


The Role of Managers' Work Experience in the Perceived Effectiveness of Management Accounting Techniques: Evidence from Manufacturing Firms in Toos Industrial Town, Mashhad

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ABSTRACT

Management accounting techniques are increasingly viewed as strategic information tools rather than merely cost-control instruments, yet their perceived usefulness may depend on how managers with different levels of professional experience interpret and apply management accounting information. This applied descriptive-survey study with an exploratory causal-comparative orientation examined experience-based differences in the perceived effectiveness of selected management accounting techniques in relation to organizational performance indicators among financial managers, heads of accounting, and financial experts working in manufacturing firms in Toos Industrial Town, Mashhad, Iran. The statistical population consisted of approximately 95 large manufacturing firms, and 70 usable questionnaires were analyzed. The questionnaire was adapted from prior management accounting research and measured perceived effectiveness using a five-point Likert scale; face validity was reviewed by academic and professional experts, and internal consistency was high (Cronbach's alpha = .98). Because the variables were ordinal and normality assumptions were not met, Kruskal-Wallis tests were used to compare work-experience groups. The results showed that work experience significantly differentiated perceived effectiveness for strategic cost management and total quality management in relation to external organizational relationships ($p = .004$ for both techniques). For strategic cost management, the highest mean rank was observed among respondents with 10-15 years of experience, whereas for total quality management, the highest mean rank was observed among respondents with 5-10 years of experience. No significant experience-based differences were reported for other organizational performance indicators. The findings suggest that managerial experience should not be treated as a universal determinant of management accounting effectiveness; rather, its role appears technique-specific and performance-domain-specific. Because the study used nonparametric group comparisons and self-reported perceptions, the results should be interpreted as exploratory evidence of experience-based differences rather than definitive causal moderation.

Keywords: management accounting techniques; managers' work experience; strategic cost management; total quality management; organizational performance; external organizational relationships

1. Introduction

Contemporary organizations operate in environments characterized by digital transformation, supply-chain volatility, geopolitical uncertainty, changing customer expectations, and increasing pressure for operational resilience. In such conditions, management accounting systems can no longer be treated as narrow internal reporting mechanisms. They are increasingly used as strategic information systems that support planning, control, resource allocation, risk management, and value creation.

Modern management accounting techniques provide broader information than traditional cost accumulation and budgeting systems. Techniques such as strategic cost management, activity-based costing, the balanced scorecard, benchmarking, key performance indicators, value-chain analysis, and total quality management are designed to connect operational decisions with strategic priorities. Prior empirical work suggests that contemporary management accounting practices may support organizational change and performance when they are used as a coherent package rather than as isolated technical tools (Nuhu et al., 2016).

The usefulness of these techniques, however, is not determined by technical adoption alone. Management accounting information must be interpreted, translated into managerial action, and aligned with organizational conditions. This makes the human dimension of management accounting important. Managers with different professional backgrounds and levels of work experience may not use the same accounting information in the same way. Experience can shape risk perception, problem framing, tolerance of innovation, and the ability to connect accounting data with operational and relational decisions.

This issue is theoretically consistent with the upper echelons perspective, which argues that organizational choices and outcomes are partly shaped by the values, cognitive bases, and experiences of senior managers (Hambrick, 2007; Hambrick & Mason, 1984). In management accounting and control research, Hiebl (2014) similarly noted that top-manager characteristics can influence management accounting practices and control-system design. Accordingly, work experience may affect the perceived usefulness and practical application of management accounting techniques (Hiebl, 2014).

Despite the importance of managerial experience, many empirical studies have focused on direct relationships between management accounting practices and organizational performance, while giving less attention to individual-level managerial characteristics. This gap is particularly important in manufacturing firms, where accounting information is closely linked to cost control, quality systems, supplier relations, customer coordination, and external organizational relationships.

