Strategic Management Accounting, Learning Culture, and Environmental Performance: Direct or Indirect Influence?

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ABSTRACT

This study seeks to examine the function of learning culture as a mediator between strategic management accounting and environmental performance within the tourism sector of Bintan Regency. This quantitative study employed a survey methodology, utilizing questionnaires disseminated to managers or supervisors within the tourism sector of Bintan Regency. The data were examined utilizing Structural Equation Modeling (SEM) grounded in Partial Least Squares (PLS) through SmartPLS 4.0 software to evaluate the direct and indirect relationships among variables. The outcomes prove that strategic management accounting lacks a substantial direct impact on environmental performance. Strategic management accounting exerts a beneficial and statistically significant effect on the learning culture. The learning culture generates a favorable and statistically significant impact on environmental performance. Learning culture has been demonstrated to entirely mediate the link between strategic management accounting and environmental performance. The findings indicate that the data produced by strategic management accounting systems can provide tangible enhancements in Environmental Performance only when it is handled and converted inside a robust learning culture. This research underscores the necessity for tourism enterprises in Bintan to invest in advanced accounting systems and to cultivate an organizational culture that fosters experimentation, knowledge exchange, and ongoing learning to attain sustainability objectives.

Keywords: Environmental Performance, Strategic Management Accounting, Learning Culture

INTRODUCTION

Preface

Minister of Tourism Widiyanti Putri Wardhana released the performance results of the tourism sector for the first half of 2025, indicating positive growth and serving as a robust indication that the initiatives implemented by the Ministry of Tourism are effective and advantageous. In the initial half of 2025, foreign tourist arrivals surpassed domestic tourist journeys by 2.48 million, an increase over the 2.01 million difference recorded in January-June 2024. The favorable performance of the tourism sector is evidenced by Indonesia's economic growth in the second quarter of 2025, which attained a notable 5.12 percent (year-on-year), surpassing the 5.05 percent (year-on-year) growth recorded in the second quarter of 2024 (Communication Bureau of the Ministry of Tourism, 2025).

Indonesia possesses significant potential to draw tourists due to its abundant natural resources and varied cultural history. In 2019, prior to the pandemic, this industry was a key contributor to Indonesia's economy, accounting for 4.97% of the national Gross Domestic Product (GDP). This sector draws substantial investment

from both domestic and international companies. Families, corporations, or affluent individuals are progressively perceiving hotels as significant legacy assets for company diversification (Jamilah & Soetjipto, 2024).

Nonetheless, the expansion of the tourism sector frequently incurs significant environmental costs, especially for CO2 emissions and fossil fuel utilization. This contradiction presents a problem for policymakers regarding how Indonesia might leverage its tourism potential while maintaining its environmental objectives, particularly its commitment to lowering CO2 emissions. Comprehending the interplay among tourism investment, renewable energy utilization, and CO2 emissions is essential for developing strategies that reconcile economic advancement with environmental sustainability (Jamilah & Soetjipto, 2024).

Indonesia is marketing Bintan Island as the next best tourism destination after Bali. In recent years, the Indonesian government has enhanced and modernized the infrastructure of Bintan Island to accommodate future demands, including the construction of toll roads to reduce travel time and distance, reservoirs, a new international airport, a new international ferry terminal in Berakit, power plants, and additional facilities. Beyond Bintan Resorts or Lagoi beach resort, the government has promoted the eastern region of Bintan Island, known for its picturesque sandy beaches, as a new gateway for tourist destinations and attractions. The new governor's office and other governmental entities, currently situated on Dompak Island, will evolve into an integrated government center featuring a new stadium, golf course, and other significant facilities (Riau Islands Cultural Arts Portal, 2024).

