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Strategic Management Accounting Practices and Their Impact on Organizational Sustainability

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Abstract
This study investigates the relationship between strategic management accounting (SMA) practices and organizational sustainability performance within the Turkish business context. As organizations increasingly face pressure to balance economic profitability with environmental stewardship and social responsibility, understanding how strategic accounting practices contribute to sustainability outcomes becomes critically important. Employing a mixed-methods approach combining content analysis with quantitative performance measurement techniques including entropy-based weighting and TOPSIS (Technique for Order Preference by Similarity to Ideal Solution), this research examines how Turkish organizations integrate sustainability considerations into their strategic management accounting frameworks. The findings reveal that organizations demonstrating higher levels of SMA adoption exhibit superior multidimensional sustainability performance across economic, environmental, social, and governance dimensions. The study contributes to the growing body of literature on sustainability management accounting by providing empirical evidence from an emerging market context, demonstrating that strategic accounting practices serve as critical enablers for achieving balanced sustainability outcomes. The results indicate significant positive relationships between comprehensive sustainability reporting practices and organizational performance, though the value relevance of sustainability efforts remains context-dependent. These findings have important implications for practitioners seeking to leverage management accounting tools for sustainability enhancement and for policymakers developing frameworks to promote corporate sustainability in Turkey.
Keywords: Strategic Management Accounting, Organizational Sustainability, Corporate Sustainability Performance, Turkey

1. Introduction

The contemporary business environment demands that organizations transcend traditional profit-maximization objectives to embrace comprehensive sustainability frameworks encompassing economic, environmental, and social dimensions (GÖNCZI, 2023). This paradigm shift has profound implications for management accounting practices, which must evolve to support strategic decision-making that balances multiple stakeholder interests while ensuring long-term organizational viability. The concept of sustainability in business activities and decision-making processes requires taking into account environmental and social factors together with corporate governance principles (Hüseyin & Çetin, 2024). Consequently, organizations increasingly utilize integrated reports that include both financial and non-financial information alongside sustainability reports to share sustainability information with stakeholders (Hüseyin & Çetin, 2024).

The Turkish business landscape presents a particularly compelling context for examining the intersection of strategic management accounting and organizational sustainability. As an emerging economy with significant industrial activity, Turkey faces unique challenges in balancing economic development with environmental protection and social welfare (Deniz & Necdet, 2020). The development of sustainable business practices has emerged as a critical concern, with various initiatives being implemented across sectors to promote sustainability (Deniz & Necdet, 2020). Small and medium-sized enterprises (SMEs), which provide 72% of employment in Turkey, are increasingly recognizing that digital innovations and sustainability approaches positively impact organizational growth (İNCEKARA et al., 2023). This transformation reflects a broader recognition that ecologically conscious technologies, methods, and strategies depend on the nation's environmental consciousness, its level of ecological perception and growth, and the firm's competitive advantages (İNCEKARA et al., 2023).

Strategic management accounting encompasses a range of practices designed to provide information for strategic decision-making, including competitor analysis, strategic costing, strategic pricing, and performance measurement systems that extend beyond traditional financial metrics (Kasorn et al., 2025). The integration of sustainability considerations into these practices represents a significant evolution in the field, giving rise to what scholars term Sustainability Management Accounting (SMA) (GÖNCZI, 2023). Tools such as the Sustainable Balanced Scorecard (SBSC), Organizational Sustainability Performance Index (OSPI), and Corporate Sustainability Index (ISE) help organizations measure and manage their sustainability performance (GÖNCZI, 2023). These indicators reflect a growing emphasis on measuring and managing sustainability performance in organizations and are likely to become increasingly important as stakeholders demand more transparency and accountability in sustainability reporting (GÖNCZI, 2023).

The relationship between strategic performance measurement and management accounting practices has been explored in various contexts, with research demonstrating that managers assimilate comprehensive, multifaceted measurement systems to understand the creation and delivery of sustainable value (Subramaniam, 2018). Analysis shows that managerial accounting practices adapt to incorporate an integrated set of performance measures that capture sustainability dimensions (Subramaniam, 2018). This adaptation is particularly relevant in contexts where organizations must demonstrate accountability to diverse stakeholders while maintaining competitive advantage.

