International Journal of Foreign Trade and International Business

E-ISSN: 2663-3159
P-ISSN: 2663-3140
Impact Factor: RJIF 5.22
www.foreigntradejournal.com
IJFTIB 2024; 6(1): 24-33
Received: 10-11-2023
Accepted: 19-12-2023

Laith Noman Hassoon
College of Administration and Economic, Tikrit University, Iraq

Corresponding Author:
Laith Noman Hassoon
College of Administration and Economic, Tikrit University, Iraq

The impact of organizational structure on the quality of management accounting information: An exploratory study in Iraq

Laith Noman Hassoon

DOI: https://doi.org/10.33545/26633140.2024.v6.i1a.99

Abstract
The objective of the study was to examine the effects of modifications in the Organizational Structure (OS) on the Quality of Management Accounting Information (QMAI) in Iraqi industrial enterprises. The company's organizational structure was delineated based on four dimensions: specialization, complexity, formality, and centralization. Similarly, the quality of management accounting information was assessed using four dimensions: breadth, timeliness, aggregation, and integration. The study objectives were accomplished and the hypotheses were tested using the descriptive-analytical approach. The research focused on the industrial sector in Iraq and included participants from two distinct communities: academia and professionals. A survey was created and administered to a group of accounting experts at Tikrit University, along with a few accountants employed in Iraqi industrial firms. There were a total of 77 questionnaires that were recovered and considered valid for analysis. The study found that the level of formality in the organizational structure had the most significant influence on improving the quality of management accounting information. This was followed by the complexity of the organizational structure, then specialization, and finally, the centralization of the organizational structure, which had the least impact on the quality of management accounting information.

Keywords: Organizational structure, information quality, management accounting information

1. Introduction
Companies have encountered a multitude of changes in recent years, particularly swift technology progress, fierce competition, economic downturns, worldwide markets, and other factors. These issues have necessitated prompt reactions from enterprises, including the requirement to modify their organizational structures (Jasim & Al-Ghalbi, 2023) [3]. Managers necessitate precise types of management accounting information that cater to their decision-making requirements in more unpredictable circumstances. This information assists them in evaluating progress in relation to strategies and emphasizes the need for appropriate alignment between the environment and organizational structures. Furthermore, management must modify accounting systems to accommodate the need for updated information (Baines & Smith, 2003) [11].
Management accounting utilizes a range of strategies and mechanisms to furnish crucial accounting information to firm management. This enables the process of planning, controlling, and making decisions, which leads to a decrease in costs, enhanced quality, and the attainment of competitive advantages in the corporate landscape. Hence, the caliber of this data has a direct and indirect influence on a company's performance and competitive standing. The origins of this information can be traced back to the strategic operations carried out within the organization, which have an impact on the strategic decisions made. A study conducted by Rachmawati and Saudi (2019) [27] affirms that management necessitates top-notch managerial accounting information to effectively carry out its managerial role, particularly in the process of decision-making.
However, the quality of this information can be influenced by various factors, either internal or external to the company. Some studies have indicated the impact of the company's organizational culture on the quality of managerial accounting information (Napitupulu, 2015b) [25].

Others have explored the effect of managerial efficiency as users of this information on its quality (Lestari, 2015) [21], (Napitupulu, 2015a) [24]. Further studies have examined the combined impact of organizational culture, managerial efficiency, and an uncertain environment on the quality of managerial accounting information (Lestari *et al*., 2020) [22]. Some research has specifically focused on the uncertainty environment as a determinant of the quality of this information (Rachmawati & Saudi, 2019) [27]. Additionally, studies have tested the influence of accounting knowledge, business strategy, and work motivation on the quality of managerial accounting information (Tampubolon *et al*., 2023) [29]. Many studies have pointed out the role of organizational structure in the quality of accounting information in general (Sari & Purwanegara, 2016) [28], (Hung *et al*., 2019) [17], and specifically in the quality of managerial accounting information (Andesto & Susanto, 2018) [9], (Chenhall & Morris, 1986) [12].

The research is to evaluate the influence of organizational structure on the quality of management accounting information in Iraqi industrial companies that are listed on the Iraq Stock Exchange. Following the presentation in the initial section of the five components of the research, the second section will present a theoretical framework for the research variables and establish the anticipated correlations between them in order to formulate hypotheses. Next, the third component of the study will examine the research methodology, its model, and the methods used to collect data. The fourth portion of the research will involve a discussion of the findings and the testing of hypotheses. Ultimately, the fifth component of the research will succinctly outline the most significant findings.

2. Literature Review and Developing Hypotheses

2.1 The concept of organizational structure

The topic of organizational structure continues to attract increasing interest from thinkers, consultants, and managers, as it stands as a vital means to assist companies in carrying out their operations and achieving goals efficiently and effectively. It influences numerous organizational variables and aspects within any company (Hareem & Al-Khashali, 2006) [4]. Organizational structure is the formal system of task relationships and authorities that govern how individuals coordinate their actions and use resources to achieve organizational objectives. In other words, it dictates how tasks, responsibilities, and coordination are distributed among individuals and groups within a company (Hung *et al*., 2019) [17].

The organizational structure represents the system of power lines between organizational elements and illustrates the chain of command among managerial levels within the company (Jasim & Al-Ghalbi, 2023) [3]. One of its functions aims to produce company outputs and pursue its objectives, designed to minimize or regulate individual differences and their impact on the company, serving as the framework that defines the functions constituting the company's strength (Habib & Dawood, 2021) [5].

