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Revitalizing green economic capability to maintain the financial stability of MSMEs in Bira Beach

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Abstract: To maintain the financial stability of Micro, Small and Medium Enterprises (MSMEs) is a vital issue which needs a revitalization of green economic capability. This study explores the impact of Green Economy Capability (GEC) on the financial stability of MSMEs in the coastal region of Bira Beach, with a focus on the mediating role of government support. A SmartPLS-SEM used in this study to investigate the survey involving 150 MSMEs. The key variables measured include GEC, financial stability, and government support, with the data analyzed through descriptive and inferential statistical techniques. The findings indicate that GEC significantly influences government support, which in turn has a positive effect on financial stability. However, GEC does not have a direct impact on MSMEs' financial stability. These findings underscore the critical role of government policies in supporting the adoption of sustainable practices among MSMEs, particularly in regions heavily dependent on tourism. This research contributes to the literature by providing empirical evidence of the indirect relationship between GEC and financial stability through government support in the coastal MSME sector. In results, we offered two solutions. First, the policymakers must prioritize initiatives that strengthen MSME's capacity for sustainable practices. Second, the need for tailored support systems in coastal areas like the adoption of green practices which must be integrated with local economic strategies to yield both environmental and financial benefits.

Keywords: Green Economy Capability; Financial Stability; MSMEs; Government Support; Coastal Economy

JEL Classification: O44; G21; L26; H25; Q26

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Introduction

The global shift towards a green economy is widely acknowledged as a critical strategy for mitigating environmental risks and fostering economic and social sustainability (Kreinin & Aigner, 2022). Coastal regions like Bira Beach, where the local economy heavily relies on tourism, present specific challenges for Micro, Small, and Medium Enterprises (MSMEs), which face limitations in human capital quality, entrepreneurial capacity, and access to capital and technology (Gao et al., 2023; Masaviru et al., 2021). Despite the existing literature emphasizing the importance of green economic practices in promoting

sustainability (Galistcheva, 2020; Tomashuk et al., 2023; Alshehhi, et al., 2018; Nohong et al., 2024; Zhang et al., 2022), there remains a gap in understanding how these practices are applied among MSMEs in coastal areas and their impact on financial stability. While prior research has demonstrated that adopting green economic practices can improve the performance of large companies, studies focusing on MSMEs, especially in coastal areas with more constrained resources, are still scarce (Yudawisastra et al., 2022; Kummitha, 2019).

This study has identified that MSMEs in coastal regions face unique challenges, and the potential for leveraging the green economy to enhance their financial stability has yet to be fully explored. This research aims to address this gap by quantitatively examining the implementation and impact of Green Economy Capability (GEC) on the financial stability of MSMEs in Bira Beach, focusing on how these factors interact within a tourism-dependent local. The study is expected to provide empirical evidence on the effectiveness of Green Economy Capability in a previously underexplored context of MSMEs in coastal regions. It will offer critical insights for policymakers to develop strategies supporting green economic initiatives among MSMEs to foster financial stability and the economy (Maryono et al., 2019). Although existing research has recognized the importance of green economic practices in improving corporate performance and environmental sustainability, much of the literature focuses on large companies, often overlooking how MSMEs, particularly in tourism-dependent coastal areas like Bira Beach, can adopt these practices. Research by Galistcheva (2020) and Tomashuk et al., (2023) broadly explores the effects of green policies on large corporations. Nevertheless, few studies have specifically investigated their impact on MSMEs, which often face limitations in accessing resources and technology.

Moreover, studies by Alshehhi, et al., (2018) and Nohong et al. (2024) highlight the strategic benefits of sustainability. However, there is a need to address how resource constrained MSMEs can implement green economic practices to overcome their specific economic. This indicates a significant research gap regarding the application and direct impact of the green economy on the financial stability of MSMEs in locations like Bira Beach, an area whose well-being depends mainly on the success of MSMEs in integrating sustainable practices. This study is unique in its use of a quantitative approach to explicitly explore the effects of Green Economy Capability on the financial stability of MSMEs in coastal areas, emphasizing the mediating role of government support (Ahmed, 2021). The results are expected to significantly contribute to practice and policy, supporting sustainable economic growth in coastal regions. Thus, this research seeks to fill the knowledge gap and provide robust recommendations for policymakers and MSMEs on effective ways to integrate green practices into daily operations to achieve financial stability and sustainable growth.

This study contributes significantly to the literature by addressing the gap regarding the application and impact of the green economy on the financial stability of Micro, Small, and Medium Enterprises (MSMEs) in coastal areas, particularly in Bira Beach. While previous studies have highlighted the importance of green economic practices in improving the performance of large companies (Galistcheva, 2020; Tomashuk et al., 2023;

Alshehhi, et al., 2018; Nohong et al., 2024), research specifically exploring how MSMEs, especially in coastal areas, can adopt and benefit from these initiatives remains highly limited.

