

Blue Innovation, Environmental Strategy, and Organizational Value: The Mediating Roles of Competitive Advantage and Business Sustainability

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Abstract

This study investigates the effects of Blue Innovation and Environmental Strategy on Organizational Value through the mediating roles of Competitive Advantage and Business Sustainability among Fishermen Joint Business Groups (JBG) in Makassar City, Indonesia. Grounded in the Resource-Based View (RBV), Natural Resource-Based View (NRBV), Stakeholder Theory, and Triple Bottom Line Theory, the study examines how innovation and environmental capabilities contribute to value creation in community-based fisheries organizations operating within the blue economy framework. A quantitative research design was employed using a survey of 213 members and managers of JBGs. Data were analyzed using Structural Equation Modeling (SEM) with AMOS. The results indicate that Environmental Strategy has a positive and significant effect on Competitive Advantage, Business Sustainability, and Organizational Value. Furthermore, Competitive Advantage and Business Sustainability significantly mediate the relationship between Environmental Strategy and Organizational Value. In contrast, Blue Innovation does not significantly influence Competitive Advantage, Business Sustainability, or Organizational Value, either directly or indirectly. These findings suggest that environmental strategic capabilities play a more critical role than blue innovation in enhancing organizational value within fisheries-based organizations. The study contributes to the blue economy and sustainability literature by providing empirical evidence from community-based fisheries organizations, a context that has received limited scholarly attention. Practically, the findings highlight the importance of strengthening environmental strategies and sustainability-oriented management practices to improve competitiveness, sustainability performance, and long-term organizational value.

Keywords: blue innovation, environmental strategy, competitive advantage, business sustainability, organizational value

1. Introduction

The blue economy has emerged as a strategic development paradigm that integrates economic growth, social inclusion, and environmental sustainability in marine and coastal sectors. This approach promotes the sustainable utilization of marine resources to enhance livelihoods, strengthen economic resilience, and preserve ecosystem integrity for future generations (Elegbede et al., 2025). The concept has gained increasing attention as countries seek to balance economic development with environmental conservation while addressing the challenges of climate change and resource depletion (Bennett et al., 2021; Lee et al., 2020). As the world's largest archipelagic country, Indonesia possesses significant marine and fisheries resources and has increasingly emphasized the development of a blue economy through community empowerment, sustainable fisheries management, and institutional strengthening of coastal

communities (Elegbede et al., 2025; Adrianto et al., 2022).

In Makassar City, Fishermen Joint Business Groups (JBG) play an important role in improving the welfare of small-scale fishermen through collective production, processing, marketing, and resource management activities. These organizations have increasingly adopted product diversification, digital marketing, and environmentally responsible fisheries practices to improve competitiveness and sustainability. However, many JBGs continue to face challenges related to limited knowledge management, weak organizational capabilities, inadequate environmental practices, and low market competitiveness, which constrain their ability to create long-term organizational value. Similar challenges have been reported among fisheries-based community organizations in developing countries, where limited managerial capabilities and weak innovation capacity hinder sustainable development and value creation (Agyabeng-Mensah et al., 2020; Khan et al., 2023).

To address these challenges, blue innovation has emerged as a potentially important strategic driver for organizations operating in marine and fisheries-related sectors. Blue Innovation refers to the development and implementation of innovative products, processes, technologies, and business models that support the sustainable utilization of marine resources while promoting economic growth and environmental protection. According to the Resource-Based View (RBV), innovation-oriented capabilities constitute valuable, rare, and difficult-to-imitate resources that can enhance organizational competitiveness and create long-term value (Sohu et al., 2024; Sumiati & Isnaini, 2024). Through the adoption of blue innovation practices, organizations can improve operational efficiency, generate sustainable solutions, and strengthen their strategic position in increasingly competitive markets.

Environmental Strategy has emerged as a critical managerial approach for organizations pursuing sustainable development. It encompasses the integration of environmental concerns into strategic planning, operational activities, and organizational decision-making processes to reduce ecological impacts while maintaining economic performance. From the perspective of the Natural Resource-Based View (NRBV), environmental capabilities represent strategic assets that enable organizations to improve resource utilization, respond effectively to environmental challenges, strengthen stakeholder relationships, and adapt to changing regulatory environments. These capabilities can contribute to the development of sustainable competitive advantages and support long-term organizational success (Jianchun, 2024; Sohu et al., 2024). As a result, organizations that proactively adopt environmental strategies are better positioned to strengthen business sustainability and create greater organizational value.

Prior research has highlighted the significant role of strategic resources and sustainability-oriented practices in enhancing organizational performance. Studies have reported that intellectual capital, environmental management initiatives, and innovation-driven capabilities can positively influence competitive advantage, sustainability performance, and long-term organizational outcomes (Werastuti et al., 2024; Romadhon et al., 2024). Furthermore, the incorporation of sustainability principles into organizational activities has been associated with increased resilience, improved stakeholder trust, and enhanced value creation over time (Li et

al., 2024). Despite these findings, most empirical investigations have concentrated on manufacturing industries, small and medium-sized enterprises (SMEs), and large corporations. Consequently, limited attention has been given to community-based fisheries organizations operating within the blue economy context, creating an important research gap that warrants further examination (Sohu et al., 2024; Li et al., 2024).