Bintan Regency is an administrative region situated in the Riau Islands Province, a province of Indonesia. According to Government Regulation No. 5 of 2006, Bintan Island was officially designated as Bintan Regency on February 23, 2006. Bintan Regency has great strategic tourism potential, next to neighboring nations like as Singapore and Malaysia. Bintan Regency is renowned for its stunning beaches and intriguing natural allure. This region attracts people in search of vacation locales. Visitors can appreciate the captivating natural scenery and sample an array of traditional dishes characteristic of the Riau Islands, particularly Bintan Regency. (Afriyadi et al., 2025)

In September 2025, Bintan Regency recorded 20,974 international tourist visitors, reflecting a 15.87 percent decline from the preceding month. The majority of international tourists were Singaporean nationals, with 11,638 people, which represented around 55.49 percent of the overall international tourist count in the area. During the period from January to September 2025, domestic tourist visits to Bintan rose by 44.68 percent compared to the corresponding period in 2024, increasing from 382,185 trips to 552,951 journeys (Central Statistics Agency, 2025). The swift advancement of tourism yields both advantageous and detrimental effects. Tourism development can enhance regional income, although its adverse effects threaten environmental sustainability (Tsypko, 2024). Degradation of water quality, coastal pollution, and garbage accumulation are essential concerns that necessitate attention to guarantee the sustainability of tourism (Pásková et al., 2024; Simon Chili & Andrias Ngxongo, 2017).

Tourism enterprises must prioritize not only profitability but also future environmental sustainability when confronting these challenges. Optimal environmental performance is essential and is a competitive advantage. To attain sustainable environmental performance, firms require a management information system capable of incorporating environmental considerations into the strategic decision-making process. The integration process renders strategic management accounting crucial for decision-making (Zhang et al., 2025). Strategic management accounting transcends mere cost calculation; it serves as a holistic strategy to delivering pertinent information that aids management in the formulation and execution of strategies (Cadez & Guilding, 2012). Strategic management accounting methodologies, including environmental performance management, life cycle costing, and the environmentally adapted Balanced Scorecard, can assist organizations in identifying, quantifying, and managing environmental costs and impacts (Rashid et al., 2020).

Effective strategic management accounting for enhancing environmental performance necessitates the backing of intangible organizational elements, including company culture. Learning culture is characterized as an organizational culture that promotes the generation, acquisition, dissemination of knowledge, and adaptation of behavior in response to new information (Halmaghi & Todăriţă, 2023). Learning culture is considered a crucial factor that facilitates the connection between strategic management accounting and environmental performance (Bich Lien et al., 2021). An organization possessing a robust learning culture will more effectively assimilate information from strategic management accounting, analyze it, and convert it into innovation and tangible steps to enhance environmental performance (Latan et al., 2018).

THEORETICAL FRAMEWORK AND CONCEPTUAL FRAMEWORK

Strategic Management Accounting and Environmental Performance

Barney's Resource-Based View hypothesis (1991) posits that sustainable competitive advantage is attained by the possession and application of precious, scarce, inimitable, and non- substitutable resources. Strategic management accounting can be regarded as a significant organizational asset (Bhandari et al., 2020). Strategic management accounting, when coupled with environmental considerations, commonly termed strategic environmental management accounting, offers distinctive and challenging-to-replicate insights into environmental costs, risks, and possibilities. This knowledge allows organizations to manage resources more effectively and formulate environmental plans that distinguish them from their competitors (Swalih et al., 2024).

Strategic management accounting transcends conventional cost computation; it has developed into a system that produces strategic insights regarding environmental impact, product life cycle costs, and resource efficiency throughout the value chain. This knowledge, when incorporated into the strategic decision-making process, converts raw data into a dynamic capability (Al-Nimer, 2025). This dynamic flexibility allows organizations to more efficiently allocate their physical and financial resources to green initiatives, recognize opportunities for material and energy efficiency, and innovate in environmentally sustainable product and process designs. Strategic management accounting underpins the development of additional VRIN resources, including a culture of green efficiency and a sustainable company reputation, which ultimately enhances environmental performance (Ojra et al., 2021).

Strategic management accounting is essential for environmental performance, further supported by empirical evidence aligned with the Resource Based View (RBV). Gunarathne et al. (2021) demonstrate that firms employing strategic management accounting tools, including environmental management accounting and life cycle costing, enhance environmental performance while achieving substantial cost efficiency benefits. This is a clear representation of invaluable and indispensable resources. The findings align with Latan et al. (2018), which asserts that strategic management accounting enhances the impact of environmental strategies on environmental performance by serving as a mechanism that guarantees their effective and efficient implementation. Simultaneously, the function of strategic management accounting in developing dynamic capacities

H1. Strategic management accounting directly influences environmental performance.

