Operational Research in Engineering Sciences: Theory and Applications
Vol. 6, Issue 2, 2023, pp. 270-293
ISSN: 2620-1607
eISSN: 2620-1747
DOI: https://doi.org/10.31181/oresta/060214

A COMPREHENSIVE STUDY OF ACCOUNTING INFORMATION QUALITY AS A MEDIATOR BETWEEN MANAGEMENT ACCOUNTING PRACTICES AND INVENTORY MANAGEMENT IN OPERATIONS RESEARCH FOR MANUFACTURING COMPANIES IN INDONESIA

Widia Astuty[1*], Ihsan Effendi[2], Azwansyah Habibie[3], Fajar Pasaribu[4]

[1] Universitas Muhammadiyah Sumatera Utara, Medan, Indonesia
[2] Universitas Medan Area, Medan, Indonesia
[3] Universitas Harapan Medan, Medan, Indonesia
[4] Universitas Muhammadiyah Sumatera Utara, Medan, Indonesia

Received: 18 April 2023
Accepted: 20 May 2023
First Online: 23 July 2023

Research Paper

***Abstract**: Efficient management accounting practices have the potential to enhance the quality of accounting information systems by facilitating the provision of precise cost data, effective budgeting, and performance measurement. The enhanced information system facilitates companies in making more efficient inventory management decisions by ensuring enhanced synchronisation with customer demand. The objective of this study is to examine the mediating role of the quality of accounting information systems in the association between modern accounting information systems and inventory management in Indonesian manufacturing firms. A convenient sampling technique was employed to collect quantitative data from a sample of 400 accounting professionals working in manufacturing companies in Indonesia. The regression analysis conducted using SPSS revealed that the implementation of Total Quantity Management, Just-In-Time, Target Costing, Time-Driven Activity-Based Costing, and the Balanced Scorecard have a significant and positive impact on the quality of accounting information. Additionally, the presence of a quality accounting information system serves as an indirect mediator, highlighting the substantial mediating impact between management accounting practices and inventory management. This underscores the crucial significance of an efficiently operating accounting system in enhancing decision-making pertaining to inventory. The aforementioned findings make a noteworthy theoretical contribution by highlighting the pioneering role of the quality of accounting information systems in mediating the relationship between modern management accounting practices*

*Corresponding author: widiaastuty@umsu.ac.id (W. Astuty)
ikbar.p@gmail.com (I. Effendi) azwansyah_habibie.unhar@harapan.ac.id (A. Habibie)
ajarpasaribu@umsu.ac.id (F. Pasaribu)

and inventory management. This study has the potential to provide practical guidance to companies that aim to improve their operational efficiency and competitiveness in the current dynamic business environment. The study's conclusion included a discussion on the limitations of the research and potential avenues for future investigation.

***Keywords**: Management Accounting Practices, Quality of Accounting Information System, Inventory management, Indonesia, Manufacturing Companies*

1. Introduction

In the present-day context of a fiercely competitive global landscape, it is imperative for organisations to function with a high degree of efficiency (Belton, 2017). In order to thrive, businesses consistently strive to find novel strategies to effectively navigate unpredictable circumstances and adjust to evolving patterns (AlMaryani & Sadik, 2012). This pursuit is particularly concentrated on enhancing the management of inventory, commonly referred to as inventory management (INM). The concept of information and communication technology (ICT) assumes significant importance in the context of business operations, as it plays a critical role in the restructuring of various aspects such as production, distribution, retail, and supply chain management (Agu, Obi-Anike, & Eke, 2016). The implementation of effective inventory management (INM) is a crucial aspect for organisations in achieving a proper equilibrium between carrying costs and stockouts. This ultimately leads to a reduction of capital tied up in inventory while simultaneously ensuring uninterrupted product availability (Silver, 1981).

The enhancement of intellectual capital can be achieved through the application of management accounting techniques, which aim to improve the quality of the accounting information system. The implementation of advanced management accounting techniques has the potential to greatly improve the effectiveness of an organisation's internal management (INM) by facilitating the provision of high-quality accounting information (QAIS) (Al Refai & Poornima, 2021). The implementation of management accounting techniques (MAP) has the potential to offer comprehensive insights into costs associated with inventory, thereby facilitating the identification of opportunities for cost reduction and process enhancement (Uyar & Kuzey, 2016). The inclusion of real-time data from the accounting information system into the inventory management (INM) process has the potential to enhance demand forecasting accuracy and optimise replenishment strategies (Kandelin & Lin, 1992). Furthermore, the utilisation of management accounting techniques can contribute to the enhancement of pricing and production determinations, thereby facilitating the optimisation of inventory management efficiency (Ahmed, Alabdullah, Ardhani, & Putri, 2021). Prior discussions have suggested that Management Accounting Practises (MAP) have a significant impact on enhancing the quality of the Accounting Information System (AIS), thereby resulting in improved inventory management.

Despite the importance of Management Accounting Practises (MAP) and the quality of quality Quality Assurance and Improvement Systems (QAIS) in enhancing the effectiveness of integrated Nutrient Management (INM), numerous studies have indicated that a considerable number of organisations predominantly depend on financial accounting when making managerial decisions (Yussif, Kusi, & Ismail,

2019){Wijewardana, 2018 #75. Despite the adoption of Quality Assurance Information Systems (QAIS) by companies, they frequently encounter challenges related to inefficient information management and inadequate system control, ultimately hindering effective decision-making (Kandelin & Lin, 1992). The reluctance to fully embrace accounting systems can be attributed to their original objective of merely automating manual accounting procedures, which constrained their subsequent development (Kandelin & Lin, 1992).

According to a study conducted by Nias Ahmad, Smith, Ismail, Djajadikerta, and Roni (2016), a significant number of small and medium-sized enterprises (SMEs) do not fully exploit the potential of computers in generating management information. This can be attributed to the differing levels of financial awareness among these enterprises. However, a study conducted by Kaplan and Anderson (2003) provides empirical evidence suggesting that organisations that implement advanced management accounting techniques experience noteworthy enhancements in their Quality Assurance Information Systems (QAIS) (Azudin & Mansor, 2018). The improved precision in their systems results in enhanced efficiency in inventory management (Al Refai & Poornima, 2021). The aforementioned studies have highlighted the significance of management accounting practices (MAP) in enhancing quality assurance in information systems (QAIS), consequently resulting in improvements in information network management (INM).

Based on the preceding discourse, it is evident that contemporary managerial accounting practices frequently fail to furnish pertinent information necessary for the attainment of effective management and strategic objectives (Ha, Manh, & Van Anh, 2018) (Ashfaq, Younas, Usman, & Hanif, 2014). There are several contributing factors to this phenomenon, including but not limited to the practice of partial overhead allocation (M. G. Abdel-Kader, 2011), the disregard for nonfinancial considerations, and the absence of benchmarking against competitors' performance (Ogundajo & Nyikyaa, 2022). Moreover, the need to adhere to regulations, norms, and standards further complicates accounting processes, rendering them time-consuming and excessively bureaucratic. The presence of inefficiencies within an organisation has the potential to significantly impact its profitability (A. Abdelraheem, Hussaien, Mohammed, & Elbokhari, 2021; Dwiyanti & Wondabio, 2023).

Furthermore, it is worth noting that ineffective contemporary management accounting practices have the potential to exacerbate inventory-related challenges, in addition to contributing to a decline in overall performance. The presence of inaccurate overhead allocation and a deficiency in benchmarking practices can result in imprecise calculations of inventory costs, thereby influencing pricing determinations and diminishing overall profitability. The omission of nonfinancial factors may lead to suboptimal inventory optimisation, thereby resulting in elevated holding costs (Chandrarin & Zuhroh, 2021). Therefore, it is imperative to develop a robust contemporary monitoring and evaluation framework in order to strengthen quality assurance and improvement systems, thereby facilitating advancements in institutional and national management.

Moreover, it is worth noting that several scholars place significant emphasis on the direct influence of Mobile Application Performance (MAP) on Quality of App Interaction and Satisfaction (QAIS) (Al Refai & Poornima, 2021). Several research studies have investigated the effects of Quality Assurance Information Systems (QAIS)

on Information Network Management (INM) (Gunawan & Nengzih, 2023; Sunarta & Astuti, 2023; Susilawati, Lubis, Kesuma, Pratama, & Khaira, 2023a). There is limited focus on the influence of contemporary media and advertising practices (MAP) on individuals' negative body image (INM) when considering the mediating role of the quality of appearance-related information sources (QAIS). Consequently, this research endeavour addressed the aforementioned knowledge gap by incorporating the variable of QAIS as a mediator between MAP and INM. However, previous studies have predominantly concentrated on Western countries, with limited attention given to developing nations. In numerous developing nations, such as Indonesia, the adoption of Modern Management Accounting Practices (MAP) by manufacturing organisations is not prevalent, possibly due to the absence of mandatory requirements (Azudin & Mansor, 2018; Chandrarin & Zuhroh, 2021).