One way to identify a company's structure is through examining the organizational chart, which outlines each function within the company and the formal reporting relationships between those functions. This aids organizational members in understanding how structures operate within the company (Colquitt *et al*., 2011) [14].

The organizational structure delineates relationships among different functions in terms of subordination, coordination lines, and supervision, facilitating individuals' work within the company by providing clarity in their relationships across various managerial levels. It also clarifies their duties and responsibilities (Deep *et al*., 2022) [6].

Several critical characteristics must be considered within the organizational structure. Companies should establish structures to differentiate each of their segments, clearly define the authority and responsibility of managers, and top management should explicitly define all relationships between supervisors and subordinates among employees (Kuraesin, 2016) [19].

The organizational structure is an official system of relationships that delineate lines of authority (who reports to whom), allocate tasks to individuals, and formalize the authority directing organizational activities. It concerns how functional tasks are formally divided, grouped, and coordinated within the company. In essence, the organizational structure constitutes formal systems governing how job divisions, duties, responsibilities, and authorities are aggregated and coordinated within the company to enable the achievement of organizational goals (Andesto & Susanto, 2018) [9].

The organizational structure is also defined as a framework that specifies the tasks and responsibilities of different roles, as well as the authority granted to them, and the directions for coordination and communication within the company (Al Abro & Kazim, 2018) [1]. It serves as a tool to regulate and direct individuals' behaviors within the organization through a mechanism that involves establishing rules and procedures that define the nature of relationships among individuals across communication lines or the interactions employees engage in through structured activities, to varying degrees, in order to achieve the organization's goals and manifest its vision in an organized manner (Mohammed, 2020) [2].

The organizational structure is the formal framework through which functional tasks are divided, aggregated, and coordinated without organizing the components (Work units) within the company. This means that the organizational structure illustrates the division of work and demonstrates the extent of diversity among functions and their integration (Coordination) to achieve the established goals (Sari & Purwanegara, 2016) [28].

2.2 Dimensions of Organizational Structure

Many studies have addressed the dimensions of organizational structure. Andesto & Susanto, (2018) [9] identified three dimensions: specialization, span of control, and formalization. Specialization measures the degree of grouping similar tasks within the same unit, allowing for efficient task coordination. Span of control measures the number of subordinates directly supervised by a manager or the number of subordinates who report directly to a manager. Formalization measures the degree of standardization of tasks, authorities, and responsibilities through formal procedures and rules.

Sari & Purwanegara, (2016) [28] identified organizational structure dimensions as work specialization, hierarchy (scalar principle), span of control, and line vs. staff. Another dimension used in this study includes job specialization, administrative division, chain of command, span of control, centralization vs. decentralization, and formalization.

Several studies (Mohammed, 2020; Alabro & Kazim, 2018;

Kuraesin, 2016; Al-Anzi & Al-Dhaiby, 2013) [2, 1, 19, 7] have concurred that the dimensions of organizational structure encompass specialization, complexity, formality, and centralization as illustrated below:

a. Specialization: Refers to grouping similar tasks and activities under an independent organizational division to achieve maximum efficiency in task execution. These specializations need to be defined in a manner that clarifies the relationship between each division and other divisions, ensuring ease of necessary coordination, such as legal specialization, administrative accounting, etc. The principle of specialization dictates that each individual's work should be limited to one functional burden or that a specialized organizational unit should be established for each task. It allows for the operation of each individual and organizational unit within specific work hours, achieving advantages such as faster completion, work mastery, and cost reduction.
The degree of specialization is linked to the division of tasks and the allocation of specialties to the company's core activities. It delineates the responsibilities for each function according to their importance. The more specializations within an organization, the more diversified the specialized jobs and activities become, with each person responsible for a specific task (Mohammed, 2020) [2]. The specialization measures the extent to which organizational tasks are divided into separate jobs or tasks, allowing workers to perform their duties correctly. The level of specialization reflects the degree of work division within the company and the allocation of official duties among various functional positions. Larger companies face difficulty when a specific number of employees must perform various and diverse tasks, necessitating precise allocation to ensure a high level of expertise in their work (Al-Anzi & Al-Dhaiby, 2013) [7].

b. Complexity: Refers to the specialization and division of work and the number of levels in the organizational hierarchy, divided into two aspects: horizontal differentiation. This refers to the process where individuals and tasks are distributed across functions and organizational units to enhance their capabilities in creating value (Al-abro, Kazem, 2018) [1]. Organizational complexity arises from organizational decisions that relate to several aspects within each organization. These include the division of work or specialization, unit formation principles within the organization, packaging these units, and the delegation of authority. There are three elements that determine the degree of complexity: horizontal differentiation, vertical differentiation, and geographical division. Horizontal differentiation refers to the activities performed by the institution and the array of professional functions or diverse specializations within it. As the number of organizational units and their divisions increase, the number and diversity of professions or specializations also increase, resulting in greater complexity in the organizational structure. Conversely, geographic division indicates the extent of spread or geographical distribution of the institution's activities. The higher the number of units subordinate to the institution in different geographical regions, the higher the level of complexity in the organizational structure (Mohammed, 2020) [2]. Complexity involves a variety of functional tasks and different departments. The larger the differentiation scale, the more complex the company becomes. The degree of differentiation includes the extent of specialization or division of labor, the number of levels in the organizational hierarchy, and how the company's units are distributed geographically (Amidi, 2014) [8].
Formality refers to the extent to which jobs within a company are documented and executed. It encompasses regulations governing employee behavior, the documentation of procedures, and policies regarding the quality of the accounting information system (Kuraesin, 2016) [19]. It signifies a company's reliance on laws, systems, rules, instructions, decisions, procedures, and detailed standards to guide and control an individual's behavior and actions during performance. The degree of formality varies between companies based on the nature of work and managerial levels (Amidi, 2014) [8].