The present study addresses this gap by examining experience-based differences in the perceived effectiveness of selected management accounting techniques among manufacturing firms in Toos Industrial Town, Mashhad. The wording of the study was revised to avoid overstating statistical moderation, because the available data support nonparametric comparisons across experience groups rather than a regression-based interaction model. The study focuses particularly on strategic cost management and total quality management because the analyzed data showed significant experience-based differences for these techniques in relation to external organizational relationships.

2. Literature Review and Research Propositions

2.1. *Management accounting techniques and organizational performance*

Management accounting refers to the generation and use of financial and non-financial information for managerial planning, decision-making, control, and performance evaluation. Traditional management accounting practices, such as standard costing, variance analysis, budgeting, and return-on-investment measures, remain useful but are often criticized for their short-term, internal, and financially dominated orientation (Johnson & Kaplan, 1987).

In contrast, contemporary management accounting techniques have a broader strategic orientation. The balanced scorecard links financial and non-financial measures to strategic objectives (Kaplan & Norton, 2001), while strategic management accounting emphasizes competitor, customer, market, and value-chain information (Cadez & Guilding, 2008). Techniques such as activity-based costing, total quality management, benchmarking, and key performance indicators may help organizations identify value-creating activities, reduce waste, improve quality, and align internal processes with external demands.

Contingency-based research suggests that the benefits of management accounting practices depend on organizational

strategy, environmental uncertainty, innovation, and managerial use rather than simple adoption (Chenhall & Langfield-Smith, 1998; Otley, 2016). Baines and Langfield-Smith (2003) showed that competitive pressure and strategic orientation can influence management accounting change. Similarly, Ferreira and Otley (2009) emphasized that performance management systems must be understood as systems of design and use rather than as isolated measurement tools (Ferreira & Otley, 2009).

More recent research indicates that digital technologies, enterprise systems, business analytics, cloud technologies, and artificial intelligence are changing the work of accountants and the scope of management accounting information (Appelbaum et al., 2017; Moll & Yigitbasioglu, 2019). These developments increase the need for managers who can interpret complex information and connect accounting outputs with strategic and operational decisions.

2.2. Managers' work experience and perceived effectiveness

Work experience is a form of human capital that may influence how managers interpret information and respond to organizational change. Experienced managers may have deeper knowledge of business cycles, cost behavior, supplier relationships, customer requirements, and operational constraints. Such experience may allow them to transform management accounting information into more effective decisions.

At the same time, the effect of experience is not necessarily linear. Some managers with extensive experience may rely on established routines and show greater resistance to modern techniques, while less experienced managers may be more open to contemporary tools but less able to adapt them to complex organizational realities. Therefore, the relationship between experience and the perceived effectiveness of management accounting techniques may depend on the specific technique and the performance dimension under analysis.

Strategic cost management requires the interpretation of cost information across the value chain and in relation to competitors, customers, suppliers, and long-term strategic positioning. Managers with moderate to high experience may be better able to use this technique because it requires judgment beyond routine accounting. Total quality management, by contrast, is often associated with continuous improvement, process orientation, participation, and customer-focused quality systems. Its perceived

effectiveness may be stronger among managers who are more open to contemporary organizational practices. On this basis, the study formulated two exploratory propositions:

P1: The perceived effectiveness of strategic cost management for external organizational relationships differs across managers' work-experience groups.

P2: The perceived effectiveness of total quality management for external organizational relationships differs across managers' work-experience groups.

3. Methods and Materials

3.1. Research design and setting

This study used an applied descriptive-survey design with an exploratory causal-comparative analytic orientation. The empirical setting was manufacturing firms located in Toos Industrial Town, Mashhad, Iran. The analysis focused on financial managers, heads of accounting, and financial experts because these respondents were expected to be familiar with management accounting techniques and organizational performance information.

The study did not manipulate variables experimentally. Therefore, causal language was avoided in interpreting the results. The term experience-based difference was used to describe statistically significant differences in perceived effectiveness across work-experience groups. This revision makes the statistical framing consistent with the available Kruskal-Wallis analysis.

