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Achieving Craft MSME Competitiveness through Entrepreneurial Orientation and Green Innovation: Does Gender Matter?

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Abstract:

MSMEs are a sector that absorbs the most significant number of workers and is a pillar of the economy of countries worldwide, proving that they have always been able to survive and thrive during the global crisis. This study investigates the relationship between entrepreneurial orientation and green innovation in creating MSME competitiveness and explores the role of gender as a moderator of the relationship between entrepreneurial orientation and green innovation. This study used a sample of 403 craft MSMEs in West Java, Indonesia. The data analysis technique uses SEM AMOS 24 with stages of construct validity and reliability testing, path analysis, and multigroup analysis. The empirical results of this study show that entrepreneurial orientation and green innovation have a significant positive association with MSMEs' competitiveness. Furthermore, efforts to create competitiveness for MSMEs come directly or indirectly from the entrepreneurial orientation and green innovation of MSME owners. Interesting findings from the multigroup analysis showed that female craft owners have a higher influence on the relationship between entrepreneurial orientation and green innovation than male craft managers. While many researchers have identified the factors that drive the competitiveness of MSMEs, previous studies have not yet reached a conclusive point about the driving factors for MSME competitiveness and the influence of the owner's gender, especially during the post-Covid-19 pandemic revival. Thus, this study aims to investigate the factors that affect MSME competitiveness. The scientific novelty of this paper lies in its analysis of the factors that influence MSME competitiveness and explores the role of gender as a moderator of the relationship between entrepreneurial orientation and green innovation. This research provides consideration contributions for creative economy institutions in developing MSME development programs. These findings broaden our understanding of the application of entrepreneurial orientation and green innovation to achieve firm competitiveness.

Keywords: entrepreneurial orientation, green innovation, firm competitiveness, gender.

通过创业导向和绿色创新实现手工艺中小微企业的竞争力：性别重要

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吗?

摘要:

中小微企业是吸收最多工人的部门，是世界各国经济的支柱，证明它们始终能够在全球危机中生存和发展。本研究调查了创业导向和绿色创新在创造中小微企业竞争力方面的关系，并探讨了性别作为创业导向和绿色创新之间关系的调节因素的作用。本研究使用了印度尼西亚西爪哇省 403 家手工艺微型和中小型企业样本。数据分析技术使用扫描电镜阿莫斯 24，具有结构有效性和可靠性测试、路径分析和多组分析阶段。本研究的实证结果表明，创业导向和绿色创新与中小微企业竞争力呈显著正相关。此外，为中小微企业创造竞争力的努力直接或间接来自于中小微企业主的创业导向和绿色创新。多组分析的有趣发现表明，女性手工艺所有者对创业导向和绿色创新之间关系的影响力高于男性手工艺经理。尽管许多研究人员已经确定了推动中小微企业竞争力的因素，但之前的研究尚未就中小微企业竞争力的驱动因素和所有者性别的影响得出结论，特别是在新冠肺炎大流行后的复苏期间。因此，本研究旨在探讨影响中小微企业竞争力的因素。本文的科学新颖性在于分析了影响中小微企业竞争力的因素，并探讨了性别在创业导向与绿色创新关系中的调节作用。这项研究为创意经济机构制定中小微企业发展计划提供了考虑贡献。这些发现拓宽了我们对应用创业导向和绿色创新来实现企业竞争力的理解。

关键词: 创业导向、绿色创新、企业竞争力、性别。

1. Introduction

Every business organization competes aggressively to win the competition to survive and develop through efforts to produce various products. However, the exploitation of natural resources is carried out excessively, causing many environmental problems (Alshebami, 2023). Various countries recognize the importance of an environmentally friendly green economy for their products to be accepted internationally (Alshebami, 2023; Marco-Lajara et al., 2022). To minimize environmental damage impact, the country should develop creative commodities (Ge & Lin, 2021) by acquitting innovative concepts into activities to guarantee meeting green economy goals and remain competitive to gain many benefits, including economic achievement (Alshebami, 2023; Qu et al., 2022; Asadi et al., 2020). They can also compete in the market and contribute positively to achieving the SDGs. However, companies may find it challenging to implement, especially MSMEs, because they need help understanding green initiatives, and funding is limited and requires high entrepreneurial cognitive skills (Baeshen et al., 2021; Khan et al., 2021). Nevertheless, small businesses should employ GIs because their operations account for over 70% of industrial emissions (Singh et al., 2020).

