

TOTAL QUALITY MANAGEMENT AND BUSINESS PERFORMANCE IN THE SECURITY SERVICE INDUSTRY: A PILOT STUDY

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Abstract: *This study examines the key dimensions of Total Quality Management (TQM) practices and business performance in the security services industry. The survey questionnaires were designed and distributed to 50 respondents within a Malaysian security service organisation. The pilot study sample consists of 30 respondents from 50 questionnaires, with an average response rate of 60%. Reliability and validity tests were conducted, and the data were analysed using the Statistical Package for the Social Sciences (SPSS). The results indicate that four main TQM dimensions, namely leadership, benchmarking, continuous improvement, and human resource management, demonstrate satisfactory reliability and measurement adequacy. Furthermore, leadership emerged as the most prominent dimension supporting the implementation of TQM practices within the organisation. This research concludes that the identified TQM dimensions provide a reliable foundation for assessing business performance in the security services industry. Thus, further studies are recommended to investigate and validate the structural relationships between TQM practices and business performance in the Malaysian security services industry.*

Keywords: *Leadership, Benchmarking, Continuous Improvement, Human Resource Management, Business Performance, Total Quality Management (TQM)*

Introduction

The security services industry, which comprises organizations responsible for protecting individuals, properties, and strategic assets, has become an increasingly essential pillar of modern socio-economic systems. As global security concerns intensify and client expectations evolve, security service providers are required to operate with higher levels of efficiency, reliability, and responsiveness. The expanding demand for professional security services has compelled organizations within this sector to continuously enhance their operational capabilities in order to address dynamic environmental challenges and stakeholder expectations (Sharma, 2024).

In recent years, heightened competition within the security services industry has intensified the need for organizations to strengthen their performance management practices. Business performance in this sector extends beyond financial indicators (Kocot & Olak, 2024; Prayag et al., 2018) to include product-market outcomes (Akgün et al., 2019) and shareholder value creation (Mamilla & Vasumathi, 2020). For security service firms, sustainable success depends on their ability to systematically evaluate operational outcomes and ensure that service delivery aligns with contractual requirements and client expectations (Mitreá, 2021). A structured performance evaluation system enables organizations to identify operational strengths, recognize performance gaps, and implement evidence-based improvements rather than relying on intuitive or reactive decision-making (Yulianto et al., 2021).

Despite its critical societal function, the security services industry continues to face managerial challenges in maintaining consistent service quality and operational discipline (Mpaata et al., 2024). The sector is characterized by labor-intensive operations, dispersed workforces, and strict compliance requirements, all of which complicate effective management control. Increasing client sophistication and rising expectations for service excellence further amplify the pressure on security firms to adopt systematic performance-enhancing strategies (Jeong, Lee & Lim, 2019). As demand for reliable and efficient security services continues to grow, organizations must strengthen their internal processes and managerial practices to remain competitive and resilient (Gaurav & Panigrahi, 2023).

In response to these challenges, Total Quality Management (TQM) has gained prominence as a comprehensive management approach capable of driving organizational improvement. TQM emphasizes continuous improvement, customer satisfaction, and active employee involvement as core principles for achieving superior service outcomes (Kareska, 2023). Rather than focusing solely on quality inspection, TQM integrates quality-oriented thinking into organizational culture, strategic planning, and operational execution. Through systematic process management and ongoing performance evaluation, TQM supports organizations in enhancing service reliability and operational effectiveness (Pamungkur & Sunarmie, 2024).

Although Total Quality Management (TQM) has been widely acknowledged as an important approach for enhancing organizational effectiveness and competitiveness, limited empirical attention has been given to its application within the Malaysian security services industry. Existing studies have predominantly focused on manufacturing and general service sectors, leaving a contextual gap in understanding how TQM practices are perceived and implemented in security service organizations (Aichouni, Silva, & Ferreira, 2024). Furthermore, there remains limited preliminary evidence regarding the suitability and reliability of TQM measurement dimensions within this industry context. Pilot studies are particularly important in assessing the reliability and applicability of research instruments prior to large-scale

empirical investigations (Hair et al., 2022). Therefore, this study aims to evaluate the reliability and preliminary applicability of selected TQM factors and business performance measures in the Malaysian security services industry, thereby providing a foundation for future empirical investigation on the relationship between TQM practices and business performance.

