The limitations of this study are the limited number of samples (116 respondents), as well as the geographical focus that only covers coffee MSMEs in Central Java. This can affect the generalization of the findings. Therefore, future research is recommended to expand the scope of regions and industrial sectors, increase the number of respondents, and test other contingency or mediation variables, such as green supply chain management, export digitalization, or technology-based innovation capacity, in order to enrich the conceptual model developed in this study.

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