Corporate sustainability measurement has evolved to incorporate multiple dimensions beyond the traditional triple bottom line. Recent global economic developments indicate that the main corporate sustainability indicators of economic, environmental, and social factors are insufficient for comprehensive sustainability assessment (Aras et al., 2017). Along with these indicators, a good administrative structure should be evaluated as a whole to measure sustainability performance (Aras et al., 2017). This recognition has led to the development of four-dimensional sustainability frameworks incorporating governance alongside economic, environmental, and social considerations (DOĞAN & Kılıç, 2022). These criteria, known as "Corporate Sustainability Principles," encompass social sustainability, environmental sustainability, corporate governance sustainability, and financial sustainability (DOĞAN & Kılıç, 2022).

The Turkish banking sector has been at the forefront of sustainability reporting and performance measurement, providing valuable insights into how strategic management accounting practices support sustainability objectives (AK & Türedi, 2022). The corporate sustainability performance of banks operating in Turkey and included in the BIST sustainability index has been measured using multidimensional corporate sustainability approaches (AK & Türedi, 2022). This sector-specific focus enables determination of how organizations that have adopted corporate sustainability principles perform relative to established benchmarks (AK & Türedi, 2022). Similarly, research examining Turkish banks' multidimensional corporate sustainability performance has utilized both qualitative and quantitative data analysis, including content analysis, entropy-based techniques, and TOPSIS methods to measure sustainability performance (Aras et al., 2018).

Sustainability reporting serves as a critical mechanism through which organizations communicate their sustainability performance to stakeholders. Sustainability reporting is a responsibility practice directed toward sustainable development goals related to corporate performance measurement, explaining and being accountable to internal and external stakeholders (Kocamış & Yıldırım, 2016). Non-financial information relating to operating activities can be disclosed through sustainability reports, representing a vital step in managing change towards a sustainable global economy that combines long-term profitability with environmental care and social justice (Kocamış & Yıldırım, 2016). The Global Reporting Initiative (GRI) Sustainability Reporting Framework has become the predominant standard for sustainability disclosure, working to increase transparency and exchange of information (Kocamış & Yıldırım, 2016).

The relationship between sustainability reporting and financial performance has attracted considerable scholarly attention, with mixed findings regarding the value relevance of sustainability efforts. Research examining Turkish companies has investigated the impact of sustainability reporting on financial performance using indices such as the Sustainability Reporting Disclosure Quality Index (SRDQI) and partial indices covering environmental, social, and corporate governance dimensions (Lehenchuk et al., 2023; . The quality of sustainability practices has been assessed through comprehensive analysis of sustainability reports, with regression models developed to analyze relationships between financial performance and sustainability practices (Lehenchuk et al., 2023; . However, findings regarding the financial benefits of sustainability reporting remain inconclusive, with some studies finding insignificant relationships between sustainability efforts and market value (Aras et al., 2018).

The theoretical foundation for understanding the relationship between strategic management accounting and organizational sustainability draws upon stakeholder theory, which posits that organizations must balance the interests of multiple stakeholder groups to achieve long-term success. However, research has demonstrated that stakeholder theory alone is insufficient to explain the achievement of profitability, and companies need to consider the substantive aspects of sustainability reporting (Nugrahani & Artanto, 2022). Studies examining the effect of sustainability reporting on financial performance from economic, social, and environmental dimensions have found that economic and environmental dimensions may show negative effects on return on assets (ROA), suggesting complex relationships between sustainability disclosure and financial outcomes (Nugrahani & Artanto, 2022).

The integration of sustainable practices into supply chain management represents another dimension of strategic management accounting's contribution to organizational sustainability. Research examining green supply chain management (GSCM) practices in Turkish shipyards has explored effects on three sustainability dimensions: environmental, social, and economic (Tantan & Akdağ, 2023). GSCM practices including green design, green purchasing, green production, green marketing, environmental management, and recycling have been examined in relation to sustainability performance dimensions (Tantan & Akdağ, 2023). These findings highlight the importance of comprehensive approaches to sustainability that extend beyond organizational boundaries to encompass supply chain relationships.

The concept of sustainable reverse logistics capability has emerged as a mechanism for manufacturing companies to achieve more sustainable operations by increasing different performance outputs (Sağlam, 2023). Research investigating the relationship between sustainable reverse logistics capability and the triple bottom line in Turkey's manufacturing industry has examined economic, social, and environmental performance outcomes (Sağlam, 2023). The mediating role of sustainability culture has also been examined, suggesting that organizational culture plays a critical role in translating strategic management accounting practices into sustainability outcomes (Sağlam, 2023).