Literature Review

Business performance

Business performance represents a core construct in strategic and operations management, as it reflects the extent to which an organization is able to accomplish its objectives efficiently and effectively. Rather than being confined to a single indicator, business performance is generally conceptualized as a multidimensional phenomenon that integrates financial outcomes, market-related achievements, and broader measures of organizational effectiveness. Over time, scholars have debated the most appropriate way to define and assess performance, leading to a growing consensus that it should not be viewed solely from a financial standpoint. Instead, performance evaluation increasingly incorporates the expectations and interests of multiple stakeholders, including shareholders, customers, employees, and the broader society (Abdul Wahab et al., 2023; Nielsen, 2019; Sirgy, 2022).

The contemporary understanding of business performance extends beyond traditional accounting metrics and market share indicators. Organizations are now evaluated based on their social responsibility, environmental stewardship, and internal workforce practices, reflecting an expanded and more sustainable perspective of performance (Mitrea-Curpanaru, 2021). This broader interpretation acknowledges that long-term organizational success is closely linked to responsible governance, stakeholder satisfaction, and sustainable operational practices.

Furthermore, business performance is shaped by contextual and environmental conditions that influence organizational priorities and strategic choices. Industry structure, market turbulence, technological change, and competitive intensity all contribute to variations in performance drivers. Firms operating in highly dynamic and competitive environments may need to emphasize adaptability, innovation, and responsiveness to maintain relevance and advantage. Conversely, organizations functioning within relatively stable sectors may achieve superior outcomes by focusing on operational efficiency, process optimization, and cost control. Accordingly, the assessment of business performance must consider both internal capabilities and external environmental contingencies to provide a comprehensive evaluation of organizational success (Putra & Santoso, 2020).

Total Quality Management

Total Quality Management (TQM) is widely acknowledged as an integrated managerial philosophy designed to enhance organizational effectiveness through systematic quality improvement. Rather than functioning as a standalone tool or a set of isolated techniques, TQM embodies an organization-wide commitment to continuous enhancement driven by structured feedback mechanisms and process evaluation. It influences strategic direction, organizational culture, operational workflows, and stakeholder relationships, thereby embedding quality principles across all hierarchical levels (Jabeen & Ganaie, 2019). Effective TQM implementation requires participation from top management to operational personnel, ensuring that quality-related challenges are addressed collectively rather than confined to specific departments. Its distinct emphasis on customer satisfaction as a strategic priority differentiates

TQM from conventional management approaches that primarily focus on short-term financial gains (Qazi & Gani, 2018).

The applicability of TQM extends across diverse industries, including manufacturing, healthcare, education, and public administration, demonstrating its adaptability to varying operational contexts (Ayash et al., 2020). The philosophy's orientation toward continuous improvement enables organizations to respond proactively to competitive pressures and market volatility (Sallis, 2010). Leadership commitment, customer orientation, and strategic alignment are consistently identified as foundational elements that determine the effectiveness of TQM adoption (Júnior & Broday, 2019). Moreover, organizations that successfully institutionalize TQM often cultivate a collaborative work environment characterized by shared responsibility, employee empowerment, and open communication channels (Luthfia & Sumarto, 2020). Such an environment reinforces accountability and motivates employees to actively contribute to quality enhancement initiatives.

