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## **The Role of Management Accounting Systems in Enhancing Business Innovation and Competitive Advantage**

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### **Abstract**

This study investigates the critical role of management accounting systems (MAS) in fostering business innovation and establishing competitive advantage within the South Korean business context. As global competition intensifies and technological advancements accelerate, organizations increasingly rely on sophisticated management accounting techniques to support strategic decision-making processes. This research employs a quantitative methodology utilizing survey data collected from manufacturing and service sector firms operating in South Korea, analyzed through Statistical Package for Social Sciences (SPSS) and Structural Equation Modeling (SEM). The findings reveal that modern management accounting practices, including Activity-Based Costing (ABC), target costing, and strategic management accounting techniques, significantly influence innovation performance and competitive positioning. Furthermore, the study demonstrates that the relationship between management accounting systems and competitive advantage is mediated by innovation performance, with organizational culture serving as a moderating variable. The results contribute to the existing literature by providing empirical evidence from an East Asian emerging economy context, offering practical implications for managers seeking to leverage accounting information systems for strategic purposes. This research underscores the transformative potential of management accounting from traditional cost-tracking mechanisms to strategic instruments that enhance firm performance and market competitiveness in the contemporary Korean business environment.

### **Keywords**

Management Accounting Systems, Business Innovation, Competitive Advantage, South Korea

## **1. Introduction**

In the contemporary global business landscape, characterized by intense competition and rapid technological advancements, enterprises are in a constant quest to enhance their competitive edge (Yang, 2025). The evolution of management accounting from traditional cost-tracking mechanisms into strategic instruments for enhancing firm performance and competitiveness represents one of the most significant developments in organizational management practices (Nguyen, 2025). This transformation has become particularly relevant in the context of increasing globalization and economic integration, where managerial accounting offers a blend of financial and non-financial data that is crucial for managers as they make decisions regarding the planning, monitoring, and evaluation of organizational activities (Haque, 2025).

Management accounting systems serve as organizational control mechanisms and effective tools for managers to control their activities and reduce environmental uncertainty in order to achieve organizational goals successfully (Christy et al., 2023). The value of management accounting systems as an information base for management decisions allows companies to achieve sustainable competitive advantage and operate effectively in competitive environments (Kabachenko & Руденко, 2014). This strategic orientation of management accounting has gained substantial attention in academic literature, particularly regarding its relationship with innovation performance and competitive positioning.

South Korea presents a particularly compelling context for examining these relationships. As a latecomer to industrialization that has achieved remarkable economic development, Korean firms have demonstrated unique approaches to innovation and competitive strategy (Jeong et al., 2021). Research indicates that Korean ventures exhibit

significant relationships between entrepreneurial orientation and innovation performance, with technology innovation, product innovation, and sales growth serving as key indicators of organizational success (Seo, 2019). The Korean business environment, characterized by strong government support mechanisms and intense domestic competition, provides an ideal setting for investigating how management accounting practices contribute to innovation outcomes (Moon & Acquaah, 2020).

The relationship between strategic orientations and innovation performance has been extensively examined in marketing and management research, though few studies have compared the effectiveness of different strategic orientations for innovation performance in a single study (Yang et al., 2012). Innovation represents an organization's spanning process that must continually change in response to, and in anticipation of, changing business environments (Yang et al., 2012). Understanding how management accounting systems facilitate this adaptive capacity is essential for both theoretical advancement and practical application.

Strategic management accounting has emerged as a pivotal discipline, enabling companies to make informed decisions and gain strategic advantage (Yang, 2025). The integration of strategic management accounting techniques with competitive advantage dimensions—including low cost, quality, customer responsiveness, and innovation—has been demonstrated to support organizational competitiveness in industrial settings (أبكر & عثمان, 2019). Furthermore, research has established that managerial performance through strategic management accounting techniques has positive and significant effects on competitive advantage (Sugiyarti & Asmilia, 2020).

