*2026, Cilt 3, Sayı 4, 120-132*

OPEN ACCESS
ISSN: 3062-262X

# Akademik Eğitim ve Sosyal Bilimler Dergisi (AJESS Journal)

## The Contribution of Corporate Governance to the Upgrading of Accounting Information Systems in Private Healthcare Institutions

Abaz mohammed Diaelhak, Kasdi Merbah University of Ouargla, Algeria.
abaz.mohammeddiaelhak@univ-ouargla.dz
Bouazza Aissa, Kasdi Merbah University of Ouargla, Algeria.
bouazza.aissa30@gmail.com
Naam Lokmane, Kasdi Merbah University of Ouargla, Algeria.
naam.lokmane@univ-ouargla.dz

**Article History**
Received: 31/07/2026; Accepted: 26/08/2026 ; Published: 05/09/2026

**Abstract**

This study aims to provide a focused theoretical examination of the contribution of corporate governance to the upgrading and enhancement of accounting information systems (AIS) in private healthcare institutions. It conceptualizes corporate governance as a regulatory and oversight framework grounded in transparency, accountability, independence, fairness, and responsibility. Concurrently, it considers the accounting information system as a fundamental subsystem of the management information system, responsible for collecting, processing, and converting financial and non-financial data into actionable information for decision-making. The study also highlights the specific nature of healthcare institutions as multi-stakeholder environments with an intensified need for internal control and information quality. Furthermore, it addresses the evolution of the governance concept, the primary rationales for its emergence, its underlying theories, and its core principles. It subsequently examines the concept of accounting information systems, outlining their characteristics, objectives, operational stages, and associated risks. The study concludes by analyzing the theoretical relationship between governance and accounting information systems through the dimensions of transparency, information quality, oversight, assignment of responsibilities, decision support, and risk mitigation.

**Keywords:** Corporate Governance; Healthcare Governance; Accounting Information Systems; Information Quality; Transparency; Oversight; Accountability.

## Introduction

Corporate governance has emerged as a central concept in contemporary managerial and accounting thought, driven by the growing necessity to regulate internal organizational relationships, mitigate conflicts of interest, and achieve greater transparency and accountability. Historically, the evolution of this concept has been intertwined with the separation of ownership from management and the resulting agency problems and information asymmetry. As institutions have expanded and stakeholders have diversified, governance has evolved beyond a mere set of supervisory procedures into an integrated framework designed to direct the organization, oversee its performance, and protect the interests of associated stakeholders. This imperative becomes even more pronounced in private healthcare institutions, where financial, administrative, and service-delivery considerations intersect, and where management requires accurate, reliable, and timely information to support decision-making and optimize resource utilization. Accordingly, this study examines how the relationship between corporate governance and accounting information systems holds particular significance, given that sound governance enhances the effectiveness of information systems, while accounting information systems provide the requisite informational foundation to uphold transparency, accountability, and internal control.

**Problem Statement:**

To what extent can corporate governance contribute to the upgrading of accounting information systems in private healthcare institutions?

**Hypotheses:**

- Healthcare institutions utilize effective accounting information systems that contribute to improving their services.
- Healthcare institutions implement corporate governance principles in their administrative and financial management at a weak level.
- Corporate governance contributes positively to activating and upgrading accounting information systems within healthcare institutions.

To address this problem statement, the following sections are proposed:
First Section: Conceptual and Theoretical Framework of Corporate Governance and Healthcare Institutions.

- ❖ Second Section: Theoretical Framework of Accounting Information Systems.
- ❖ Third Section: The Relationship Between Governance and Accounting Information Systems.

**First Section: Conceptual and Theoretical Framework of Corporate Governance and Healthcare Institutions**

**First: The Concept of Corporate Governance**

Governance reflects a system of rules, relationships, and mechanisms through which an institution is directed and controlled. While the concept of governance lacks a single, universally exhaustive definition, various definitions converge around a set of core elements. Chief among these are regulating the relationship among management, the board of directors, shareholders, and stakeholders; ensuring disclosure and accountability; protecting rights; and achieving discipline and fairness. Notable among these is the International Finance Corporation (IFC) definition of governance as the system by which companies are directed and controlled, as well as the Organisation for Economic Co-operation and Development (OECD) definition, which focuses on the set of relationships between a company's management, its board, its shareholders, and other stakeholders[1].

Accordingly, governance can be viewed as an institutional framework that determines who holds decision-making authority, how this authority is exercised, how its outcomes are monitored, and how the disclosure of relevant information is ensured. Governance is not limited to financial control; rather, it extends to the distribution of responsibilities, ensuring the independence of supervisory bodies, defining mandates, and establishing ethical codes for corporate behavior.

**Second: Drivers and Rationales for the Emergence of Governance**

The roots of interest in governance trace back to the problem of the separation of ownership from control, addressed by Berle and Means in 1932, and later analyzed in greater depth through agency theory by Jensen and Meckling in 1976. The separation between the owner and the manager leads to the potential divergence of interests and the emergence of information asymmetry, thereby necessitating mechanisms for oversight, direction, and disclosure[2].Financial crises and corporate collapses, alongside instances of corruption and manipulation of financial statements, have further heightened the focus on governance. This led to the formation of the Treadway Commission in 1985, the Cadbury Committee in 1992, and subsequently the issuance of the OECD Principles in 1999 as significant milestones in the evolution of this concept[3].