This study addresses these gaps by developing an integrated framework that examines the effects of Blue Innovation and Environmental Strategy on Organizational Value through the mediating roles of Competitive Advantage and Business Sustainability. The study offers several important contributions. First, it extends the growing body of literature on the blue economy by positioning Blue Innovation as a strategic capability that enhances organizational competitiveness and value creation within fisheries-based organizations. Second, it conceptualizes Organizational Value as a multidimensional outcome that encompasses economic, social, environmental, and institutional benefits, thereby providing a more comprehensive assessment of organizational success. Third, it investigates the mediating roles of Competitive Advantage and Business Sustainability, offering a deeper understanding of the mechanisms through which Blue Innovation and Environmental Strategy contribute to value creation. Finally, the study provides empirical evidence from Fishermen Joint Business Groups (JBG) in Makassar, a context that remains relatively underexplored in the blue economy and sustainability literature.

Therefore, this study aims to examine the effects of Blue Innovation and Environmental Strategy on Organizational Value, as well as the mediating roles of Competitive Advantage and Business Sustainability, among Fishermen Joint Business Groups (JBG) in Makassar, Indonesia. By integrating the perspectives of the Resource-Based View (RBV), Natural Resource-Based View (NRBV), and Stakeholder Theory, this study seeks to enrich the literature on blue economy development, sustainable competitive advantage, and value creation in community-based fisheries organizations. Furthermore, the findings are expected to provide practical insights for policymakers, fisheries organizations, and local communities in promoting sustainable organizational development and strengthening the contribution of the blue economy to regional growth.

2. Literature Review

Blue Innovation and Organizational Value. Blue Innovation refers to sustainable innovations that emphasize the efficient and environmentally responsible utilization of marine resources. From the perspective of the Resource-Based View (RBV), innovation represents a strategic resource that enhances organizational value through improved capabilities, operational efficiency, and product differentiation (Barney, 1991). Recent studies have demonstrated that sustainability-oriented innovation positively contributes to organizational value creation by improving resource efficiency, corporate reputation, and long-term performance (Rubio-Andrés & Abril, 2024; Sohu et al., 2024; Zhang et al., 2024). Furthermore, Elston et al. (2024) found that blue economy-based innovations play a crucial role in generating economic value while simultaneously promoting environmental sustainability within marine-based organizations.

H1: Blue Innovation positively affects Organizational Value.

Environmental Strategy and Organizational Value. Environmental Strategy refers to the integration of environmental considerations into organizational decision-making processes and long-term strategic planning. The Natural Resource-Based View (NRBV) suggests that environmental capabilities can become strategic assets that generate long-term value and superior organizational performance (Hart, 1995). Additionally, Stakeholder Theory posits that organizations create value when they respond effectively to stakeholder expectations regarding environmental responsibility (Freeman, 1984). Environmental strategies help organizations strengthen legitimacy, improve reputation, and increase stakeholder trust. Recent studies indicate that environmental strategies significantly improve organizational value through enhanced sustainability performance and stakeholder engagement (Cabaleiro-Cerviño & Mendi, 2024; Khan et al., 2024). Xiao (2025) also found that ESG-integrated strategies contribute positively to value creation by improving organizational legitimacy and investor confidence.

H2: Environmental Strategy positively affects Organizational Value.

Blue Innovation and Competitive Advantage. According to the Resource-Based View, innovation-based capabilities are strategic resources that enable organizations to differentiate themselves from competitors (Barney, 1991). Blue Innovation facilitates the development of unique products, sustainable technologies, and environmentally responsible business models that are difficult to imitate. Moreover, Dynamic Capabilities Theory argues that organizations capable of continuously innovating can achieve superior competitive positions in dynamic environments (Teece et al., 1997). Empirical evidence supports this relationship. Sumiati and Isnaini (2024) found that marine-based innovation significantly enhances sustainable competitive advantage. Similarly, Zhang et al. (2024) and Sohu et al. (2024) reported that sustainability-oriented innovations improve market competitiveness through product differentiation and operational efficiency.

H3: Blue Innovation positively affects Competitive Advantage.

Environmental Strategy and Competitive Advantage. The Porter Hypothesis suggests that environmental initiatives stimulate innovation, improve efficiency, and enhance competitiveness (Porter & Van der Linde, 1995). Environmental strategies encourage organizations to reduce waste, optimize resource use, and develop environmentally friendly products. From the perspective of NRBV, environmental management capabilities can become sources of competitive advantage because they are valuable and difficult for competitors to replicate (Hart, 1995). Recent studies have demonstrated that environmental strategies improve competitive advantage through enhanced reputation, operational efficiency, and market differentiation (Khan et al., 2024; Cabaleiro-Cerviño & Mendi, 2024; Indrawati et al., 2024).