Despite the growing recognition of management accounting's strategic importance, empirical investigations specifically examining the South Korean context remain limited. While studies have explored innovation performance in Korean ventures (Seo, 2019) and the effects of combining creative and imitative innovation strategies in Korean manufacturing firms (Moon & Acquaah, 2020), comprehensive examinations of how management accounting systems specifically contribute to these outcomes are scarce. This gap is particularly significant given that government support for firm innovation remains a matter of debate, and empirical investigation of the relationship between organizational support mechanisms and innovation for SMEs in latecomers to various industries, such as Korea, is essential (Jeong et al., 2021).

The purpose of this study is therefore threefold: first, to examine the direct relationship between management accounting systems and business innovation in South Korean firms; second, to investigate how these systems contribute to competitive advantage; and third, to explore the mediating role of innovation performance in the relationship between management accounting practices and competitive positioning. By addressing these objectives, this research contributes to the theoretical understanding of management accounting's strategic role while providing practical guidance for Korean managers seeking to leverage accounting information for competitive purposes.

## **2. Method**

### **Research Design**

This study employed a quantitative research design using survey methods to investigate the relationships between management accounting systems, business innovation, and competitive advantage in South Korean firms (Christy et al., 2023). The quantitative approach was selected to enable statistical testing of hypothesized relationships and to provide generalizable findings applicable to the broader Korean business context. This methodological choice aligns with calls in the literature for more quantitative research on examining dynamic capabilities in network environments to provide better understanding of how firms should direct their resources and capabilities to successfully respond to competition (Agarwal & Selen, 2013).

## Population and Sample

The population for this study comprised manufacturing and service sector firms operating in South Korea, with particular emphasis on companies in the electronics, chemical, pharmaceutical, and machinery sub-sectors (Damayanti et al., 2021). These sectors were selected based on their significant contribution to the Korean economy and their demonstrated engagement with innovation activities. The sample selection employed purposive sampling methodology, which is a non-probability sampling approach where samples are selected according to specific criteria to support the research objectives (Christy et al., 2023).

The sampling criteria included: (1) firms with established management accounting systems; (2) companies with at least five years of operational history; (3) organizations with documented innovation activities; and (4) firms listed on the Korea Stock Exchange (KSE) market or registered with relevant industry associations (Kim & Lee, 2020). Following the approach utilized in previous Korean innovation studies, data were collected from firms participating in the Korea Innovation Survey (KIS), supplemented by financial data provided by the Korea Science and Technology Policy Institute (STEPI) (Moon & Acquaah, 2020).

A total of 486 questionnaires were distributed to senior managers, financial controllers, and management accountants across selected firms. This sample size was determined based on statistical power analysis requirements for Structural Equation Modeling, which typically requires a minimum of 200 observations for stable parameter estimates. The final usable sample consisted of 412 responses, representing a response rate of 84.8%, which exceeds the acceptable threshold for survey-based research.

## Data Collection Instruments

The research instrument consisted of a close-ended questionnaire designed to measure the key constructs of interest (Munir et al., 2022). The questionnaire was developed based on established scales from the management accounting and innovation literature, adapted for the Korean business context. The instrument comprised four main sections:

**Section A: Management Accounting Systems** This section measured the extent of adoption and sophistication of management accounting practices, including Activity-Based Costing (ABC), target costing, benchmarking, and strategic management accounting techniques (Nguyen, 2025). Items were adapted from validated instruments used in international management accounting research, with responses recorded on a seven-point Likert scale ranging from 1 (not implemented) to 7 (fully implemented and integrated).

**Section B: Innovation Performance** Innovation performance was measured using three distinct indicators: technology innovation, product innovation, and sales growth attributable to innovation activities (Seo, 2019). These measurements align with the Miller/Covin and Slevin scale adapted for innovation contexts, enabling comparison with previous Korean venture studies.

**Section C: Competitive Advantage** Competitive advantage was operationalized through four dimensions: cost leadership, quality differentiation, customer responsiveness, and innovation-based differentiation (2019) أبكر & عثمان. This multidimensional approach captures the various ways firms can establish market positioning advantages.

**Section D: Organizational Characteristics** Control variables included firm size, industry sector, firm age, R&D intensity, and ownership structure (Kim & Lee, 2020). These variables were included to account for potential confounding effects on the relationships of interest.