The emergence of governance has also been linked to broader factors, including globalization, the expanding role of the private sector and non-governmental organizations, the spread of corruption, the development of management concepts and human rights, and the imperative for more transparent institutions capable of achieving sustainability.

**Third: Theoretical Foundations and Core Principles of Governance**

**1. Theoretical Approaches Explaining Governance**

The study presents a set of theoretical approaches to understanding governance, primarily agency theory and transaction cost economics. Agency theory posits the existence of a contractual relationship between a principal and an agent, wherein the principal delegates certain decision-making powers to the agent. Agency risk arises when the interests of the two parties diverge or when the agent possesses information asymmetry over the principal. Consequently, governance serves as a mechanism to mitigate agency costs and curtail opportunistic behavior through oversight, disclosure, the delineation of responsibilities, and accountability mechanisms[4].

Transaction cost theory, on the other hand, views the firm as a contractual nexus, assuming that structuring relationships and transactions appropriately can contribute to reducing contracting and transaction costs. The relevance of this approach to governance lies in seeking more efficient institutional arrangements for the allocation of authority, oversight, and decision-making[5].

**2. Characteristics of Governance**

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[1] Aissa Bouazza, The Contribution of Corporate Governance to the Upgrading of Accounting Information Systems in Private Healthcare Institutions, Doctoral Dissertation in Financial and Accounting Sciences, Specialization: Accounting, Kasdi Merbah University of Ouargla, 2025/2026, pp. 27–28.

[2] Frank Dangeard, La décision de la crise dans l'entreprise – 12 histoires de gouvernance, Odile Jacob, Paris, 2011, p. 8.

[3] Cadbury Committee, Financial Report of the Committee on the Financial Aspects of Corporate Governance, London, 1992, p. 5.

[4] Abdelhamid Ben Echeikh Elhocine, Organizational Analysis, Dar Bahaeddine for Publishing and Distribution, Constantine, 2008, p. 17.

[5] Oliver E. Williamson, The Economic Institutions of Capitalism, The Free Press, New York, 1985, p. 20.

A set of core characteristics of governance has been identified, most notably discipline, transparency, independence, accountability, responsibility, fairness, and social responsibility. Discipline signifies adherence to rules and procedures and compliance with established standards; transparency denotes making clear and accurate information accessible in a timely manner; independence refers to the capacity of oversight bodies to perform their duties free from undue influence; and accountability entails holding officials answerable for decisions and outcomes. Fairness complements this system by ensuring equitable treatment of stakeholders, while social responsibility reflects the institution's commitment to the societal impact of its operations[6].

**3. Principles of Governance**

The principles of governance encompass respecting the rights of shareholders and stakeholders, ensuring equitable treatment, recognizing the legal and contractual rights of stakeholders, maintaining disclosure and transparency, and clearly delineating the responsibilities of the board of directors. In this context, disclosure constitutes the core of the relationship between governance and accounting information, as oversight and accountability cannot be exercised without complete, reliable, and timely information[7].

**Fourth: Particularities of Healthcare Governance**

Governance in healthcare institutions derives its specificity from the nature of healthcare delivery and the multiplicity of interacting stakeholders. A healthcare institution does not operate solely to achieve a financial return; rather, it provides services that address fundamental societal needs. Consequently, the interests of management, healthcare personnel, patients, suppliers, regulatory authorities, and the broader community intersect within it. This underscores that healthcare governance aims to ensure service quality, optimize resource allocation, enhance trust among stakeholders, and achieve institutional sustainability[8].

The necessity for healthcare governance is manifested across several domains, primarily internal control over resources, ensuring integrity and impartiality, defining duties and authorities, activating internal and external auditing, and establishing clear ethical codes of conduct. Governance is likewise linked to the institution's capacity to supply the requisite information to management and relevant stakeholders, as healthcare, administrative, and financial decision-making necessitates accessible and accurate data.

**Figure (01)**: Characteristics of Corporate Governance

| **Social Responsibility** | **Responsibility** | **Fairness** | **Accountability** | **Independence** | **Transparency** | **Discipline** |
|---|---|---|---|---|---|---|
| ⇓ | ⇓ | ⇓ | ⇓ | ⇓ | ⇓ | ⇓ |
| Viewing the company as a good corporate citizen | The rights of various groups must be respected | Responsibility toward all relevant stakeholders | The ability to evaluate and assess the actions of the board of directors | Absence of undue influence resulting from pressures | Presenting a true and fair view of all occurrences | Adhering to appropriate, ethical, and sound conduct |

**Source**: Tarek Abdel Aal Hammad, *Corporate Governance: Public, Private, and Banking Sectors (Concepts, Principles, Experiences, Requirements)*, Al-Dar Al-Jami'iyah, Egypt, 2nd Edition, 2007–2008, p. 25.

**4. Challenges Facing Healthcare Governance**

The study identifies several challenges linked to the institutional environment, including funding deficits, weak community participation, and economic pressures, alongside the imperative to enhance transparency and accountability and bolster human competencies. These challenges can be understood as factors that impair the ability of healthcare institutions to implement governance frameworks comprehensively. Insufficient resources impede infrastructural and information system development; weak community involvement diminishes the synergy between the institution and its operating environment; and competency shortages undermine control and administrative mechanisms[9].

**5. Healthcare Governance Mechanisms Relevant to Accounting Information**

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[6] Ata'allah Warid Khalil and Mohamed Abdel Fattah El-Ashmawy, Institutional Governance: The Approach to Combating Corruption in Public and Private Institutions, Maktabat Al-Hurriyah for Publishing and Distribution, 2008, p. 22.