3.2. Population, sample, and unit of analysis

The statistical population consisted of financial managers, heads of accounting, and financial experts in large manufacturing companies active in Toos Industrial Town. Based on the information available in the manuscript, approximately 95 large manufacturing companies were active in the setting. The Morgan sampling table indicated a target sample of 76 respondents; however, after nonresponse and unusable questionnaires were excluded, 70 valid questionnaires remained for analysis.

The unit of analysis was the individual respondent rather than the firm. Respondents were classified into four work-experience groups: less than 5 years, 5-10 years, 10-15 years, and more than 15 years. Because only one respondent belonged to the more-than-15-years group, all findings involving this category were treated as descriptive and were not overinterpreted.

3.3. *Instrument and measures*

Data were collected using a researcher-developed questionnaire adapted from Nuhu et al. (2016) (Nuhu et al., 2016). The questionnaire had two sections. The first section measured demographic and professional characteristics, including gender, education level, work experience, organizational position, firm type, number of financial staff, and extent of technique use. The second section measured respondents' perceptions of the effectiveness of modern management accounting techniques on organizational performance indicators using a five-point Likert scale ranging from 1 = very low to 5 = very high.

The present analysis focused on two techniques for which significant experience-based differences were available in the dataset: strategic cost management and total quality management. The focal performance indicator was external organizational relationships, which refers to perceived improvement in relationships with suppliers, customers, and other external stakeholders. Other organizational performance indicators were examined in the source analysis, but no significant experience-based differences were reported for them.

Face validity was reviewed by academic supervisors and subject-matter experts. Reliability was assessed through a pilot administration of approximately 30 questionnaires, and Cronbach's alpha for the full instrument was .98. This coefficient indicates very high internal consistency; however, very high alpha values may also suggest item redundancy and should be considered in future instrument

refinement. Because item-level validation outputs were not available, the findings should be interpreted as exploratory evidence based on aggregate questionnaire indicators.

3.4. *Data analysis*

Data were analyzed using SPSS. Normality was assessed using the Shapiro-Wilk test. Because the variables were ordinal and the data did not satisfy normality assumptions, nonparametric statistical tests were used. Kruskal-Wallis tests compared the perceived effectiveness of management accounting techniques across work-experience groups.

The main level of statistical significance was set at $p < .05$. Because the study relied on self-reported perceptions and nonparametric group comparisons, the results should be interpreted as evidence of experience-based differences in perceived effectiveness rather than as definitive causal moderation. The available output did not include Kruskal-Wallis H statistics, effect sizes, confidence intervals, or post-hoc tests; this limitation is considered in the discussion and should be addressed in future studies using larger samples and full statistical outputs.

4. **Findings and Results**

4.1. *Demographic characteristics*

The final sample included 70 respondents. Table 1 summarizes the demographic and professional characteristics of the participants.

Table 1

Demographic and professional characteristics of respondents

Variable	Category	Frequency	Percentage
Gender	Female	30	42.9
Gender	Male	40	57.1
Education	Bachelor's degree	22	31.4
Education	Master's degree	32	45.7
Education	Doctoral degree	16	22.9
Work experience	Less than 5 years	26	37.1
Work experience	5-10 years	16	22.9
Work experience	10-15 years	27	38.6
Work experience	More than 15 years	1	1.4
Position	Head of accounting	11	15.7
Position	Accountant / financial expert	27	38.6
Position	Financial manager	32	45.7

Note. Percentages were recalculated from the final sample size of 70.

4.2. *Experience-based differences in perceived effectiveness*

The Kruskal-Wallis results showed significant differences across work-experience groups for the perceived effectiveness of strategic cost management and total quality management in relation to external

organizational relationships. Table 2 reports the available p-values and mean ranks. Figure 1 visualizes the same mean-rank pattern and shows that the highest ranked group differed by technique.