H4: Environmental Strategy positively affects Competitive Advantage.

Blue Innovation and Business Sustainability. Business Sustainability reflects an organization's ability to achieve long-term economic viability while maintaining social and environmental

responsibility. According to Triple Bottom Line Theory, sustainable organizations must simultaneously generate economic, social, and environmental value (Elkington, 1997; Renaldo et al., 2024). Blue Innovation contributes to sustainability by promoting responsible resource utilization, reducing environmental degradation, and supporting long-term organizational resilience. Dynamic Capabilities Theory also suggests that innovation enhances organizational adaptability and sustainability in changing environments (Teece et al., 1997). Elston et al. (2024) found that blue economy innovation significantly contributes to sustainable business development. Rubio-Andrés and Abril (2024) also reported that sustainability-oriented innovation strengthens long-term organizational sustainability.

H5: Blue Innovation positively affects Business Sustainability.

Environmental Strategy and Business Sustainability. The Natural Resource-Based View emphasizes that environmental capabilities enhance organizational sustainability through pollution prevention, product stewardship, and sustainable development practices (Hart, 1995). Similarly, Stakeholder Theory argues that organizations adopting environmental responsibility are more likely to maintain stakeholder support and long-term sustainability (Freeman, 1984). Empirical evidence demonstrates that environmental strategies positively affect business sustainability through resource efficiency, risk reduction, and improved stakeholder relationships (Khan et al., 2024; Liu, 2024; Indrawati et al., 2024).

H6: Environmental Strategy positively affects Business Sustainability.

Competitive Advantage and Organizational Value. According to the Resource-Based View, competitive advantage enables organizations to achieve superior performance and create greater organizational value than competitors (Barney, 1991). Competitive advantage enhances profitability, market share, customer loyalty, and long-term growth. Porter (1985) argued that organizations possessing cost leadership or differentiation advantages are better positioned to create superior value. Recent studies confirm that competitive advantage significantly improves organizational performance and value creation (Liu, 2024; Sumiati & Isnaini, 2024; Indrawati et al., 2024).

H7: Competitive Advantage positively affects Organizational Value.

Business Sustainability and Organizational Value. The Triple Bottom Line Theory suggests that organizations that balance economic, social, and environmental objectives are more likely to generate sustainable value (Elkington, 1997). Additionally, Stakeholder Theory posits that organizations maintaining sustainability practices gain legitimacy, trust, and support from stakeholders, which ultimately enhances organizational value (Freeman, 1984). Rubio-Andrés and Abril (2024), Khan et al. (2024), and Xiao (2025) found that business sustainability significantly contributes to organizational value through improved reputation, stakeholder engagement, and long-term performance.

H8: Business Sustainability positively affects Organizational Value.

Mediating Role of Competitive Advantage. The Resource-Based View explains that strategic resources such as Blue Innovation and Environmental Strategy generate value only when

transformed into competitive advantage (Barney, 1991). Competitive advantage serves as an intermediate mechanism through which organizations convert innovation and environmental capabilities into superior organizational outcomes. Recent studies suggest that innovation and sustainability practices improve organizational performance primarily through enhanced competitive positioning (Sohu et al., 2024; Liu, 2024; Khan et al., 2024).

H9: Competitive Advantage mediates the relationship between Blue Innovation and Organizational Value.

H10: Competitive Advantage mediates the relationship between Environmental Strategy and Organizational Value.

Mediating Role of Business Sustainability. The Triple Bottom Line Theory and Stakeholder Theory jointly suggest that innovation and environmental initiatives create value when they improve long-term sustainability outcomes (Elkington, 1997; Freeman, 1984). Organizations implementing Blue Innovation and Environmental Strategy are more likely to achieve sustainable economic, social, and environmental performance, which subsequently enhances organizational value. Empirical evidence supports the mediating role of sustainability in linking innovation and environmental initiatives to organizational outcomes (Rubio-Andrés & Abril, 2024; Cabaleiro-Cerviño & Mendi, 2024; Xiao, 2025).

H11: Business Sustainability mediates the relationship between Blue Innovation and Organizational Value.

H12: Business Sustainability mediates the relationship between Environmental Strategy and Organizational Value

3. Research Method

Research Design. This study employs a quantitative approach using a cross-sectional survey design. A quantitative approach is considered appropriate because it enables the examination of causal relationships among Blue Innovation, Environmental Strategy, Competitive Advantage, Business Sustainability, and Organizational Value. The study adopts a positivist paradigm, which emphasizes the objective measurement of research phenomena through the collection and analysis of empirical data. Primary data were collected using structured questionnaires distributed to respondents who are members and managers of Fishermen Joint Business Groups in Makassar City.