[7] Adnan bin Haidar bin Darwish, Corporate Governance and the Role of the Board of Directors, Union of Arab Banks, 2007, p. 65.

[8] Aissa Bouazza, op. cit., p. 40.

[9] Richard B. Saltman, Antonio Durán, and Hans F.W. Dubois, Governing Public Hospitals: Reform Strategies and the Movement towards Institutional Autonomy, European Observatory on Health Systems and Policies, UK, 2011, p. 2.

The theoretical framework of the dissertation highlights several mechanisms directly related to information systems, primarily the board of directors, internal control, internal and external auditing, disclosure, the delineation of authorities and responsibilities, and codes of ethics. These mechanisms function interactively: the board of directors establishes strategic directions and policies, oversight bodies monitor compliance, auditing assesses the integrity of operations and reporting, and disclosure delivers the necessary information to stakeholders. Consequently, the accounting information system forms an integral part of the infrastructure that operationalizes governance principles into verifiable and auditable practices[10].

**Second Section: Theoretical Framework and Components of Accounting Information Systems**

**First: Concepts of System, Data, and Information**

Conceptualizing an accounting information system begins by defining the terms "system," "data," and "information." A system is an integrated set of interacting components and environmental linkages operating cohesively to accomplish specific objectives[11].Data represents the raw material that serves as inputs for the accounting information system, whereas information denotes the processed output derived from data, structured to provide utility to end-users in planning, controlling, and decision-making[12].

**Second: Definition of Accounting Information Systems**

An accounting information system is defined as a subsystem of the management information system[13] comprising human and material resources, software applications, and computational and logical models. It processes financial and non-financial data to generate actionable information that supports internal organizational decision-making. This definition holistically encompasses resources, processes, outputs, and applications, extending beyond mere technical software solutions[14].

Furthermore, accounting information systems encompass financial accounting systems that record transactions and produce financial statements, management accounting systems serving planning, control, and decision support, as well as cost, resource, and budgetary accounting systems, alongside other integrated subsystems functioning within the broader accounting architecture[15].

**Third: System Components**

The foundational components of the system can be synthesized from the theoretical literature as follows: human resources responsible for operation, administration, and control; physical hardware and infrastructure; software applications; databases; procedural rules regulating data processing; and communication networks alongside security controls. Rather than functioning in isolation, these components operate within an integrated cycle extending from data input to information output, mediated by continuous feedback loops. This integrative nature emphasizes the importance of the system for private healthcare institutions, as it facilitates aggregating financial data on revenues, expenses, assets, liabilities, and costs, and interfacing it with administrative and clinical operations to support governance and oversight.

**Fourth: Objectives, Characteristics, and Operating Stages of Accounting Information Systems**

**1. Objectives of the System**

The accounting information system serves multiple objectives, foremost among which is providing the information required by management and external stakeholders, supporting the decision-making process, providing internal control mechanisms, safeguarding assets, maintaining regular books and records, and assisting in diagnosing problems and planning for the future. Decision support constitutes one of its fundamental functions, as accounting information enables management to link planning and control with data regarding performance, resources, and forecasts[16].

**2. Characteristics of the System**

An accounting information system is characterized as a specialized system dedicated to collecting and analyzing accounting data and generating accounting information, with the imperative that the resulting information possesses accuracy, utility, effectiveness, efficiency, and predictive value. The study demonstrates that information utility may

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[10] Health Governance and Transparency Association, Principles and Guidelines for Governance in Hospitals, Egypt, 2014.

[11] Mohamed Abbas Badawi and Abdel Wahab Nasr Ali, Financial Accounting: An Information Systems Approach, Part One, Modern University Office, Alexandria, p. 12.

[12] Abdel Hay Abdel Hay Marei, Management Accounting: Concepts of Decision-Making and Planning, Al-Dar Al-Jami'iyah, 1997, p. 3.

[13] Ahmed Hussein Ali Hussein, Accounting Information Systems: Theoretical Framework and Applied Systems, Al-Dar Al-Jami'iyah, Egypt, 2003, p. 47.

[14] Qasim Mohamed Ibrahim Al-Habiti et al., Accounting Information Systems, Al-Hadba Printing and Publishing Unit, Mosul, 2003, p. 42.

[15] Ahmed Zakaria Zaki Osaimi, Accounting Information Systems: A Contemporary Approach, Dar Al-Marikh for Publishing, Saudi Arabia, 2020, p. 32.

[16] Ibrahim Al-Jazrawi and Amer Al-Janabi, Fundamentals of Accounting Information Systems, Dar Al-Yazouri, Amman, Jordan, 2009, pp. 27–29.

encompass form, time, place, evaluative, and corrective utilities, indicating that information quality is not determined solely by its factual correctness, but also by its relevance to user needs, its accessibility at the appropriate time and place, and its capacity to support evaluation and corrective action[17].

**3. Operational Stages of the System**

According to the theoretical literature, the system's operational cycle progresses through interconnected stages beginning with inputs, where data related to transactions and economic events is captured. This is followed by the processing stage, which includes recording, classifying, tabulating, and calculating data using standardized procedures, software applications, and databases. Next is the output stage, during which accounting information is generated in the form of reports, schedules, and financial statements. Finally, the feedback stage enables using outputs to assess performance or adjust processing operations[18]. Feedback holds particular significance because it renders the system dynamic, ensuring that the information cycle does not terminate upon report generation, but rather applies results to oversight, evaluation, and planning, feeding data or indicators back into the system to enhance subsequent processing cycles.