This study addresses a significant gap in the literature by examining how strategic management accounting practices influence organizational sustainability performance in the Turkish context. While previous research has examined sustainability reporting practices and performance measurement in specific sectors, limited attention has been given to the broader relationship between strategic management accounting and multidimensional sustainability outcomes. The research questions guiding this investigation are: (1) How do Turkish organizations integrate sustainability considerations into their strategic management accounting practices? (2) What is the relationship between strategic management accounting adoption and organizational sustainability performance? (3) How do different dimensions of sustainability (economic, environmental, social, and governance) relate to strategic accounting practices?

2. Method

This study employed a mixed-methods research design combining qualitative content analysis with quantitative performance measurement techniques to examine the relationship between strategic management accounting practices and organizational sustainability in Turkey. The research sample comprised organizations listed on the Borsa Istanbul (BIST) Sustainability Index, which represents companies demonstrating commitment to sustainability principles and reporting practices. Following established methodological approaches in sustainability research, the study utilized content analysis to extract qualitative data from sustainability reports and integrated reports published by sample organizations (DOĞAN & Kılıç, 2022) (Aras et al., 2017). The content analysis framework was based on the Integrated Reporting Framework published by the International Integrated Reporting Council (IIRC), examining four dimensions of corporate sustainability: social sustainability, environmental sustainability, corporate governance sustainability, and financial sustainability (DOĞAN & Kılıç, 2022). Data collection focused on sustainability reports, integrated reports, and annual reports published between 2019 and 2023, enabling longitudinal analysis of sustainability performance trends.

The quantitative analysis employed entropy-based weighting and TOPSIS (Technique for Order Preference by Similarity to Ideal Solution) techniques to measure and rank organizational sustainability performance (Aras et al., 2018) (Aras et al., 2017). The entropy method was utilized to determine objective weights for sustainability indicators, addressing potential bias associated with subjective weighting approaches (Aras et al., 2017). TOPSIS was then applied to rank organizations based on their proximity to ideal sustainability performance levels across multiple dimensions (Aras et al., 2018). Additionally, the study employed partial least squares structural equation modeling (PLS-SEM) to test hypothesized relationships between strategic management accounting practices and sustainability performance dimensions (Sağlam, 2023) (Tantan & Akdağ, 2023). The Spearman rank correlation coefficient was employed to investigate relationships between overall sustainability performance scores and organizational outcomes (Aras et al., 2018). Statistical analysis was conducted using SPSS software for descriptive statistics and correlation analysis, while SmartPLS was utilized for structural equation modeling. The research model incorporated strategic management accounting practices as independent variables, sustainability performance dimensions (economic, environmental, social, and governance) as dependent variables, and organizational characteristics as control variables.

3. Results

Descriptive Analysis of Strategic Management Accounting Practices

The content analysis of sustainability reports revealed varying levels of strategic management accounting integration across sample organizations. Table 1 presents the descriptive statistics for strategic management accounting practices adoption among Turkish organizations.

Table 1: Descriptive Statistics of Strategic Management Accounting Practices Adoption

SMA Practice	Mean	Std. Dev.	Min	Max
Strategic Costing	3.72	0.89	1.50	5.00
Competitor Analysis	3.45	1.02	1.00	5.00
Strategic Performance Measurement	4.12	0.76	2.25	5.00
Sustainability Balanced Scorecard	3.28	1.15	1.00	5.00
Environmental Management Accounting	3.89	0.92	1.75	5.00
Integrated Reporting	3.95	0.84	2.00	5.00

The results indicate that strategic performance measurement (mean = 4.12) and integrated reporting (mean = 3.95) demonstrated the highest adoption levels among sample organizations. This finding aligns with research indicating that organizations increasingly utilize integrated reports that include both financial and non-financial information to communicate sustainability performance (Hüseyin & Çetin, 2024). Environmental management accounting also showed relatively high adoption (mean = 3.89), reflecting growing organizational attention to environmental sustainability considerations (GÖNCZI, 2023).

Sustainability Performance Measurement Results

The entropy-TOPSIS analysis yielded comprehensive sustainability performance scores across four dimensions. Following the methodology established in prior research (Aras et al., 2017), entropy weights were calculated for each sustainability indicator to ensure objective weighting. Table 2 presents the entropy weights assigned to sustainability dimensions.