Culture of Learning and Environmental Performance

The Knowledge-Based View (KBV) posits that a learning culture inside an organization enhances environmental performance via the processes of environmental knowledge development and application. The information-Based View posits that information serves as a crucial strategic asset capable of yielding enduring competitive advantage (Grant, 1996). A learning culture is defined by qualities of receptiveness to new knowledge, experimentation, and dialogue that facilitate the acquisition of specialized knowledge regarding ecologically sustainable activities, including energy management, waste reduction, and biodiversity protection. This generated knowledge, both tacit and explicit, is subsequently internalized and utilized in daily operations, encompassing governance and organizational management (Wiggins & Wang, 2025; Duan et al., 2022).A learning culture empowers firms to actively monitor the external environment, comprehend escalating environmental requirements, address heightened green consumer demands, and implement industry best practices in sustainability. A learning culture promotes internal experimentation with environmentally sustainable technologies and processes, emphasizing continual learning from both the triumphs and failures of these green projects (El Mazyani et al., 2025; Syarif et al., 2024; Sahoo et al., 2023). This direct influence is strengthened by the manner in which a learning culture facilitates the swift integration of external knowledge into tangible internal activities. Organizations must analyze external signals on legislative and commercial dynamics related to environmental issues and promptly implement operational changes. An externally oriented learning culture enhances this process (Bastian et al., 2024). The connection between learning culture and environmental performance is further substantiated by research from Latan et al. (2018), indicating that organizations with a learning-oriented culture are more adept at implementing environmental management systems like ISO 14001, thereby improving environmental performance. A learning culture is an essential prerequisite for attaining robust environmental performance (El Mazyani et al., 2025).

H2. The cultivation of a learning culture positively influences environmental performance.

The Influence of Learning Culture on the Relationship between Strategic Management Accounting and Environmental Performance

The Knowledge-Based View (KBV) paradigm posits that firms are perceived as entities that generate and utilize knowledge to establish competitive advantages. Strategic management accounting operates as a formal knowledge system that generates organized information and data regarding environmental factors. The

Knowledge-Based View asserts that explicit knowledge, exemplified by strategic management accounting outputs, is inadequate; knowledge must be assimilated, disseminated, and converted into tacit knowledge integrated into organizational routines to generate value. A learning culture is essential as it facilitates the transfer of information from strategic management accounting to organizational skills, hence enhancing environmental performance. A robust learning culture, defined by a dedication to experimentation, reflection, and knowledge dissemination, operates as a "engine" that transforms unrefined strategic management accounting data into the collective comprehension and procedural innovation essential for sustainable environmental enhancement (Beusch et al., 2022); (Hossain et al., 2022); (Kloot, 1997)

A learning culture emerges through various interconnected mechanisms. Strategic management accounting facilitates learning by pinpointing performance discrepancies, ineffective environmental expenditures, and avenues for enhancement. Nonetheless, in the absence of a supporting culture, this information may be disregarded or not pursued further. A learning culture facilitates this interaction by fostering a psychologically safe environment in which employees and managers may comfortably analyze the implications of strategic management accounting data, question established assumptions, and suggest innovative solutions (Alawattage & Wickramasinghe, 2024). A learning culture promotes interdepartmental knowledge exchange, guaranteeing that insights from the strategic management accounting system are not confined to the finance department but are accessible and can be enhanced by operational personnel who are best positioned to implement process changes that affect the environment. This approach converts explicit knowledge from strategic management accounting reports into collective tacit knowledge integrated into daily actions (Bich Lien et al., 2021; Pham & Hoang, 2019).

H3. The function of learning culture in moderating the connection between strategic management accounting and environmental performance.

METHODOLOGY OF RESEARCH

Type and Approach of Research

This study is causal and employs a quantitative methodology. Causal research is employed to examine the cause-and-effect relationship among the researched variables. This study investigates the direct and indirect impacts of strategic management accounting on environmental performance.

Demographics and Sample Size

The study population comprises all enterprises within the tourism sector in Bintan Regency, specifically hotels/resorts and maritime transportation, which exert a considerable environmental influence. The sampling method employed was purposive sampling based on the following criteria: (1) Businesses must have been operational for a minimum of three years; (2) Must employ over 20 individuals; (3) Leaders, managers, or supervisors must be willing to participate as respondents.