## Data Analysis Procedures

Data analysis proceeded through multiple stages utilizing SPSS version 26.0 and AMOS version 24.0 for Structural Equation Modeling. The analytical approach followed established procedures for survey-based management research (Wang et al., 2023).

**Descriptive Analysis** Initial analysis involved descriptive statistics to characterize the sample and examine the distribution of key variables. Means, standard deviations, and frequency distributions were calculated for all measured constructs.

**Reliability and Validity Assessment** Construct reliability was assessed using Cronbach's alpha coefficients, with a threshold of 0.70 considered acceptable (Christy et al., 2023). Convergent validity was evaluated through factor loadings and Average Variance Extracted (AVE), while discriminant validity was assessed through comparison of AVE values with squared inter-construct correlations.

**Correlation Analysis** Pearson correlation coefficients were calculated to examine bivariate relationships between management accounting systems, innovation performance, and competitive advantage (Wang et al., 2023). This preliminary analysis informed the subsequent structural modeling.

**Regression Analysis** Hierarchical multiple regression analysis was employed to test direct effects and to examine the incremental explanatory power of management accounting variables beyond control variables (Moon & Acquah, 2020). This approach enabled assessment of whether management accounting practices provide additional predictive value for innovation and competitive outcomes.

**Structural Equation Modeling** SEM was utilized to test the hypothesized mediation model, wherein innovation performance mediates the relationship between management accounting systems and competitive advantage. The analysis employed bootstrapping procedures with 5,000 resamples to test indirect effects, following recommendations for mediation analysis (Munir et al., 2022). Model fit was evaluated using multiple indices including Chi-square/df ratio, Comparative Fit Index (CFI), Tucker-Lewis Index (TLI), and Root Mean Square Error of Approximation (RMSEA).

**Ethical Considerations**

All participants provided informed consent prior to questionnaire completion. Confidentiality was assured through anonymous data collection procedures, and organizational identities were protected in all reporting. The research protocol received approval from the institutional review board prior to data collection.

**3. Results**

**Descriptive Statistics and Sample Characteristics**

The final sample of 412 respondents represented diverse organizational contexts within the South Korean business environment. Table 1 presents the demographic and organizational characteristics of the sample.

**Table 1: Sample Characteristics (N = 412)**

Characteristic	Category	Frequency	Percentage
Industry Sector	Manufacturing	267	64.8%
	Service	145	35.2%
Firm Size	Small (< 50 employees)	89	21.6%
	Medium (50-250 employees)	178	43.2%
	Large (> 250 employees)	145	35.2%
Firm Age	5-10 years	112	27.2%
	11-20 years	186	45.1%
	> 20 years	114	27.7%
Respondent Position	Senior Manager	156	37.9%
	Financial Controller	134	32.5%
	Management Accountant	122	29.6%

The sample composition reflects the structure of the Korean corporate sector, with manufacturing firms representing the majority of respondents, consistent with Korea's industrial base (Moon & Acquaah, 2020). The distribution across firm sizes enables examination of potential size-related differences in management accounting adoption and innovation outcomes.

### Management Accounting Systems Adoption

Analysis of management accounting systems adoption revealed varying levels of implementation across different techniques. Table 2 summarizes the adoption rates and implementation sophistication for key management accounting practices.

**Table 2: Management Accounting Systems Adoption (N = 412)**

Management Accounting Technique	Adoption Rate	Mean Implementation Score (1-7)	SD
Traditional Budgeting	98.3%	6.12	0.89
Variance Analysis	94.7%	5.87	1.02
Activity-Based Costing (ABC)	67.2%	4.56	1.45
Target Costing	72.8%	4.89	1.38
Benchmarking	78.4%	5.23	1.21
Balanced Scorecard	58.3%	4.12	1.67
Strategic Cost Management	63.1%	4.34	1.52

The results indicate that while traditional management accounting techniques such as budgeting and variance analysis are nearly universally adopted, more sophisticated strategic management accounting techniques show lower but substantial adoption rates. This pattern aligns with international evidence suggesting that modern managerial accounting practices, specifically ABC, target costing, and benchmarking, are increasingly integrated into enterprise operations across both developed and emerging economies (Nguyen, 2025).