**Fifth: Types of Accounting Information Systems and Associated Risks**

**1. Subsystems**

The theoretical framework indicates that an accounting information system does not constitute an isolated entity, but rather an integrated suite of subsystems. These include the financial accounting system, which focuses on recording transactions and preparing financial statements; the management accounting system, which provides planning and control information; the cost accounting system, which assists in measuring product and service costs; and the budgetary system, which supports financial forecasting and performance monitoring, alongside payroll, accounts payable, accounts receivable, and resource accounting subsystems[19].

These integrated systems provide multipurpose information and enable management to advance from merely recording transactions to analyzing and utilizing them in decision-making and oversight. In healthcare institutions, the imperative for this integration increases due to diversified revenue and expenditure streams, varied clinical services, and the necessity to continuously track human, material, and financial resources.

**2. Risks of Accounting Information Systems**

The study emphasizes that the accounting system is exposed to vulnerabilities across various stages, including input risks resulting from untimely data recording or the entry of erroneous data, processing and output risks, and risks related to information security and unauthorized access. This highlights the necessity of safeguarding the system against cyberattacks and malicious software, ensuring data integrity, defining user access privileges, and instituting appropriate internal control procedures[20].

Here emerges the direct nexus between system security and governance; governance requires reliable and verifiable information, whereas deficient information security can lead to data tampering, loss, or denial of access, thereby undermining internal control and accountability and impairing decision quality.

**3. Efficiency and Effectiveness**

It is insufficient for an accounting information system to be effective without being efficient, or efficient without achieving its established objectives. Effectiveness denotes the attainment of intended goals, whereas efficiency pertains to optimal resource utilization and cost containment. Consequently, upgrading the system within a healthcare institution must reconcile the quality of informational outputs with the rationalization of the resources consumed in producing them[21].

**Sixth: The Quality of Accounting Information and Its Role in Governance**

The quality of accounting information represents the primary intersection between the accounting system and corporate governance. The study explains that assessing information quality relies on a set of criteria, foremost among which are accuracy, utility, effectiveness, efficiency, and predictive value. Accurate information faithfully represents economic events; useful information aligns with user needs and is delivered in a timely manner; effective information aids in achieving user objectives; efficiency relates to the value of information relative to its cost; and predictive value refers to its capacity to reduce uncertainty when utilized in forecasting[22].

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[17] Omar Saad Al-Ajeel, Yasser Ibrahim Dawood, and Alaeddin Abdel Aziz Fahmy Omar, "The Impact of Corporate Governance Implementation on Improving Accounting Information Quality and Rationalizing Decisions in Light of Digitization," Scientific Journal of Financial and Administrative Studies and Research, Vol. 13, No. 2, March 2022, pp. 1281–1282.

[18] Aissa Bouazza, op. cit., pp. 42–45.

[19] Mustafa Al-Othmani, The Accounting Information System and its Role in Enhancing Financial Performance in Algerian Economic Enterprises: A Case Study of Saidal Group 2010–2014, University of Algiers 3, 2015, p. 25.

[20] Mohamed Fadl Al-Mawla, op. cit., pp. 73–74.

[21] Aissa Bouazza, op. cit., pp. 60–61.

[22] Omar Saad Al-Ajeel et al., op. cit., p. 1284.

Consequently, the quality of accounting information systems is measured not merely by the capacity to produce a large volume of reports, but by the ability to generate reliable, relevant, and actionable information. From a governance perspective, these qualitative characteristics are essential for activating disclosure and accountability, as stakeholders cannot assess institutional performance or monitor management decisions without high-quality information.

**1. Transparency and Disclosure**

Governance links disclosure to the accurate and timely provision of material information. In accordance with established governance principles, disclosure encompasses information related to financial performance, ownership rights, governance structures, and potential risks, provided that the information comprehensively covers aspects that influence stakeholder decisions[23]. Hence, the accounting information system serves as the foundational infrastructure providing a substantial portion of the data necessary for this disclosure.

**2. Accountability and Oversight**

Accountability requires the traceability of transactions and decisions, attributing them directly to the responsible parties. This necessitates comprehensive audit trails, clear documentation, and well-defined authorization procedures. Accounting information systems provide the mechanisms for control and safeguarding over data and assets, while assisting in the diagnosis of financial and accounting discrepancies[24].Thus, governance provides the information system with a supervisory framework, while the information system equips governance with the evidentiary data foundation required to exercise effective oversight.

**3. Decision-Making**

Accounting information supports financial and managerial decision-making by presenting an accurate representation of the current financial position, historical performance, and future projections. The greater the accuracy, relevance, and timeliness of the information, the higher the capacity of management to plan, control, and make informed decisions. This dimension represents one of the most critical conduits through which accounting information systems contribute to corporate governance.

**Third Section: The Theoretical Relationship Between Healthcare Governance and Accounting Information Systems**

The relationship between healthcare institution governance and accounting information systems, within the theoretical framework of the dissertation, is grounded in mutual interaction between the organizational and oversight structure on the one hand, and the information architecture on the other. Governance requires accurate and reliable information to exercise oversight, accountability, and decision-making, whereas information systems necessitate an institutional environment that regulates authorities and responsibilities, safeguards data, and ensures the proper utilization of information[25].