Research Location. This study was conducted in Makassar City, South Sulawesi Province, Indonesia. Makassar City was selected as the research site because it is one of the major fisheries centers in Eastern Indonesia and hosts a large number of Fishery Joint Business Groups (JBG) that are actively engaged in fishery production, processing, and marketing activities, as well as marine resource management.

Populasi and Sample. The population of this study comprised all active Fishery Joint Business Groups registered at the Department of Marine Affairs and Fisheries of Makassar City, totaling 52 groups with 896 members. A purposive sampling technique was employed to select

respondents based on predefined criteria, namely: (1) Active members of a Fishery Joint Business Group; (2) Having at least two years of involvement in JBG activities; (3) Holding managerial roles or decision-making responsibilities within the organization; and (4) Possessing adequate knowledge of organizational operations and sustainability practices. Based on these criteria, a total of 347 respondents were selected. The unit of analysis in this study is the JBG organization, represented by key members, including the chairperson, manager, secretary, treasurer, and senior members who possess sufficient knowledge and experience in organizational management and operational activities.

Data Type and Sources. This study employs two types of data, namely primary data and secondary data, to ensure a comprehensive analysis of the research problem. Primary data were collected directly from respondents through a structured questionnaire survey. The questionnaire was distributed to the selected respondents and consisted of closed-ended statements designed to measure perceptions and responses related to the variables under study. Each statement was assessed using a five-point Likert scale, ranging from 1 (Strongly Disagree) to 5 (Strongly Agree), which allows the quantification of respondents' attitudes and opinions. In addition, secondary data were gathered from various relevant and credible sources to support and complement the primary data. These sources include government reports, publications from the Ministry of Marine Affairs and Fisheries, documents from the Makassar City Fisheries Office, scientific journals, conference proceedings, and other academic and institutional publications relevant to the research topic.

Analytical Method. This study employs Structural Equation Modeling (SEM) using AMOS to analyze the data. SEM is used because it allows for the simultaneous estimation of relationships among latent variables and the testing of both direct and indirect (mediating) effects within a single integrated model. This approach is suitable for examining the effects of Blue Innovation and Environmental Strategy on Organizational Value through Competitive Advantage and Business Sustainability. The analysis is conducted in two stages: (1) assessment of the measurement model and (2) assessment of the structural model. The measurement model is evaluated using factor loadings, Average Variance Extracted (AVE), and Composite Reliability (CR) to ensure validity and reliability. The structural model is then tested using standardized path coefficients, critical ratios (CR), and p-values to examine the hypothesized relationships. Model fit is assessed using several goodness-of-fit indices, including Chi-square/df, CFI, TLI, and RMSEA.

This study develops a structural model using Structural Equation Modeling (SEM) to examine the relationships among Blue Innovation (BI), Environmental Strategy (ES), Competitive Advantage (CA), Business Sustainability (BS), and Organizational Value (OV). The model is designed to test both direct and indirect (mediating) effects among the latent variables, where Competitive Advantage and Business Sustainability function as mediating variables. The structural relationships among the variables are specified as follows:

$$CA = \gamma_1 BI + \gamma_2 ES + \zeta_1$$

$$BS = \gamma_3 BI + \gamma_4 ES + \gamma_5 CA + \zeta_2$$

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$$OV = \beta_1 BI + \beta_2 ES + \beta_3 CA + \beta_4 BS + \zeta_3$$

where:

- BI = Blue Intellectual Capital
- ES = Environmental Strategy
- CA = Competitive Advantage
- BS = Business Sustainability
- OV = Organizational Value
- γ and β = structural path coefficients
- $\zeta_1, \zeta_2, \zeta_3$ = error terms

Measurement of Variables

Table 1. Definitions

Variable	Dimensions	Indicators	Source
Independent Variable			
Blue Innovation (BI)	Product Innovation	Development of innovative marine-based products. Diversification of value-added fisheries products.	Pauli (2010); Lee et al. (2024); Sohu et al. (2024).
	Process Innovation	Adoption of more efficient production processes. Reduction of waste generated during production activities.	
	Technological Innovation	Utilization of digital technologies in business operations. Adoption of environmentally friendly technologies.	
	Sustainable Resource Utilization	Bustainable utilization of marine resources. Implementation of blue economy principles in organizational operations.	
Environmental Strategy (ES)	Environmental Planning	The organization has a clearly defined environmental po Environmental considerations are incorporated into busin	Hart (1995); Khan et al. (2024); Cabaleiro-Cerviño & Mendi (2024)
	Resource Efficiency	Efficient use of energy resources. Efficient utilization of raw materials and inputs	
	Pollution Prevention	Implementation of waste reduction initiatives. Efforts to minimize environmental pollution.	
	Environmental Compliance	Compliance with environmental regulations and standards. Adoption of environmentally responsible business practices.	
Mediating Variable			
Competitive Advantage (CA)	Product Differentiation	The organization's products are more distinctive than those of competitors. The organization offers superior product quality.	Porter (1985); Barney (1991); Liu (2024)
	Cost Efficiency	The organization effectively controls operational costs. The organization achieves high production efficiency. needs.	
	Market Responsiveness	The organization responds quickly to market changes. The organization effectively satisfies customer	