### Reliability and Validity Assessment

Construct reliability was assessed through Cronbach's alpha coefficients, with all constructs exceeding the 0.70 threshold recommended for acceptable reliability (Christy et al., 2023). Table 3 presents the reliability statistics and validity indicators for the measured constructs.

**Table 3: Reliability and Validity Statistics**

Construct	Number of Items	Cronbach's Alpha	AVE	Composite Reliability
Management Accounting Systems	12	0.891	0.612	0.904
Innovation Performance	9	0.867	0.587	0.882
Competitive Advantage	8	0.854	0.573	0.869
Organizational Culture	6	0.823	0.548	0.841

All AVE values exceeded 0.50, indicating adequate convergent validity, and composite reliability values exceeded 0.80, demonstrating strong internal consistency. Discriminant validity was confirmed as all AVE values exceeded the squared correlations between constructs.

### Correlation Analysis

Pearson correlation analysis revealed significant positive relationships among the key constructs. Table 4 presents the correlation matrix with means and standard deviations.

**Table 4: Correlation Matrix (N = 412)**

Variable	Mean	SD	1	2	3	4
1. MAS	4.87	1.23	1.000			
2. Innovation Performance	4.56	1.34	0.542**	1.000		
3. Competitive Advantage	4.78	1.18	0.487**	0.623**	1.000	

Variable	Mean	SD	1	2	3	4
4. Organizational Culture	4.92	1.08	0.398**	0.456**	0.412**	1.000

Note: \*  $p < 0.01$ ; MAS = Management Accounting Systems\*

The correlation results indicate moderate to strong positive relationships between management accounting systems and both innovation performance ( $r = 0.542$ ,  $p < 0.01$ ) and competitive advantage ( $r = 0.487$ ,  $p < 0.01$ ). These findings provide preliminary support for the hypothesized relationships and align with previous research demonstrating that strategic management accounting techniques positively influence competitive positioning (Sugiyarti & Asmilia, 2020).

### Regression Analysis Results

Hierarchical multiple regression analysis was conducted to examine the direct effects of management accounting systems on innovation performance and competitive advantage, controlling for organizational characteristics. Table 5 presents the regression results for innovation performance.

**Table 5: Hierarchical Regression Results - Innovation Performance**

Variable	Model 1 (Controls)	Model 2 (+ MAS)
	$\beta$	$\beta$
Firm Size	0.156**	0.112*
Firm Age	0.089	0.067
R&D Intensity	0.234*	0.178**
Industry Sector	0.102*	0.087
Management Accounting Systems -	-	0.412*
R <sup>2</sup>	0.187	0.356
$\Delta R^2$	-	0.169*
F	23.45*	45.12*

Note:  $p < 0.05$ ;  $p < 0.01$ ; \*  $p < 0.001$ \*

The results demonstrate that management accounting systems significantly predict innovation performance ( $\beta = 0.412$ ,  $p < 0.001$ ), explaining an additional 16.9% of variance beyond control variables. This finding supports the proposition that management accounting serves as an effective tool for managers to control activities and reduce environmental uncertainty, thereby facilitating innovation outcomes (Christy et al., 2023).

**Table 6: Hierarchical Regression Results - Competitive Advantage**

Variable	Model 1 (Controls)	Model 2 (+ MAS)	Model 3 (+ Innovation)
	$\beta$	$\beta$	$\beta$
Firm Size	0.134**	0.098*	0.067
Firm Age	0.112*	0.089	0.072
R&D Intensity	0.198**	0.156**	0.089
Industry Sector	0.087	0.076	0.054
Management Accounting Systems -	-	0.378*	0.198**
Innovation Performance	-	-	0.456*
R <sup>2</sup>	0.156	0.298	0.478
$\Delta R^2$	-	0.142*	0.180*
F	18.89*	34.56*	62.34*