In the pursuit of narrowing the gap between Indonesia and more advanced economies, previous research has predominantly focused on measuring market access potential (MAP) in various sectors, with limited attention given to industrial enterprises (Jaradat, Taha, Mat Zin, Wan Zakaria, & Abdul Aziz, 2021) (Al Refai & Poornima, 2021;). Hence, the primary objective of this research is to enhance our comprehension of the utilisation of MAP (Management Accounting Practices) within Indonesian manufacturing enterprises, with the aim of advancing both scholarly investigation and real-world implementation. It is noteworthy to mention that a significant research gap exists in the existing body of literature, both at the global and local levels, with respect to the collective influence of contemporary management accounting practices and quality assurance information systems (QAIS) on innovation performance (INM). This gap is particularly evident within the specific context of Indonesian manufacturing firms.

The manufacturing sector in Indonesia is currently in the early stages of implementing Manufacturing Automation Platforms (MAP), indicating substantial potential for growth and advancement. The extent to which advanced techniques and technologies are utilised for financial analysis, cost control, and strategic decision-making is relatively constrained (Napitupulu, 2018; Tantriangela & Setyowati, 2023). As the business landscape in Indonesia undergoes transformation and expands its global reach, there is an increasing demand for the implementation of more advanced and refined Management Accounting Practises (MAP). This is aimed at improving organisational efficiency and fostering competitiveness in both domestic and international arenas (Sunarni, 2013). This situation provides organisations with a chance to allocate resources towards enhancing their accounting systems and practices in order to effectively address the challenges associated with Integrated Natural Resource Management (INM). Therefore, the primary aim of this study was to examine the potential mediating role of the quality of accounting information systems in the relationship between modern management accounting practices and inventory management within the context of manufacturing companies in Indonesia (Ruslan, Tanjung, Lubis, Siregar, & Pratama, 2023).

The study conducted in the specific setting of manufacturing firms in Indonesia carries substantial and favourable ramifications. The findings presented in this study may provide significant insights into the interplay between contemporary manufacturing automation processes (MAP) and efficient inventory management. This relationship is a crucial determinant of operational efficiency for manufacturing

enterprises. This study provides a comprehensive analysis of the potential impact of modern techniques, including just-in-time (JIT), total quality management (TQM), target costing (TAC), balanced scorecard (BAS), and time-driven activity-based practices, on inventory management outcomes. Positive findings in this context have the potential to provide valuable guidance to Indonesian manufacturing companies, enabling them to adopt more efficient Manufacturing Automation Processes (MAP). This, in turn, can lead to improved inventory management practices, better cost control, and ultimately enhanced overall competitiveness in the global market. The study is structured into five distinct chapters, namely: introduction, literature review, research methodology, data analysis and interpretation, and discussion and conclusion.

2. Literature Review

Management accounting practices (MAP) refer to a diverse range of techniques, methodologies, and tools utilised by organisations for the purpose of collecting, analysing, interpreting, and communicating both financial and non-financial information. These practices are employed to support managerial decision-making and control functions (Sari, Pratadina, Anugerah, Kamaliah, & Sanusi, 2021). Accountants have been instrumental in formulating and executing these practices, thereby assisting organisations in enhancing resource allocation and adjusting to the dynamic business environment (Sari et al., 2021). In the current business landscape characterised by its complexities and dynamic nature, the successful adoption of MAP (Management Accounting Practices) is crucial for attaining financial stability, competitive advantage, and alignment with strategic objectives (Husni, Imran, Ryketeng, & Damayanti, 2023). The academic literature has also acknowledged that in organisations where quality is a fundamental aspect of their strategy, relying exclusively on traditional management accounting practices that prioritise cost-effectiveness and financial performance metrics may be inadequate in evaluating the alignment of processes with customer-centric strategies (Shank, 2006).

The careful consideration of whether to persist with traditional management accounting systems is necessary, as they have the potential to hinder the implementation of Total Quality Management (TQM) and the pursuit of continuous improvement (Husni et al., 2023). For instance, commonly employed management accountability processes (MAP) primarily emphasise efficiency indicators related to budget achievement, potentially leading to inadvertent encouragement of wasteful behaviours and a lack of recognition for non-financial accomplishments (A. A. E. Abdelraheem, 2023). In order to promote initiatives focused on quality, it is imperative for management accounting practises to not only provide management with valuable insights regarding the financial consequences of their decisions and investments, but also to ensure that the information provided is adequate to support various key objectives (Bell, Bryman, & Harley, 2022). These objectives include (I) strategy development and execution, (II) guiding business improvements, (III) enhancing operational efficiency, and (IV) strengthening the ability to generate value (Burns & Baldvinsdottir, 2007; Husni et al., 2023; Susilawati, Lubis, Kesuma, Pratama, & Khaira, 2023b)

Quality practices are linked to various strategies such as the increased utilisation

of non-traditional mechanisms, the prioritisation of cooperation and non-financial outcomes, the adoption of a more collaborative approach to data gathering, and the provision of regular quality-related information to all levels within an organisation (Ittner & Larcker, 1995). The principles of Total Quality Management (TQM) require a continuous exchange of information among individuals employed within the organisation who are directly engaged in performing their respective tasks. As a result, the utilisation of "management accounting information systems" is of paramount importance in facilitating the communication of information pertaining to (i) specific methodologies that identify the origins of errors and monitor the outcomes of improvement endeavours, as well as (ii) the comprehensive dissemination of information regarding strategic priorities, strategies, and objectives in order to effectively coordinate quality-focused initiatives within the organisation (Ittner & Larcker, 1995).

A recent study has brought attention to the evolution of the framework of Management Accounting Practises (MAP) within organisations. This evolution has been driven by the need to effectively incorporate modern approaches such as Total Quality Management (TQM) (Ishanka & Gooneratne, 2018). Uyar (2009) has provided empirical evidence supporting the notion that organisations possessing ISO certification for quality exhibit stronger quality-focused performance assessment and reporting systems compared to non-certified entities. Moreover, organisations that adopt Total Quality Management (TQM) tend to prioritise the utilisation of advanced Management Accounting practices (MAP) (M. Abdel-Kader & Luther, 2008); Chenhall and Langfield-Smith (2007). emphasised the significance of Management Accounting practices (MAP) in the development of comprehensive performance measurement systems.

According to the research conducted by Chenhall and Langfield-Smith (2007), organisations that aim to achieve continuous improvement must modify their performance measurement systems by incorporating benchmarking and suitable tools for performance management, such as balanced scorecards (BAS). This adaptation is crucial to effectively aligning strategic objectives with daily operational activities. Due to the scarcity of existing research on the potential of Management Accounting Practises (MAP) to facilitate the implementation of quality strategies within organisations, there remains an ongoing necessity for additional inquiry and theoretical advancement in this domain. Such endeavours are crucial in order to furnish practitioners across diverse industries, with a particular emphasis on manufacturing companies, with valuable insights and guidance Malmi and Granlund (2009). have emphasised the necessity of conducting theoretical investigations on Management Accounting Practices (MAP) to gain a deeper understanding of the specific practices that yield effectiveness (examples include emphasis on financial vs. non-financial criteria and simple vs. complex cost allocations). The existence of this research gap highlights the necessity for conducting further comprehensive studies within this particular domain.

Empirical research investigating the importance of Management Accounting Practises (MAP) in the context of accounting information systems consistently reveals a discernible trend. Specifically, the implementation and proficient utilisation of contemporary management accounting techniques result in tangible enhancements in the operational efficiency and overall effectiveness of these information systems (Al

Refai & Poornima, 2021). The findings of Berg and Madsen (2020) and Al Refai and Poornima (2021) indicate that organisations that actively adopt advanced management accounting practices (MAP), "Activity-Based Costing (ABC), just in time (JIT), balance scorecard (BAS), time-driven activity-based costing (TD-ABC), and target costing (TAC), experience notable enhancements in their accounting information systems (QAIS)".

The aforementioned enhancements result in enhanced precision and promptness of data, facilitating improved decision-making procedures across diverse domains, such as inventory management (Al Refai & Poornima, 2021). In a study conducted by Dechow, Granlund, and Mouritsen (2006) within the manufacturing industry, it was found that companies that employ advanced management accounting practices (MAP) not only possess more efficient accounting information systems but also experience improved integration and reporting of data. Consequently, these companies are able to achieve superior inventory management by optimising reorder points and minimising carrying costs (Sunarni, 2013).