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	Innovation Capability	The organization continuously develops new innovations. The organization rapidly adopts new technologies	
Business Sustainability (BS)	Economic Sustainability	The organization experiences continuous revenue growth. The organization maintains stable profitability.	Elkington (1997); Rubio-Andrés & Abril (2024); Lee et al. (2024).
	Social Sustainability	The organization contributes positively to local communities. The organization improves the welfare of its members and stakeholders.	
	Environmental Sustainability	The organization promotes sustainable resource management. The organization minimizes negative environmental impacts.	
	Organizational Resilience	The organization can withstand changes in the business environment. The organization adapts effectively to market and environmental changes.	
Dependent Variable			
Organizational Value (OV)	Economic Value	The organization achieves increased income and financial performance. The organization improves productivity and operational outcomes.	Freeman (1984); Porter & Kramer (2011); Xiao (2025).
	Social Value	The organization provides significant benefits to the community. The organization enhances stakeholder satisfaction.	
	Environmental Value	The organization contributes to environmental conservation. The organization reduces its negative environmental footprint.	
	Institutional Value	The organization strengthens its reputation and credibility. The organization enhances stakeholder trust and legitimacy.	

Source: (Researcher, 2026)

Research Framework. The proposed conceptual framework is based on the Resource-Based View (RBV), Natural Resource-Based View (NRBV), Stakeholder Theory, and Triple Bottom Line Theory. The framework assumes that Blue Innovation and Environmental Strategy are strategic capabilities that contribute to the creation of Organizational Value. Furthermore, Competitive Advantage and Business Sustainability function as mediating variables that explain how these capabilities enhance Organizational Value. Thus, the model examines both the direct and indirect effects of Blue Innovation and Environmental Strategy on Organizational Value through Competitive Advantage and Business Sustainability. The structural model can be summarized as follows:

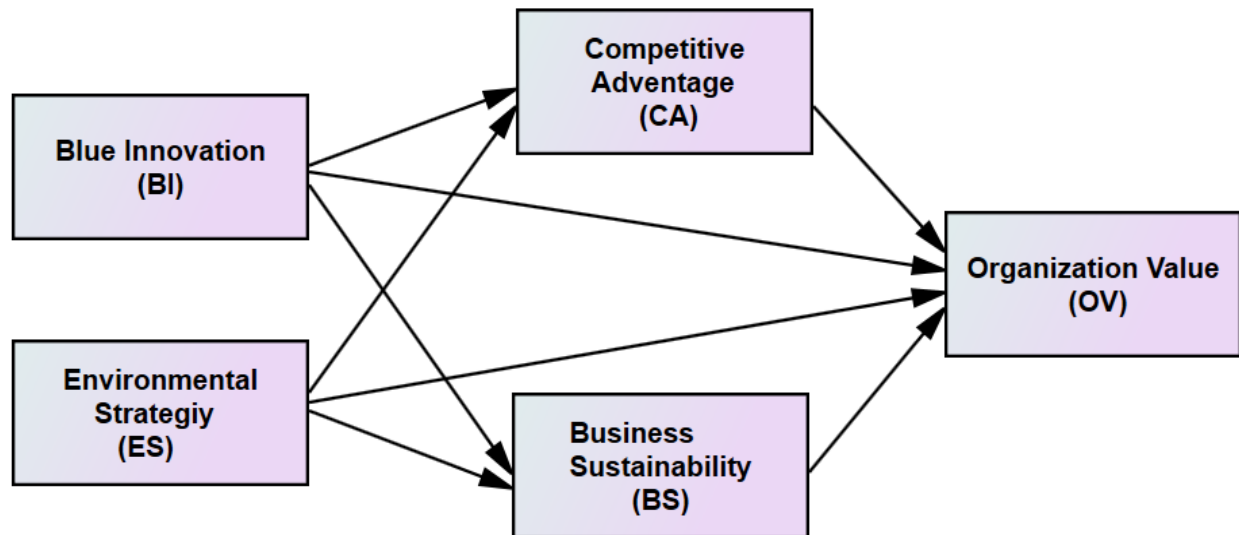


Figure 1. Research Framework

4. Finding and Discussion

Data Analysis and Model Testing. The data were analyzed using Structural Equation Modeling (SEM) with AMOS to examine the relationships among Blue Innovation (BI), Environmental Strategy (ES), Competitive Advantage (CA), Business Sustainability (BS), and Organizational Value (OV). In this study, Competitive Advantage and Business Sustainability were specified as mediating variables linking Blue Innovation and Environmental Strategy to Organizational Value. Blue Innovation was measured using product, process, technological, and sustainable resource utilization innovations. Environmental Strategy was represented by environmental planning, resource efficiency, pollution prevention, and environmental compliance. Competitive Advantage was measured through product differentiation, cost efficiency, market responsiveness, and innovation capability. Business Sustainability comprised economic, social, environmental sustainability, and organizational resilience, while Organizational Value included economic, social, environmental, and institutional value. The SEM analysis was conducted in two stages: measurement model evaluation and structural model evaluation. The results indicate that the model achieved an excellent fit, with Chi-square = 97.631, Probability = 0.298, GFI = 0.953, TLI = 0.979, CFI = 0.984, and RMSEA = 0.017. These values satisfy the recommended goodness-of-fit criteria, confirming that the proposed model is appropriate for testing the hypothesized relationships among the study variables. The results of the overall model fit evaluation are presented in Figure 2.