This research uses a quantitative approach to deeply explore the impact of Green Economy Capability (GEC) on the financial stability of MSMEs and the mediating role of government support in this process. By focusing on the context of tourism-dependent coastal areas, this study offers new insights that can assist policymakers in formulating more effective strategies to support green economic initiatives among MSMEs. Additionally, the findings of this research are expected to provide strong empirical evidence to support sustainable economic growth in coastal areas and serve as a guide for MSMEs in integrating sustainable practices to achieve excellent financial stability.

Research Method

This study adopts a quantitative design with a survey approach to assess the application of Green Economy Capability (GEC) among Micro, Small, and Medium Enterprises (MSMEs) in the Bira Beach area. Bira Beach is one of the most popular marine tourism sites located in South Sulawesi. The research sample consists of approximately 150 purposively selected MSMEs, with criteria for diversity in size, business type, and years of operation. The selected samples of MSMEs are relevant to the local size population in Bira Beach (Charli et al., 2022; Creswell & Creswell, 2018; Weyant, 2022). However, the selected respondents need to evaluate the research model, which consists of the variables of Green Economy Capability (GEC), Financial Stability (FS), and Government Support (GS). GEC is measured based on how much MSMEs adopt environmentally friendly practices, such as renewable energy and resource efficiency (Liu, 2024). FS is assessed through indicators such as annual income and profitability (Rahman, 2023). GS is measured based on policies and initiatives that promote the implementation of green economy practices among MSMEs. Data are collected through questionnaires and in-depth interviews with MSMEs and analysed using descriptive and inferential statistical methods like SmartPLS-SEM (Hair et al., 2019). This method was chosen because it can handle research models with many latent variables and complex relationships. With this method, the research is expected to contribute significantly to the literature on the green economy in the MSME sector and the relevance of environmental policy in Indonesia.

Result and Discussion

Evaluation of the Measurement (Outer) Model

In this study, we used a SmartPLS 4.0 to evaluate the outer model which conducted to test the validity and reliability of the constructs. The rule of thumb applied is that the loading factor values must exceed 0.6, and the AVE (Average Variance Extracted) values must be greater than 0.5, as suggested by Ghozali and Latan (2015). Table 1 presents the results of the outer model based on the values of outer loadings, Cronbach's Alpha,

Composite Reliability (CR), and AVE. All variables demonstrate valid results, with loading factor values exceeding 0.6 and AVE values greater than 0.5. The Composite Reliability (CR) values also exceed 0.7, indicating that all variables exhibit good reliability.

Table 1 Result of Outer Loading, Cronbach Alpha, CR and AVE

Construct/Item	Loading	Cronbach	CR	AVE
Green Economy Capability		0,849	0,898	0,691
- X1	0,665			
- X2	0,872			
- X3	0,890			
- X4	0,877			
Government Support		0,853	0,901	0,696
- Y1	0,727			
- Y2	0,896			
- Y3	0,866			
- Y4	0,837			
Financial Stability		0,892	0,898	0,757
- Z1	0,862			
- Z2	0,920			
- Z3	0,788			
- Z4	0,904			

Based on the results above, it can be concluded that all variable indicators are valid and reliable, satisfying the tests for convergent validity and composite reliability.

Inner Model Analysis

After testing validity and reliability, the next step is to analyze the inner or structural model. The purpose of using an inner model analysis is to follow the steps of PLS-SEM and investigate the robustness of the Goodness Fit Indexed (GFI). This testing uses several indicators, including Standardized Root Mean Square Residual (SRMR), Normal Fit Index (NFI), and Q^2, as seen in Table 2 An SRMR value of less than 0.1 or 0.08 indicates a well-fitting model, while an NFI value approaching one indicates a better model fit. A Q^2 value greater than 0 suggests that the model has predictive relevance.

Table 2 Model Fit

	Value
SRMR	0,078
NFI	0,839
Q^2 Government Support	0,283
Q^2 Financial Stability	0,250

Based on these results, the SRMR value in the Table 2 is 0.078, which is less than 0.10, and the NFI value is 0.839, which is close to 1, indicating that the model meets the fit criteria. Meanwhile, the Q^2 values are 0.283 for the first model path and 0.250 for the second, meaning that the model in this study has predictive relevance, as both values are more significant than 0 (Chin, 1998).

Hypothesis Testing Based on Bootstrapping Results

Hypothesis testing was conducted using bootstrapping analysis from the PLS model. The results of the hypothesis testing are presented in Table 3, showing the T-statistics and P-values used to evaluate the significance of relationships between variables.