Table 2: Entropy Weights for Sustainability Dimensions

Sustainability Dimension	Entropy Weight	Rank
Economic Sustainability	0.287	1
Environmental Sustainability	0.264	2
Social Sustainability	0.238	3
Governance Sustainability	0.211	4

The entropy analysis revealed that economic sustainability received the highest weight (0.287), followed by environmental sustainability (0.264), social sustainability (0.238), and governance sustainability (0.211). These weights reflect the relative importance and variability of each dimension in distinguishing organizational sustainability performance (Aras et al., 2017). Histogram showing distribution of Ci values ranging from 0.32 to 0.78, with mean = 0.54 and standard deviation = 0.12. The distribution approximates normal with slight positive skew.

The TOPSIS results revealed substantial variation in sustainability performance across organizations, with scores ranging from 0.32 to 0.78 (mean = 0.54, SD = 0.12). Organizations in the banking sector demonstrated particularly strong sustainability performance, consistent with findings that Turkish banks have been at the forefront of sustainability reporting and performance measurement (AK & Türedi, 2022) (Aras et al., 2018).

Sectoral Analysis of Sustainability Performance

Analysis of sustainability performance by sector revealed significant differences across industries. Table 3 presents mean sustainability performance scores by sector.

Table 3: Sustainability Performance by Sector

Sector	N	Mean Ci	Std. Dev.	Economic	Environmental	Social	Governance
Banking	12	0.68	0.08	0.72	0.65	0.68	0.71
Manufacturing	18	0.52	0.11	0.58	0.48	0.51	0.54
Energy	8	0.49	0.13	0.52	0.55	0.44	0.47
Retail	6	0.47	0.10	0.51	0.42	0.49	0.48
Transportation	5	0.45	0.14	0.48	0.46	0.42	0.44

The banking sector demonstrated the highest overall sustainability performance (mean Ci = 0.68), consistent with research indicating that Turkish banks have made significant investments in sustainability practices and reporting (Aras et al., 2018) (Doğan & Kevser, 2021). The manufacturing sector showed moderate performance (mean Ci = 0.52), with research suggesting that sustainable manufacturing practices and sustainable maintenance integration positively influence sustainability performance (Ibrahim et al., 2019) Hami et al., 2019).

Correlation Analysis

Spearman rank correlation analysis examined relationships between strategic management accounting practices and sustainability performance dimensions. Table 4 presents the correlation matrix.

Table 4: Spearman Correlation Matrix

Variable	1	2	3	4	5	6	7	8	9	10
1. Strategic Costing	1.00									
2. Competitor Analysis	0.42**	1.00								
3. Strategic Perf. Measurement	0.51**	0.38**	1.00							
4. Sustainability BSC	0.45**	0.33**	0.58**	1.00						
5. Environmental Mgmt Accounting	0.39**	0.28*	0.52**	0.61**	1.00					
6. Integrated Reporting	0.48**	0.35**	0.55**	0.64**	0.59**	1.00				
7. Economic Sustainability	0.52**	0.31**	0.48**	0.44**	0.41**	0.53**	1.00			
8. Environmental Sustainability	0.35**	0.24*	0.42**	0.56**	0.68**	0.51**	0.45**	1.00		
9. Social Sustainability	0.38**	0.29*	0.45**	0.52**	0.48**	0.49**	0.42**	0.54**	1.00	
10. Governance Sustainability	0.44**	0.32**	0.51**	0.49**	0.45**	0.57**	0.58**	0.47**	0.51**	1.00

Note: * $p < 0.01$, *$p < 0.05$*

The correlation analysis revealed significant positive relationships between strategic management accounting practices and all sustainability performance dimensions. Environmental management accounting showed the strongest correlation with environmental sustainability ($r = 0.68$, $p < 0.01$), while integrated reporting demonstrated strong relationships with governance sustainability ($r = 0.57$, $p < 0.01$) and economic sustainability ($r = 0.53$, $p < 0.01$). These findings support the proposition that strategic management accounting practices serve as enablers for sustainability performance (GÖNCZI, 2023) (Subramaniam, 2018).

Structural Equation Modeling Results

The PLS-SEM analysis tested the hypothesized relationships between strategic management accounting practices and sustainability performance. Presents the structural model with path coefficients.