Implementation of Research Variables

All variables were assessed utilizing indicators derived from prior research. The table below presents information concerning these variables.

Table 3.1 Operationalization of Research Variables

No	Research Variable	Dimension/Indicator	Scale
1	Environmental Performance (Huo et al., 2022)	1. Waste reduction	Likert
		2. Pollution reduction	
		3. Efficient use of resources	
		4. Reduction of environmental damage	
		5. Commitment to recycling efficiency	
2.	Strategic Management Accounting (Al-Nimer, 2025)	1. Cost Attributes	Likert
		2. Planning, Control, and Performance Measurement	

		3. Strategic Decision Making	
		4. Competitor Accounting	
		5. Customer Accounting	
		2. Environmentally Friendly Training	
		3. Environmentally Friendly Wages/Incentives	
3		1.Identification of New Knowledge and Skills	Likert

Analytical Methods for Data

The data were examined utilizing Structural Equation Modeling (SEM) with a Partial Least Squares (PLS) methodology via SmartPLS 4.0 software. SEM-PLS was selected due to its ability to assess intricate correlations among latent variables, its lack of stringent prerequisites for normal data distribution, and its appropriateness for predictive research (Hair et al., 2019). The data analysis was performed in two phases, specifically:

Measurement Model Assessment (Outer Model): Analyzing the validity and reliability of the instruments. Convergent validity was assessed using a loading factor greater than 0.7 and an Average Variance Extracted (AVE) exceeding 0.5. Reliability was assessed using Composite Reliability (CR) > 0.7 and Cronbach's Alpha > 0.7. The Fornell-Larcker Criterion approach was employed to assess discriminant validity.

Structural Model Testing (Inner Model): Assess the hypothesized relationships by examining the path coefficient, t-statistic (derived from bootstrapping), and p-value. The hypothesis is supported if the t-statistic exceeds 1.96 (p-value is below 0.05). Mediation testing is performed following the methodology established by Hair et al. (2019), focusing on the importance of indirect effects (X → Z → Y).

FINDINGS AND ANALYSIS

Results of Testing

Testing of the Measurement Model

The measurement model testing findings indicate that all indicators possess a loading factor over 0.7, hence satisfying convergent validity. This is illustrated in the figure below.
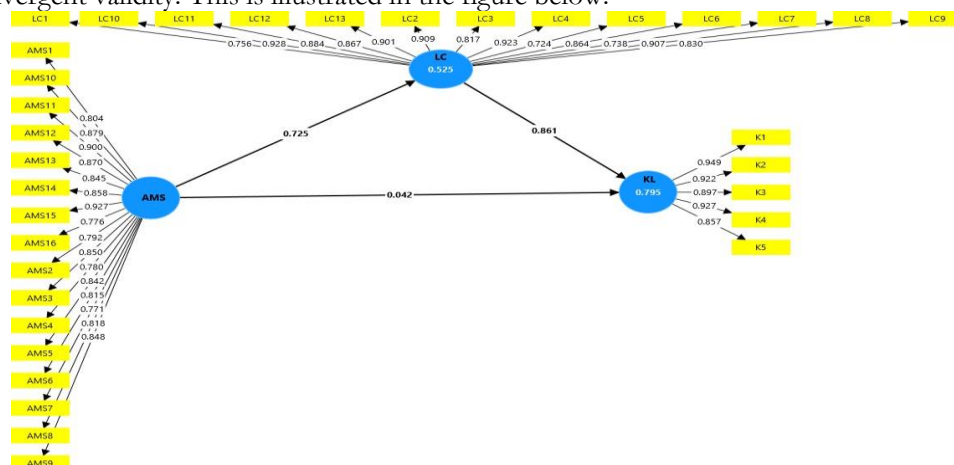

Figure 4.1 Measurement Model

All latent variables exhibit AVE values over 0.5. The Composite Reliability (CR) and Cronbach's Alpha values for all variables exceed 0.7, signifying that the instrument is reliable.