Within the security services industry, the relevance of TQM becomes particularly significant due to the sector's reliance on trust, reliability, and service consistency. Security operations require structured procedures, disciplined workforce management, and precise risk mitigation strategies, all of which align closely with TQM principles. In this setting, TQM practices may support improvements in risk assessment processes, protocol standardization, workforce training, and service delivery quality (Sulastri & Achmad, 2022). Through systematic monitoring and continuous refinement, security organizations can reduce operational inefficiencies, strengthen client relationships, and enhance overall service credibility (Magd et al., 2021). The customer-oriented orientation of TQM further reinforces the need for service customization and responsiveness to client expectations (Jacob et al., 2020). Core elements such as continuous improvement, employee involvement, and customer focus are particularly aligned with the objectives of security service providers, which prioritize dependable and client-centered service delivery (Hidayah et al., 2022). In an industry where long-term contracts and reputational trust are critical, adopting a quality-driven management framework provides substantial strategic advantages (Sulastri & Achmad, 2022).

The successful implementation of TQM, however, requires structured communication, systematic training, and sustained managerial commitment to ensure that quality principles are fully understood and internalized by all stakeholders (Murali & Ponmalar, 2017). Although organizations may encounter implementation challenges—including resistance to change and the need for consistent leadership support—the long-term outcomes, such as improved cost efficiency, stronger market positioning, and enhanced organizational reputation, often justify the initial investment (Kareska, 2023). In the context of the security services industry, the effectiveness of TQM adoption is closely linked to the organization's ability to nurture a culture of shared responsibility, encourage proactive problem-solving, and institutionalize continuous improvement as an ongoing organizational discipline rather than a temporary initiative.

Leadership

Leadership is widely regarded as a pivotal element in determining organizational effectiveness, particularly in shaping direction, aligning resources, and mobilizing human capital toward shared objectives (Htike, 2019; Alodhiani, 2024; Gomathy, 2023). Within a managerial context, leadership extends beyond formal authority; it encompasses the capacity to articulate strategic intent, influence employee attitudes, and cultivate collective commitment to organizational goals. Leaders play a central role in translating vision into actionable strategies while fostering

an environment that encourages collaboration and accountability. Empirical evidence suggests that effective leadership contributes to improved employee engagement, enhanced productivity, and greater capacity for organizational learning and innovation (Aziz & Kesuma, 2021).

Different leadership approaches yield varying organizational outcomes depending on situational demands. Transformational leadership, characterized by inspiration, intellectual stimulation, and individualized consideration, has been linked to enhanced creativity and continuous improvement, as it motivates employees to challenge existing practices and pursue higher performance standards. Conversely, transactional leadership emphasizes structured supervision, performance monitoring, and reward-based exchanges, making it particularly effective in environments that require stability, compliance, and procedural consistency (Young, Glerum, Joseph & McCord, 2021).

The impact of leadership on organizational performance is not uniform but contingent upon contextual variables such as industry dynamics, organizational culture, and workforce characteristics. In volatile and highly competitive sectors, leaders who encourage adaptability, innovation, and proactive problem-solving are often better positioned to sustain organizational performance. In contrast, in more predictable environments, structured and control-oriented leadership may produce more consistent outcomes. Additionally, organizations with skilled and autonomous employees may benefit from participative and empowering leadership styles that promote shared decision-making and intrinsic motivation (Hutabarat et al., 2022). Consequently, effective leadership requires situational awareness and the ability to adapt managerial approaches to align with both internal capabilities and external demands.

Benchmarking

Benchmarking is widely acknowledged as a strategic performance evaluation mechanism that enables organizations to measure their practices against recognized industry standards and leading competitors (Hoffmann et al., 2019). Rather than merely comparing numerical indicators, benchmarking involves a systematic examination of processes, service delivery models, and operational frameworks to uncover performance disparities and identify superior approaches. The essence of benchmarking lies in organizational learning—drawing insights from high-performing entities and adapting relevant practices to strengthen internal capabilities. Through this structured comparison, organizations are better positioned to detect inefficiencies, recognize performance gaps, and initiate targeted improvement efforts that support sustained competitiveness (Davidson, 2022). Nevertheless, the effectiveness of benchmarking depends heavily on the adoption of a disciplined and strategically aligned methodology capable of translating comparative insights into actionable change.