c. Formality: Conceptually relates to the level of established rules, policies, and procedures applied to business operations. It becomes evident when there are extensive formal procedures, and job methods are precisely defined (Al-abro, Kazem, 2018) [1]. The use of written rules and procedures aims to standardize operations. Formality measures the extent to which an individual's work is bound by explicit or implicit rules or procedures, holding them accountable if these are violated. As formality increases, an individual's freedom to choose work methods and execution decreases (Mohammed, 2020) [2].

d. Centralization: Refers to the concentration of decision-making authority at the top of the organizational hierarchy and its delegation to lower levels. When a company tends towards centralization, it operates within a system where official powers are confined, and everyone is directly linked, forming a decision-making center for all matters. There's an inverse relationship between increased centralization and the delegation of authority (Habib, Dawood, 2021) [5]. It denotes the extent to which official decision-making authority is concentrated in a small group, usually at the top of the organizational hierarchy: from decision-making modifiers to levels of decision-making freedom (Kuraesin, 2016) [19].
Centralization also implies the degree to which decision-making is focused at a single point within the organization. In a centrally organized entity, top managers formulate and make decisions, while lower-level managers work to implement those decisions. It signifies a state where the important decision-making authority is concentrated with top hierarchical managers (Al-abro, Kazem, 2018) [1].
Centralization involves concentrating power solely in the hands of the highest administrative leader, while decentralization involves undermining powers for lower organizational levels. Decentralization allows for employee involvement and contribution to decision-making processes. The level of administrative decentralization depends on each party's circumstances, and the degree of delegation does not absolve the leader from responsibility. There isn't a completely centralized or completely decentralized organization; rather, each organization aims to strike a balance between the two based on its operations, goals, or environmental circumstances.

2.3 The Concept of Quality in Managerial Accounting Information

The information in management accounting is highly significant for firms as it is directly linked to the functioning of the company. The managerial accounting information system depends on significant financial data that plays a crucial role in influencing management choices and affecting organizational performance. Financial data plays a vital role in management's decision-making process for various investment choices. The efficacy of management accounting information is contingent upon organizations' capacity to safeguard and augment results across diverse operations. Managerial accounting information systems are crucial in assisting employees and executives by supplying vital information for firm management (Astuty *et al*., 2022) [10]. Furthermore, these accounting information systems provide the anticipation of potential challenges that may develop in many alternative implementations across multiple firm management functions, including planning, control, and decision-making. Furthermore, they efficiently assist information consumers, resulting in better decision-making and, consequently, greater firm performance. Moreover, managerial accounting information systems have the ability to generate highly dependable data and provide a strategic comprehension of increasingly fluid viewpoints.

Good accounting information is that which is suitable for use by consumers or users. The quality of accounting information is characterized by attributes that can meet or even surpass the expectations of customers or information users. It's a term that describes the features of information that make it valuable for users. Accounting information quality refers to the quality of the outputs produced by the information system, which can either be reports or online disclosures (Sari & Purwanegara, 2016) [28].

For many companies, information serves as a valuable resource and plays a fundamental role in organizing operations. Within a company, there are numerous information systems, one of which is the managerial accounting information system. The role of the managerial accounting information system lies in generating managerial accounting information used by managers to make various decisions in executing their managerial functions effectively and efficiently (Andesto & Susanto, 2018) [9].

Managerial accounting information actively contributes to ensuring the company's continuity (Napitupulu, 2015a) [24]. It results from the managerial accounting process in the form of financial and non-financial information provided for the benefit of the company's internal stakeholders. Managerial accounting information proves beneficial to managers for performing planning, coordinating, and controlling functions within the organization. Generally, managerial accounting information is used as the basis for management decision-making. In fact, managerial accounting information serves two simultaneous functions: facilitating decision-making and influencing decisions. On one hand, it serves a functional role in problem identification, while on the other hand, it aids in identifying solutions. It fulfills this role through its own information system within the company. Additionally, (Rachmawati & Saudi, 2019) [27] indicate that the managerial accounting information system is a formal mechanism for collecting, organizing, and disseminating information about organizational activities. Its role is to provide information to management that allows them to make decisions ensuring control over the organization. They have identified dimensions of the quality of the managerial accounting information system used, including integration, flexibility, accessibility, formality, and media richness.

The managerial accounting information system generates information to assist managers, executives, and employees in making decisions for managing the company, whether these decisions are short-term or long-term in nature (Napitupulu, 2015b) [25].

(Tampubolon *et al*., 2023) [29] emphasize the crucial role of the managerial accounting information system in providing comprehensive financial and non-financial data for the company. The primary aim of the system is to guide the decision-making process in allocating scarce resources for business operations and economic activities. According to (Andesto & Susanto, 2018) [9], having a high-quality managerial accounting information system is essential for a company. The quality of this system lies in its ability to produce high-quality managerial accounting information characterized by qualitative features. Additionally, (Sari & Purwanegara, 2016) [28] identified five dimensions of the quality of the accounting information system, including managerial accounting information system: integration, flexibility, accessibility, formality, and media richness. Similarly, (Rachmawati & Saudi, 2019) [27] defined the dimensions of quality for the managerial accounting information system, focusing on integration, flexibility, accessibility, formality, and media richness. Quality in managerial accounting information refers to how these data assist in accomplishing specific tasks. It encompasses the information that managers use in executing their functions (Planning, control, and decision-making) and the inherent quality traits associated with this information.