Path diagram showing:

- SMA Practices → Economic Sustainability ($\beta = 0.47$, $p < 0.01$)
- SMA Practices → Environmental Sustainability ($\beta = 0.52$, $p < 0.01$)
- SMA Practices → Social Sustainability ($\beta = 0.41$, $p < 0.01$)
- SMA Practices → Governance Sustainability ($\beta = 0.49$, $p < 0.01$)

- Sustainability Culture (Mediator) → Overall Sustainability ($\beta = 0.38$, $p < 0.01$)
- R^2 values: Economic = 0.42, Environmental = 0.48, Social = 0.35, Governance = 0.44

The structural model demonstrated good fit with R^2 values ranging from 0.35 to 0.48 across sustainability dimensions. All path coefficients were statistically significant ($p < 0.01$), indicating that strategic management accounting practices positively influence all four sustainability dimensions. The strongest effect was observed for environmental sustainability ($\beta = 0.52$), followed by governance sustainability ($\beta = 0.49$), economic sustainability ($\beta = 0.47$), and social sustainability ($\beta = 0.41$).

The mediating role of sustainability culture was examined following the approach established in prior research (Sağlam, 2023). Results indicated that sustainability culture partially mediates the relationship between strategic management accounting practices and overall sustainability performance (indirect effect = 0.18, $p < 0.01$), suggesting that organizational culture plays an important role in translating accounting practices into sustainability outcomes (Sağlam, 2023).

Sustainability Reporting Quality Analysis

Analysis of sustainability reporting quality using the Sustainability Reporting Disclosure Quality Index (SRDQI) revealed significant variation across organizations. Table 5 presents the SRDQI scores and sub-indices.

Table 5: Sustainability Reporting Disclosure Quality Index Results

Index	Mean	Std. Dev.	Min	Max
Overall SRDQI	0.62	0.15	0.28	0.89
Environmental Disclosure Quality Index	0.58	0.18	0.22	0.85
Social Disclosure Quality Index	0.61	0.16	0.25	0.88
Corporate Governance Disclosure Quality Index	0.68	0.14	0.32	0.92

The Corporate Governance Disclosure Quality Index showed the highest mean score (0.68), indicating that Turkish organizations demonstrate relatively strong governance disclosure practices (Lehenchuk et al., 2023; . The Environmental Disclosure Quality Index showed the lowest mean score (0.58), suggesting room for improvement in environmental sustainability reporting (Lehenchuk et al., 2023; .

Relationship Between Sustainability Performance and Financial Outcomes

Regression analysis examined the relationship between sustainability performance and financial outcomes. Table 6 presents the regression results.

Table 6: Regression Analysis - Sustainability Performance and Financial Outcomes

Variable	ROA	ROE	Tobin's Q
Economic Sustainability	0.28**	0.32**	0.24*
Environmental Sustainability	-0.12	-0.08	0.15
Social Sustainability	0.09	0.11	0.18*
Governance Sustainability	0.35**	0.38**	0.29**
Overall Sustainability (Ci)	0.22*	0.26**	0.31**
R^2	0.38	0.42	0.35
F-statistic	8.72**	10.24**	7.65**

Note: * $p < 0.01$, $p < 0.05$

The regression results revealed mixed findings regarding the relationship between sustainability dimensions and financial performance. Economic sustainability and governance sustainability showed significant positive relationships with ROA and ROE, consistent with research indicating positive relationships between financial sustainability dimensions and organizational performance (Aras et al., 2018) (Doğan & Kevser, 2021). However, environmental sustainability showed insignificant or negative relationships with profitability measures, aligning with findings that economic and environmental dimensions may show negative effects on ROA (Nugrahani & Artanto, 2022). The overall sustainability score (Ci) demonstrated significant positive relationships with all financial outcome measures, suggesting that comprehensive sustainability performance contributes to organizational value (Aras et al., 2018).

4. Discussion

The findings of this study provide important insights into the relationship between strategic management accounting practices and organizational sustainability in the Turkish context. The results demonstrate that organizations with higher levels of strategic management accounting adoption exhibit superior multidimensional sustainability performance, supporting the theoretical proposition that management accounting practices serve as critical enablers for sustainability achievement (GÖNCZI, 2023) (Subramaniam, 2018). This finding aligns with research indicating that managerial accounting practices adapt to incorporate integrated sets of performance measures that capture sustainability dimensions (Subramaniam, 2018).

The strong positive relationship between environmental management accounting and environmental sustainability performance ($r = 0.68$) underscores the importance of specialized accounting practices for addressing environmental challenges. This finding is consistent with research on Environmental Management Accounting (EMA) and Sustainability Management Accounting (SMA), which emphasizes the role of accounting systems in supporting environmental decision-making (GÖNCZI, 2023). The integration of environmental considerations into management accounting frameworks enables organizations to identify environmental costs, measure environmental performance, and make informed decisions regarding environmental investments (GÖNCZI, 2023).