Additionally, a study conducted by Al Refai and Poornima (2021) yielded empirical evidence indicating a noteworthy and statistically significant influence of management accounting practices (MAP), specifically activity-based costing (ABC), just-in-time (JIT), budgeting and accounting systems (BAS), time-driven activity-based costing (TD-ABC), and target costing (TAC), on quality assurance and improvement systems (QAIS), particularly within the realm of operations management. The results of their study suggest that organisations that utilise MAP have a significant and beneficial impact on the management control of their data (Al-Hattami & Kabra, 2022). Additional research conducted by Otley (2016) has also discovered a noteworthy and statistically significant correlation between management accounting practices (MAP) and the quality of information systems.

Another study examined the influence of accurate and reliable information on the management of inventory (Nugroho, 2019; Yuniarti & Maryam, 2011). Al-Refai and Poornima (2021) conducted a study that examined the indirect impact of MAP on dependent variables. The aforementioned empirical studies provide evidence that emphasises the significant impact of MAP on the enhancement of efficiency and effectiveness within accounting information systems. Consequently, this plays a pivotal role in the improvement of inventory management processes. Therefore, study formulated the following research hypothesis below.

H1*: The total quantity management has significant influence on quality of accounting information system.*
H2*: just in time has significant influence on quality of accounting information system.*
H3*: target costing has significant influence on quality of accounting information system.*
H4*: Time driven activity based has significant influence on quality of accounting information system.*
H5*: Balance score card has significant influence on quality of accounting information system.*
H6*: Quality of information system has significant influence on inventory management.*
H7*: The total quantity management has significant influence on inventory management with the mediating effect of quality of accounting information system.*
H8*: just in time has significant impact on inventory management with the mediating effect of quality of accounting information system.*

H9*: target costing has significant impact on inventory management with the mediating effect of quality of accounting information system.*
H10: *Time driven activity based has significant impact on inventory management with the mediating effect of quality of accounting information system.*
H11: *Balance score card has significant impact on inventory management with the mediating effect of quality of accounting information system.*

2.1 Research Framework Development

The research framework of this study has been formulated based on the identification of several gaps. Previous studies have predominantly focused on examining the direct influence of management accounting practices (MAP) on either inventory management (INM) or the quality of accounting information systems (QAIS), often neglecting to consider all of these variables within a single investigation. Furthermore, previous research endeavours have often encompassed diverse industries and nations, neglecting to adequately address the specific context of the manufacturing sector in Indonesia. This research makes a substantial contribution to the comprehension of how management accounting practices (MAP) impact inventory management. It provides valuable insights into the mediating role of the quality of the accounting information system. The variables in question are anticipated within the framework that follows.

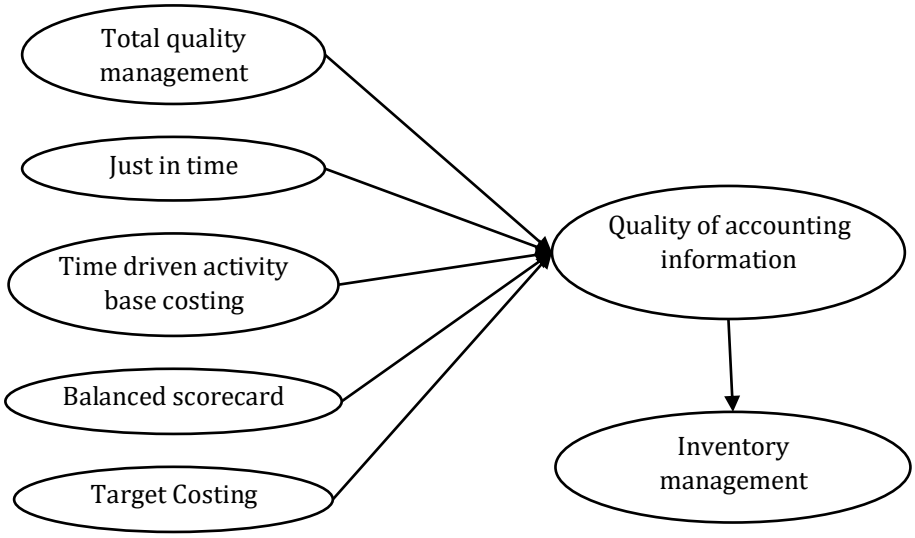

Figure.1: conceptual Framework

3. Objective and Material

The primary aim of this study was to examine the mediating role of the quality of accounting information systems in the relationship between modern management accounting practises and inventory management within the context of manufacturing companies in Indonesia. In order to achieve this objective, a quantitative research methodology was utilised. Quantitative research methodologies offer a means of achieving precision in data analysis through the use of numerical data and statistical

techniques, thereby mitigating the potential for subjective biases to influence the findings. Measurable trends and facts provided by these insights contribute to the enhancement of decision-making and policy formulation in terms of accuracy and precision (Hussein, 2009). The study adopted an explanatory research design. The explanatory research design is of great significance as it aids in uncovering the underlying reasons behind observed phenomena (Bentouhami, Casas, & Weyler, 2021).

This methodology enables researchers to further investigate the underlying causes and interconnections that may not be readily discernible using alternative research approaches. Explanatory research plays a crucial role in facilitating informed decision-making and the formulation of effective solutions to real-world problems by elucidating the underlying mechanisms and enhancing comprehension of intricate issues. The aforementioned study by Bentouhami et al. (2021) elucidates the manner in which it serves as a conduit for bridging the divide between descriptive and predictive research, thereby augmenting our understanding of the surrounding environment. The study utilised a survey instrument, specifically employing a cross-sectional research approach. This approach is deemed favourable for survey instruments as it involves collecting data at a single point in time through the use of a self-administered questionnaire (Vuillemin et al., 2000).

4. Research Instrument

The research instrument utilised in this study was derived from prior research studies. Modern management accounting practices encompass six dimensions: "total quality management (TQM), just in time, time-driven activity-based costing, BAS, and target costing (TAC)." Imran et al. (2018) conducted a research study that encompassed a total of 13 items pertaining to Total Quality Management (TQM). The study conducted by Jbarah (2018) investigated the implementation of just-in-time practices. The author examined nine specific items within this context and also explored the concept of Total Acquisition Cost (TAC) using ten items (Jbarah, 2018). The study conducted by Ahmad, Teng, and Zabri (2017) centred on the topic of Time-Driven Activity-Based Costing, specifically examining a set of nine items. Similarly Jbarah (2018), made a significant scholarly contribution by conducting a study that encompassed nine items related to BAS. On the opposite end of the empirical continuum, the assessment of accounting information quality was conducted through the utilisation of distinct attributes.

In a study conducted by Hani Al-Dmour (2018), the attribute of relevance was examined, and a set of seven relevant items was adopted. In their study Ladan Shagari, Abdullah, and Mat Saat (2017), directed their attention towards the attribute of accuracy, wherein they conducted an evaluation of two distinct items.Moreover, the attribute of Timing was investigated by Ladan Shagari et al. (2017) through the utilisation of three items in their research. Inventory management is assessed through three dimensions, namely lean inventory system, capacity utilisation, and inventory accuracy. The lean inventory system dimension is evaluated using four items, while capacity utilisation is measured by four items as well. Inventory accuracy is assessed through three items, and stock availability is measured using four items. The aforementioned items were utilised in the inquiry conducted by Khan and Siddiqui

(2019). The items in this study were assessed using a five-point Likert scale, with a range of 1 indicating strong disagreement and 5 indicating strong agreement.

4.1 Population and Sampling techniques

The study's population consisted of accounting professionals employed in manufacturing companies throughout Indonesia. The study utilised a convenient sampling method, whereby participants were selected based on their accessibility and availability. The focal point of analysis for this study was the individual accounting professionals employed within the selected companies. Although convenient sampling may not possess the same level of statistical rigour as other methods, it does offer a practical and feasible means of obtaining insights from a specific division of professionals within a diverse industry (Etikan, Musa, & Alkassim, 2016). The survey instrument was distributed to a sample of 500 accounting professionals, of which 400 questionnaires were returned, indicating a response rate of 80 percent. The data that was gathered was inputted into Microsoft Excel in order to create a data sheet. Both descriptive and inferential analyses are conducted using the SPSS software. The justification for employing SPSS software for data analysis lies in its capacity to facilitate robust statistical analysis (Verma, 2012).

4.2 Data Analysis and Interpretation

The researchers used both of descriptive and inferential statistics using SPSS. In first phase, descriptive statistics used and then used inferential statistics.