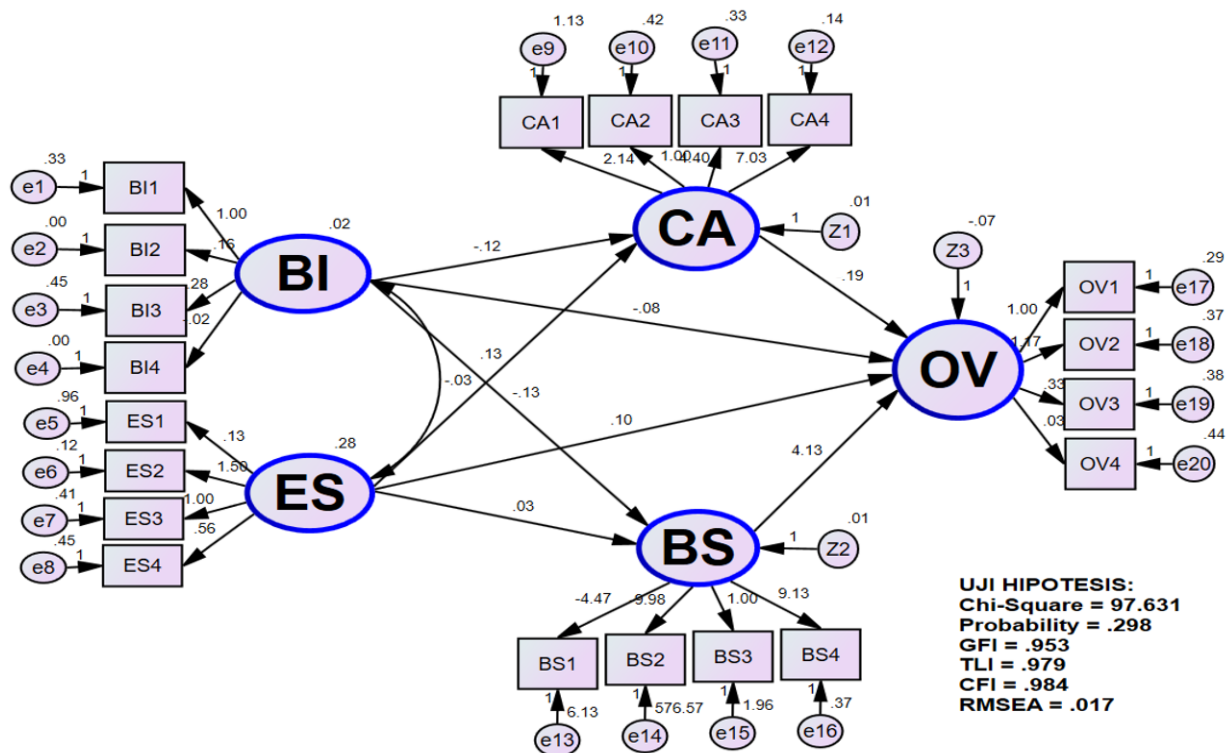


Figure 2. Goodness of Fit Overall Model

Table 2. Goodness of Fit Overall Model

Goodness of fit	Calculation Results	Cut-off Value	Description
Chi-Square	97.631	Expected to be small	Good Model
Probability	0.298	³ 0,05	Good Model
RMSEA	0.017	£ 0,08	Good Model
GFI	0.953	³ 0,90	Good Model
AGFI	0.962	³ 0,90	Good Model
TLI	0.979	³ 0,95	Good Model
CFI	0.984	³ 0,95	Good Model
CMIN/DF	0,950	£ 2,00	Good Model

Source: (Data Processing, 2026)

The overall goodness-of-fit results indicate that the proposed SEM model demonstrates a very good fit with the observed data. The Chi-square value is 97.631 with a probability value of 0.298, exceeding the recommended threshold of 0.05, indicating no significant difference between the theoretical model and the empirical data. Furthermore, the Goodness of Fit Index (GFI = 0.953), Tucker Lewis Index (TLI = 0.979), and Comparative Fit Index (CFI = 0.984) all

exceed the recommended cutoff value of 0.90, indicating an excellent model fit. In addition, the RMSEA value of 0.017 is far below the maximum acceptable threshold of 0.08, suggesting a very low approximation error. Therefore, the SEM model is considered appropriate and reliable for hypothesis testing.