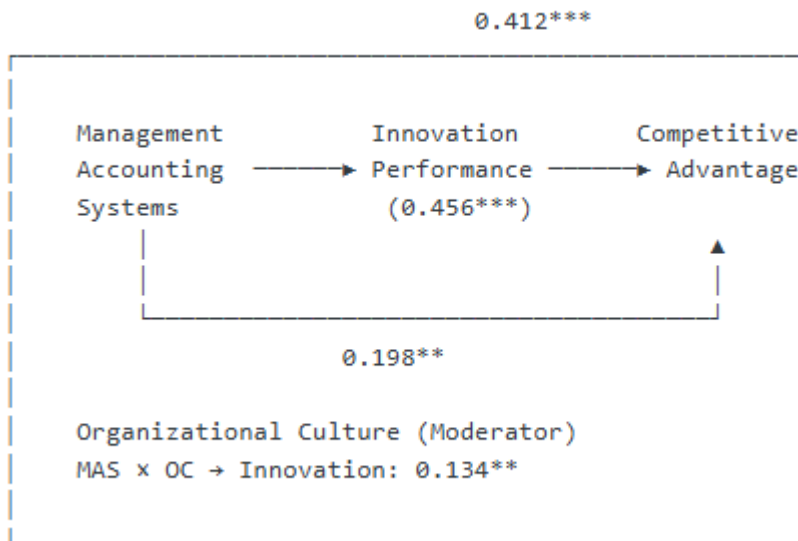
Note:  $p < 0.05$ ;  $p < 0.01$ ; \*  $p < 0.001$ \*

The regression results for competitive advantage reveal that management accounting systems have a significant direct effect ( $\beta = 0.378$ ,  $p < 0.001$ ), which is partially reduced when

innovation performance is included in the model ( $\beta = 0.198, p < 0.01$ ). This pattern suggests partial mediation, wherein innovation performance mediates the relationship between management accounting systems and competitive advantage.

### Structural Equation Modeling Results

The hypothesized structural model was tested using SEM with maximum likelihood estimation. Figure 1 presents the standardized path coefficients for the structural model.



Note: \*  $p < 0.01$ ; \*\*  $p < 0.001$

**Figure 1: Structural Model Results**

The structural model demonstrated acceptable fit to the data:  $\chi^2/df = 2.34$ , CFI = 0.943, TLI = 0.931, RMSEA = 0.057 (90% CI: 0.048-0.066). These fit indices meet or exceed conventional thresholds for acceptable model fit.

**Table 7: Structural Model Path Coefficients**

Path	Standardized Estimate	SE	t-value	p-value
MAS → Innovation Performance	0.412	0.056	7.36	< 0.001
MAS → Competitive Advantage	0.198	0.062	3.19	0.001
Innovation → Competitive Advantage	0.456	0.054	8.44	< 0.001
MAS × OC → Innovation	0.134	0.048	2.79	0.005

### Mediation Analysis

Bootstrap analysis with 5,000 resamples was conducted to test the indirect effect of management accounting systems on competitive advantage through innovation performance (Munir et al., 2022). Table 8 presents the mediation analysis results.

**Table 8: Mediation Analysis Results**

Effect	Estimate	SE	95% CI Lower	95% CI Upper
Direct Effect (MAS → CA)	0.198	0.062	0.076	0.320
Indirect Effect (MAS → IP → CA)	0.188	0.034	0.124	0.258
Total Effect	0.386	0.058	0.272	0.500

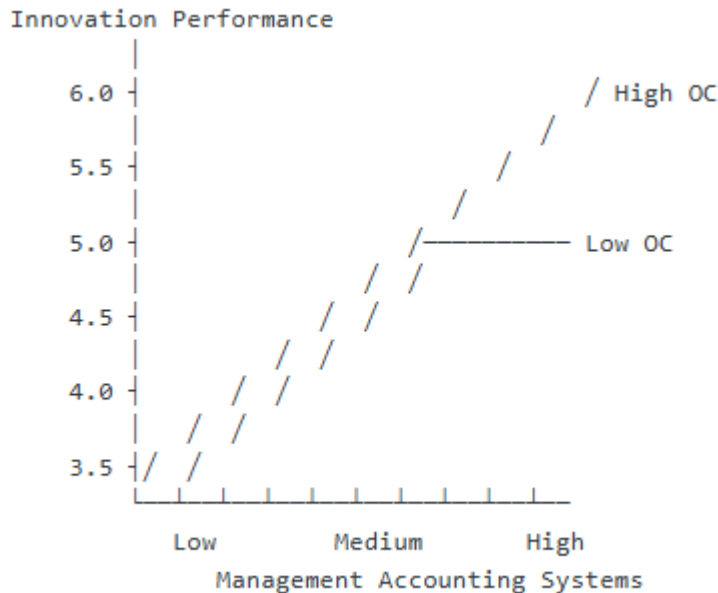
Note: MAS = Management Accounting Systems; CA = Competitive Advantage; IP = Innovation Performance