Table 4.1 Assessment of Reliability and Validity

	Cronbach's alpha	Composite reliability (rho_c)	Composite reliability (rho_c)	Average variance extracted (AVE)
AMS	0.971	0.975	0.974	0.701
KL	0.949	0.951	0.961	0.830

LC	0.968	0.970	0.972	0.727

Structural Model Evaluation

Upon validation and reliability confirmation of the measurement model, structural model testing ensued. The outcomes of hypothesis testing utilizing bootstrapping (5000 resamples) are illustrated in the subsequent figure and table.
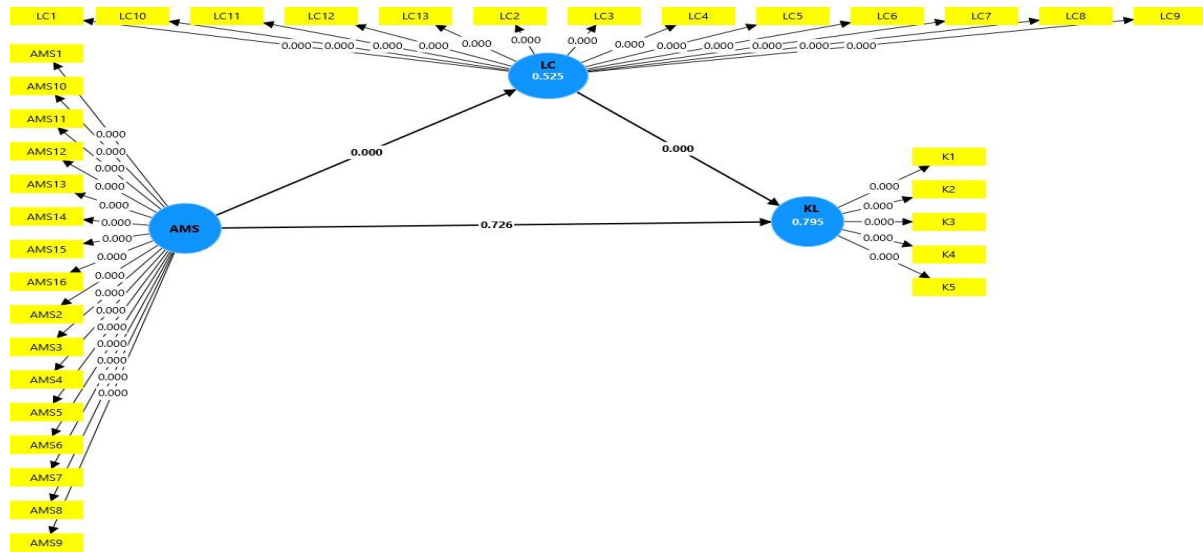

Figure 4.2 Structural Model

Table 4.2: Hypothesis Testing

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (|O/STDEV|)	P values
AMS -> KL	0.042	0.05	0.119	0.350	0.726
AMS -> LC	0.725	0.733	0.074	9,839	0.000
LC -> KL	0.861	0.856	0.109	7.891	0.000
AMS ->LC> KL	0.624	0.630	0.116	5.362	0.000

The figure and table above reveal that strategic management accounting does not have a direct impact on environmental performance, as evidenced by a p-value of 0.726, which exceeds 0.05. Simultaneously, strategic management accounting positively influences the learning culture, evidenced by a p-value of 0.000, which is less than 0.05. The learning culture positively influences environmental performance, with a significance value of 0.000, which is less than 0.05. Consequently, it can be inferred that strategic management accounting exerts an indirect influence on environmental performance through the mediation of learning culture, as indicated by a p-value of 0.000, which is less than 0.05.

Coefficient of Determination

The coefficient of determination (Adjusted R square) indicates the extent of effect that independent variables exert on dependent variables (Evi & Rachbini, 2023). The table below presents the outcomes of the coefficient of determination analysis.

Table 4.3 Coefficient of Determination

	R-square	Adjusted R-square
KL	0.795	0.786
LC	0.525	0.515

The table above indicates that environmental performance is affected by strategic management accounting by 78.6%, while 21.4% is influenced by other elements not analyzed in this research model. Environmental performance is elucidated by strategic management accounting at 51.5%, while learning culture is influenced by 48.5% from external sources beyond this model.

Magnitude of Effect

To determine if the exogenous variables exert a significant influence on the endogenous variables. The effect size, as measured by f-square, is categorized as low at 0.02, moderate at 0.15, and high at 0.35. The impact size with mediating influence employs the mediating effect size upsilon (v), with thresholds of 0.01 for low, 0.075 for moderate, and 0.175 for high (Yamin, 2023). The following are the outcomes of the effect size assessment.