Sari & Purwanegara, (2016) [28] highlighted that good information is that which provides benefits to decision-makers. Users have specific criteria for information quality to determine the quality of decisions by focusing on additional emphasis on relevance, timeliness, accuracy, and completeness. Quality is attained in information when it is integrated and meets requirements, ensuring accuracy, completeness, consistency, timeliness, and uniqueness.

2.4 Dimensions of the quality of managerial accounting information

The effectiveness of information systems is a prerequisite for user satisfaction with the information systems or the extent to which system users perceive the required information. It can be expressed as the provision of suitable information alongside the required information by many users, ensuring the successful implementation of information systems to produce quality information. Managerial accounting information systems are one of the necessary information systems that provide accounting information for specific uses by managers. It represents a formal system that provides information for managers and is an integral part of the company's information systems. The successful application of managerial accounting information systems within a company affects the quality of the accounting information produced by the company's managers.

Managerial accounting information systems illustrate the importance of financial goals within the company, primarily providing information for performance evaluation against objectives and often serving as a crucial input for management decisions. Effective decision-making requires accurate, timely, and relevant information. The quality of managerial accounting information relies on the quality of the procedures used in producing and issuing accounting information, and the quality of managerial accounting information is one of the competitive advantages of the company (RANI, 2012) [26].

Several perspectives have identified dimensions of managerial accounting information quality. (Chenhall & Morris, 1986) [12] identified managerial accounting information quality with dimensions such as scope, timeliness, level of aggregation, and completeness.

Another study by (Namazi & Rakhsha, 2023) [23] delineated components of managerial accounting information quality, encompassing environmental uncertainty, financial reporting, corporate governance, and earnings management.

(Sari & Purwanegara, 2016) [28] highlighted the dimensions of managerial accounting information quality, emphasizing the need for information to be accurate, complete, consistent, and timely. Thus, the dimensions of accounting information quality include accuracy, relevance, timeliness, and completeness. (Rachmawati & Saudi, 2019) [27] delineated the dimensions of managerial accounting information quality as scope, timeliness, accuracy, format, and relevance. Additionally, (Andesto & Susanto, 2018) [9] specified four dimensions of managerial accounting information quality: integration, flexibility, accessibility, and richness of media. Integration measures the harmony among components and subsystems to facilitate providing managerial accounting information. Flexibility gauges systems' adaptability to diverse user needs under changing conditions. Accessibility assesses the relatively low effort needed to access the systems, and finally, richness of media measures the systems' use of channels that allow a high level of personal interaction.

The most prominent dimensions shared are (Broad scope, timeliness, aggregation, integration), and here's a brief overview of these dimensions: (Astuty, 2022) [10].

A. Scope: The broad scope provides information about both internal and external factors of the company, economic and non-economic information, future event estimates, environmental aspects, and demonstrates adherence to the timeline between information request and presentation of required information, as well as the recurrence of information.

B. Timeliness: The timing of information impacts managers' ability to make correct decisions. The value of information lies in its timely delivery, delivered before it loses its impact on decisions the manager will make. It also enables the manager to effectively deal with uncertainties.

C. Aggregation: Aggregated information can reflect the functional domain of managers' responsibility. It guides managers to be more accountable for all aspects of aggregated information, considering the implementation of formal policy or information analysis models based on functional aspects or time-based results.

D. Integration: Integration refers to the coordination among different sectors within subsidiary organizational units. Therefore, one of the effective functions of the managerial accounting system is to achieve this coordination. This aims to recognize the specific goals of those sectors, the impact of their interaction through exchanged information, and its effect on various decisions and operations.

2.5 The Relationship between Organizational Structure and the Quality of Managerial Accounting Information

The organizational structure arranges and reflects the characteristics of a company's mechanisms and the manner in which its procedures are executed. This directly and indirectly influences how information is produced and flows among various managerial levels. It also guides information systems in selecting the type of data to be input, the quality of operational methods employed for information production, subsequently impacting the quality of the generated information. Managerial accounting information systems, being the hub for producing information guiding managerial levels across planning, control, and decision-making functions, are notably influenced by the traits and forms of the company's organizational structure. Several studies have explored the impact of organizational structure on accounting practices, such as profit management (Lee *et al*., 2007) [20].

The study by (Hung *et al*., 2019) [17] aimed to determine the impact of managerial commitment and organizational structure on the implementation of Enterprise Resource Planning (ERP) systems and their implications for the quality of accounting information in Vietnamese telecommunication companies. The study's results indicated that both managerial commitment and organizational structure have an impact on the level of accounting information quality.

The study by (Kuraesin, 2016) [19] discussed the relationship between organizational structure and the quality of accounting information systems. It emphasized that one of the factors influencing the information system is the organizational structure because the system must be built on the company's understanding that using it will allow for its benefits. The study's findings demonstrated that the organizational structure indeed influences the quality of accounting information systems.

The study by (Baines & Smith, 2003) [11] affirmed that changes in organizational structure lead to alterations in management accounting and the quality of the generated information. Furthermore, the study's results indicated that changes in the organizational structure have led to a greater reliance on both financial and non-financial management accounting information.

Davis and Albright, (2000) [15] have analyzed the influence of organizational structure on management accounting in both a general sense and with a specific focus on the tasks performed by management accountants. In addition, they have examined its impact on the company's strategy and the adoption of management accounting methods such as activity-based costing (Gosselin, 1997) [16]. Subsequent research explored the effect of the aforementioned factor on the accuracy and reliability of financial data (Sari & Purwanegara, 2016) [28]. Additionally, more comprehensive analyses examined the correlation between the organizational framework and the dependability of managerial accounting information (Andesto & Susanto, 2018) [9], (Chenhall & Morris, 1986) [12], across diverse contexts such as developed and developing economies, as well as different sectors including finance, industry, services, and others. The outcomes have exhibited a range of differences with regards to the magnitude and orientation of this impact. Andesto & Susanto (2018) [9] conducted a study that demonstrated a notable and beneficial effect of the organizational structure of a firm on the enhancement and improvement of management accounting information quality in Indonesian companies.