Hypothesis Testing Results. Hypothesis testing was conducted using Structural Equation Modeling (SEM) to examine both the direct and indirect relationships among the study variables. The analysis aimed to evaluate the effects of Blue Innovation and Environmental Strategy on Organizational Value, as well as the mediating roles of Competitive Advantage and Business Sustainability within the proposed conceptual framework. The significance of each hypothesized relationship was assessed using the standardized path coefficient (β), critical ratio (CR), and probability value (p-value). A hypothesis was considered supported when the p-value was less than 0.05 and the critical ratio exceeded the recommended threshold of 1.96. The results of the structural model analysis, including direct effects and mediated effects, are presented in Table 3.

Table 3. Structural Equation Modelling Results: Direct and Mediated Effects

No	Independent Variable	Intervening Variable	Dependent Variable	Direct Effects	Indirect Effects	Total Effects	P-Value	Interpretation
1	Blue Innovation (BI)	-	Competitive Advantage (CA)	-0.161	0.000	-0.161	0.092	Negative & Not Significant
2	Environmental Strategy (ES)	-	Competitive Advantage (CA)	0.618	0.000	0.618	0.000	Positive & Significant
3	Blue Innovation (BI)	-	Business Sustainability (BS)	-0.242	0.000	-0.242	0,075	Negative & Not Significant
4	Environmental Strategy (ES)	-	Business Sustainability (BS)	.179	0.000	0.179	0,012	Positive & Significant
5	Blue Innovation (BI)	-	Organizational Value (OV)	-0.051	0.000	-0.051	0.063	Negative & Not Significant
6	Environmental Strategy (ES)	-	Organizational Value (OV)	0.232	0.000	0.232	0.006	Positive & Significant
7	Competitive Advantage	-	Organizational Value	0.094	0.000	0.094	0.043	Positive & Significant

	(CA)		(OV)					
8	Business Sustainability (BS)		Organizational Value (OV)	1.480	0.000	1.480	0.000	Positive & Significant
9	Blue Innovation (BI)	Competitive Advantage (CA)	Organizational Value (OV)	-0.161	0.293	0.132	0.063	Negative & Not Significant
10	Environmental Strategy (ES)	Competitive Advantage (CA)	Organizational Value (OV)	0.618	0.184	0.802	0.000	Positive & Significant
11	Blue Innovation (BI)	Business Sustainability (BS)	Organizational Value (OV)	-0.242	0.386	0.144	0.059	Negative & Not Significant
12	Environmental Strategy (ES)	Business Sustainability (BS)	Organizational Value (OV)	1.480	0.096	1.576	0.000	Positive & Significant

Source: (Data Processing, 2026)

Hypothesis testing was performed using Structural Equation Modeling (SEM) to examine the direct and indirect relationships among Blue Innovation (BI), Environmental Strategy (ES), Competitive Advantage (CA), Business Sustainability (BS), and Organizational Value (OV). A hypothesis was considered significant when $p < 0.05$. The results show that Blue Innovation has no significant effect on Competitive Advantage ($\beta = -0.161$; $p = 0.092$), Business Sustainability ($\beta = -0.242$; $p = 0.075$), or Organizational Value ($\beta = -0.051$; $p = 0.063$). Accordingly, H1, H3, and H5 are not supported. In contrast, Environmental Strategy positively and significantly influences Competitive Advantage ($\beta = 0.618$; $p = 0.000$), Business Sustainability ($\beta = 0.179$; $p = 0.012$), and Organizational Value ($\beta = 0.232$; $p = 0.006$), supporting H2, H4, and H6.

Furthermore, Competitive Advantage positively affects Organizational Value ($\beta = 0.094$; $p = 0.043$), while Business Sustainability exerts a stronger positive effect on Organizational Value ($\beta = 1.480$; $p = 0.000$). Therefore, H7 and H8 are supported.

Regarding mediation, neither Competitive Advantage (indirect effect = 0.293; $p = 0.063$) nor Business Sustainability (indirect effect = 0.386; $p = 0.059$) significantly mediates the relationship between Blue Innovation and Organizational Value, leading to the rejection of H9 and H11. Conversely, Competitive Advantage significantly mediates the relationship between Environmental Strategy and Organizational Value (indirect effect = 0.184; total effect = 0.802;

$p = 0.000$), while Business Sustainability also serves as a significant mediator (indirect effect = 0.096; total effect = 1.576; $p = 0.000$). Thus, H10 and H12 are supported.

The findings reveal that Blue Innovation does not significantly influence Competitive Advantage, Business Sustainability, or Organizational Value among Fisheries Joint Business Groups (JBGs) in Makassar City. These results suggest that the implementation of blue innovation has not yet generated sufficient strategic outcomes to improve competitiveness, sustainability performance, or organizational value. One possible explanation is that blue innovation initiatives remain at an early stage of adoption and have not been fully integrated into organizational processes, technological systems, and resource management practices. Consequently, the potential benefits of innovation have not yet been translated into measurable organizational outcomes. This finding contrasts with the study of Renaldo et al. (2024), which reported that blue innovation positively contributes to sustainability and value creation when supported by digital performance and decision-making capabilities. The discrepancy may indicate that Fisheries Joint Business Groups still face limitations in technological readiness, managerial capability, and resource availability required to realize the benefits of blue innovation.