A critical prerequisite for meaningful benchmarking is the careful selection of appropriate benchmarking partners. Organizations must engage with peers or industry leaders that exhibit comparable operational characteristics, strategic orientation, and market positioning to ensure that comparisons are both valid and contextually relevant (Wu et al., 2018). Without such alignment, benchmarking outcomes may lack practical applicability. Furthermore, benchmarking initiatives may vary in depth and scope, ranging from broad performance indicators to detailed process-level assessments (Davidson, 2022). The chosen scope should reflect the organization's strategic priorities and the specific performance dimensions targeted for enhancement.

For benchmarking to deliver sustainable value, it must be embedded within the organization's broader strategic management and continuous improvement systems. When treated as an ongoing and iterative process rather than a one-off exercise, benchmarking can serve as a catalyst for long-term organizational development. As emphasized by Davidson (2022), the generation of reliable and comprehensive comparative data is fundamental to ensuring that benchmarking outcomes translate into measurable improvements. This requires the establishment of clearly defined performance metrics and systematic progress tracking mechanisms (Ransley, 2018). By consistently monitoring outcomes and evaluating implemented adjustments, organizations can assess whether strategic interventions are producing the intended results. Ultimately, the integration of benchmarking into strategic planning and operational routines enhances its capacity to drive enduring performance gains and organizational advancement (Ongosi et al., 2020).

Continuous Improvement

Continuous improvement (CI) refers to a structured and disciplined approach aimed at achieving incremental yet sustained enhancements in organizational processes and outcomes. Rather than representing a single initiative, CI embodies an ongoing commitment to systematically identifying inefficiencies, evaluating performance gaps, and implementing corrective actions to generate measurable progress (Bhuiyan & Baghel, 2005). It integrates various improvement techniques and management practices designed to strengthen operational effectiveness, increase productivity, and optimize resource utilization. Over time, CI has become deeply embedded in multiple sectors, including manufacturing, healthcare, and education, as organizations strive to remain responsive to market volatility, technological change, and competitive pressures (Aleu & Van Aken, 2018; Glover, Farris, & Van Aken, 2020).

From a theoretical standpoint, continuous improvement is frequently conceptualized as an organizational capability that enhances adaptability and long-term resilience. This perspective positions CI not merely as a process enhancement tool but as a strategic enabler that strengthens an organization's ability to respond proactively to evolving challenges. Effective implementation of CI requires supportive organizational infrastructure, including committed leadership, engaged employees, and systematic use of performance data. Scholars have also highlighted the alignment between CI and adaptive leadership practices, emphasizing the importance of cultivating a culture that encourages experimentation, collective learning, and ongoing refinement of work processes (Galli, 2019; Yurkofsky, Peterson, Mehta, Horwitz-Willis & Frumin, 2020).

Empirical applications of continuous improvement illustrate its versatility across industries. In manufacturing contexts such as the packaging industry, initiatives like quality control circles have demonstrated how structured employee participation can contribute to cost reduction and productivity enhancement (Yusuf & Azhar, 2020). Similarly, in the education sector, CI-oriented mechanisms—including networked improvement communities and instructional rounds—have been employed to address complex systemic challenges and facilitate sustainable performance enhancement (Yusuf & Azhar, 2020). The literature consistently underscores the multifaceted nature of CI, pointing to the interdependence of leadership, organizational culture, process standardization, and feedback systems in sustaining improvement efforts (Yurkofsky et al., 2020). Empirical findings further emphasize the significance of employee involvement, analytical decision-making, and the development of an enabling infrastructure that supports continuous learning and organizational adaptation (Cheng et al., 2019).

Human Resources Management

Human resource management (HRM) is increasingly recognized as a strategic pillar that underpins organizational resilience and long-term competitiveness in an environment characterized by rapid change and uncertainty (Hamid, 2019). As business landscapes become more volatile and complex, organizations must move beyond administrative personnel functions and adopt a strategic orientation toward managing human capital. Employees are widely regarded as key sources of knowledge, innovation, and adaptability, making effective HRM practices central to organizational sustainability. Contemporary scholarship highlights HRM not only as a support function but as a driver of sustainable competitive advantage through its influence on workforce capability, engagement, and alignment with strategic objectives (Macke & Genari, 2019). The evolving discourse on sustainable HRM reflects diverse perspectives regarding its objectives and implementation, underscoring its growing relevance within modern management paradigms.