Table 2

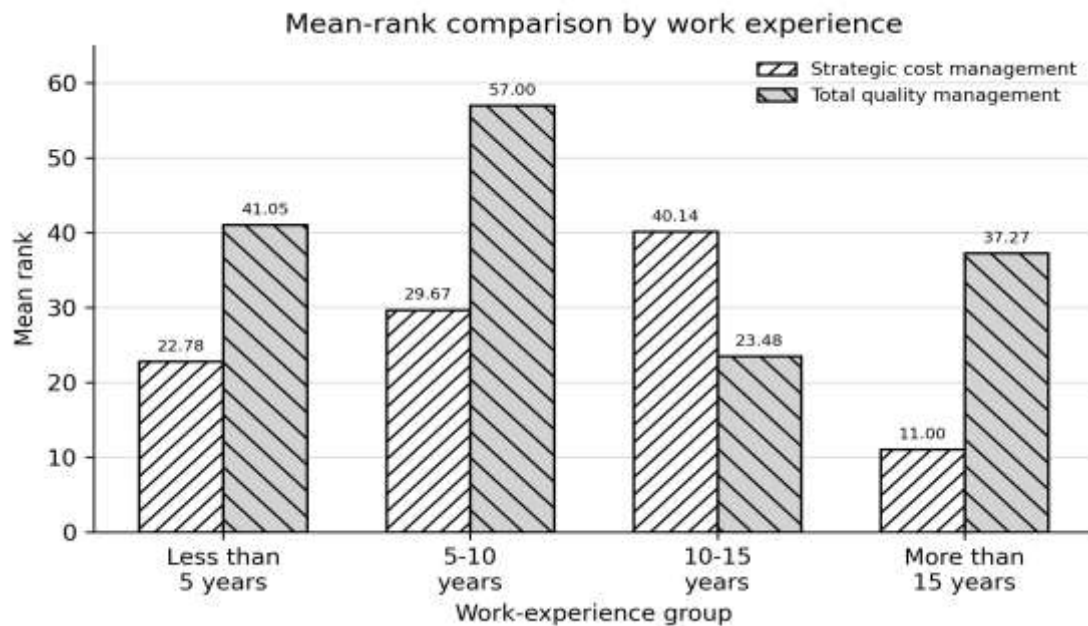
Kruskal-Wallis results and mean ranks by work-experience group

Technique	Performance indicator	p-value	<5 years	5-10 years	10-15 years	>15 years	Highest mean-rank group
Strategic cost management	External organizational relationships	.004	22.78	29.67	40.14	11.00	10-15 years
Total quality management	External organizational relationships	.004	41.05	57.00	23.48	37.27	5-10 years

Note. The more-than-15-years group included only one respondent; therefore, comparisons involving this group are descriptive and should not be overinterpreted. Full Kruskal-Wallis H statistics, post-hoc comparisons, and effect sizes were not available in the provided output.

Figure 1

Mean-rank comparison of perceived effectiveness across work-experience groups.



As shown in Figure 1, strategic cost management reached its highest mean rank among respondents with 10-15 years of experience, whereas total quality management reached its highest mean rank among respondents with 5-10 years of experience. These patterns support the two exploratory propositions at the level of experience-based perceived differences, not causal moderation.

5. Discussion

This study examined whether managers' work experience is associated with differences in the perceived effectiveness of selected management accounting techniques. The findings showed significant experience-based differences for strategic cost management and total quality management in relation to external organizational relationships. However, the pattern was not universal

across all performance indicators. This suggests that managerial experience is a conditional factor whose relevance depends on the specific technique and performance domain.

The finding for strategic cost management is theoretically plausible. Strategic cost management requires managers to interpret cost information beyond internal accounting records and connect it with value-chain positioning, supplier relations, customer expectations, and competitive priorities. Respondents with 10-15 years of experience may have sufficient practical exposure to understand cost behavior and external relationships while still retaining openness to modern management accounting methods. This supports contingency-based views of management accounting, which emphasize fit between technique, context, and managerial use (Cadez & Guilding, 2008; Otley, 2016).