**First: Governance as a Framework for Upgrading the Information System**

The implementation of governance principles contributes to defining responsibilities and authorities, activating internal and external auditing, strengthening independence, and consolidating disclosure and transparency—elements that collectively structure and streamline the accounting information cycle. Moreover, the presence of a code of ethics and clear operational rules mitigates practices that could compromise data integrity. From this perspective, upgrading the system is not merely a technical update, but rather an institutional process encompassing human resources, operational procedures, internal control, and information security.

**Second: Accounting Information Systems as an Instrument for Operationalizing Governance**

Conversely, accounting information systems provide the data essential for exercising governance. Accounting reports and statements enable management and oversight bodies to track performance, compare actual outcomes with targets, identify deviations, audit transactions, and support strategic decisions. Furthermore, the timely provision of information enhances transparency, establishes an empirical foundation for accountability, and facilitates performance evaluation.

**1. Model of the Relationship Between the Two Variables**

The theoretical relationship can be synthesized into an interconnected continuum consistent with the study's conceptual model, which posits governance as a means of upgrading information systems, and the latter as an instrument for operationalizing governance.

The literature informing this study confirms that the successive stages of accounting governance enhance the transparency and credibility of financial information through ex-ante and ex-post transaction controls, adherence to

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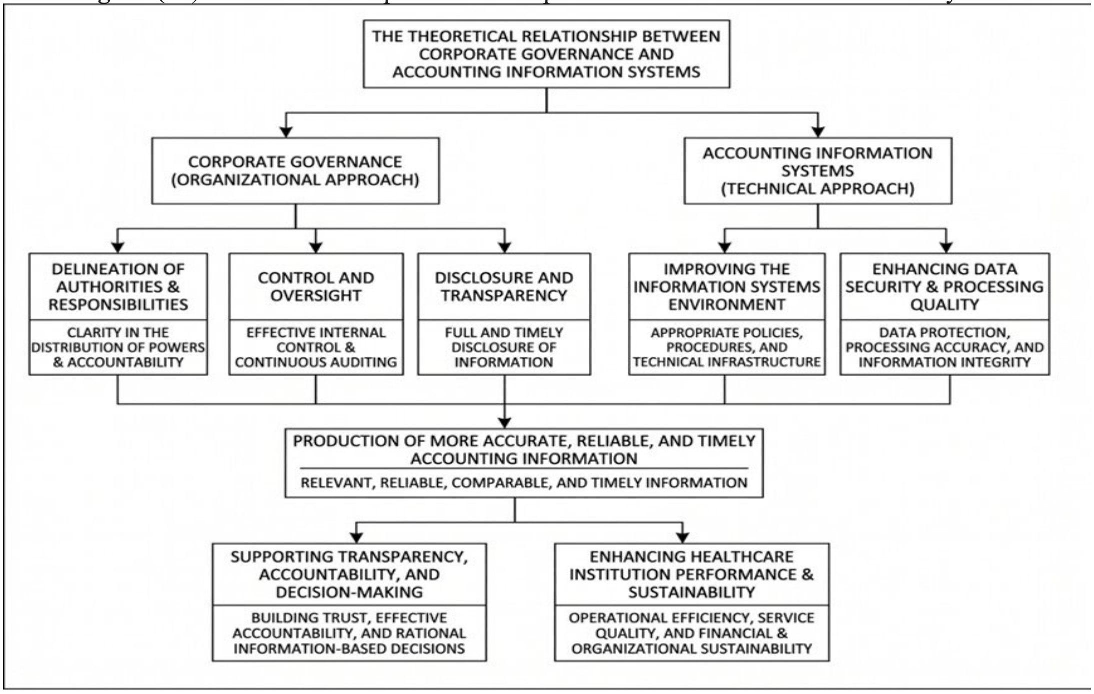
[23] Aissa Bouazza, op. cit., p. 30.

[24] Aissa Bouazza, Ibid., p. 46.

[25] Aissa Bouazza, The Contribution of Corporate Governance to the Upgrading of Accounting Information Systems in Private Healthcare Institutions, Doctoral Dissertation in Financial and Accounting Sciences, Specialization: Accounting, Kasdi Merbah University of Ouargla, 2025/2026, pp. 2–3.

standards, and clear financial reporting, ultimately leading to building trust, elevating accountability, and improving overall performance[26], as illustrated in the following figure:

**Figure (02)**: The Relationship Between Corporate Governance and Information Systems




**Source:** Prepared by the author.

**Empirical Study**

**First: Population and Sample of the Study**

The target population comprises all employees within the surveyed private healthcare institutions whose functional roles involve utilizing accounting information systems, processing accounting data, or leveraging accounting information in the execution of their administrative and financial duties. This specifically encompasses accountants, financial officers, department heads, managers, and administrative personnel within private healthcare institutions.

**Second: Study Sample**

Given the practical difficulty of surveying all members of the target population, the study relied on a sample of employees across the examined private healthcare institutions, consisting of 45 financial and accounting personnel distributed across 08 healthcare institutions. This approach was employed to collect primary data related to the research subject by administering the structured questionnaire to the sample members.