Figure 1 shows the trend of increasing plastic waste production in Indonesia, placing Indonesia as one of the top 3 largest producers globally. Ullah et al. (2021) stated that world governments, including Indonesia, encourage the implementation of environmental protection strategies through GIs. GI is the use of new production, process, and management methods that can reduce the risk of environmental pollution and other negative impacts on resources, including energy consumption. Implementing GI will make the Earth and

its survival healthier and more sustainable in the long term. The Ministry of Finance and the Ministry of Cooperatives of the Republic of Indonesia (RI) and MSMEs reported that MSMEs play an essential role as a pillar of economic development, with a contribution of 61.1% in 2021. These data show that innovation efforts are essential for MSMEs to accelerate economic development. Therefore, MSMEs must adopt the breakthrough of generating FC (Baeshen et al., 2021).

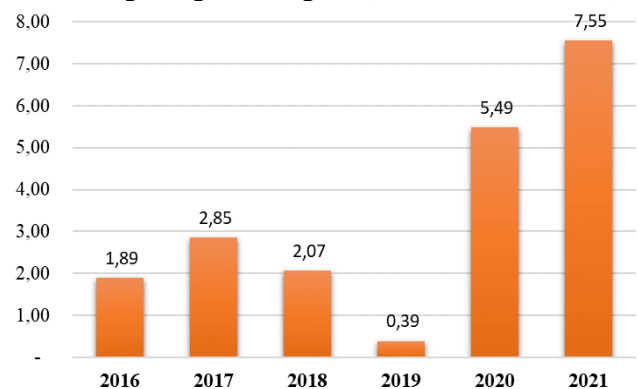


Figure 1. Indonesian annual waste production 2016–2021 (Indonesian Ministry of Environment, 2022)

GI is an intelligent step for MSMEs intending to improve their FC worldwide (Marco-Lajara et al., 2022). Export-destination nations such as Europe and America already impose increasingly strict standards for incoming green products. GI is the most crucial strategy for implementing an environmental management system (Asadi et al., 2020). Marco-Lajara et al. (2022), Rustiarini et al. (2022) argue that GIs are a proactive reaction by MSMEs to strict government regulations. Understanding the essential antecedents of creative behavior is critical for adopting GI (Alshebami, 2023). Several studies have attempted to examine GI drivers, but this needs to be clarified (Guo, 2022).

Hermundsdottir and Aspelund (2021), Padilla-Lozano and Collazzo (2022) investigated GI antecedents toward developing theoretical justifications of innovation. Previous studies have yet to consider mainly understanding behavior as a vital factor in behavior (El-Kassar & Singh, 2019; Singh et al., 2020). Furthermore, most research focuses on giant corporations rather than small businesses.

People have various personal characteristics that direct their behavior (Baeshen et al., 2021; Elshaer et al., 2023). The unique feature of E.O. is the individual tendency to act innovatively (Al-Mamary & Alshallaqi, 2022). These personal characteristics can direct individual behavior toward achieving certain entrepreneurial behaviors. Therefore, investigating their involvement in promoting GI is critical (Alshebami, 2023). A high level of EO can also encourage individual behavior to develop innovative ideas (Al-Mamary & Alshallaqi, 2022). EO is the main characteristic in determining GI, which is recommended (Guo, 2022) because the interaction between them is still unclear (Alshebami, 2023; Asadi et al., 2020; Nanan et al., 2020; Shehzad et al., 2023). Furthermore, knowing the impacts of antecedents on GI has advantages for developing-country communities (Baeshen et al., 2021; Chu et al., 2021).