Table 3 Path Coefficients

	Original Sample	Sample Mean	Standard Deviation	T Statistics	P Values
Green Economy Capability -> Government Support	0.647	0.653	0.063	10.296	0.000
Government Support -> Financial Stability	0.585	0.595	0.093	6.325	0.000
Green Economy Capability -> Financial Stability	0.002	-0.001	0.135	0.015	**0.988**
Green Economy Capability -> Government Support -> Financial Stability	0.379	0.389	0.077	4.930	0.000

The findings can be summarized in Table 4 and Figure 1.

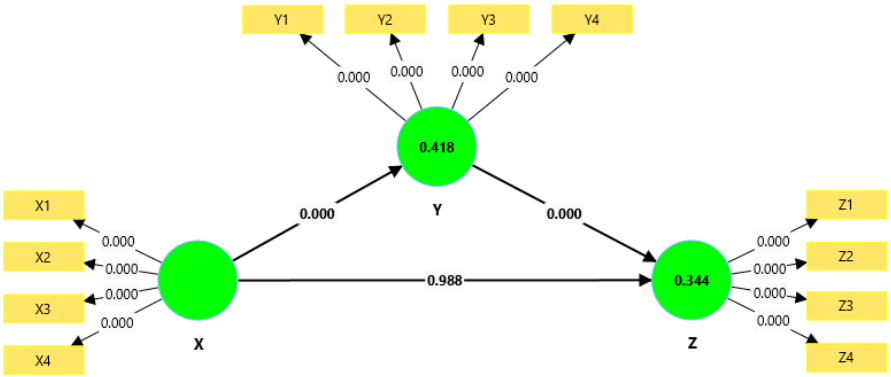

Figure 1 Bootstrapping

Table 4 Results

	T Statistics	P Values	Results
Green Economy Capability -> Government Support	10.296	0.000	Accepted
Government Support -> Financial Stability	6.325	0.000	Accepted
Green Economy Capability -> Financial Stability	0.015	**0.988**	**Rejected**
Green Economy Capability -> Government Support -> Financial Stability	4.930	0.000	Accepted

The study's results and bootstrapping are explained in four items. First, the T-statistic for the relationship between green economy capability and government support is 10.296, more significant than 1.96, with a probability level 0.000, less than 0.05. The coefficient for this relationship is 0.647. These results indicate that green economy capability positively influences government support. Second, the T-statistic for the relationship between government support and financial stability is 6.325, more significant than 1.96,

with a probability level 0.000, less than 0.05. The coefficient for this relationship is 0.585. These results indicate that government support positively influences financial stability. Third, the T-statistic for the relationship between green economy capability and financial stability is 0.015, less than 1.96, with a probability level of 0.988, more significant than 0.05. The coefficient for this relationship is 0.002. These results indicate that green economy capability does not directly influence financial stability. Moreover, fourth, the T-statistic for the relationship between green economy capability and financial stability is 0.015, less than 1.96, with a probability level of 0.988, more significant than 0.05. The coefficient for this relationship is 0.002. These results indicate that green economy capability does not directly influence financial stability.

This study provides empirical evidence that Green Economy Capability (GEC) significantly influences government support, which, in turn, enhances the financial stability of MSMEs in Bira Beach. As previous research has highlighted, the role of government support as a mediator is crucial. This support encompasses policies that promote adopting sustainable practices, financial incentives, and training programs to increase MSMEs' capacity to integrate green economic strategies into their operations (Tejedo-Romero et al., 2022; Hulu, 2022). Additionally, Nasser (2022) and Atika (2023) have noted that robust government support fosters an enabling environment where MSMEs can thrive within the green economy ecosystem. This aligns with Anwar's (2018) findings, which underscore the significance of human capital in promoting sustainable growth, mainly through education and skill development that encourage green economic practices.

Moreover, Ilham (2021) emphasizes the necessity of sustainable development to prevent environmental degradation, a pressing issue for coastal MSMEs that rely heavily on natural resources. Wafiq and Suryanto (2021) also identify population pressures and resource scarcity as factors exacerbating environmental challenges, further underscoring the need for decisive government intervention. Nazah et al. (2021) complement these findings by showing that effective policy measures can mitigate the adverse environmental impacts of economic growth, reinforcing the essential role of government support in stabilizing MSMEs financially through green economic initiatives. These insights collectively highlight the importance of integrated policy frameworks that address environmental sustainability and financial resilience for coastal MSMEs like those in Bira Beach.