In volatile, uncertain, complex, and ambiguous (VUCA) environments, the strategic role of HRM becomes even more pronounced (Hamid, 2019). Organizations must design and implement coherent HRM systems that integrate recruitment, performance appraisal, training and development, and diversity management to cultivate a competent and agile workforce. These practices collectively contribute to building employee commitment, enhancing skill development, and fostering adaptability, which are essential for achieving sustained organizational performance (Macke & Genari, 2019). Rather than focusing solely on operational efficiency, strategic HRM emphasizes alignment between workforce capabilities and long-term organizational direction.

A growing body of literature further supports the view that aligning HRM strategies with organizational goals strengthens performance outcomes (Braz & Jaradat, 2024). This alignment requires HR managers to adopt a forward-looking perspective that balances economic objectives with social and environmental considerations. Scholars argue for a transition from short-term profit maximization toward sustainable HRM approaches that prioritize employee well-being, organizational continuity, and environmental stewardship (Macke & Genari, 2019; Hamid, 2019). Integrating sustainability principles into HRM functions, including the adoption of environmentally responsible or “green” HRM practices, represents an important evolution in management thinking. Such practices, supported by technological advancements and data-driven systems, enable organizations to reinforce environmental awareness while simultaneously enhancing business performance and organizational resilience.

Methodology

The purpose of this study is to examine the measurement adequacy of Total Quality Management (TQM) practices and business performance constructs prior to conducting a full-scale empirical investigation. A quantitative research design employing a survey method was adopted. The survey instrument was adapted from established empirical studies related to TQM practices and business performance to ensure content relevance and contextual suitability. Specifically, the constructs of leadership, benchmarking, continuous improvement, and human resource management were adapted from previous TQM literature (Brah, Tee, & Rao, 2002; Christos & Evangelos, 2009; Rao, 2006), while business performance items were adapted from studies examining business performance (Prajogo & Sohal, 2006). The questionnaire items were carefully modified to align with the operational characteristics of the Malaysian security services industry.

A five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree) was employed to capture respondents' perceptions regarding TQM practices and organizational performance. The respondents consisted of managerial personnel within security service organizations who possessed comprehensive knowledge of operational processes and were directly involved in strategic and administrative decision-making (Osman et al., 2011). This pilot study utilized a probability sampling technique to identify participating firms from the registered security service company directory in Malaysia. A self-administered questionnaire approach was employed to facilitate data collection, while follow-up reminders were distributed to enhance the response rate and ensure adequate participation for reliability assessment.

Data collected from the pilot survey were analysed using the Statistical Package for the Social Sciences (SPSS). Content validity was assessed through expert review involving academic and industry experts to evaluate the clarity, relevance, and suitability of the measurement items. Reliability analysis was subsequently conducted using Cronbach's alpha coefficient to evaluate the internal consistency of the constructs. Since this study represents a preliminary pilot investigation with a relatively small sample size, advanced construct validity assessments such as Exploratory Factor Analysis (EFA), Average Variance Extracted (AVE), and Composite Reliability (CR) were not conducted at this stage. According to Hair et al. (2022), such construct validity assessments are more appropriate for full-scale studies involving larger sample sizes. Therefore, the present pilot study primarily focused on preliminary instrument refinement, measurement adequacy, and internal consistency reliability prior to future empirical investigation involving structural relationship testing between TQM practices and business performance.

Data collection

A structured questionnaire was developed to measure the key constructs of Total Quality Management (TQM) and business performance. The instrument comprised several sections, including organizational profile (e.g., business category, years of operation, and company size) and core TQM dimensions such as leadership, benchmarking, continuous improvement, and human resource management, together with items assessing business performance. The measurement items were adapted from established empirical studies to ensure theoretical consistency and contextual relevance.