This study is one of the few that examines the nation of GI in Indonesia's craft sector framework. This study investigates the impact of EO features on the link with GI and FC in MSMEs. This effect is being investigated concerning the development of a green economy, which is one of the primary problems on the agenda of Indonesia's G20 Presidency (G20, 2021), the sustainable energy transition in the Trade, Investment, and Industry Working Group (TIIWG), as a strategy towards a green economy to achieve the vision Indonesia will achieve zero emissions in 2060 (Coordinating Ministry for Economic Affairs, Republic of Indonesia, 2022). As a result, it is also intriguing to close the knowledge gap about the significant elements that lead to the implementation of GIs as intangible assets for MSMEs. We integrate EO, GI, and FC simultaneously and dynamically, revealing gender roles in creating FC.

Previous research has stated great potential for women to build competitive and green businesses, especially in developing countries (Criado-Gomis et al., 2020). However, only a few disclose this, especially MSMEs in Indonesia. This potential is inversely proportional to statistical data, which indicates that the distribution of business managers in Indonesia is still dominated by men at 69.37% (women 30.63%). Based on this gap, this study reveals the sources of FC and gender roles in implementing MSME innovations in Indonesia.

2. Literature Review

2.1. Entrepreneurial Orientation

EO ties a company's business style and strategy,

which is expected to influence its decisions, processes, features, behavior, and performance to adapt to its external context (Fadda, 2018; Lumpkin & Dess, 1996). Dess and Lumpkin (2005), Fadda (2018) use five dimensions developed from previous research to describe EO: innovation, proactivity, risk-taking, independence, and competitive aggressiveness. The innovation dimension has the highest weight and is the main soul of EO. Innovation refers to and focuses on adopting creative processes to survive and develop in every competition, thus creating a spirit of resilience so that they can always survive, rise, and recover from their difficulties. Innovation is carried out on new products, technologies, and services. Furthermore, EO refers to "the attribute measuring the degree to which an organization practices entrepreneurship and responds proactively to newcomers" (Covin & Wales, 2019). This related conceptualization of EO refers to entrepreneurial management that describes opportunity seeking (Lampe et al., 2020).

2.2. Green Innovation

The term GI was initially presented at the end of the 20th century (Li et al., 2022). The GI concept is based on the business's creative actions. It is integrated with the philosophy of ecological protection, which seeks to implement green organizational management, adopt clean technology, and install environmental equipment to reduce pollution emissions, energy consumption, and resource waste throughout the product creation, assembly, and sales (Mi et al., 2020). GI has two components: innovation in products and green process creativity. Green product innovation uses new concepts targeted at design, manufacturing, and marketing strategies, whose uniqueness and ecological design vastly outnumber traditional on-the-shelf products (Li et al., 2022).

2.3. Firm Competitiveness

For FC analysis, the RBV theory was chosen in this study. The firm concept is the RBV, which is based on the Penrosian-firm idea discussed earlier (Penrose, 1959), and its investigations are enriched by Wernerfelt (1984). RBV demonstrates an essential connection between resources and FC. As a result, a company's better resources will give it a competitive advantage in the market (Hunt & Morgan, 1997). FC is the outcome of business activities (such as income and market share), which are also evaluated and verified by important external stakeholders (such as buyers and shareholders), with the firm serving as the unit of analysis and integrated within the framework of macro-level characteristics (Chikán et al., 2022). This linkage is translated into the following definition: "FC is a company's ability to sustainably meet the dual objective: meeting customer demands and profit. This capacity is accomplished by supplying items in the market that are more valuable than rivals' offerings."