The finding for total quality management followed a different pattern, with the highest mean rank reported in the 5-10-year experience group. This may indicate that managers in earlier or middle career stages are more receptive to continuous improvement, customer orientation, and process-based quality systems. Total quality management depends not only on accumulated experience but also on openness to participatory change, cross-functional learning, and systematic process improvement. Therefore, the most experienced managers are not necessarily those who perceive total quality management as most effective.

The results also align with the upper echelons perspective. Managerial characteristics can shape organizational choices and outcomes because managers interpret information through their own cognitive frames and professional histories (Hambrick & Mason, 1984; Hiebl, 2014). In management accounting, this implies that techniques do not act mechanically. Their perceived effectiveness depends partly on how managers understand, communicate, and apply them.

In practical terms, manufacturing firms should consider the experiential composition of financial and managerial teams when implementing management accounting techniques. Strategic cost management may benefit from managers who have accumulated sufficient experience in cost structures, supplier relationships, production processes, and competitive positioning. Total quality management implementation may require training programs that combine technical quality methods with change-management skills across experience groups. Organizations

should avoid assuming that more experience always means better use of modern management accounting techniques. A balanced team that combines experienced managers, mid-career specialists, and younger managers may improve knowledge transfer and reduce resistance to innovation.

The study contributes to management accounting literature by connecting the perceived effectiveness of accounting techniques with managerial work experience. It supports the argument that management accounting practices should be studied through a contingency lens in which organizational and individual characteristics influence outcomes. Rather than treating management accounting techniques as universally effective tools, the findings show that perceived effectiveness may vary by technique, performance domain, and user characteristics.

These findings should be interpreted with caution. The study was limited to manufacturing firms in Toos Industrial Town, Mashhad, and the final sample included 70 respondents. Only one respondent belonged to the more-than-15-years group, which weakens the interpretation of comparisons involving that category. The study also relied on self-reported questionnaire data, which may be affected by perception bias and common method bias. The cross-sectional design prevents conclusions about changes over time or causal effects. In addition, the available statistical output did not include full Kruskal-Wallis statistics, effect sizes, confidence intervals, or post-hoc comparisons. Future research should use larger and more balanced samples, regression-based or structural equation approaches for direct moderation testing, validated multi-item scales, and objective performance indicators where possible. Future studies should also examine other managerial characteristics, including education level, gender, training history, managerial position, digital competence, and prior exposure to accounting information systems.

6. Conclusion

This study investigated the role of managers' work experience in the perceived effectiveness of management accounting techniques among manufacturing firms in Toos Industrial Town, Mashhad. The results showed that work experience significantly differentiated perceived effectiveness for strategic cost management and total quality management in relation to external organizational relationships. However, the difference was not significant for other organizational performance indicators.

The study concludes that work experience should not be treated as a universal explanatory factor. Its relevance depends on the management accounting technique and the performance dimension being examined. These findings highlight the importance of aligning technique implementation with the knowledge, experience, and learning needs of the managerial team.

Authors' Contributions

Seyedeh Hanieh Goodasiaei contributed to conceptualization, literature review, instrument preparation, data collection, data analysis, interpretation of findings, drafting, revision, and final approval of the manuscript.

Declaration

Generative AI tools were used only for translation, language editing, structural organization, and formatting assistance under author supervision. No AI tool was used to generate, alter, or fabricate data, statistical results, findings, or references. The author remains fully responsible for the accuracy, integrity, and final content of the manuscript.

Transparency Statement

The data are not publicly available because they were collected from organizational respondents under confidentiality assumptions. De-identified data may be made available by the author upon reasonable request, subject to ethical and institutional restrictions.

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Declaration of Interest

The author declares no conflict of interest.

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Ethics Considerations

Participation was voluntary. Respondents were informed about the academic purpose of the study, and the questionnaire was completed anonymously. No personally

identifiable information is reported. Data were analyzed in aggregate form and used only for research purposes.

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