Prior to data collection, the questionnaire was reviewed by experts comprising academics and industry practitioners with experience in quality management and security service operations. Based on their feedback, revisions were made to improve clarity, wording precision, item sequencing, and overall comprehensibility. This expert validation process was undertaken to enhance content validity and ensure that the instrument was appropriate for the targeted industry context. The pilot study focused on security service organizations in Malaysia. Respondents were drawn from managerial-level personnel who possessed comprehensive knowledge of organizational operations and were directly involved in strategic and administrative decision-making processes. Participating firms were identified through the registered security service company directory.

A total of 50 questionnaires were personally distributed to selected organizations, and follow-up visits were conducted to facilitate collection. Of the 50 questionnaires distributed, 30 usable responses were returned, representing a response rate of 60%. This sample size is considered adequate for pilot testing purposes, as recommended by Hair et al. (2010). The primary purpose of the pilot study was to assess respondents' understanding of the questionnaire items and to

evaluate the reliability and clarity of the measurement instruments. In addition, the pilot test enabled refinement of item wording, formatting, and sequencing, as well as estimation of the time required to complete the survey (Saunders et al., 2009). Subsequently, the collected data were analysed using the Statistical Package for the Social Sciences (SPSS). Descriptive statistics were generated, and reliability analysis using Cronbach's alpha was performed to assess the internal consistency of each construct.

Findings

The analysis of this study commenced with reliability testing to evaluate the internal consistency of the Total Quality Management (TQM) and business performance constructs. Cronbach's alpha coefficients were calculated to ensure that the measurement items for each dimension demonstrated acceptable levels of reliability, thereby strengthening confidence in the accuracy and stability of the instrument. Establishing internal consistency is particularly critical in pilot studies, as it determines whether the constructs are suitable for subsequent large-scale empirical investigation.

Following the reliability assessment, descriptive statistical analysis was conducted to examine the central tendencies (mean scores) and dispersion measures (standard deviations) of the key TQM dimensions, namely leadership, benchmarking, continuous improvement, and human resource management, as well as business performance indicators. This analysis provides an overview of respondents' perceptions regarding the implementation of TQM practices within the organization.

The descriptive findings further highlight the relative prominence of each TQM dimension, facilitating preliminary interpretation of managerial emphasis and organizational priorities in the security services context. Although the pilot study does not aim to test structural relationships, these analyses offer valuable insights into the consistency and distribution of responses across constructs. By integrating reliability and descriptive analyses, the study establishes a sound methodological foundation for future research examining the structural relationship between TQM practices and business performance.

Validity and reliability

Validity refers to the degree to which a measurement instrument accurately captures the concept it is intended to measure (Sekaran, 2003). In this study, content validity was established prior to the administration of the questionnaire to ensure that the measurement items appropriately reflected the underlying dimensions of Total Quality Management (TQM) and business performance. The preliminary version of the instrument was reviewed by a panel of experts comprising university academicians, industry practitioners, and business consultants with relevant expertise in quality management and organizational performance. Their feedback was carefully evaluated, and necessary refinements were made to improve item clarity, relevance, structure, and contextual appropriateness. This validation process ensured that the questionnaire items adequately represented the conceptual domains under investigation and were suitable for application within the security services industry.

Following the establishment of content validity, reliability analysis was conducted to assess the internal consistency of the measurement scales. Reliability reflects the extent to which a set of items consistently measures a particular construct. Cronbach's alpha coefficient was employed as the primary reliability indicator, as it is widely utilized in empirical research to evaluate internal consistency (Cronbach, 1951). In this study, Cronbach's alpha was calculated for each

TQM dimension namely leadership, benchmarking, continuous improvement, and human resource management as well as for the business performance construct. Table 1 presents the results of the reliability analysis for all Total Quality Management (TQM) and business performance constructs.