3. Method

The research object is MSMEs in the craft sub-sector in West Java, Indonesia. There have been 8.2 million creative businesses spread across various regions in Indonesia since 2015 until this research was conducted, placing the craft sub-sector in the second place as the sub-sector that contributes the largest export value to Indonesia. West Java was chosen as the research location because data from the Ministry of Tourism and Creative Economy of the Republic of Indonesia shows that West Java has the highest number of craft business units in Indonesia, as many as 18.33%. The manufacturing sector is reported to be the most significant contributor to environmental problems (Rustiarini et al., 2022). The craft industry does not all use natural raw materials such as plastic and iron, even those with natural raw materials such as wood and bamboo, even though the production process produces waste that can damage nature. Therefore, MSMEs need GIs. Applicants are MSME founders or leaders with expertise in operating a firm for a minimum of three years and considered to know the implementation of EO, GI, and FC. The data were collected via questionnaires and semi-structured interviews to obtain the correct data. Questionnaires were sent out to 550 participants, and 500 questionnaires were returned. After being selected, only 403 questionnaires met the requirements as respondents.

Constructs are graded on a scale of 1 to 9 (1 = strongly disagree and 9 = strongly agree). The structural equation model (SEM) method is used for data processing and evaluation of research hypotheses. The analysis was carried out using a two-step approach, starting with confirmatory factor analysis (CFA) used to assess the data validity and ensure that each indicator's construction validity is correctly loaded. Essential construct reliability (CR) and average variance extracted (AVE) are also assessed to guarantee that each latent variable follows the standards for convergent and discriminant validity by looking at all the square roots of AVE, which have a higher value than the correlation value between the other latent variables. Goodness-of-fit (GOF) is examined with the following criteria: index (NFI), comparative index (CFI), the Tucker-Lewis index (TLI), root mean square error of approximation (RMSEA), and chi-square. All valid indicators have a loading factor > 0.5. All constructs are reliable or consistent.

The SEM that was made following the theory will be

tested with GOF and estimated path values between the variables to answer each hypothesis by examining probability. Furthermore, direct, indirect, and total effects are examined to determine the path of mediation. Finally, using a multigroup analysis, the moderating influence of gender on the link between EO and GI was investigated for male and female owner crafts. Multigroup is the only process available for testing moderator effects in the AMOS SEM software. Therefore, the average value of the moderator variable was calculated by dividing the sample into two groups, 276 male respondents and 127 female respondents. If there is the moderator influence, these parameters may differ between groups. In addition, it can use various comparative model tests, such as structural covariance and measurement residuals, which produce chi-square (CMIN) values accompanied by conditional probability (P) values < 0.05, especially for comparison of structural model weights.

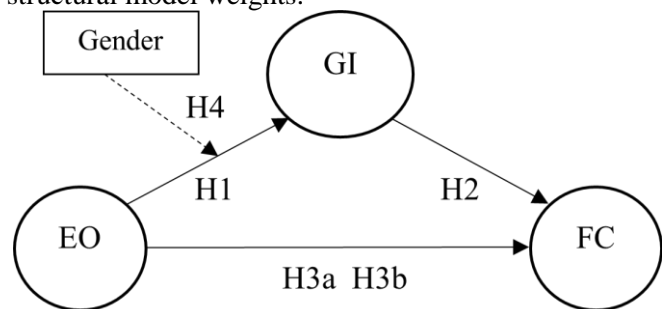


Figure 2. The conceptual framework (Developed by the authors)

4. Results

4.1. Structural Equation Modeling

In SEM, numerous requirements must be completed before the model can examine the association between the study variables. GOF test results were obtained at reasonable values according to the recommendation: χ^2 value = 137,540, GFI index = 0.965, AGFI = 0.952, TLI = 0.997, meaning that all values meet the recommended SEM ≥ 0.90 . The RMSEA value is 0.01 < 0.08, and CMIN/DF 1.100 is less than 2.00. Thus, hypothesis tests can be conducted, and the model deserves further analysis.