Table 4.4 Analysis of Effect Size

	AMS	KL	LC
AMS		0.004	1.105
KL			
LC		1.719	

The data indicates that strategic management accounting exerts a minimal influence on environmental performance, with a value of 0.004 < 0.02, however its influence on learning culture is substantial at 1.105 > 0.35. The learning culture significantly impacts environmental performance, with a value of 1.719, exceeding 0.35.

Goodness of Fit (GoF)

The goodness of fit is assessed using Q-Square predictive relevance, a test that evaluates the extent to which the model and its parameter estimations generate the observed values (Riyanto & Setyorini, 2024).

The GoF can be determined using the following formula:

$$Q2 = 1 - (1 - R12)(1 - R22)$$

According to this formula, a GoF value of 0.90 or 90% is achieved, indicating that the model is viable and possesses significant predictive power. A value of 90% signifies that the model accounts for the diversity of the data, whereas the remaining 10% is attributable to other variables (not incorporated in the model) and errors. The results demonstrate that the SmartPLS model is highly effective, since it accounts for 90% of the entire information, rendering it appropriate for interpretation.

DISCUSSION

The test results indicate that strategic management accounting does not directly influence environmental performance. This can be elucidated through the Knowledge-Based View (KBV) theory, which posits that the fundamental essence of knowledge generated by strategic management accounting systems primarily produces explicit knowledge in the form of environmental cost reports, resource consumption data, green performance metrics, and structured efficiency indicators. In Bintan's labor-intensive and service-oriented tourism sector, this form of explicit knowledge is essential yet inadequate. Strategic management accounting reports may indicate that a particular sector of the tourism industry incurs substantial electricity expenses; however, these reports do not inherently furnish the "procedural knowledge" or tacit understanding required by housekeeping personnel, pool maintenance technicians, or other employees to innovatively recognize and execute energy-saving measures within their specific daily activities. Strategic management accounting effectively identifies issues but does not directly offer solutions to the unique and dynamic operational challenges within the tourism sector. Data derived from strategic management accounting, absent internalization and contextualization processes, will merely constitute static information devoid of connection to actual field operations.

The Knowledge-Based View asserts that explicit knowledge must be converted into tacit knowledge via socialization and internalization to facilitate behavioral change and enhance performance. The Bintan tourism sector, where environmental performance relies on the collective actions and practices of numerous employees—encompassing linen washing, waste management, and sewage handling—experiences disruption in the knowledge transformation process in the absence of a robust learning culture. A strategic management accounting system can necessitate a decrease in water consumption; however, in the absence of a culture that fosters experimentation with

greywater recycling technology and promotes knowledge sharing, the successful energy-saving practices of one department will not disseminate to others. Consequently, strategic management accounting serves as a supplier of knowledge "raw materials," whereas a learning culture operates as a "factory" that transforms these raw materials into "finished products" such as innovation, adaptation, and modifications in operational behavior, ultimately leading to measurable enhancements in environmental performance. In the absence of this factory, the raw materials derived from strategic management accounting would lack added value and remain ineffective or irrelevant for addressing intricate and contextual environmental issues within the tourism sector.

The subsequent test results indicate that strategic management accounting impacts learning culture by serving as a catalyst that initiates the organizational learning cycle. Strategic management accounting not only produces data but also engenders knowledge gaps and "cognitive tension" that compels firms to acquire knowledge. In the Bintan tourism sector, a resort's implementation of a strategic management accounting system disclosed that 40% of its operating costs stemmed from inefficient energy usage, and that the expenses associated with plastic waste management exceeded projections; this salient data induced an unavoidable cognitive dissonance. This quantifiable and tangible information acts as a catalyst in prompting management and employees to scrutinize assumptions and procedures deemed conventional. The act of inquiry, exemplified by questions like "why is our energy consumption elevated?" and "how can we diminish our reliance on single-use plastics?", serves as the foundation of a Learning Culture. Consequently, AMS functions as an intellectual catalyst that converts a passive organization into an inquisitive entity, aggressively pursuing new information to address issues identified by its accounting system.