Table 1: Reliability Analysis

Factors	Cronbach's Alpha
Management Leadership	0.770
Bench marking	0.739
Continuous improvement	0.696
Human resources management	0.770
Business Performance	0.783

The results of the reliability analysis indicate that Cronbach's alpha values for all constructs ranged from 0.696 to 0.783, demonstrating acceptable to good levels of internal consistency. According to established guidelines, alpha values below 0.60 are generally considered weak, values around 0.70 are acceptable, and values exceeding 0.80 indicate strong reliability (Hair et al., 2010; Sekaran & Bougie, 2010). Furthermore, a minimum threshold of 0.70 suggests that the measurement items adequately converge in representing the intended constructs (Nunnally, 1978; Hair et al., 2010; Sekaran & Bougie, 2010).

Based on these results, all TQM and business performance constructs demonstrated satisfactory reliability in the pilot study. This finding confirms that the adapted measurement items are consistent and appropriate for subsequent large-scale empirical investigation. Consequently, the instrument is considered methodologically sound and suitable for examining the relationship between TQM practices and business performance in the Malaysian security services industry.

Descriptive Analysis

Based on the collected data, descriptive statistical analysis was conducted to determine the mean scores of the Total Quality Management (TQM) dimensions. The calculated mean values were subsequently examined to assess the perceived level of importance of each TQM factor according to respondents' evaluations. The descriptive results for all TQM constructs are presented in Table 2.

Table 2: Descriptive Analysis

Factors	Mean	SD
Management Leadership	3.557	0.471
Bench marking	3.313	0.767
Continuous improvement	2.969	0.488
Human resources management	2.969	0.488
Business Performance	3.005	0.524

As presented in Table 2, Management Leadership recorded the highest mean score ($M = 3.557$, $SD = 0.471$), indicating that respondents perceived leadership as the most prominent TQM dimension within the organization. Benchmarking also demonstrated a relatively moderate level of implementation ($M = 3.313$, $SD = 0.767$). In contrast, Continuous Improvement and Human Resource Management reported comparatively lower mean values ($M = 2.969$), suggesting potential areas requiring further managerial attention. The mean score for Business

Performance ($M = 3.005$, $SD = 0.524$) reflects a moderate level of perceived organizational performance. Given that this is a pilot study, these descriptive findings provide preliminary insights into the relative emphasis of TQM practices within the organization and serve as a foundation for further empirical investigation.

Conclusion and Implications

This study was conducted to examine and evaluate the measurement adequacy of Total Quality Management (TQM) dimensions within the Malaysian security services industry. Based on the pilot data analysis, four TQM constructs namely management leadership, benchmarking, continuous improvement, human resource management and business performance construct, demonstrated acceptable levels of reliability and validity. The findings indicate that all measurement dimensions achieved satisfactory internal consistency, confirming their suitability for subsequent large-scale empirical investigation.

Among the TQM dimensions assessed, management leadership recorded the highest mean score, suggesting its relative prominence in supporting quality management practices within the organization. The results further confirm that the adapted measurement items exhibit sound psychometric properties and are appropriate for advancing to the structural model in future studies. Accordingly, the instrument developed in this study provides a validated framework for examining the relationship between TQM practices and business performance in the security services sector.

The primary contribution of this study lies in the development and validation of a contextually adapted TQM measurement instrument. The instrument offers practical value to security service organizations by providing a structured approach to assessing the implementation of TQM practices. For researchers and practitioners, the study identifies key TQM dimensions that may influence organizational performance and establishes a reliable foundation for future empirical testing. Security service providers may utilize this instrument to evaluate their quality management initiatives and identify areas requiring strategic improvement.

However, several limitations should be acknowledged. This pilot study focused solely on selected security service organizations within Malaysia, and the relatively small sample size limits the generalizability of the findings. Future research should expand the sample across different regions and potentially incorporate other service sectors to enhance external validity. Additionally, the present study concentrated primarily on internal TQM dimensions. Subsequent research may consider integrating external environmental factors or examining mediating and moderating effects to provide a more comprehensive understanding of TQM implementation.

Future studies are encouraged to employ structural equation modelling to examine the causal relationships between TQM practices and business performance using the validated instrument developed in this pilot investigation. Such analysis would provide deeper insights into the strategic role of TQM in enhancing organizational competitiveness and long-term sustainability within the Malaysian security services industry.

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