4.3 Diagnostics Test

In order to address the issue of missing data, SPSS version 24 employed a method to identify the minimum (1) and maximum (5) values. A small proportion, specifically less than 5%, of the dataset indicated the lack of certain data elements. Consequently, the absence of missing data posed no challenges, and the results of all potential solutions were indistinguishable. The assessments of skewness and kurtosis, which indicated the absence of values exceeding 2 and 2, respectively, "indicated a characteristic of univariate normality." The results of the skewness and kurtosis measures, which demonstrated that all values were within the range of -2 to +2, provided support for the normality of the univariate distribution. Furthermore, it was determined that the Variance Inflation Factor (VIF) values for all variables under investigation were below the threshold of 5, suggesting the absence of multicollinearity in our study (Becker, Ringle, Sarstedt, & Völckner, 2015). Furthermore, the observed value of common method bias was found to be below 50%, suggesting that there is no significant concern regarding common method bias.

4.4 Descriptive Statistics

Table 1 displays the descriptive statistics of the study's results. The means score in descriptive statistics represents the average perception of accounting professionals in Indonesia regarding the effectiveness or level of implementation of these practices (Wan, Wang, Liu, & Tong, 2014). Additionally, the standard deviation is used to measure the dispersion or variability in their responses. The analysis reveals that the practice of the Balanced Scorecard (BAS) demonstrates the highest mean score of 3.80. This suggests that accounting professionals within Indonesian manufacturing

companies perceive BAS as a management tool that is relatively effective and well implemented. The low standard deviation of 0.85 suggests a high level of consensus among respondents regarding the effectiveness of the BAS in businesses of this nature. This phenomenon can be attributed to the widespread utilisation and widespread acceptance of this comprehensive system for evaluating performance. In contrast, time-driven activity-based costing exhibits a lower mean score of 3.25 and a higher standard deviation of 0.91, indicating a greater degree of variability in the opinions expressed by accounting experts regarding its effectiveness.

The observed outcome may be attributed to disparities in the level of implementation or understanding of this intricate cost methodology. Furthermore, it can be observed that the mean scores for just-in-time (3.65) and inventory management (3.71) are both higher than the midpoint value of 3.0. This suggests that accounting professionals within Indonesian manufacturing organisations generally exhibit a preference for these particular approaches. Nevertheless, the presence of lower standard deviations (0.71 and 0.89, respectively) suggests that there is a reduced level of variability among respondents' viewpoints regarding these practices. This implies a more uniform perception of their effectiveness. On the contrary, the mean score for the quality of the accounting information system is 3.45, with a relatively high standard deviation of 0.95. This suggests that although it is generally regarded positively, there is a greater degree of variation in professionals' opinions regarding the quality of the accounting information system within their respective organisations.

Table.1: Descriptive Statistics

Construct	Mean	Std. Deviation	Minimum	Maximum
Total quality management (TQM)	3.40	0.83	1	5
Just in time (JIT)	3.65	0.71	1	5
Time driven activity-based costing (TD-ABC)	3.25	0.91	1	5
Balanced scorecard (BAS)	3.80	0.85	1	5
Target costing (TAC)	3.45	0.92	1	5
Inventory management (INM)	3.70	0.89	1	5
Quality of accounting information system (QAIS)	3.45	0.95	1	5

Source: Author's Calculation

5. Correlation Matrix

Table 2 displays the predicted value, which indicates the presence of multicollinearity through the variance inflation factor (VIF) and correlation coefficients among different management and accounting practices in a manufacturing setting. The utilisation of these metrics is crucial in evaluating the interconnectedness and possible multicollinearity among the variables in question. Firstly, variance inflation factors (VIFs) are used as indicators of multicollinearity, which refers to a situation in regression models where the independent variables exhibit a substantial level of correlation. Table 2 displays the variance inflation factors (VIFs) for each variable, which are observed to be relatively low, with no value surpassing 2.12. This

implies that the presence of multicollinearity does not pose a significant issue within the context of these variables. In regression analysis, it is considered advantageous to have low variance inflation factors (VIFs), as they suggest that the independent variables can be incorporated into a model without the potential for increasing the standard errors of the coefficients (Craney & Surles, 2002).

As a result, analysts can use these variables with confidence in regression models to comprehend their influence on dependent variables without encountering significant bias from multicollinearity. Additionally, the correlation coefficients provide insights into the magnitude and direction of linear associations among these variables. The correlation coefficient of 0.456*** between Total Quality Management (TQM) and Time-Driven Activity-Based Costing (TA-ABC) indicates a statistically significant and positive relationship between these two practices. This discovery suggests that organisations that prioritise Total Quality Management (TQM) frequently enhance these endeavours by implementing Target Costing with Activity-Based Costing (TA-ABC) to enhance cost management and resource allocation effectiveness. The findings suggest a significant positive relationship (r = 0.315**) between the implementation of balanced scorecard (BAS) strategies and the adoption of target costing (TAC). This implies that organisations that utilise BAS strategies may also benefit from incorporating TAC as a tool to effectively align financial objectives with performance metrics.

These insights hold significant value for manufacturing companies operating in Indonesia, as they facilitate the identification of potential synergies and correlations between management and accounting methods. This, in turn, aids in making informed decisions and developing strategic plans. The aforementioned outcomes are anticipated in Table 2, as presented below.

Table.2: Correlation Matrix

Construct	VIF	TQM	JIT	TD-ABC	BAS	TAC
TQM	2.12					
JIT	1.23	0.123*	1			
TD-ABC	1.78	0.456***	0.345***	1		
BAS	1.45	0.467**	0.234*	0.315**	1	
TAC	1.67	0.342**	0.321**	0.535**	0.523**	1

Source: Author's Calculation

5.1 Construct Reliability and validity

Prior to conducting hypothesis testing, researchers placed considerable emphasis on ensuring the face and content validity of the research instrument. In order to achieve this objective, a thorough and all-encompassing procedure was implemented. In the initial phase of the study, a pilot study was conducted in collaboration with esteemed professors in the field. Their expertise and feedback played a crucial role in improving the questionnaire items and ensuring their alignment with our research objectives. In addition, we made deliberate efforts to seek validation from professionals in the industry, utilising their practical expertise to improve the suitability of our instrument. Furthermore, the issue of construct validity can be effectively examined through the utilisation of an Exploratory Factor Analysis (EFA) with varimax rotation (Stapleton, 1997). The main aim of the study was to establish

the consistency of item loadings on a single factor for a specific construct, with a recommended threshold of 0.5 for further analysis.

The questionnaire was carefully revised to exclude items that did not meet the specified criteria. In order to validate the suitability of our factor analysis, we performed the Kaiser-Meyer-Olkin (KMO) test to assess the adequacy of sampling and Bartlett's test of sphericity to evaluate the homogeneity of variances across the measurement scales (Shrestha, 2021). The results obtained from these tests demonstrated a high level of appropriateness for our factor analysis, thereby enhancing its credibility. In addition, the assessment of the instrument's reliability was conducted by employing Cronbach's α-coefficient, which is widely recognised as a crucial aspect of the validation process (Peterson & Kim, 2013). All values of construct α were found to be greater than 0.70, indicating that the construct demonstrates high reliability (Peterson & Kim, 2013). The aforementioned findings are displayed in Table 3 below.

Table.3: Reliability Value

Variable	Alpha
TQM	0.895
JIT	0.812
TD-ABC	0.871
BAS	0.821
TAC	0.812
INM	0.891
QAIS	0.841

Source**:** Author's Calculation

6. Regression Results

Following the initial screening and construction phase, the subsequent step involved the testing of the proposed hypothesis. A multiple regression analysis was conducted for this purpose. The findings of the multiple regression analysis, as displayed in Table 4, demonstrate robust and statistically significant positive associations between diverse management practices and their effects on both inventory management and the quality of the accounting information system in Indonesian companies. The initial five hypotheses (H1 to H5) provide confirmation that the management accounting practices (MAP) of total quantity management (TQM), just-in-Time (JIT), target costing (TAC), time-driven activity-based costing (TD-ABC), and the Balanced Scorecard (BAS) exert a substantial and favourable impact on the quality of the accounting information system (QAIS) within Indonesian companies.

This discovery holds significant implications for enterprises operating within the dynamic business landscape of Indonesia. An improved accounting information system could lead to more accurate financial data, facilitating better decision-making. One potential application of TD-ABC in Indonesian companies is its ability to provide a more accurate and detailed understanding of cost structures. This enhanced understanding can facilitate the optimisation of pricing strategies and resource allocation. Furthermore, it has been determined that QAIS has a positive and

significant influence on inventory management (INM), thereby providing support for hypothesis 6.