Table 1. The constructs used in the study (Developed by the authors)

Constructs	CCR	AVE
Entrepreneurial orientation (EO)	0.942	0.731
Green innovation (GI)	0.866	0.521
Firm competitiveness (FC)	0.916	0.652

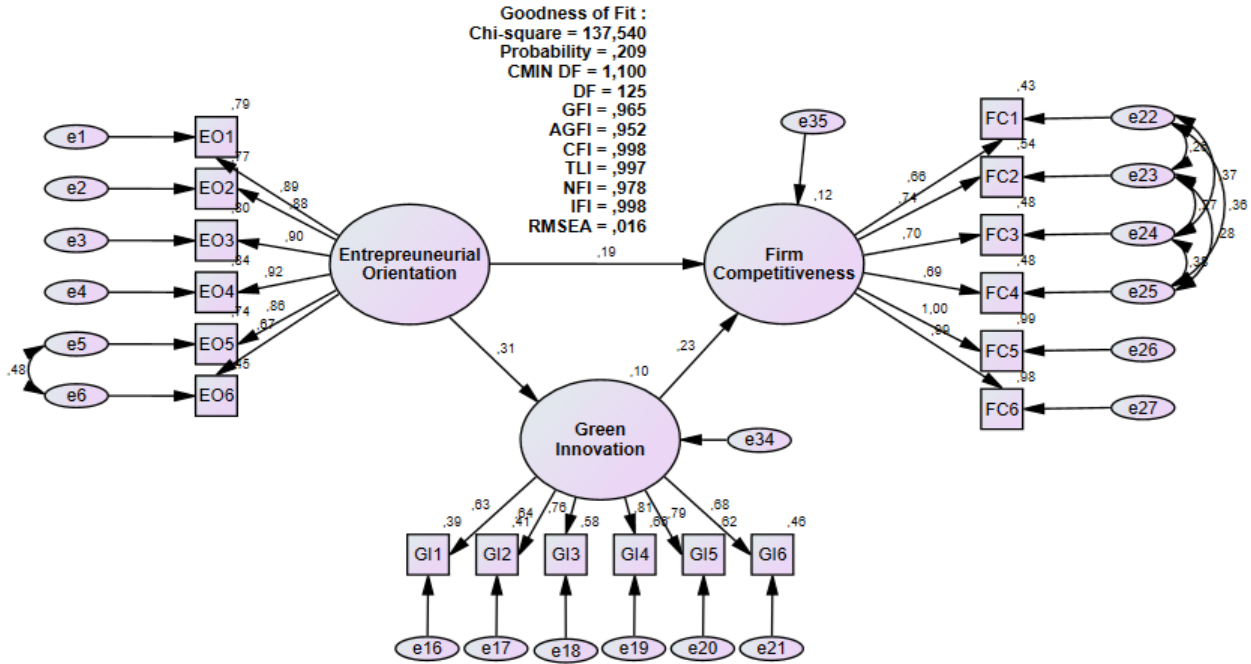


Figure 3. Structural model (Developed by the authors)

4.2. Results of the Hypothesis Tests

Table 2 shows that the standard regression weight is 0.310, which shows significant results at a significance level of 1% (p-value < 0.01) and that EO and GI are positively related. Therefore, H1 is supported. The standard regression weight was 0.0232, which is significant at the 1% significance level (p-value > 0.01) and indicates that GI and FC are positively related. Thus, H2 is supported. The standard regression weight

was 0.190, which is significant at the 1% significance level (p-value < 0.01) and indicates that EO and FC are positively related. Therefore, H3a is supported. Furthermore, with GI as a mediating variable, the relationship between EO and FC is positive. The normative regression value was 0.053, which is statistically significant at the 1% level of significance (p-value < 0.01) and implies that EO and FC are indirectly associated. Therefore, H3b is confirmed.