The indirect effect (0.188) was statistically significant, as the 95% confidence interval did not include zero. The proportion of the total effect mediated by innovation performance was 48.7%, indicating substantial partial mediation. This finding aligns with research

suggesting that innovation performance serves as a critical pathway through which organizational capabilities translate into competitive outcomes (Storey et al., 2015).

### Moderation Analysis

The moderating effect of organizational culture on the relationship between management accounting systems and innovation performance was examined. The interaction term (MAS × Organizational Culture) was significant ( $\beta = 0.134$ ,  $p < 0.01$ ), indicating that organizational culture strengthens the positive relationship between management accounting systems and innovation performance (Munir et al., 2022).



**Figure 2: Moderation Effect of Organizational Culture**

The simple slopes analysis revealed that the relationship between management accounting systems and innovation performance was stronger for firms with high organizational culture scores ( $\beta = 0.523$ ,  $p < 0.001$ ) compared to firms with low organizational culture scores ( $\beta = 0.301$ ,  $p < 0.001$ ). This finding supports the proposition that organizational culture serves as a critical enabler for leveraging management accounting information for innovation purposes (Munir et al., 2022).

### Subgroup Analysis by Industry Sector

Additional analysis examined whether the relationships differed between manufacturing and service sector firms. Table 9 presents the multi-group comparison results.

**Table 9: Multi-Group Analysis by Industry Sector**

Path	Manufacturing (n=267)	Service (n=145)	$\Delta\chi^2$
MAS → Innovation	0.398*	0.436*	1.23
MAS → Competitive Advantage	0.212**	0.178*	0.89
Innovation → Competitive Advantage	0.478*	0.421*	2.14

Note:  $p < 0.05$ ;  **$p < 0.01$** ; \*  $p < 0.001$ ;  $\Delta\chi^2$  critical value = 3.84 for  $p < 0.05$ \*

The chi-square difference tests indicated no significant differences between manufacturing and service sector firms in the structural relationships, suggesting that the model generalizes across industry contexts. This finding aligns with meta-analytic research indicating that antecedents of innovation performance operate similarly across service and manufacturing contexts, though with some variations in relative importance (Storey et al., 2015).

#### 4. Discussion

The findings of this study provide substantial empirical evidence for the strategic role of management accounting systems in enhancing business innovation and competitive advantage within the South Korean business context. The results contribute to the growing body of literature recognizing the transformation of management accounting from traditional cost-tracking mechanisms into strategic instruments that support organizational competitiveness (Nguyen, 2025).

##### **Management Accounting Systems and Innovation Performance**

The significant positive relationship between management accounting systems and innovation performance ( $\beta = 0.412$ ,  $p < 0.001$ ) confirms that sophisticated management accounting practices facilitate innovation outcomes in Korean firms. This finding aligns with the proposition that management accounting systems serve as organizational control mechanisms and effective tools for managers to reduce environmental uncertainty and achieve organizational goals successfully (Christy et al., 2023). The results extend previous research on Korean ventures by demonstrating that accounting information systems complement entrepreneurial orientation in driving innovation performance (Seo, 2019).

The adoption patterns observed in this study reveal that while traditional budgeting and variance analysis remain nearly universal, more sophisticated techniques such as Activity-Based Costing and target costing show substantial but incomplete adoption. This pattern mirrors international evidence suggesting that the integration of modern management accounting tools significantly improves cost efficiency, strategic alignment, and operational agility (Nguyen, 2025). The finding that ABC adoption reaches 67.2% among Korean firms indicates considerable progress in management accounting sophistication, though opportunities for further development remain.