In hypotheses H7–H11, the idea of mediating effects is introduced. It was found that QAIS had a significant and positive mediating effect on the relationship between all MAP and INM. The findings underscore the interdependence of these components. In the context of Indonesia, it can be inferred that advanced management practices have a dual effect on inventory management. First, they directly contribute to its enhancement. Secondly, they indirectly achieve this by enhancing the quality and accuracy of financial data. This comprehensive perspective underscores the diverse advantages of adopting contemporary management practices in Indonesian enterprises. The aforementioned results are displayed in Table 4 and Figure 2.

Table.4: Hypothesis Results

Hypothesis	Unstandardized β	p-value	Result
H1	0.235	0.012**	Supported
H2	0.198	0.034**	Supported
H3	0.276	0.007***	Supported
H4	0.189	0.042**	Supported
H5	0.321	0.003***	Supported
H6	0.457	0.002***	Supported
H7	0.362	0.003***	Supported
H8	0.294	0.004***	Supported
H9	0.408	0.005***	Supported
H10	0.329	0.003***	Supported
H11	0.379	0.044**	Supported
R square on mediating variable		0.473	
R square on endogenous variable		0.568	

Source: Author's Calculation

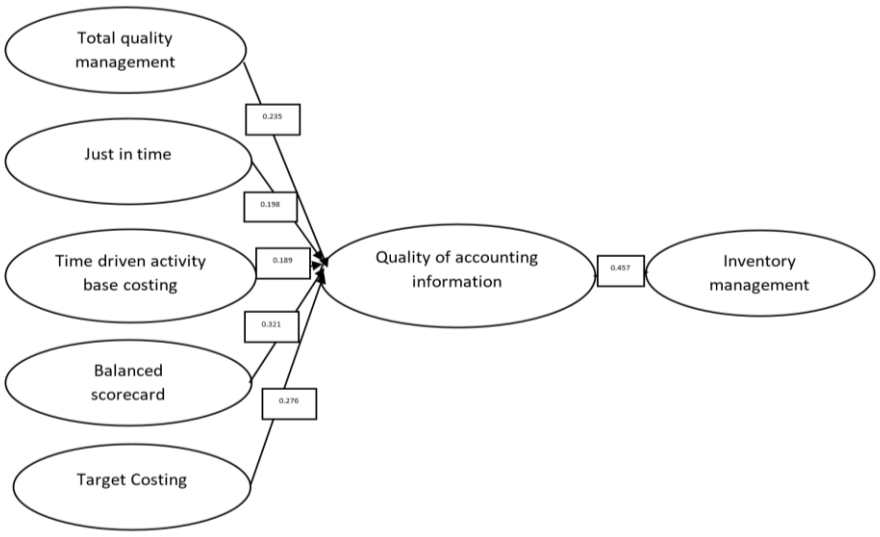

Figure.2: Beta values

7. Discussion

The primary aim of this study was to examine the mediating role of the quality of accounting information systems in the relationship between modern "management accounting practices (MAP)" and inventory management within the context of manufacturing companies in Indonesia. To achieve this objective, quantitative data will be gathered by administering a survey instrument to accounting professionals. The findings from the multiple regression analysis demonstrate a statistically significant and positive relationship between the implementation of total quantity management (TQM) and the quality of accounting information (QAIS) within the context of manufacturing companies in Indonesia. The aforementioned findings are consistent with previous studies conducted by Duran, Cetindere, and Şahan (2014), as well as Ramos and Klann (2019).

These studies put forth the argument that in the current era characterised by heightened globalisation and advancements in production and operations technology, contemporary methodologies such as Total Quality Management (TQM) have become indispensable instruments for attaining operational excellence and enhancing competitiveness (Ofileanu, 2015). The rapid evolution of manufacturing processes poses challenges for traditional accounting methods to effectively adapt to operational advancements. The presence of lag can impede competitiveness, underscoring the importance of management accounting to adapt in tandem with manufacturing processes in order to comprehensively capture dimensions such as processes, activities, and resources (Johnson, 2006).

The subsequent findings demonstrate the favourable and statistically significant influence of the ust-in-time (JIT) approach on quality assurance information systems (QAIS). The findings of several researchers (Boyd, Kronk, & Skinner, 2002; Dalci & TANIŞ, 2006; Mia & Winata, 2008) align with this outcome, as they have also identified Just-in-Time (JIT) as a significant determinant of accounting information quality in manufacturing firms in Indonesia. Hence, the aforementioned findings suggest that Just-in-Time (JIT) has played a significant role in facilitating waste reduction, bolstering market competitiveness, and enhancing product quality for Indonesian enterprises, particularly amidst resource scarcity and escalating raw material expenses (Al-Refaie & Thyabat, 2015).

Furthermore, the study investigated the robust and statistically significant correlation between target costing (TAC) and quality assurance information systems (QAIS). The aforementioned findings are consistent with prior research (Al-Chahadah, Soda, & Al Omari, 2018; Al Sufy, Almbaideen, Al abbadi, & Makhlouf, 2013; Aldegis, 2018). These studies have previously emphasised the significance of the Quality Assurance Information System (QAIS) in shaping the practices of Total Quality Management (TAC) within manufacturing companies in Indonesia. The aforementioned findings underscore the significant importance of Total Cost of Ownership (TAC) in enhancing cost control and management accounting within the Jordanian business environment.

In addition, the study conducted an examination into the effects of TD-ABC on the overall quality of accounting information (Vetchagool, Augustyn, & Tayles, 2020). The available empirical evidence indicates a strong and statistically significant correlation between TD-ABC and the overall quality of accounting information. The findings of this

study suggest that TD-ABC offers significant contributions to cost allocation that go beyond the capabilities of traditional accounting methods. These findings have important implications for the field of Quality Assurance and Information Systems (QAIS), as evidenced by previous research conducted in industries where employees have shown a strong interest in adopting this approach (Monroy, Nasiri, & Peláez, 2014).

The aforementioned results highlight the importance of TD-ABC in influencing the Quality Assurance and Improvement Systems (QAIS) within organisations in Indonesia. Finally, the present study examined the correlation between the Balanced Scorecard (BAS) and Quality Assurance Information Systems (QAIS) and discovered a noteworthy and positive influence of BAS and QAIS. The findings presented here are consistent with prior studies conducted in diverse organisational settings, including the banking and industrial sectors (Al-Chahadah et al., 2018; Kanakriyah, 2016). The results of this study suggest that the utilisation of BAS can be advantageous in improving the overall quality of accounting information within a variety of organisational contexts.

In contrast, the QAIS system plays a substantial role in facilitating the relationship between Total Quality Management (TQM) and inventory management. This finding suggests that the implementation of Total Quality Management (TQM) practices has a dual effect on inventory management. First, it directly enhances inventory management. Secondly, it indirectly impacts inventory management through its influence on the quality of the Accounting Information System (AIS). This result is consistent with previous studies where they argued that TQM not only effects directly but also impact direct endogenous constructs (Pham, 2020; TSOU, Huang, Liu, & Do, 2021). The rationale behind this is that the correlation between Total Quality Management (TQM), Accounting Information System (AIS) quality, and Inventory Management (INM) underscores the significance of an efficiently operating accounting system in enhancing inventory-related decision-making. Moreover, the Quality Assurance Information System (QAIS) plays a crucial role in mediating the relationship between just-in-time (JIT) practices and inventory management, leading to positive outcomes. This relationship also suggests that just-in-time (JIT) practices have a direct impact on inventory management and also have an indirect effect on inventory management Al Refai and Poornima (2021).

This study demonstrates that the implementation of Just-in-Time (JIT) principles in Indonesian manufacturing companies, such as the timely flow of information and responsiveness to demand, leads to enhanced Quality Assurance and Inventory Systems (QAIS). Consequently, this contributes to more efficient inventory management practices. The aforementioned discovery underscores the significance of Just-in-Time (JIT) as a comprehensive methodology that integrates production and accounting systems to enhance inventory decision-making in manufacturing companies in Indonesia. In addition, quality assurance information systems (QAIS) play a significant role in mediating the relationship between technology acceptance and commitment (TAC) and information network management (INM). This finding suggests that the implementation of Total Acquisition Cost (TAC) practices results in cost-effective production while also contributing to improved inventory management (INM) through Quality Assurance and Inspection Systems (QAIS). This discovery highlights the fact that Indonesian companies that implement Total Accounting

Control (TAC) not only achieve efficient production at a lower cost but also enhance their inventory management by leveraging improved accounting information.