Table 2. Results of the structural model (direct, indirect, and total effects) (Developed by the authors)

Hypothesis	Structural Path	Direct Effect		Mediating Variable	Indirect Effect		Total Effect	
		β	p-value		β	p-value	β	p-value
H1	EO → GI	0.310	0.00***	---	---	0.310	0.00***	
H2	GI → FC	0.232	0.00***	---	---	0.232	0.00***	
H3	EO → FC	0.190	0.00***	GI	0.053	0.00***	0.273	0.00***

Notes: --- denotes that no mediating variable is available in the estimated structural path; *** denotes p-value < 0.01; ** denotes p-value < 0.05; * denotes p-value < 0.10

The role of GI can also be found through the chi-square difference test in Table 3. The significance level of the mediating variable can be obtained by testing the difference between the partial and complete mediation models. Both models involve GI as a mediating variable. The partial mediation model links EO, GI, and FC (Model 1), whereas the full mediation model connects them in a triangular relationship (Model 2). The role of GI can also be found through the chi-square difference test in Table 3. The significance level of the mediating variable can be obtained by testing the difference between the partial and complete mediation

models. Both models involve GI as a mediating variable. The partial mediation model links EO, GI, and FC (Model 1), whereas the full mediation model connects them in a triangular relationship (Model 2). The difference between chi-square and df in both models has a significance level at p = 0.000 (This value can be seen in the chi-square table at chi-square = 105.073 and df = 2). The value of p = 0.000 below 5% indicates no significant difference between the two models. This test strengthens the results of the path analysis, which showed that the GI could not act as a complete mediation.

Table 3. Mediation significance test (Developed by the authors)

Mediation Model	Direct Effect			Chi-square	df	P value
	EO → GI	GI → FC	EO → FC			
Model 1 EO → GI → FC	0.313	0.298		441.843	133	0.000
Model 2 EO → GI → FC	0.310	0.232	0.190	336.770	131	0.000

Continuation of Table 3

Difference between chi-square and df	105.073	2	0.000
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Notes: --- denotes that no mediating variable is available in the estimated structural path; *** denotes p-value < 0.01; ** denotes p-value < 0.05; * denotes p-value < 0.10

Multigroup analysis was performed to examine the moderating effect of gender on both groups. Table 4 shows the probability values (P) for all comparison models, especially the structural weights model, showing a significant difference between the male and female owner craft models with a different level of significance (p-value < 0.01). This result is clarified by the results of the difference test between the unconstrained and fully constrained models (Table 4). The difference between the unconstrained and fully constrained chi-squares with χ^2 and degree of freedom values was used to test the probability of significance. Furthermore, the chi-square test to compare the two

groups showed that the unconstrained (chi-square = 559,364; D.F. = 264) and fully constrained model for the structural weight (chi-square = 604,452; D.F. = 282) resulted in the difference in chi-square = 45.088, D.F. = 18, P = 0.000. These results imply that gender moderates the EO-to-GI relationship. These results prove that gender is involved in the EO-GI relationship in the context of creative craft industry MSMEs in Indonesia. The result is that the model group category of female owners increases the EO-GI relationship with $\beta = 0.388$, whereas in the male owner category group, model $\beta = 0.222$, which shows lower standardized estimates.

Table 4. Testing moderating hypotheses (Developed by the authors)

Hypothesis	Male craft owner (n = 276) Std. Estimates (C.R)	Female craft owner (n = 127) Std. Estimates (C.R)	Conclusion
H4: Gender moderates the impact of EO on GI	0.222 (3.252)	0.388 (4.160)***	Female owners further enhance their EO to GI.
Gender moderates the impact of EO on GI	The unconstrained model (chi-square = 559.364; D.F. = 264) and fully constrained model for structural weight (chi-square = 604.452; D.F. = 282) result in a difference in chi-square = 45.088, D.F. = 18, P = 0.000		Accepted