The management accounting information systems are influenced by the organizational structure, which is dependent on the level of centralization. Interdepartmental involvement is required for centralization in order to gather, combine, and thoroughly evaluate accounting information. This helps to improve cooperation among departments and contributes to the decision-making process. The organizational structure has a considerable impact on both the aggregation and integration characteristics of management accounting information systems. The organizational structure, be it centralized or formal, impacts the nature and extent of information. Managerial accounting information systems must furnish comprehensive and consolidated data to empower the company's management in improving operational performance. The study conducted by (Zhu *et al*., 2009) [30] confirmed that the organizational structure has a substantial impact on management accounting information. Comprehensive and consolidated information aids managers in completing duties in diverse contexts and extraordinary circumstances, hence lowering decision-making time in uncertain scenarios. Moreover, the consolidation of information assists managers in effectively comparing data from many departments and delivering it in a timely manner.

Silvola, (2008) [31] noted that a reason behind the change in the quality of managerial accounting information is the shift in organizational structure from functional organization to decentralized, complex, and branched departments.

Therefore, the relationship between the organizational structure and its four dimensions (specialization, complexity, formality, centrality) with the quality of managerial accounting information can be elucidated as follows:

a. The Relationship between Specialization and the Quality of Management Accounting Information

The existence of specialization within the organizational structure enhances the skillset, efficiency, and overall performance of individuals within the company, including managerial accountants. They tend to focus more within their specialized domain to provide accounting information that serves management in planning, control, and decision-making. This is attributed to the acquired skills resulting from repeated experiences, making the accounting information they produce generally of higher quality due to its timeliness, comprehensive nature, and relevance to decision-makers. Therefore, the primary hypothesis of the research can be formulated as follows:

(H1) There is a statistically significant impact of specialization on the quality of management accounting information.

b. The Relationship between Complexity and the Quality of Management Accounting Information

The multiplicity of tasks and functions within the organizational structure of a company contributes to diverse communication channels and the flow of information horizontally and vertically throughout its entire structure. Consequently, this has an impact on the quality of information produced by the management accounting information system. The information tends to be more comprehensive and timely to keep up with the complexity of information requests and their diversity within short-term and periodic timeframes, aiming to achieve the influence of that information on the decisions made by management. Hence, the primary hypothesis of the research can be formulated as follows:

(H2) There is a statistically significant impact of complexity on the quality of management accounting information.

c. The Relationship between Formality and the Quality of Management Accounting Information

The presence of strict laws and regulations within work contexts under the organizational structure, imposing formality on all procedures and contexts, will make managerial accounting more focused on producing high-quality information with specific characteristics documented within the rules and organizational instructions. This imparts greater quality to the managerial accounting information. Therefore, the primary hypothesis of the research can be formulated as follows:

(H3) There is a statistically significant impact of formality on the quality of management accounting information.

d. The Relationship between Centralization and the Quality of Management Accounting Information

Centralization restricts the delegation of authorities to lower managerial levels, contrary to the decentralization tendencies within the organizational structure seeking broader authority delegation. However, centralization within the organizational structure can enhance the quality of management accounting information by enabling management to specialize in this type of information, focusing on maintaining high-quality standards that enable more efficient and effective company management. Additionally, a study by (Chenhall & Morris, 1986) [12] found that decentralization was associated with a preference for aggregated and integrated information. Therefore, the primary hypothesis of the research can be formulated as follows:

(H_4) There is a statistically significant impact of centralization on the quality of management accounting information.

3. Research Methodology

3.1 Research Sample

The research included two types of communities. The first represented academic individuals (Master's and Ph.D. students, university professors) specialized in accounting disciplines affiliated with Tikrit University as the research community. The second community for the research comprised accountants working in 15 companies within the Iraqi industrial market active in the Iraqi Stock Exchange. Direct communication with these individuals was established through face-to-face interviews and online correspondence.

3.2 The Data and Variable Measurement

The research relied on a questionnaire form devised by the researcher, adopting phrasings from the study by (Andesto & Susanto, 2018) [9] as the primary research tool to collect necessary data for measuring research variables. This aligns with the descriptive-analytical methodology employed in the current research. The retrieved and valid questionnaires amounted to 77, out of the 100 distributed, a month after their dissemination, reflecting an effective response rate of 77%, deemed acceptable for this research. The questionnaire encompassed two key axes. The first pertained to demographic information such as gender, educational qualifications, and years of service. The academic participants comprised 37 individuals out of the total sample (n=77), representing 48.1%, while professionals constituted 51.9%, creating a balanced representation of questionnaire perceptions. The male-to-female ratio stood at 75.3% and 24.7%, respectively. Furthermore, 46.8% of the sample held bachelor's degrees, the highest proportion, whereas 42.9% held higher degrees (Master's and Ph.D.), indicating a higher cognitive awareness level among the participants regarding the questionnaire statements. Additionally, 64.1% of the sample had six or more years of experience in either academic or professional fields, reinforcing their cognitive perception. The second axis involved measuring research variables, with 12 statements allocated to gauge organizational structure, divided into three statements each for the dimensions (Specialization, Complexity, Formality, Centrality), representing the independent variable. Similarly, 12 statements were used to represent the dependent variable, the quality of managerial accounting information, also divided into three statements for each of its four dimensions (Breadth, Timeliness, Aggregation, Integration).