**I. Validity and Reliability Analysis of the Sample Using Descriptive Statistical Methods for the Questionnaire**

- **Testing Sample Reliability and Validity Using Cronbach's Alpha:**

The reliability coefficient serves as an indicator of the measurement instrument's stability and internal consistency—reflecting its structural coherence and freedom from measurement error—defined as its capacity to yield consistent results upon repeated administration to the same study sample. In this context, Cronbach's Alpha coefficient was adopted to evaluate the reliability of the questionnaire developed for this study. This metric is computed based on the variance among the individual survey items and the total scale variance. When the alpha coefficient approaches zero, it reflects poor internal consistency within the scale, indicating a lack of reliability. Conversely, high coefficient values indicate a substantial level of reliability, confirming that the analyzed items measure the targeted construct consistently. Furthermore, the reliability coefficient constitutes a crucial index of the research instrument's quality and measurement accuracy; elevated Cronbach's Alpha values enhance the generalizability of the findings, whereas low values reduce empirical reliability, impairing the scale's internal and external validity, constraining the precision of interpretations and inferences, and thereby precluding generalization.

[26] Mohamed Ahmed Ibrahim Khalil, "The Role of Corporate Governance in Achieving the Quality of Financial Information and Its Reflection on the Stock Market: A Theoretical and Applied Study," Journal of Commercial Studies and Research, First Issue, Zagazig University, Benha, 2005, p. 14.

The following table presents the reliability and validity coefficients across the various study dimensions, facilitating an evaluation of the stability and consistency of the utilized research instrument. In accordance with established statistical benchmarks in academic research, reliability levels are categorized as follows:

- Reliability is deemed unacceptable if the coefficient value is less than 0.60.
- Reliability is deemed weak if the coefficient value ranges between 0.60 and 0.69.
- Reliability is considered acceptable if the coefficient value ranges between 0.70 and 0.79.
- Reliability is considered good if the coefficient value ranges between 0.80 and 0.89.
- Reliability is classified as very high if the coefficient value exceeds 0.90.

**Table (01):** Distribution of Cronbach's Alpha and Validity Coefficients

| Questionnaire Dimensions | Dimension Content | Number of Items | Cronbach's Alpha Coefficient | Validity Coefficient |
|---|---|---|---|---|
| First Dimension: First Hypothesis | Effectiveness of Accounting Information Systems | 07 | 0.833 | 0.921 |
| Second Dimension: Second Hypothesis | Implementation of Governance Principles | 07 | 0.825 | 0.945 |
| Third Dimension: Third Hypothesis | Contribution of Corporate Governance to Upgrading Accounting Information Systems | 07 | 0.844 | 0.965 |
| **Overall Total** | | **21** | **0.834** | **0.944** |

**Source**: Prepared by the researchers based on SPSS software output.

Based on the results presented in the table, it is evident that the questionnaire exhibits a high degree of reliability and validity. The overall mean of Cronbach's Alpha coefficient reached approximately (0.834), which represents an elevated level reflecting robust internal consistency among the questionnaire items. Furthermore, the overall mean of the validity coefficient reached approximately (0.944), serving as a statistical indicator confirming that the research instrument effectively measures the constructs it was designed to evaluate.

These findings demonstrate that the items formulated across the three dimensions are integrated and coherent, thereby justifying reliance on the questionnaire as a rigorous scientific measurement instrument. Moreover, the convergence of values across the different dimensions reflects homogeneity in respondents' feedback and stability in their perspectives, which confers substantial credibility upon the empirical field data. Consequently, these statistical indicators not only reinforce the reliability of the research instrument, but also substantiate the feasibility of testing the three proposed field hypotheses with full objectivity and rigor, thereby enhancing the validity and robustness of the study's findings in both academic and applied analyses.

❖ **Descriptive Statistical Analysis of the Questionnaire:**

To ensure precision in addressing the research questions, the questionnaire was designed to provide reliable empirical data capturing the various facets of the research subject. The relative proportions associated with each dimension of the study were calculated with precision, accounting for potential variances among respondents through the application of appropriate statistical methods to achieve the highest standards of objectivity and analytical accuracy. The items were classified and ranked according to the perspectives of the target groups, drawing upon accounting institutions and standard deviations. Furthermore, the items were ranked from the perspective of environmental cohorts according to the relative weight of their arithmetic means, wherein items with the highest mean values were designated as most important, whereas items with lower values were deemed of secondary importance within the arithmetic mean computations.

To determine the relative importance of each statement, a five-point Likert scale was employed, structured as follows: Strongly Disagree (1), Disagree (2), Neutral (3), Agree (4), and Strongly Agree (5). Accordingly, the arithmetic mean for each item was calculated against a defined benchmark, where the arithmetic mean serves as the primary reference for ranking, ordered from highest to lowest values.

The assessment of importance relies on the degree of respondent consensus regarding each statement, with the results categorized across the following tiers:

- If the arithmetic mean is less than 1.80, it indicates strong disagreement.
- If it ranges between 1.80 and 2.60, it indicates disagreement.
- If it ranges between 2.60 and 3.40, it indicates neutrality.
- If it ranges between 3.40 and 4.20, it reflects agreement.
- If it exceeds 4.20, it expresses strong agreement.

The data distribution corresponds to participant engagement, with responses ranging from 2 to 5 respondents per item, at a confidence interval of 0.80, ensuring a homogeneous distribution of results as illustrated in the following tables:

**Table (02):** Scale for Determining the Relative Importance of the Arithmetic Mean

| Arithmetic Mean | Relative Importance / Agreement Level |
|---|---|
| 1.00 to less than 1.80 | Strongly Disagree |
| 1.80 to less than 2.60 | Disagree |
| 2.60 to less than 3.40 | Neutral |
| 3.40 to less than 4.20 | Agree |
| 4.20 to 5.00 | Strongly Agree |

**Source**: Prepared by the researchers based on SPSS software output.

- **First Hypothesis:** Private healthcare institutions utilize effective accounting information systems that contribute to improving accounting information quality and supporting the decision-making process.