Notes: *** denotes p-value < 0.01; ** denotes p-value < 0.05; * denotes p-value < 0.10

5. Discussion

EO plays a significant role in increasing GI. In line with previous findings (Alshebami, 2023; Muangmee et al., 2021; Ru et al., 2020), craft MSMEs are a creative industry sector whose basis for production activities is innovation. Product innovation is a significant need in the craft sector, and it must adapt swiftly to meet market demands. Building EO can help businesses and individuals recognize and capitalize on new possibilities. A consistently high EO level encourages a company's ability to find new opportunities that can be exploited during increasingly stringent market demands regarding environmental concerns (Ali et al., 2021). Thus, EO influences internal GI in MSMEs (Peake et al., 2019). EO, with the dimensions of autonomy, competitive aggressiveness, innovativeness, proactiveness, and risk-taking, are the key characteristics that crafters must have. EO must be a strong nuance so that craft can perform green business innovations. Craft MSMEs with great independence; individuals are free to implement new ideas, unfettered by bureaucratic shackles. When individuals are not hindered by bureaucracy, they can champion new ideas more effectively. Increased quality and manufacturing capacity are examples of aggressive moves. Several "attack ads" against other businesses demonstrate competitive aggression. Proactive organizations adopt an opportunity-seeking perspective, act in front of changes in consumer demands, and are frequently the first to enter new marketplaces. While there is a prevalent misconception that entrepreneurs are chronic

risk takers, they take it for granted because it comes with careful planning. Executives may take steps to cultivate stronger EOs. It is critical to create organizational policies that match the five EO aspects. For example, how a company's remuneration system fosters or discourages this aspect must be considered. Taking appropriate risks is rewarded with increases and incentives, irrespective of whether the risk pays off.

The application of GI is now of high value in the eyes of local and international customers. This level of GI awareness is built on a high EO contributing to proactively fulfilling the customer desires. The entrepreneurial atmosphere in MSME craft must be highly reactive and measurable with all changes, always daring to pioneer in tight market competition, often innovating even though faced with high risks of realizing GI. However, government assistance in the development of craft MSMEs is urgently needed. This research supports previous research that managers with a high entrepreneurial spirit can perform all kinds of innovations, including GIs, considering that they will have a sustainable impact on their business (Memon et al., 2019). Individuals with higher EO can also increase their FC through the product development (Al-Mamary & Alshallaqi, 2022), and are always ready for all market challenges and policy regulations.

Craft MSMEs consistently strive to create excellent items that agree with the consumer tastes and innovative products distinct from rivals to retain the clients. In addition to unique products, using natural materials such as pure bamboo, wood, and rattan

without iron adhesives or synthetic glue is a *prima donna* for the community. Many craft workshops have started implementing green crafts in the private sector and government, but they should be well socialized. This agrees with previous findings that "becoming a greener company" helps them develop new market opportunities with customers who also care about the environment, and it becomes an FC to attract customers (Padilla-Lozano & Collazzo, 2022). GI unlocks a better corporate image, increased environmental performance, or a mixture of the above, resulting in higher FC (Tu & Wu, 2021).

EO plays an essential role in improving FC, following the RBV theory, which postulates that FC comes from the resources owned by the company. These findings are consistent with the prior research on the influence of EO on FC (Kiyabo & Isaga, 2020). Product innovation is the main element of EO that positively influences FC (Pratono et al., 2019). Craft is a creative industry; independent, brave, innovative, and proactive character in the craft industry is like the central life that must be owned. With a high entrepreneurial orientation, a craft manager will always be able to follow trends, such as designs, styles, and colors, to deliver an array of items that meet the customers' expectations. Craft managers with high EO have high innovation courage, such as paying attention to design, packaging, and essential materials that are premium and environmentally friendly in line with current public awareness that goods made from environmentally friendly materials are more premium and exclusive because they are almost handmade. At that time, craft products will be highly valued and improve the company's image of producing high-quality items for the clients. This finding is consistent with previous studies (Lampe et al., 2020).