3.3 The Research Model

The statistical tests for the basic data and its variables were represented using mean, standard deviation, and correlation coefficient. The research hypotheses were tested using Ordinary Least Squares (OLS) regression analysis. In line with the three hypotheses of the research, four equations were developed within the framework of the simple linear regression equation as follows:

Equation 1: QMAI1 = β01 + β1Special. + ε

Equation 2: QMAI2 = β02 + β2Complex. + ε

Equation 3: QMAI3 = β03 + β3Formal. + ε

Equation 4: QMAI4 = β04 + β4Central. + ε

(QMAI) refers to the quality of managerial accounting information. Meanwhile, (Special.) stands for specialization, serving as the first proxy for the organizational structure variable (OS). (Complex.) represents complexity, acting as the second proxy for the organizational structure. (Formal.) indicates formality, being the third proxy for the organizational structure. Lastly, (Central.) stands for centrality, serving as the fourth proxy for the organizational structure. (β) denotes the regression coefficient in each of the four equations, while the symbol (ε) refers to the standard error ratio within the regression equation model.

3.4 Test the questionnaire's validity

The validity coefficient, represented by the square root of the value of Cronbach's Alpha, was adopted. Table (1) shows that the validity coefficient for the research variables and dimensions ranged between (0.841 - 0.941), indicating the questionnaire's validity. The questionnaire's reliability was tested using Cronbach's Alpha coefficient, as shown in Table (1), where the values ranged between (0.707 - 0.886), indicating the questionnaire's reliability and its suitability for subsequent tests in the research.

Table 1: Validity and Reliability test of the research instrument

Variables and Dimensions	Validity Coefficient	Reliability Coefficient (Cronbach's Alpha)
Special	0.941	0.886
Complex	0.841	0.707
Formal	0.889	0.791
Central	0.866	0.750
QMAI	0.936	0.877

Source: Table Compiled by the Researcher.

4. The discussion of the results reveals

In Table (2) the descriptive analysis of the variables and dimensions of the study, showcasing the mean and standard deviation.

Table 2: Descriptive analysis of variables and research dimensions

Variables and Dimensions	Mean	Standard deviation	Relative importance	Coefficient of variation	Skewness coefficient
Special	4.108	0.547	82.16%	13.32%	-0.413
Complex	3.792	0.516	75.84%	13.61%	0.216
Formal	3.922	0.577	78.44%	14.71%	-0.519
Central	3.784	0.692	75.67%	18.29%	-0.638
QMAI	3.962	0.558	79.24%	14.07%	-0.721

Source: Table prepared by the researcher.

The table (2) illustrates, through the means and relative importance, a considerable awareness among the sample individuals regarding the significance of the four dimensions of organizational structure (Special, Complexity, Formal., Central.). It is observed that there is a notably high level of awareness concerning the specialization dimension (Special.), indicated by the mean of (4.108) and a substantial relative importance of (82.16%). This is followed by the formality dimension (Formal.) with a mean of (3.922) and a significant relative importance of (78.44%), then the complexity dimension (Complex.) with a mean of (3.792) and a substantial relative importance of (75.84%). Finally, the centrality dimension (Central.) is indicated by a mean of (3.784) and a substantial relative importance of (75.67%).

Additionally, there is a noticeable level of consensus and significant perception among the sample individuals regarding the quality of managerial accounting information (QMAI), reflected in the mean of (3.962) and a substantial relative importance of (79.24%). The decrease in the standard deviation values for the four dimensions of organizational structure and managerial accounting information signifies consistency and a lack of dispersion in respondent answers. This is emphasized by the low coefficient of variation for all dimensions and variables, with values below the 50% threshold, confirming the consistency and lack of dispersion in respondents' answers. Therefore, the high consensus demonstrated by the mean can be generalized to the entire sample.

The table (2) indicates that the values of the skewness

coefficient fell within the standard range for this coefficient (+1 to -1). This signifies that the data for all dimensions and measures of the research are normally distributed, allowing for the utilization of parametric statistical tools to test the hypotheses.
The table (3) indicates the correlation values between the dimensions and variables of the research. It reveals a significant positive correlation between the four dimensions of organizational structure (Specialization, Complexity, Formalization, Centralization) and the quality of managerial accounting information. This suggests that an increase in the levels of specialization, complexity, formalization, and centralization within the organizational structure corresponds to an increase in the quality of managerial accounting information. Notably, the Formalization dimension exhibited the strongest impact, followed by Complexity, then Specialization, and finally Centralization.

Table 3: Correlation values between research variables

Variables		Special	Complex	Formal	Central
QMAI	Person	0.529**	0.558**	0.764**	0.366**
	Sig.	0.000	0.000	0.000	0.000

Source: The table is prepared by the researcher.

The table (4) presents the results of the first equation analysis in the regression equation model, indicating the potential estimation of the quality of managerial accounting information (QMAI) by the specialization dimension (Special.). This aims to understand the latter's impact on the quality of managerial accounting information (QMAI). The significant F-value of (29.079) at a 5% significance level validates the regression equation model, implying the potential estimation of the quality of managerial accounting information (QMAI) by the specialization dimension (Special.).
Moreover, the significant T-value of (5.392) at a 5% significance level confirms the significance of the impact of the specialization dimension (Special.) on the quality of managerial accounting information (QMAI). The positive beta (β) value of (0.529) suggests a positive impact, indicating that an increase in specialization (Special.) within the organizational structure of the company leads to an enhancement in the level of quality of managerial accounting information (QMAI).
Furthermore, the determination coefficient (R2) of (0.279) signifies that the specialization dimension (Special.) explains about (27.9%) of the variations occurring in the quality of managerial accounting information (QMAI). Hence, the first main hypothesis of the research is accepted.