In contrast, Environmental Strategy demonstrates a positive and significant effect on Competitive Advantage, Business Sustainability, and Organizational Value. This finding supports the Resource-Based View (RBV), which posits that environmental capabilities constitute valuable, rare, and difficult-to-imitate resources that can enhance organizational performance and competitiveness. Previous studies have similarly found that environmental strategies improve organizational performance by strengthening competitive positioning and environmental outcomes (Tan et al., 2022; Özgül & Zehir, 2023). Organizations that actively implement environmental strategies are more likely to improve operational efficiency, strengthen stakeholder trust, and create sustainable value. Therefore, environmental strategy emerges as a critical driver of sustainability and value creation within fisheries-based organizations.

The results further show that Competitive Advantage positively influences Organizational Value. This finding confirms that organizations with stronger competitive positions are better able to generate superior value through improved market performance, efficient resource utilization, and stakeholder satisfaction. The result is consistent with studies highlighting that sustainable competitive advantage contributes significantly to organizational performance and long-term success (Sanny et al., 2023; Shebeshe & Sharma, 2024). Competitive advantage enables organizations to differentiate themselves, improve market responsiveness, and achieve superior organizational outcomes.

Similarly, Business Sustainability exhibits the strongest positive effect on Organizational Value among all examined relationships. This finding emphasizes the importance of balancing economic, environmental, and social objectives to achieve long-term organizational success. Prior studies have shown that sustainability practices contribute positively to organizational performance and value creation by improving legitimacy, stakeholder relationships, and

operational resilience (Journal of Cleaner Production, 2023). Sustainable organizations are more capable of adapting to environmental changes and maintaining long-term performance, thereby enhancing organizational value.

Regarding the mediating relationships, Competitive Advantage and Business Sustainability fail to mediate the effect of Blue Innovation on Organizational Value. These findings indicate that blue innovation alone is insufficient to strengthen organizational value through improvements in competitiveness or sustainability. The absence of significant mediation suggests that Fisheries Joint Business Groups may face challenges in transforming innovation initiatives into strategic advantages and sustainable outcomes. Limited technological capability, inadequate managerial support, insufficient financial resources, and weak institutional support may hinder the effectiveness of blue innovation implementation. This finding further suggests that innovation must be accompanied by complementary organizational capabilities to generate meaningful value.

Conversely, both Competitive Advantage and Business Sustainability significantly mediate the relationship between Environmental Strategy and Organizational Value. These results imply that environmental strategies create organizational value not only directly but also indirectly through enhanced competitiveness and sustainability performance. The findings are consistent with Tan et al. (2022), who found that competitive advantage serves as an important mechanism linking environmental strategy to organizational performance. Furthermore, the stronger total effect observed through Business Sustainability indicates that sustainability represents a key pathway through which environmental strategies contribute to long-term organizational value. Consequently, Fisheries Joint Business Groups should prioritize environmental initiatives that simultaneously strengthen competitiveness and sustainability performance.

Overall, the findings demonstrate that Environmental Strategy plays a more critical role than Blue Innovation in enhancing Organizational Value. While blue innovation remains an important concept within the fisheries sector, its effectiveness depends on the availability of organizational capabilities, technological readiness, managerial commitment, and institutional support. Consistent with the RBV perspective, environmental strategic capabilities, competitive advantages, and sustainability practices constitute valuable organizational resources that contribute to long-term value creation and organizational success. Therefore, strengthening environmental strategies and sustainability-oriented management practices should become a strategic priority for Fisheries Joint Business Groups seeking to maximize organizational value and long-term performance.

5. Conclusion

This study concludes that Environmental Strategy plays a crucial role in enhancing Organizational Value among Fisheries Joint Business Groups (JBG) in Makassar City, Indonesia. Environmental Strategy was found to have a positive and significant effect on Competitive Advantage, Business Sustainability, and Organizational Value, while Competitive Advantage and Business Sustainability significantly mediate the relationship between Environmental Strategy and Organizational Value. In contrast, Blue Innovation does not have

a significant effect on Competitive Advantage, Business Sustainability, or Organizational Value, either directly or indirectly. These findings support the Resource-Based View (RBV) theory, which suggests that environmental strategic capabilities represent valuable organizational resources that contribute to competitiveness, sustainability, and long-term value creation. Therefore, Fisheries Joint Business Groups in Makassar City should strengthen the implementation of environmental strategies and sustainability practices to improve organizational performance and value creation. Future research is encouraged to explore additional factors, such as organizational capabilities, technological readiness, and institutional support, which may enhance the effectiveness of Blue Innovation in creating organizational value within fisheries-based organizations.

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