Furthermore, it has been observed that Quality Assurance Information Systems (QAIS) play a significant mediating role in the relationship between time-driven activity-based costing (TD-ABC) and innovation performance (INM). The aforementioned findings suggest that the implementation of TD-ABC practices has a dual effect on inventory management. First, it directly improves inventory management. Secondly, it indirectly influences inventory management by enhancing the quality of the Accounting Information System (AIS). These findings are consistent with the assertions made by previous researchers (Vetchagool et al., 2020), who posited that TD-ABC has the potential to indirectly impact the endogenous variable. Therefore, drawing from these findings, one could posit that in the context of Indonesia, organisations that prioritise the implementation of time-driven activity-based costing (TD-ABC) may enhance quality assurance and inventory systems (QAIS), thereby optimising inventory management practices within the manufacturing sector of Indonesia.

8. Contributions and Future Directions

Research findings have substantial empirical evidence, which contributes to both theoretical and practical implications. The study theoretically highlights the substantial positive correlations between Total Quality Management (TQM), Just-in-Time (JIT) manufacturing, Total Asset Control (TAC), Time-Driven Activity-Based Costing (TD-ABC), Balanced Scorecard (BAS), and Integrated Network Management (INM). These relationships are observed both directly and with the mediating effect of Quality Assurance Information Systems (QAIS). These relationships validate the importance of implementing advanced manufacturing automation processes (MAP) in improving inventory management (INM) and quality assurance and inspection systems (QAIS) in manufacturing organisations in Indonesia. The aforementioned findings make a valuable contribution to the existing literature in the field of management accounting. They shed light on the interdependencies between contemporary management practices, inventory management, and the quality of accounting information.

The findings presented in this study have practical implications for organisations operating in Indonesia, as well as other similar contexts, that seek to enhance the efficiency of their operations. Organisations can derive advantages by adopting Total Quality Management (TQM), Just-in-Time (JIT) inventory management, Total Asset Control (TAC), Time-Driven Activity-Based Costing (TD-ABC), and Balanced Scorecard (BAS) methodologies to optimise inventory control, mitigate holding costs, and enhance the accuracy and dependability of financial information within their accounting information systems. Furthermore, the significance of the mediating role of the quality of the accounting information system underscores the necessity for organisations to allocate resources towards the development of resilient accounting systems capable of efficiently acquiring and disclosing financial data. This, in turn, enables more effective decision-making in the realm of inventory management. The aforementioned findings provide valuable insights for businesses aiming to harmonise their operational and accounting practices with modern management methodologies

in order to enhance efficiency, competitiveness, and overall performance.

The study has yielded noteworthy findings, yet it is important to acknowledge several limitations that may serve as opportunities for future research expansion. Initially, the study employed a method of convenient sampling, which has the potential to introduce sampling bias. This limitation restricts the extent to which the findings can be generalised to the entire population of manufacturing companies in Indonesia. It is recommended that future research incorporate probability sampling methods, specifically stratified random sampling, in order to improve the representativeness of the sample. The reliance on self-reported survey data in this study may introduce response bias and potential common method variance, thereby potentially compromising the accuracy of the findings. In the future, it is plausible for researchers to integrate qualitative methodologies in order to gain a more profound comprehension of the mechanisms that underlie the association between contemporary MAP, QAIS, and INM.

Furthermore, it is important to note that this study exclusively examines manufacturing companies located in Indonesia. Consequently, the generalizability of the findings to other industries and regions is restricted. Examining these relationships within various economies and organisational contexts would additionally enhance the breadth of knowledge on the subject and facilitate the extrapolation of findings to a wider array of environments. Hence, it is recommended that future studies be undertaken in additional nations.

9. Conclusion

The primary aim of this study was to examine the mediating role of the quality of accounting information system (QAIS) in the association between modern accounting information systems and inventory management (INM) within the context of manufacturing companies in Indonesia. The data was obtained from accounting professionals employed by manufacturing companies in Indonesia. The results of the multiple regression analysis conducted using SPSS indicate that the implementation of Total Quantity Management (TQM), Just-In-Time (JIT), target costing (TAC), Time-Driven Activity-Based Costing (TD-ABC), and the Balanced Scorecard (BAS) in manufacturing companies in Indonesia have a significant and positive impact on Quality Assurance Information Systems (QAIS). The aforementioned findings suggest that contemporary management accounting practices, each characterised by its distinct emphasis and methodology, play a role in improving inventory management efficiency and bolstering the dependability and precision of financial information within the accounting information system.

Furthermore, the role of the Quality Assurance Information System (QAIS) serves to highlight the interdependence of these practices, underscoring the significant significance of an efficient accounting system in enhancing decision-making pertaining to inventory. The aforementioned findings contribute significant theoretical insights regarding the interconnections among contemporary management accounting practices (MAP), quality assurance information systems (QAIS), and innovation management (INM). Additionally, they offer practical recommendations for organisations aiming to improve their operational efficiency and competitive advantage within the current dynamic business environment.

References

Abdel-Kader, M., & Luther, R. (2008). The impact of firm characteristics on management accounting practices: A UK-based empirical analysis. *The British Accounting Review, 40*(1), 2-27. doi:https://doi.org/10.1016/j.bar.2007.11.003

Abdel-Kader, M. G. (2011). *Review of management accounting research*.

Abdelraheem, A., Hussaien, A., Mohammed, M., & Elbokhari, Y. (2021). The effect of information technology on the quality of accounting information. *Accounting, 7*(1), 191-196. doi:http://dx.doi.org/10.5267/j.ac.2020.9.017

Abdelraheem, A. A. E. (2023). Effect of Strategic Cost Management on Total Quality Management Principles. *resmilitaris, 13*(3), 305-314. Retrieved from https://resmilitaris.net/menu-script/index.php/resmilitaris/article/view/3346

Agu, O., Obi-Anike, H. O., & Eke, C. (2016). Effect of inventory management on the organizational performance of the selected manufacturing firms. *Singaporean Journal of Business economics, and management Studies, 5*(4), 56-69. Retrieved from https://singaporeanjbem.com/pdfs/SG_VOL_5_(4)/6.pdf

Ahmad, K., Teng, N. W., & Zabri, S. M. (2017). The Implementation of activity-based costing in Malaysian small and medium-sized enterprises. *Advanced Science Letters, 23*(4), 3170-3173. doi:https://doi.org/10.1166/asl.2017.7692

Ahmed, E. R., Alabdullah, T. T. Y., Ardhani, L., & Putri, E. (2021). The Inventory Control System's Weaknesses Based on the Accounting Postgraduate Students' Perspectives. *JABE (Journal of Accounting and Business Education), 5*(2), 1-8. doi:http://dx.doi.org/10.26675/jabe.v5i2.19312

Al-Chahadah, A. R., Soda, M. Z., & Al Omari, R. (2018). The impact of the internal audit on the quality of accounting information in the jordanian commercial banks. *International Journal of Economics and finance, 10*(9), 157-167. doi:https://doi.org/10.5539/ijef.v10n9p157

Al-Hattami, H. M., & Kabra, J. D. (2022). The influence of accounting information system on management control effectiveness: The perspective of SMEs in Yemen. *Information Development*, 02666669221087184. doi:https://doi.org/10.1177/02666669221087184

Al-Refaie, A., & Thyabat, A. (2015). Effect of just-in-time selling strategy on firms' performance in Jordan. *International Journal of Business Performance Management, 16*(1), 1-18. doi:https://doi.org/10.1504/IJBPM.2015.066020

Al Refai, B., & Poornima, S. (2021). The Relationship between Management Accounting Systems and Quality of Accounting Information in the Jordanian Industrial Sectors. Retrieved from https://indusedu.org/pdfs/IJREISS/IJREISS_3783_84305.pdf

Al_Sufy, F. J., Almbaideen, H., Al_abbadi, H. M., & Makhlouf, M. H. (2013). Corporate governance and its impact on the quality of accounting information in the industrial community shareholding companies listed in Amman financial market-Jordan. *International Journal of Humanities and Social Science, 3*(5), 184-195. Retrieved from https://www.researchgate.net/publication/269098569_Corporate_Governance_and_Its_Impact_on_the_Quality_of_Accounting_Information_in_the_Industrial_Community_Shareholding_Companies_Listed_in_Amman_Financial_Market-_Jordan

Aldegis, A. M. (2018). Impact of Accounting Information Systems' Quality on the Relationship between Organizational Culture and Accounting Information in Jordanian Industrial Public Shareholding Companies. *International Journal of Academic Research in Accounting, Finance and Management Sciences, 8*(4), 70-80. Retrieved from https://www.researchgate.net/profile/a-