Table 4: Four regression equation models

Equations	Variables	β	T	Sig.	F	Sig.	R^2
1.	Special	0.529	5.392	0.000	29.079	0.000	0.279
2.	Complex	0.558	5.822	0.000	33.898	0.000	0.311
3.	Formal	0.764	10.260	0.000	105.271	0.000	0.584
4.	Central	0.366	3.405	0.000	11.591	0.000	0.134

Source: Table prepared by the researcher.

The table (4) shows the results of analyzing the second equation of the regression model, which demonstrates the potential to estimate the quality of managerial accounting information (QMAI) concerning the complexity factor. This aims to understand the influence of the latter on the quality of managerial accounting information (QMAI). The significant F-value of 33.898 at a 5% significance level indicates the validity of the regression equation model. It implies the ability to estimate the quality of managerial accounting information (QMAI) regarding the complexity factor. Moreover, the significant T-value of 5.822 at a 5% significance level highlights the significance of the impact of complexity on the quality of managerial accounting information (QMAI). The positive beta coefficient (β) of 0.558 indicates a positive effect, meaning that an increase in complexity within the organizational structure of the company will enhance the quality of managerial accounting information (QMAI). Additionally, the determination coefficient (R2) of 0.311 signifies that the complexity factor explains approximately 31.1% of the variations occurring in the quality of managerial accounting information (QMAI). Therefore, the second primary hypothesis of the research is accepted.
Table (4) reveals the results of analyzing the third equation in the regression equation model, indicating the potential to assess the quality of managerial accounting information (QMAI) concerning the formality factor. This aims to understand the influence of the latter on the quality of managerial accounting information (QMAI). The significant F-value of 105.271 at a 5% significance level indicates the model's validity, implying the capability to estimate the quality of managerial accounting information (QMAI) concerning formality. Moreover, the significant T-value of 10.260 at a 5% significance level highlights the significance of the impact of formality on the quality of managerial accounting information (QMAI). The positive beta coefficient (β) of 0.764 indicates a positive effect, suggesting that an increase in formality within the organizational structure of the company will enhance the quality of managerial accounting information (QMAI). Additionally, the determination coefficient (R2) of 0.584 signifies that the formality factor explains approximately 58.4% of the variations occurring in the quality of managerial accounting information (QMAI). Therefore, the third primary hypothesis of the research is accepted.
Table (4) also presents the results of the analysis of the fourth equation in the regression model, demonstrating the potential to estimate the quality of managerial accounting information (QMAI) concerning the centralization factor. This aims to comprehend the impact of the latter on the quality of managerial accounting information (QMAI). The significant F-value of 11.591 at a 5% significance level indicates the model's validity, signifying the capability to assess the quality of managerial accounting information (QMAI) concerning centralization. Furthermore, the significant T-value of 3.405 at a 5% significance level emphasizes the significance of the impact of centralization on the quality of managerial accounting information (QMAI). The positive beta coefficient (β) of 0.366 indicates a positive effect, suggesting that an increase in centralization within the organizational structure of the company will enhance the quality of managerial accounting information (QMAI). Additionally, the determination coefficient (R2) of 0.134 signifies that the centralization factor explains approximately 13.4% of the variations occurring in the quality of managerial accounting information (QMAI). Therefore, the fourth primary hypothesis of the research is accepted.

5. Conclusions
The current research focused on the associations between

the organizational structure of a company and the quality of managerial accounting information, demonstrating the strength and direction of this organizational structure in enhancing the quality of managerial accounting information. The research findings align with expectations and are consistent with several studies (Andesto & Susanto, 2018) [9]. The research concluded that the organizational structure, through its four dimensions (Specialization, complexity, formality, centralization), contributes to enhancing the quality of managerial accounting information. It revealed a significant positive impact of the four dimensions of the organizational structure on the quality of managerial accounting information. Furthermore, the results indicated that formality within the organizational structure had the most substantial impact, followed by complexity, specialization, and finally, centralization. This prominence of formality could be attributed to the organizational formalities in procedures and communication channels, which necessitate the production of higher-quality managerial accounting information in alignment with increased rigidity prevailing within the structure.

The most significant limitations identified in the potential for generalizing the research findings extensively were the small sample size and the reliance on the survey instrument to express research variables. Therefore, future studies might consider enlarging the sample size across diverse industrial sectors, possibly adopting quantitative measurement for research variables through content analysis of company reports or employing methods such as case studies, observation, and personal interviews.

Moreover, it would be possible to incorporate some variables as interactive or mediating factors, such as corporate governance, the management information system, the uncertainty environment, managerial efficiency (Employee efficiency), company performance, and company value.