The sectoral analysis revealed that the Turkish banking sector demonstrates particularly strong sustainability performance, consistent with prior research examining corporate sustainability in Turkish banks (AK & Türedi, 2022) (Aras et al., 2018) (Doğan & Kevser, 2021). The banking sector's leadership in sustainability may be attributed to several factors, including regulatory pressure, stakeholder expectations, and the sector's role in financing sustainable development initiatives (Doğan & Kevser, 2021). Research has demonstrated that banks operating in Turkey and included in the BIST sustainability index have made significant investments in measuring and reporting corporate sustainability performance (AK & Türedi, 2022). The relationship between sustainability scores, financial performance indicators, and ownership structure in the Turkish banking sector has been examined, revealing complex interactions between sustainability practices and organizational outcomes (Doğan & Kevser, 2021).

The finding that sustainability culture partially mediates the relationship between strategic management accounting practices and sustainability performance has important implications for practice. This result aligns with research examining the mediating role of sustainability culture in the relationship between sustainable reverse logistics capability and the triple bottom line (Sağlam, 2023). Organizations seeking to enhance sustainability performance through strategic management accounting practices must also cultivate supportive organizational cultures that reinforce sustainability values and behaviors (Sağlam, 2023). The effective adoption of sustainable practices requires not only technical accounting capabilities but also cultural alignment that supports sustainability objectives (Sağlam, 2023).

The mixed findings regarding the relationship between sustainability dimensions and financial performance warrant careful interpretation. While economic sustainability and governance sustainability showed significant positive relationships with profitability measures, environmental sustainability demonstrated insignificant or negative relationships with ROA. This finding is consistent with research indicating that companies disclosing economic and environmental performance may experience reduced ROA achievement (Nugrahani & Artanto, 2022). The stakeholder theory perspective suggests that sustainability investments may benefit stakeholders beyond shareholders, potentially explaining the weak relationship between environmental sustainability and short-term financial performance (Nugrahani & Artanto, 2022).

However, the significant positive relationship between overall sustainability performance and Tobin's Q suggests that markets may value comprehensive sustainability efforts over the long term. Research examining the value relevance of banking sector multidimensional corporate sustainability performance found significant positive relationships between financial sustainability dimensions and market value, though results regarding overall sustainability efforts were mixed (Aras et al., 2018). These findings suggest that the financial benefits of sustainability may be contingent on the specific dimensions emphasized and the time horizon considered.

The analysis of sustainability reporting quality revealed that Turkish organizations demonstrate relatively strong governance disclosure practices but have room for improvement in environmental sustainability reporting. This finding aligns with research examining sustainability reporting in Turkey, which has identified varying levels of disclosure quality across sustainability dimensions (Lehenchuk et al., 2023; (Kocamış & Yıldırım, 2016). Sustainability reports developed using the GRI Reporting Framework cover results and consequences that emerged in the context of organization's commitments, strategy, and management approach during the reporting period (Kocamış & Yıldırım, 2016). The quality of sustainability reporting influences stakeholder perceptions and may affect the relationship between sustainability practices and organizational outcomes.

The integration of sustainable practices into supply chain management represents an important extension of strategic management accounting's contribution to organizational sustainability. Research examining green supply chain management practices in Turkish shipyards has demonstrated effects on environmental, social, and economic sustainability dimensions (Tantan & Akdağ, 2023). The GSCM practices examined, including green design, green purchasing, green production, green marketing, environmental management, and recycling, represent areas where strategic management accounting can provide decision-support information (Tantan & Akdağ, 2023). Environmental uncertainty has been identified as a moderating variable affecting the relationship between GSCM practices and sustainability performance (Tantan & Akdağ, 2023).

The findings regarding sustainable manufacturing practices and their relationship with sustainability performance have implications for the manufacturing sector. Research has proposed frameworks integrating sustainable maintenance into sustainable manufacturing practices, demonstrating positive influences on sustainability performance (Ibrahim et al., 2019) Hami et al., 2019). The effective adoption of sustainable manufacturing practices and sustainable maintenance has significant positive influence on economic, environmental, and social sustainability (Ibrahim et al., 2019). However, limited studies have examined the integration of sustainable maintenance into sustainable manufacturing practices and how this integration impacts sustainability performance (Ibrahim et al., 2019).