In this study, gender as a mediator impacts the link between EO and GI habits. Women are more able to strengthen EOs in implementing GI than male owners. Several studies have shown that women make a positive contribution to sustainability, among others; on the basis of the theory of gender socialization, the academic community widely recognizes the strategic benefits of female directors, finding that women's gender indeed pays more attention to environmental concerns for men (Lin et al., 2022; Rodrigues & Franco, 2023; Vincenza et al., 2022). Women have more social instincts, including environmental, than men. They focused on reducing the use of machine tools, synthetic adhesives, and binders, the use of iron nails, and minimizing residue, thereby reducing materials wasted in vain. Many previous researchers have proved the effectiveness of implementing GI by a female manager. As published in the SDGs (United Nations, 2022), with sustainability aims, the business trend of sustainable entrepreneurship headed by women is beneficial.

6. Conclusion

Environmental orientation distinguished with accuracy and involving risks at every opportunity

creates opportunities within every limitation, strives for innovation at every stage of the business, and is adept at assessing market trends to get ahead of competitors and become a source of competitiveness for MSMEs. An owner who is brave and measurable, answers the challenges faced with an innovative attitude, and is proactive at every opportunity will make customers always ready and liking because they can receive limited products to provide an exclusive experience of shopping. In addition, fulfilling environmental requirements by stakeholders strengthens FC, including meeting the expectations of consumers who are currently very fond of environmentally friendly products. Apart from understanding the benefits of green products, many Indonesians have reflected on the people of developed countries that using environmentally friendly products feels exclusive and adds personal value to appearance.

The role of women as craft owners is also important. The existing literature does not yet show the influence of the owner's gender in moderating the relationship between EO and GI, especially during the post-Covid-19 pandemic revival. This provides new insights into and an academic contribution to the importance of including women in the senior control group for a proactive environmental strategy. There are huge differences between men and women in terms of social historical past, marketplace preferences, distribution of family roles, and membership preferences. Women deliver one-of-a-kind perspectives and information to company governance. EO of women toward creating environmentally friendly craft products is higher than that of men. Women view the success of craft not only from an economic standpoint but also from an environmental standpoint. The social spirit and caring nature possessed by women are higher than those of men; even though they are professional business owners, their instinct to think about the future of their children's generation and environmental damage is better than that of men; the placement of women as managers will make implementing GI as part of EO harmonious. Thus, women can better implement the EO in the form of innovation and concern for the environment at every stage of the business to create FC. These findings bring more discussion to the choice-making process and make selections more medical. There still may be constrained literature discussing women as agency managers within the craft sub-area. The results of this study pay more attention to the inexperienced innovation of the various traits of women's control in the strategic size. This indicates that craft MSMEs have to break down the "gender wall" and comprise control channels to interact by the agency method. Craft MSMEs must inspire women to participate in decision-making and let women help increase green marketplace. On the other hand, the government must support MSME crafts through easy entrepreneurship training for micro-scale businesses. In addition to product-making training, the government can facilitate green production processes.

The managerial implication of this research is that to increase the competitiveness of MSMEs, the EOs of their owners are essential. They must build an atmosphere thick with an entrepreneurial spirit, be courageous and measured every time they take risks for the challenges they face, always act innovatively, be proactive in line with the market trends, and follow the government regulations to enter international markets. Many countries implement green regulations for imports; malarial artisans can consider female managers because they are more concerned about creating green craft products and processes.

7. Limitations and Further Study

The limitations of this research are as follows:

- (a) This study was conducted in West Java, Indonesia, which may not be representative of other regions or countries;
- (b) Because this study only included craft MSMEs, the findings cannot be applied to other MSMEs of various categories;
- (c) Researchers have yet to mention other advancements. Therefore, further research can be conducted.

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