Aldegis/publication/325122184
AlMaryani, M. A. H., & Sadik, H. H. (2012). Strategic management accounting techniques in Romanian companies: Some survey evidence. *Procedia Economics and Finance, 3*, 387-396. doi:https://doi.org/10.1016/S2212-5671(12)00169-4
Ashfaq, K., Younas, S., Usman, M., & Hanif, Z. (2014). Traditional vs. contemporary management accounting practices and its role and usage across business life cycle stages: Evidence from Pakistani financial sector. *International Journal of Academic Research in Accounting, Finance and Management Sciences, 4*(4), 104-125. Retrieved from https://ideas.repec.org/a/hur/ijaraf/v4y2014i4p104-125.html
Azudin, A., & Mansor, N. (2018). Management accounting practices of SMEs: The impact of organizational DNA, business potential and operational technology. *Asia Pacific Management Review, 23*(3), 222-226. doi:https://doi.org/10.1016/j.apmrv.2017.07.014
Becker, J.-M., Ringle, C. M., Sarstedt, M., & Völckner, F. (2015). How collinearity affects mixture regression results. *Marketing letters, 26*, 643-659. doi:https://doi.org/10.1007/s11002-014-9299-9
Bell, E., Bryman, A., & Harley, B. (2022). *Business research methods*: Oxford university press.
Belton, P. (2017). *An Analysis of Michael E. Porter's Competitive Strategy: Techniques for Analyzing Industries and Competitors*: CRC Press.
Bentouhami, H., Casas, L., & Weyler, J. (2021). Reporting of "Theoretical Design" in explanatory research: a critical appraisal of research on early life exposure to antibiotics and the occurrence of asthma. *Clinical Epidemiology*, 755-767. doi:https://doi.org/10.2147/CLEP.S318287
Berg, T., & Madsen, D. Ø. (2020). The historical evolution and popularity of activity-based thinking in management accounting. *Journal of Accounting & Organizational Change, 16*(3), 401-425. doi:https://doi.org/10.1108/JAOC-03-2020-0030
Boyd, D. T., Kronk, L., & Skinner, R. (2002). The effects of just-in-time systems on financial accounting metrics. *Industrial Management & Data Systems, 102*(3), 153-164. doi:https://doi.org/10.1108/02635570210421345
Burns, J., & Baldvinsdottir, G. (2007). The changing role of management accountants. *Issues in management accounting, 3*, 117-132. Retrieved from https://www.econbiz.de/Record/the-changing-role-of-management-accountants-burns-john/10003470945
Chandrarin, G., & Zuhroh, D. (2021). Management Accounting Practices in Indonesia. In *Management Accounting in China and Southeast Asia: Empirical Studies on Current Practices* (pp. 51-73): Springer.
Chenhall, R. H., & Langfield-Smith, K. (2007). Multiple perspectives of performance measures. *European management journal, 25*(4), 266-282. doi:https://doi.org/10.1016/j.emj.2007.06.001
Craney, T. A., & Surles, J. G. (2002). Model-dependent variance inflation factor cutoff values. *Quality engineering, 14*(3), 391-403. doi:https://doi.org/10.1081/QEN-120001878
Dalci, I., & TANIŞ, V. N. (2006). The effect and implementation of just in time system from a cost and management accounting perspective. *Çukurova Üniversitesi Sosyal Bilimler Enstitüsü Dergisi, 15*(1), 109-124. Retrieved from https://dergipark.org.tr/tr/download/article-file/50260
Dechow, N., Granlund, M., & Mouritsen, J. (2006). Management control of the complex organization: relationships between management accounting and information technology. *Handbooks of management accounting research, 2*, 625-640.

doi:https://doi.org/10.1016/S1751-3243(06)02007-4
Duran, C., Cetindere, A., & Şahan, Ö. (2014). An analysis on the relationship between total quality management practices and knowledge management: The case of Eskişehir. *Procedia-Social and Behavioral Sciences, 109*, 65-77. doi:https://doi.org/10.1016/j.sbspro.2013.12.422
Dwiyanti, A., & Wondabio, L. S. (2023). Financial Due Diligence in Increasing Company Value Through Banking Mergers and Acquisitions During COVID-19. *Jurnal Akuntansi dan Bisnis: Jurnal Program Studi Akuntansi, 9*(1), 13-29. doi:https://doi.org/10.31289/jab.v9i1.8527
Etikan, I., Musa, S. A., & Alkassim, R. S. (2016). Comparison of convenience sampling and purposive sampling. *American journal of theoretical and applied statistics, 5*(1), 1-4. Retrieved from https://www.researchgate.net/publication/304339244_Comparison_of_Convenience_Sampling_and_Purposive_Sampling
Gunawan, S., & Nengzih, N. (2023). The Influence of Accounting Information System Quality, Accounting Information Quality and Accounting Information System Security on End User Satisfaction of S4/Hana System Application Product (SAP) with Perceived Usefulness as a Moderating Variable at PT Hakaaston. *Saudi Journal of Economics and Finance, 7*, 22-32. Retrieved from https://saudijournals.com/media/articles/SJEF_71_22-32_2WNAhhV.pdf
Ha, D. B., Manh, D. G., & Van Anh, D. (2018). The system of management accounting information to support decision making in business. *Accounting and Finance Research, 7*(1), 1-99. Retrieved from https://ideas.repec.org/a/jfr/afr111/v7y2018i1p99.html
Hani Al-Dmour, A. (2018). *The impact of the systrust's framework as an internal control of AIS process upon business performance via the mediating role of financial quality reporting: an integrated model.* Brunel University London, Retrieved from https://bura.brunel.ac.uk/handle/2438/17816
Husni, M., Imran, A. F., Ryketeng, M., & Damayanti, R. A. (2023). *Implementation of Management Accounting Practices in Micro, Small and Medium Enterprises (MSMEs).* Paper presented at the 7th International Conference on Accounting, Management and Economics (ICAME-7 2022).
Hussein, A. (2009). The use of triangulation in social sciences research: Can qualitative and quantitative methods be combined? *Journal of comparative social work, 4*(1), 106-117. doi:https://doi.org/10.31265/jcsw.v4i1.48
Imran, M., Aziz, A., Hamid, S., Shabbir, M., Salman, R., & Jian, Z. (2018). Retracted: The mediating role of total quality management between entrepreneurial orientation and SMEs export performance. *Management Science Letters, 8*(6), 519-532. doi:http://dx.doi.org/10.5267/j.msl.2018.5.003
Ishanka, S., & Gooneratne, T. (2018). Total quality management and changes in management accounting in a manufacturing firm: a case study. *Asia-Pacific Management Accounting Journal (APMAJ), 13*(1), 45-75. Retrieved from https://ir.uitm.edu.my/id/eprint/29654/
Ittner, C. D., & Larcker, D. F. (1995). Total quality management and the choice of information and reward systems. *Journal of accounting research, 33*, 1-34.
Jaradat, Z., Taha, R., Mat Zin, R., Wan Zakaria, W. Z., & Abdul Aziz, R. (2021). The use and implications of management accounting practices in small and medium-sized enterprises. *Asia-Pasific Management Accounting Journal, 16*(1), 250-295. Retrieved from https://ir.uitm.edu.my/id/eprint/49478/
Jbarah, S. S. (2018). The impact of strategic management accounting techniques in taking investment decisions in the jordanian industrial companies. *International business research, 11*(1), 145-156. Retrieved from