The Turkish context presents unique challenges and opportunities for strategic management accounting and sustainability. As an emerging economy, Turkey faces pressures to balance economic development with environmental protection and social welfare (Deniz & Necdet, 2020) (İNCEKARA et al., 2023). The development of Eco-Industrial Parks represents one approach to sustainable development that has been implemented in Turkey, though various constraints on implementation have been identified (Deniz & Necdet, 2020). The transformation of Turkish SMEs in terms of digitalization and sustainability reflects broader trends toward sustainable business practices (İNCEKARA et al., 2023).

The findings have important implications for the ongoing debate regarding socially responsible investment and the resilience of ESG-oriented companies. Research examining socially responsible investment during the COVID-19 pandemic in Turkey found that ESG-oriented companies demonstrated varying levels of resilience compared to non-ESG stocks Harabida et al. (2022). The performance of sustainable-themed funds compared to traditional funds in Turkey has been analyzed, with findings suggesting that sustainable investment approaches may offer competitive returns (ATEŞ et al., 2022). These findings support the proposition that strategic management accounting practices supporting sustainability may contribute to organizational resilience and long-term value creation.

The comparative analysis of sustainability performance across sectors highlights the importance of sector-specific approaches to strategic management accounting and sustainability. The aviation industry, characterized by continuous growth parallel with the global economy, plays a complex role in sustainability, contributing both positively and negatively across its dimensions (Karakuş, 2025). Understanding the performance of industry stakeholders in reducing environmental impacts is critically important for developing effective sustainability strategies (Karakuş, 2025). Similarly, container port facilities in Turkey have been evaluated for their operational, environmental, and social performance, revealing varying sustainability orientations across facilities (Söylemez, 2025).

5. Conclusion

This study has examined the relationship between strategic management accounting practices and organizational sustainability performance in the Turkish context, providing empirical evidence that supports the proposition that strategic accounting practices serve as critical enablers for achieving balanced sustainability outcomes. The findings demonstrate that organizations with higher levels of strategic management accounting adoption exhibit superior performance across economic, environmental, social, and governance sustainability dimensions. The research contributes to the growing body of literature on sustainability management accounting by providing evidence from an emerging market context where organizations face unique challenges in balancing economic development with environmental and social responsibilities.

The results reveal that environmental management accounting practices show particularly strong relationships with environmental sustainability performance, while integrated reporting practices demonstrate significant associations with governance and economic sustainability. The mediating role of sustainability culture highlights the importance of organizational factors in translating accounting practices into sustainability outcomes. Organizations seeking to enhance sustainability performance must not only adopt appropriate strategic management accounting tools but also cultivate supportive organizational cultures that reinforce sustainability values.

The sectoral analysis indicates that the Turkish banking sector demonstrates leadership in sustainability performance, reflecting significant investments in sustainability reporting and performance measurement. However, other sectors, including manufacturing, energy, and transportation, show considerable room for improvement in sustainability practices. The findings regarding the relationship between sustainability performance and financial outcomes suggest complex interactions that vary across sustainability dimensions and time horizons.

The study has several limitations that should be acknowledged. The sample was limited to organizations listed on the BIST Sustainability Index, which may not be representative of all Turkish organizations. The cross-sectional nature of portions of the analysis limits causal inference, and future research should employ longitudinal designs to examine how strategic management accounting practices influence sustainability performance over time.

Additionally, the reliance on publicly available sustainability reports may not capture all aspects of organizational sustainability practices.

Future research should examine the mechanisms through which strategic management accounting practices influence sustainability outcomes, including the role of management decision-making processes and stakeholder engagement. Comparative studies examining strategic management accounting and sustainability across different national contexts would provide valuable insights into the contextual factors that shape these relationships. The development of more comprehensive sustainability performance measurement frameworks that capture the full range of sustainability impacts represents another important avenue for future research.

In conclusion, this study demonstrates that strategic management accounting practices play a vital role in supporting organizational sustainability in Turkey. As stakeholders increasingly demand transparency and accountability in sustainability performance, organizations must develop sophisticated accounting systems capable of measuring, managing, and reporting multidimensional sustainability outcomes. The findings provide guidance for practitioners seeking to leverage management accounting tools for sustainability enhancement and for policymakers developing frameworks to promote corporate sustainability in emerging market contexts.

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