**Table (03)**: Survey Results of the Sample Opinions on the First Dimension Hypothesis

| Statements | Arithmetic Mean | Standard Deviation | Level |
|---|---|---|---|
| The accounting information system provides accounting information in a timely manner. | 4.45 | 0.60 | Strongly Agree |
| The accounting information provided by the system is characterized by accuracy and reliability. | 4.10 | 0.72 | Agree |
| The accounting information system contributes to reducing errors during the recording and processing of accounting data. | 4.35 | 0.80 | Strongly Agree |
| The accounting information system provides the necessary information for various management levels. | 3.95 | 0.75 | Agree |
| The accounting information system assists management in making appropriate decisions. | 4.33 | 0.65 | Strongly Agree |
| The system contributes to facilitating the process of collecting, processing, storing, and retrieving accounting information. | 3.85 | 0.78 | Agree |
| An effective accounting information system contributes to improving the quality of accounting information within the institution. | 4.05 | 0.70 | Agree |
| **Overall Mean** | **4.15** | **0.71** | **Agree** |

**Source:** Prepared by the researchers based on SPSS software output.

- **Analysis of the First Dimension Results**

The findings from the first dimension reveal that the study sample exhibits a positive orientation toward the effectiveness of the accounting information systems employed in private healthcare institutions. Overall, respondent feedback indicates that these systems play a pivotal role in supplying the accounting information necessary for management and decision-making.

The results further demonstrate that accounting information systems facilitate the timely provision of information, enabling management to rely on such data to monitor operational processes and make sound decisions. Additionally, the available accounting information exhibits an acceptable degree of accuracy and reliability, which enhances its utility in managerial operations.

Furthermore, the results highlight the role of accounting information systems in mitigating accounting errors during data entry and processing, as well as delivering essential information across various organizational tiers. This underscores the significance of the accounting system in structuring information, facilitating access, and optimizing its utilization. Concurrently, the system supports management in decision-making and streamlines the collection, processing, storage, and retrieval of accounting data, thereby reinforcing the overall efficiency of accounting workflows within the institution.

Accordingly, the empirical findings of this dimension support the first hypothesis, which posits that private healthcare institutions utilize effective accounting information systems that contribute to improving accounting information quality and supporting decision-making processes, as evidenced by the positive consensus among respondents regarding the dimensions of system effectiveness.

**Second Dimension: Implementation of Corporate Governance Principles**

**Second Hypothesis:** Private healthcare institutions implement corporate governance principles in their administrative and financial management to varying degrees.

**Table (04):** Survey Results of the Sample Opinions on the Second Dimension Hypothesis

| Statements | Arithmetic Mean | Standard Deviation | Level |
|---|---|---|---|
| The institution is keen on providing financial and administrative information clearly and transparently. | 4.33 | 0.70 | Strongly Agree |
| Accounting and financial information is disclosed to relevant parties in a timely manner. | 4.29 | 0.66 | Strongly Agree |
| There are clear mechanisms for holding officials accountable for administrative and financial decisions and actions. | 3.19 | 0.79 | Neutral |
| Responsibilities and authorities are clearly defined across various managerial levels. | 4.82 | 0.80 | Strongly Agree |
| The institution relies on an internal control system to reduce errors and financial and administrative irregularities. | 4.01 | 0.72 | Agree |
| The institution's management adheres to applicable laws, regulations, and procedures in running its operations. | 4.30 | 0.68 | Strongly Agree |
| The institution seeks to implement governance principles to enhance the efficiency and effectiveness of administrative and financial management. | 4.15 | 0.75 | Strongly Agree |
| **Overall Mean** | **4.19** | **0.71** | **Agree** |

**Source**: Prepared by the researchers based on SPSS software output.

**Discussion of the Second Dimension Results:**

The findings of the second dimension indicate that the sample respondents generally perceive that private healthcare institutions implement corporate governance principles positively, particularly regarding transparency, the provision of financial and administrative information, disclosure to stakeholders, the clear delineation of responsibilities and authorities, and adherence to applicable laws, regulations, and operational procedures.

The results also reflect institutional commitment to applying governance principles to enhance the efficiency and effectiveness of administrative and financial management. This demonstrates administrative awareness of the role of governance in structuring operations, reinforcing internal control, and mitigating practices that could undermine managerial integrity.

Conversely, certain areas require further reinforcement, particularly mechanisms for holding officials accountable for administrative and financial decisions and actions. This suggests that the implementation of governance principles remains uneven across its various dimensions; it is not confined to legal and procedural compliance, but also necessitates establishing clear and effective internal control and accountability mechanisms.

Accordingly, the surveyed private healthcare institutions apply corporate governance principles at a positive level with observed variation across specific dimensions. This substantiates the acceptance of the second hypothesis, which posits that: "Private healthcare institutions implement corporate governance principles in their administrative and financial management to varying degrees."

- **Third Hypothesis:** Corporate governance contributes positively to upgrading and activating accounting information systems and improving accounting information quality in private healthcare institutions.