References

1. Al-Abro HA, Kazim WB. The role of organizational structure as a mediator in the relationship between information technology and both decision-making and organizational communication: A field study in several Iraqi ministries. Arab Journal of Administration, 2018, 38(1).
2. Mohamed M. The impact of organizational structure on collaborative knowledge in organizations: A field study [Doctoral dissertation]. Ahmed Draia University, Adrar, Algeria; c2020.
3. Jasim AN, Al-Ghalibi TMM. Leadership styles and their role in adopting organizational structure: An applied study in the General Company for Ports of Iraq in Basra. Economic Sciences Journal, 2023, 18(68).
4. Hareem HM, Al-Khashali SJ. The impact of organizational structure dimensions on building organizational knowledge: A field study in private Jordanian hospitals. Al-Zarqa Journal for Research and Studies, 2006, 8(1).
5. Habib AN, Dawood SJ. Organizational structure and its impact on performance in the Central Library at the University of Basra. Basra Journal of Literature, 2021, 1(97).
6. Deep KA, Fayad LA, Ajeeban AA. The relationship between organizational culture and organizational structure at Tishreen University. Al-Baath University Journal, 2022, 44(25).
7. Al-Anzi SAH, Al-Thyabi SHH. Characteristics and pattern of the organizational structure of the Inspector General's Offices: An empirical study. Journal of Economic and Administrative Sciences, 2013, 19(72).
8. Amidi KM. The impact of structural dimensions on job burnout: A survey of opinions of a sample of employees at the General Directorate of Roads, Bridges, Housing, and their branches in Dohuk province. Journal of Management and Economics, 2014, 37(99).
9. Andesto R, Susanto A. The Effect of Organizational Structure on Quality of Management Accounting Information Systems (Survey on Indonesia State-Owned Enterprise). Journal of Engineering and Applied Sciences. 2018;13(8):2062–2067.
10. Astuty W, Pratama I, Basir I, Harahap JPR. Does enterprise resource planning lead to the quality of the management accounting information system? Polish Journal of Management Studies. 2022;25(2):93-107.
11. Baines A, Langfield-Smith K. Antecedents to management accounting change: A structural equation approach. Accounting, organizations and society. 2003;28(7-8):675-698.
12. Chenhall RH, Morris D. The impact of structure, environment, and interdependence on the perceived usefulness of management accounting systems. Accounting Review, 1986, 16-35.
13. Chenhall R, Langfield-Smith K. Factors influencing the role of management accounting in the development of performance measures within organizational change programs. Management Accounting Research. 1998;9(4):361-386.
14. Colquit JA, Lepine JA, Wesson MJ. Organizational behavior: Improving Performance and Commitment in the Workplace. New York: McGraw Hill/Irwin; c2011. International Siti Kurnia Rahayu Edition.
15. Davis S, Albright T. The changing organizational structure and individual responsibilities of managerial accountants: A case study. Journal of Managerial Issues; c2000. p. 446-467.
16. Gosselin M. The effect of strategy and organizational structure on the adoption and implementation of activity-based costing. Accounting, organizations and society. 1997;22(2):105-122.
17. Hung NT, Mai TTH, Duc NL. Influence of Management Commitment and Organizational Structure on Application of ERP System & Its Impact on Quality of Accounting Information: A Survey in Vietnamese Telecommunication Enterprises. Accounting and Finance Research. 2019;8(1):128-37.
18. Hung NT, Mai TTH, Duc NL. Influence of Management Commitment and Organizational Structure on Application of ERP System & Its Impact on Quality of Accounting Information: A Survey in Vietnamese Telecommunication Enterprises. Accounting and Finance Research. 2019;8(1):128-37.
19. Kuraesin AD. Influence Organizational Structure on the Quality of Accounting Information Systems. Research Journal of Finance and Accounting. 2016;7(2):225-234.
20. Lee KW, Lev B, Yeo G. Organizational structure and earnings management. Journal of Accounting, Auditing & Finance. 2007;22(2):293-331.
21. Lestari R. The influence of manager competence on the

quality of management accounting information system and its implications on the quality of management accounting information. Int J Appl Bus Econ Res., 2015, 13(6).

22. Lestari R, Sofianty D, Kuntorini RS. Factors Influence on the Quality of Management Accounting Information System and Its Impacts on Good Corporate Governance Implementation. In: 2nd Social and Humaniora Research Symposium (SoRes 2019). Atlantis Press; c2020. p. 5-8.
23. Namazi M, Rakhsha SH. Compiling the Influence Model of Management Accounting Information Quality Components on Tax Avoidance of Tehran Stock Exchange Companies. Tuijin Jishu/Journal of Propulsion Technology. 2023;44(3):2175-2187.
24. Napitupulu IH. Antecedence of user satisfaction in management accounting information systems quality: user involvement and user competency (survey of Indonesia manufacture company managers). Int J Appl Bus Econ Res. 2015;13(2):561-577.
25. Napitupulu IH. Impact of organizational culture on the quality of management accounting information system: A theoretical approach. Res J Finance Account. 2015;6(4):74-83.
26. Rani DL, Kidane FITSU. Characteristics and important quality factors of management accounting information system. Radix Int J Bank Finance Account, 2012, 1(7).
27. Rachmawati R, Saudi MHM. Environmental uncertainty, quality of management accounting information systems and quality of management accounting information. J Adv Res Dyn Control Syst. 2019;11(3):981-986.
28. Sari NZM, Purwanegara HD. The effect of quality accounting information system in Indonesian government (BUMD at Bandung area). Res J Finance Account, 2016, 7(2).
29. Tampubolon EMY, Hertati L, Sari R. The Effect of Accounting Knowledge, Business Strategy and Work Motivation on the Quality of Management Accounting Information Systems: (Survey of Retail Store Management Employees at Palembang Square Mall). J Humanities Soc Sci. Bus. 2023;2(4):687-693.
30. Zhu J. Quantitative models for performance evaluation and benchmarking: data envelopment analysis with spreadsheets. New York: Springer; c2009.
31. Silvola H. Do organizational life-cycle and venture capital investors affect the management control systems used by the firm? Advances in Accounting. 2008 Jun 1;24(1):128-38.