The study reveals that although GEC plays a vital role in increasing Government Support, its direct impact on financial stability is limited. This finding aligns with the research of Tomashuk et al., (2023) and Galistcheva (2020), who noted that adopting green practices in large corporations' results in positive financial outcomes. However, in the context of MSMEs, the situation differs, as resources and access to green technologies often pose challenges (Ban et al., 2015). Coastal MSMEs, such as those in Bira Beach, face greater structural challenges than larger companies, including limited access to capital and technology, as well as a low level of entrepreneurial literacy related to sustainability.

The lack of a direct link between GEC and MSMEs' financial stability can also be explained by research from Yudawisastra et al. (2022) and Kummitha (2019), which found that

adopting a green economy in MSMEs often does not have a direct financial impact due to insufficient external support from both government and financial institutions. This study reinforces the critical importance of government support as a key element in helping MSMEs adopt green practices that affect their financial stability. Conversely, this research supports Batinuloho's (2023) findings that internal constraints, such as limited capital and lack of access to technology, hinder MSMEs from benefiting directly from green practices. This highlights the pivotal role of government support in overcoming such obstacles, as evidenced in this study. The findings also align with the work of Tejedo-Romero et al., (2022) and Masaviru et al. (2021), who stressed the need for policies focused on developing MSMEs' capabilities through training and access to green technology (Ban et al., 2015).

In the context of Bira Beach, where the local economy heavily depends on tourism, this study provides valuable insights that GEC implementation must be supported by robust government initiatives to have a significant impact on MSMEs' financial stability (Suhel & Bashir, 2018; Heliani, 2023). This is consistent with the literature, which asserts that sustainable entrepreneurship can deliver long-term economic benefits when coupled with supportive policies (Toubes & Araújo-Vila, 2022).

This research also makes a novel contribution to the literature by exploring the mediating role of government support in the relationship between GEC and MSMEs' financial stability. This topic has yet to be explored in the context of coastal MSMEs. By adopting a quantitative approach to measure these relationships empirically, the findings reinforce the importance of targeted government interventions to drive the transition towards a sustainable green economy among MSMEs (Yudawisastra et al., 2018).

Overall, this study supports previous literature that emphasizes the importance of collaboration between the private sector, government, and financial institutions in promoting the adoption of the green economy (Ban et al., 2015, 2023; Nohong et al., 2024; Tomashuk et al., 2023). However, the need for policy adjustments tailored to the specific needs of MSMEs, particularly in coastal areas, becomes increasingly evident in this research.

Conclusion

This study contributes to the existing literature by providing empirical evidence on the role of Green Economy Capability (GEC) in enhancing the financial stability of Micro, Small, and Medium Enterprises (MSMEs) in coastal regions such as Bira Beach. The findings show that although GEC plays a crucial role in increasing government support for MSMEs, this support must act as a mediator to impact financial stability significantly. However, these findings are relevant to the previous research, which found that government support had a significant impact as a mediator on financial stability for MSMEs (Maryono et al., 2019; Sharma et al., 2024). These results align with previous studies by Tomashuk et al., 2023 and Galistcheva 2020, which also emphasized the importance of external support, particularly in resource-constrained contexts.

The implications of these findings are twofold. First, policymakers must prioritize initiatives that strengthen MSMEs' capacity to implement sustainable practices, including providing financial incentives, training, and access to environmentally friendly technologies, as suggested by Ahmed et al. (2021) and Masaviru et al. (2021). Second, this study highlights the need for tailored support systems in coastal areas where the economy relies heavily on tourism. The adoption of green practices, as discussed by Alshehhi,et al., (2018) and Nohong et al. (2024), must be integrated with local economic strategies to yield both environmental and financial benefits (Suhel & Bashir, 2018).

While this research makes valuable contributions, there are several limitations. The study focuses on a single region and sector, which may limit the generalizability of its findings to other areas. Additionally, reliance on quantitative data may only partially capture MSMEs' complexities in adopting green practices. This aligns with Yudawisastra et al. (2022), who revealed that qualitative insights are needed to understand better the impact of the green economy on small businesses. Future research could benefit from a mixed-methods approach, combining quantitative and qualitative data to provide a more comprehensive understanding. Moreover, further exploration is required on the long-term effects of green economic practices on MSMEs' growth and resilience, as suggested by Kummitha (2019), Hidayat et al., (2023), and Idawati (2021).

Author Contributions

Conceptual, S. S. and M.; Methodology, A.F.; Investigation, MU.; Analysis, A.F..; Original draft preparation, M.; Review and editing, M.K.B.; Supervision, M. A.

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Conflicts of Interest

The authors declare no conflict of interest. The funders had no role in the design of the study; in the collection, analyses, or interpretation of data; in the writing of the manuscript, or in the decision to publish the results.

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