Strategic management accounting enhances a learning culture by offering an objective and quantifiable feedback framework crucial for effective learning processes. The Knowledge- Based View posits that organizational learning necessitates tools for assessing the outcomes of
experiments and new initiatives. In the Bintan tourism sector, a hotel that adopts a plastic waste reduction initiative might utilize strategic management accounting to measure the financial and operational effects of the initiative. The program's success or failure is now assessed based on empirical facts including reductions in plastic bottle purchase prices, alterations in waste volume, or higher revenue from guests who value sustainable practices. This concrete and dependable feedback affirms learning, promotes additional experimenting, and sustains the learning cycle. In the absence of strategic management accounting, environmental measures are relegated to mere rhetoric or peripheral projects. Strategic management accounting ensures that every activity yields measurable outcomes, fostering an environment where learning from both triumphs and mistakes is intrinsic to the business, so establishing a robust and sustained learning culture.

The test results indicate that the direct impact of learning culture on environmental performance can be elucidated by its capacity to generate and assimilate contextual tacit knowledge. In Bintan's rapidly evolving service-oriented tourism sector, efficient environmental solutions are frequently tailored to unique locations and cannot be entirely standardized by procedural guidelines. A learning culture defined by experimentation, reflection, and knowledge exchange facilitates the development of relevant tacit knowledge. For instance, housekeeping personnel at a Lagoi resort may, through experimentation, establish optimal room cleaning methods utilizing water and eco-friendly cleaning agents, while culinary staff might devise innovative strategies for food waste management informed by visitor occupancy trends. This form of procedural knowledge, derived from routine practice and disseminated through informal mentoring or team discussions, constitutes a type of intellectual capital that can be directly correlated with decreased resource consumption and waste, fundamental to environmental performance. A learning culture serves as a catalyst for producing adaptive knowledge that effectively addresses environmental issues at the operational level.

The Knowledge-Based View asserts that sustainable competitive advantage is rooted in an organization's capacity to dynamically generate and reorganize knowledge. A learning culture exemplifies this dynamic potential, allowing tourist businesses in Bintan to address current environmental issues and proactively respond to emerging environmental challenges and possibilities. When a hotel in the Trikora region consistently engages in discussions about sustainability trends and assimilates "best practices" from the industry, it cultivates the ability to foresee emerging environmental regulations, address the growing demands of eco-conscious tourists, and partner with local suppliers to establish a more sustainable sand supply chain. This collaborative learning method produces "actionable knowledge" that can be directly implemented, such as transitioning to local fish suppliers who engage in sustainable fishing practices or creating environmental education tour packages. A learning culture not only influences formal systems like strategic management accounting but also independently drives environmental performance by positioning the entire business in a state of continuous learning and adaptation to its operational ecosystem.

Final Assessment

The learning culture serves as a significant partial mediator in the interaction between strategic management accounting and environmental performance within the tourism sector of Bintan Regency. This discovery validates that strategic management accounting, while significant, does not invariably lead to enhanced environmental performance. Strategic management accounting serves as a facilitator by delivering precise information and data regarding resource inefficiencies, environmental costs, and opportunities for enhancement. This knowledge is unrefined and necessitates a system to convert it into tangible action. The learning culture serves as a transforming process that connects the "realm of data" with the

"realm of action" within the field. Strategic management accounting identifies areas for enhancement, but a learning culture facilitates improvement through experimentation, reflection, and information dissemination throughout the firm.

This study suggests that the efficacy of sustainability initiatives in the Bintan tourism sector is significantly reliant on the integration of technical systems and the socio-cultural dimensions of the organization. Investment in advanced strategic management accounting systems must be equitably matched by investment in fostering and sustaining a learning culture. A resort in Lagoi possesses an advanced energy cost tracking system; however, in the absence of a culture that motivates engineering personnel to actively explore energy-saving technologies or a platform for interdepartmental exchange of best practices, the system's capacity for enhancing environmental performance will not be fully actualized. Consequently, enhancing environmental performance is not merely a consequence of employing advanced management technologies, but rather a reflection of an organization's capacity for constant learning, adaptation, and innovation. This capability, originating from a robust learning culture, may be enhanced and fortified by the insights produced by strategic management accounting.

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