https://pdfs.semanticscholar.org/8156/05c8b2a7d418234d3b613854f71a9d7826f3.pdf
Johnson, H. T. (2006). Lean accounting: to become lean, shed accounting. *Journal of cost management, 20*(1), 6-17. Retrieved from https://dialnet.unirioja.es/servlet/articulo?codigo=1402765
Kanakriyah, R. (2016). The Effect Of Using Accounting Information Systems On The Quality Of Account-ing Information According To Users Perspective In Jordan. *European Journal of Accounting, Auditing and Finance Research, 4*(11), 58-75. Retrieved from https://www.researchgate.net/profile/Raed-Kanakriyah/publication/320130875
Kandelin, N. A., & Lin, T. W. (1992). Accounting Information System for Inventory Management. *Journal of Information Systems, 6*(1), 47-62. Retrieved from https://tinyurl.com/yucx2vtf
Kaplan, R. S., & Anderson, S. R. (2003). Time-driven activity-based costing. *Harvard business press*. Retrieved from https://www.hbs.edu/faculty/Pages/item.aspx?num=23236
Khan, F., & Siddiqui, D. A. (2019). Impact of Inventory Management on firm's efficiency–a quantitative research study on departmental stores operating in Karachi. *Khan, F. and Siddiqui, DA (2019). Impact of Inventory Management on Firm's Efficiency–A Quantitative Research Study on Departmental Stores Operating in Karachi. Social Science and Humanities Journal, 3*(4), 964-980. Retrieved from https://ssrn.com/abstract=3397105
Ladan Shagari, S., Abdullah, A., & Mat Saat, R. (2017). Accounting information systems effectiveness: Evidence from the Nigerian banking sector. *Interdisciplinary Journal of Information, Knowledge, and Management, 12*, 309-335. doi:http://doi.org/10.28945/3891
Malmi, T., & Granlund, M. (2009). In search of management accounting theory. *European accounting review, 18*(3), 597-620. doi:https://doi.org/10.1080/09638180902863779
Mia, L., & Winata, L. (2008). Manufacturing strategy, broad scope MAS information and information and communication technology. *The British Accounting Review, 40*(2), 182-192. doi:https://doi.org/10.1016/j.bar.2008.02.003
Monroy, C. R., Nasiri, A., & Peláez, M. Á. (2014). *Activity based costing, time-driven activity based costing and lean accounting: Differences among three accounting systems' approach to manufacturing.* Paper presented at the Annals of Industrial Engineering 2012: Industrial Engineering: overcoming the crisis.
Napitupulu, I. H. (2018). Organizational culture in management accounting information system: Survey on state-owned enterprises (SOEs) Indonesia. *Global Business Review, 19*(3), 556-571. doi:https://doi.org/10.1177/0972150917713842
Nias Ahmad, M. A., Smith, M., Ismail, Z., Djajadikerta, H., & Roni, M. S. M. M. (2016). *Computerised accounting information systems and firm performance: The mediating role of transparency.* Paper presented at the Regional Conference on Science, Technology and Social Sciences (RCSTSS 2014) Business and Social Sciences.
Nugroho, M. A. (2019). Analysis of internal control of inventory accounting information system at pt. ANDRE LAURENT. *Dinasti International Journal of Education Management And Social Science, 1*(1), 73-86. Retrieved from https://dinastipub.org/DIJEMSS/article/view/38
Ogundajo, G. O., & Nyikyaa, P. T. (2022). Management accounting practices and performance of listed manufacturing companies in Nigeria. *International Journal of Management Excellence (ISSN: 2292-1648), 16*(2), 2299-2311. doi:https://doi.org/10.17722/ijme.v16i2.1236
Otley, D. (2016). The contingency theory of management accounting and control:

1980–2014. *Management accounting research, 31*, 45-62. doi:https://doi.org/10.1016/j.mar.2016.02.001
Peterson, R. A., & Kim, Y. (2013). On the relationship between coefficient alpha and composite reliability. *Journal of applied psychology, 98*(1), 194. doi:https://psycnet.apa.org/doi/10.1037/a0030767
Pham, T. (2020). On the relationship between total quality management practices and firm performance in Vietnam: The mediating role of non-financial performance. *Management Science Letters, 10*(8), 1743-1754. doi:http://dx.doi.org/10.5267/j.msl.2020.1.005
Ramos, F. M., & Klann, R. C. (2019). Relationship between quality in accounting information and organizational characteristics of the third sector entities. *Organizações & Sociedade, 26*, 09-27. doi:https://doi.org/10.1590/1984-9260881
Ruslan, D., Tanjung, A. A., Lubis, I., Siregar, K. H., & Pratama, I. (2023). Monetary Policy in Indonesia: Dynamics of Inflation, Credibility Index and Output Stability Post Covid 19: New Keynesian Small Macroeconomics Approach. *Cuadernos de economía, 46*(130), 21-30. Retrieved from http://digilib.unimed.ac.id/53089/
Sari, R. N., Pratadina, A., Anugerah, R., Kamaliah, K., & Sanusi, Z. M. (2021). Effect of environmental management accounting practices on organizational performance: role of process innovation as a mediating variable. *Business Process Management Journal, 27*(4), 1296-1314. doi:https://doi.org/10.1108/BPMJ-06-2020-0264
Shank, J. (2006). Strategic cost management: Upsizing, downsizing, and right (?) sizing. In (pp. 355-379).
Shrestha, N. (2021). Factor analysis as a tool for survey analysis. *American Journal of Applied Mathematics and Statistics, 9*(1), 4-11. Retrieved from http://article.sciappliedmathematics.com/pdf/AJAMS-9-1-2.pdf
Silver, E. A. (1981). Operations research in inventory management: A review and critique. *Operations Research, 29*(4), 628-645. doi:https://doi.org/10.1287/opre.29.4.628
Stapleton, C. D. (1997). Basic Concepts and Procedures of Confirmatory Factor Analysis. Retrieved from http://ericae.net/ft/tamu/Cfa.htm
Sunarni, C. W. (2013). Management accounting practices and the role of management accountant: Evidence from manufacturing companies throughout Yogyakarta, Indonesia. *Review Integrative Business & Economics Research, 2*(2), 616-626.
Sunarta, I. N., & Astuti, P. D. (2023). Accounting Information System Quality and Organizational Performance: the Mediating Role of Accounting Information Quality. *International Journal of Professional Business Review, 8*(3), e01192-e01192. doi:https://doi.org/10.26668/businessreview/2023.v8i3.1192
Susilawati, E., Lubis, H., Kesuma, S., Pratama, I., & Khaira, I. (2023a). Exploring the antecedents of Student Academic Integrity: The Impact of Using Digital Technology Automated Short Essay Scoring (ASES) Assessment Models in Learning. *Eurasian Journal of Educational Research, 103*(103), 125-144. Retrieved from https://ejer.com.tr/manuscript/index.php/journal/article/view/1108
Susilawati, E., Lubis, H., Kesuma, S., Pratama, I., & Khaira, I. (2023b). Factors Affecting Engineering Institutes Operational Efficiency: Exploring Mediating Role of Digital Technologies Adoption In Teaching/Learning. *Operational Research in Engineering Sciences: Theory and Applications, 6*(1), 252-273. Retrieved from https://oresta.org/menu-script/index.php/oresta/article/view/533
Tantriangela, J., & Setyowati, M. S. (2023). Sharpening the Concept of Tax Literacy as

an Effort to Improve Tax Compliance. *Jurnal Akuntansi dan Bisnis: Jurnal Program Studi Akuntansi, 9*(1), 30-42. doi:https://doi.org/10.31289/jab.v9i1.9109

TSOU, Y.-H., Huang, Y.-F., Liu, S.-C., & Do, M.-H. (2021). The effects of total quality management and corporate social responsibility on firm performance: A future research agenda. *The Journal of Asian Finance, Economics and Business, 8*(4), 277-287. Retrieved from https://koreascience.kr/article/JAKO202109554061346.page

Uyar, A. (2009). Quality performance measurement practices in manufacturing companies. *The TQM Journal, 21*(1), 72-86. doi:https://doi.org/10.1108/17542730910924763

Uyar, A., & Kuzey, C. (2016). Does management accounting mediate the relationship between cost system design and performance? *Advances in accounting, 35*, 170-176. doi:https://doi.org/10.1016/j.adiac.2016.06.004

Verma, J. P. (2012). *Data analysis in management with SPSS software*: Springer Science & Business Media.

Vetchagool, W., Augustyn, M. M., & Tayles, M. (2020). Impacts of activity-based costing on organizational performance: evidence from Thailand. *Asian Review of Accounting, 28*(3), 329-349. doi:https://doi.org/10.1108/ARA-08-2018-0159

Vuillemin, A., Oppert, J.-M., Guillemin, F., Essermeant, L., Fontvieille, A.-M., Galan, P., . . . Hercberg, S. (2000). Self-administered questionnaire compared with interview to assess past-year physical activity. *Medicine and Science in Sports and Exercise, 32*(6), 1119-1124. doi:https://doi.org/10.1097/00005768-200006000-00013

Wan, X., Wang, W., Liu, J., & Tong, T. (2014). Estimating the sample mean and standard deviation from the sample size, median, range and/or interquartile range. *BMC medical research methodology, 14*, 1-13. doi:https://doi.org/10.1186/1471-2288-14-135

Yuniarti, R., & Maryam, A. (2011). The Influence Of Point of Sales Information System on Inventory Control. Retrieved from http://repository.widyatama.ac.id/handle/123456789/1964

Yussif, S., Kusi, A., & Ismail, A. (2019). Record and information management among SMEs in Ghana: Evidence from selected SMEs in the WA Municipality of Ghana. *International Journal of Academic Research in Business and Social Sciences, 9*(8), 184-199. doi:https://doi.org/10.6007/IJARBSS/v9-i8/6234