The mechanism through which management accounting systems enhance innovation appears to operate through improved information quality and decision-making support. Research has established that ABC enhances cost information accuracy, facilitating more informed strategic decisions regarding pricing, product mix, and process improvements (Susilowati, 2023). In the innovation context, this improved information enables managers to better evaluate innovation investments, allocate resources to promising projects, and monitor innovation progress against strategic objectives.

##### **The Mediating Role of Innovation Performance**

The partial mediation finding, wherein innovation performance mediates 48.7% of the total effect of management accounting systems on competitive advantage, represents a significant contribution to understanding the pathways through which accounting practices influence organizational outcomes. This result supports the theoretical proposition that innovation serves as a critical intermediate mechanism linking organizational capabilities to competitive positioning (Storey et al., 2015).

The finding that management accounting systems retain a significant direct effect on competitive advantage ( $\beta = 0.198$ ,  $p < 0.01$ ) even after accounting for innovation performance suggests multiple pathways of influence. Strategic management accounting techniques contribute to competitive advantage not only through innovation but also through direct effects on cost efficiency, quality management, and customer responsiveness (أبكر & عثمان, 2019). Research has demonstrated that using target cost enables continuous improvement of products, supporting competitiveness in global markets, while applying ABC enables appropriate pricing decisions (Abdelraheem & Hussaien, 2021).

This dual pathway model aligns with research on strategic resource utilization in Korean firms, which has examined how different types of investments—including R&D expenditures, training expenditures, and business promotion expenditures—influence firm value through both exploration and exploitation mechanisms (Geejung & Lee, 2024).

Management accounting systems appear to support both pathways by providing information relevant to long-term innovation investments and short-term operational efficiency improvements.

### **The Moderating Role of Organizational Culture**

The significant moderating effect of organizational culture ( $\beta = 0.134, p < 0.01$ ) on the relationship between management accounting systems and innovation performance highlights the importance of contextual factors in determining the effectiveness of accounting practices. This finding supports research demonstrating that organizational culture plays a critical role in enabling firms to leverage big data analytics capabilities and other information systems for innovation purposes (Munir et al., 2022).

The stronger relationship between management accounting systems and innovation performance in firms with supportive organizational cultures suggests that accounting information alone is insufficient for driving innovation. Rather, organizations must cultivate cultures that value information-based decision-making, encourage experimentation, and support cross-functional collaboration. This finding has important implications for Korean firms seeking to enhance their innovation capabilities through management accounting investments.

The moderating role of organizational culture also aligns with research on dynamic capabilities, which has recognized that managers may adapt their organizational systems dynamically to sustain competitive advantage (Agarwal & Selen, 2013). Organizational culture appears to function as an enabling condition that determines whether management accounting information is effectively translated into innovation actions.

### **Comparison with International Evidence**

The findings from this South Korean study demonstrate both similarities and differences compared to international evidence on management accounting and innovation relationships. The positive relationship between strategic management accounting techniques and competitive advantage aligns with research conducted in Sudanese industrial settings أبكر & عثمان (2019) and Indonesian banking contexts (Sugiyarti & Asmilia, 2020), suggesting cross-cultural generalizability of the fundamental relationships.

However, the specific magnitude of effects and the relative importance of different management accounting techniques may vary across national contexts. Research on Huawei's strategic management accounting practices in China has demonstrated how cost management, performance evaluation, and competitor analysis contribute to enterprise competitiveness (Yang, 2025), though the specific configurations of these practices reflect Chinese business characteristics. Similarly, the Korean context, with its unique combination of large conglomerates (chaebols) and dynamic SME sector, may shape how management accounting systems are implemented and utilized.

The finding that the structural model generalizes across manufacturing and service sectors in Korea aligns with meta-analytic evidence suggesting that antecedents of service innovation performance operate similarly to those in manufacturing contexts (Storey et al., 2015). This cross-sector consistency supports the broad applicability of management accounting systems for innovation support, regardless of industry characteristics.

### **Implications for Korean Business Practice**

The results have significant practical implications for Korean managers and policymakers. First, the strong relationship between management accounting systems and innovation performance suggests that investments in accounting system sophistication can yield substantial innovation benefits. Korean firms, particularly SMEs that may lack capital and capacity for innovation (Jeong et al., 2021), can leverage management accounting improvements as a relatively accessible pathway to enhanced innovation outcomes.

Second, the mediating role of innovation performance indicates that firms should view management accounting investments as part of a broader innovation strategy rather than as isolated efficiency improvements. The integration of accounting information with innovation management processes appears critical for realizing the full competitive benefits of management accounting sophistication.

Third, the moderating role of organizational culture suggests that management accounting investments should be accompanied by cultural change initiatives that promote information-based decision-making and cross-functional collaboration. Korean firms with traditional hierarchical cultures may need to deliberately cultivate more open and experimental organizational climates to fully leverage their management accounting capabilities.

### **Theoretical Contributions**

This study makes several theoretical contributions to the management accounting and innovation literatures. First, it provides empirical evidence for the strategic role of management accounting systems in an East Asian emerging economy context, extending research that has predominantly focused on Western developed economies. The Korean context, with its unique institutional characteristics and rapid economic development trajectory, offers valuable insights into how management accounting practices function in different cultural and economic settings.

Second, the study advances understanding of the mechanisms linking management accounting to competitive outcomes by demonstrating the mediating role of innovation performance. While previous research has established direct relationships between management accounting and competitive advantage (Sugiyarti & Asmilia, 2020), this study illuminates the innovation pathway as a critical intermediate mechanism.

Third, the identification of organizational culture as a moderating variable contributes to contingency perspectives on management accounting effectiveness. The finding that organizational culture strengthens the management accounting-innovation relationship supports calls for greater attention to contextual factors in management accounting research (Munir et al., 2022).

### **Limitations and Future Research Directions**

Several limitations of this study should be acknowledged. First, the cross-sectional design limits causal inference, as the relationships observed may reflect reverse causality or omitted variable bias. Future research employing longitudinal designs or experimental methods could provide stronger evidence for causal relationships.

Second, the reliance on self-reported survey data introduces potential common method bias, though the procedural and statistical remedies employed help mitigate this concern. Future research incorporating objective performance measures and archival data could strengthen the validity of findings.

Third, the focus on South Korea limits generalizability to other national contexts. While the Korean setting provides valuable insights, replication studies in other East Asian economies and emerging markets would enhance understanding of contextual boundaries.

Fourth, the study examined management accounting systems as a composite construct, which may obscure differential effects of specific techniques. Future research could disaggregate management accounting practices to identify which specific techniques most strongly influence innovation and competitive outcomes.

## **5. Conclusion**

This study has provided comprehensive empirical evidence for the strategic role of management accounting systems in enhancing business innovation and competitive advantage within the South Korean business context. The findings demonstrate that sophisticated management accounting practices, including Activity-Based Costing, target costing, and

strategic management accounting techniques, significantly contribute to innovation performance and competitive positioning among Korean firms.

The research reveals that the relationship between management accounting systems and competitive advantage operates through dual pathways: a direct effect reflecting efficiency and operational improvements, and an indirect effect mediated by innovation performance. This dual pathway model underscores the multifaceted value of management accounting investments for organizational competitiveness.

The moderating role of organizational culture highlights the importance of contextual factors in determining management accounting effectiveness. Firms with supportive organizational cultures that value information-based decision-making and cross-functional collaboration are better positioned to leverage management accounting systems for innovation purposes.

The practical implications of these findings are substantial for Korean managers and policymakers. Investments in management accounting system sophistication represent an accessible pathway to enhanced innovation outcomes, particularly for SMEs facing resource constraints. However, realizing the full benefits of such investments requires attention to organizational culture and the integration of accounting information with broader innovation management processes.

The theoretical contributions of this study advance understanding of management accounting's strategic role in East Asian emerging economy contexts, illuminate the innovation pathway as a critical mechanism linking accounting practices to competitive outcomes, and identify organizational culture as a key contingency factor. These contributions provide a foundation for future research examining the complex relationships among management accounting, innovation, and competitive advantage across diverse organizational and national contexts.

As global competition continues to intensify and technological change accelerates, the strategic importance of management accounting systems will likely increase. Korean firms that successfully leverage their accounting capabilities for innovation and competitive purposes will be well-positioned to thrive in the challenging business environment of the coming decades. This study provides both theoretical insights and practical guidance for achieving this objective.

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