**Table (05):** Survey Results of the Sample Opinions on the Third Dimension Hypothesis

| Statements | Arithmetic Mean | Standard Deviation | Level |
|---|---|---|---|
| Transparency and disclosure contribute to improving the quality of data relied upon by the accounting information system. | 4.31 | 0.88 | Strongly Agree |
| Internal control contributes to reducing errors and risks associated with accounting information systems. | 4.21 | 0.70 | Strongly Agree |
| Accountability helps ensure the proper and effective use of accounting information systems. | 4.82 | 0.85 | Strongly Agree |
| The application of governance principles contributes to enhancing the accuracy and reliability of accounting information. | 4.13 | 0.65 | Agree |
| Corporate governance contributes to enhancing the protection and security of accounting data and information. | 3.90 | 0.68 | Agree |
| The application of governance principles helps develop the efficiency and effectiveness of accounting information systems. | 4.46 | 0.95 | Strongly Agree |

| **Overall Mean** | **4.02** | | **Agree** |
|---|---|---|---|

**Source:** Prepared by the researchers based on SPSS software output.

**Discussion of the Results:**

The findings of the third dimension indicate a distinct positive attitude among the sample respondents toward the contribution of corporate governance to upgrading and activating accounting information systems and enhancing accounting information quality within private healthcare institutions.

The results illustrate that the application of transparency and disclosure principles contributes to improving the quality of data relied upon by the accounting information system. Moreover, internal control plays a significant role in mitigating errors and risks associated with the accounting system, thereby enhancing the reliability and integrity of accounting information.

Furthermore, accountability ensures the sound and effective utilization of accounting information systems, while the implementation of governance principles enhances the accuracy and reliability of accounting information, rendering it more aligned with the needs of management and diverse information users.

The results likewise indicate that corporate governance contributes to the protection and security of accounting data and information, in addition to its role in enhancing the efficiency and effectiveness of accounting information systems. This confirms the existence of a positive relationship between the application of governance principles and the advancement of accounting information systems within private healthcare institutions.

Based on the foregoing, the implementation of corporate governance principles serves as a critical driver in upgrading and operationalizing accounting information systems and improving the quality of generated information through the reinforcement of oversight, transparency, accountability, and data protection.

Consequently, the findings of this dimension support the third hypothesis, which posits that: "Corporate governance contributes positively to upgrading and activating accounting information systems and improving accounting information quality in private healthcare institutions."

- **Student's t-Test:**

Following the review of descriptive statistics for the study sample, a One-Sample t-Test was conducted to verify the statistical significance of the study's hypotheses, which were operationalized through questionnaire items administered to the sample respondents.

Decision criteria were based on the following two decision rules:

- ✓ The null hypothesis is accepted if the p-value (Sig.) is greater than 0.05 (5%).
- ✓ The alternative hypothesis is accepted if the p-value (Sig.) is less than 0.05 (5%).

**Table (06):** Results of the One-Sample t-Test for the Study Sample

| **Statements** | **Calculated t-Value** | **Degrees of Freedom (df)** | **Significance Level (Sig.)** | **Decision** |
|---|---|---|---|---|
| First Hypothesis: Private healthcare institutions utilize effective accounting information systems that contribute to improving accounting information quality and supporting the decision-making process. | 3.218 | 44 | 0.000 | Accept H1 |
| Second Hypothesis: Private healthcare institutions implement corporate governance principles in their administrative and financial management to varying degrees. | 2.899 | 44 | 0.000 | Accept H1 |
| Third Hypothesis: Corporate governance contributes positively to upgrading and activating accounting information systems and improving accounting information quality in private healthcare institutions. | 4.109 | 44 | 0.000 | Accept H1 |
| **Total Scale Items** | **21** | **44** | **0.000** | **Accept H1** |

**Source**: Prepared by the researchers based on SPSS software output.

**Discussion of the Results:**

The results of the One-Sample t-Test indicate the presence of statistical significance for the hypotheses under examination. The findings demonstrate that the study sample members exhibit a positive attitude toward the effectiveness of accounting information systems within private healthcare institutions. The results also confirm that these systems contribute to providing the necessary accounting information, improving its quality, and supporting the decision-making process. Furthermore, the findings show a positive trend toward the implementation of corporate governance principles in private healthcare institutions. This reflects institutional interest in the principles of transparency, disclosure, control, and accountability within their administrative and financial management. The results also confirm that the level of implementation of governance principles varies across different domains and practices within the institutions under study. The test results further indicate a positive effect of corporate governance principles on accounting information systems, as governance contributes to reinforcing control over accounting data and information and mitigating associated errors and risks. Moreover, governance principles assist in improving the accuracy and reliability of accounting information and enhancing its dependability in decision-making. The findings highlight the importance of integration between corporate governance and accounting information systems in improving the administrative and financial performance of private healthcare institutions. Accordingly, the three study hypotheses were accepted, confirming the coherence of the empirical field results with the theoretical framework of the study. Thus, corporate governance represents an essential factor in upgrading and operationalizing accounting information systems and enhancing accounting information quality in private healthcare institutions.

**Conclusion**

This study aimed to examine the extent to which corporate governance contributes to upgrading and operationalizing accounting information systems within private healthcare institutions. The study departed from a primary problem statement centered on the extent to which corporate governance contributes to improving the effectiveness of accounting information systems and the quality of accounting information. Through the theoretical framework, the importance of accounting information systems and their role in providing the information necessary for management and decision-making were elucidated. The concept of corporate governance, its principles, and its significance in enhancing transparency, control, and accountability within organizations were also addressed. Regarding the empirical aspect, a questionnaire administered to the study sample was utilized to measure respondents' attitudes toward the study dimensions. The results of the first dimension revealed a positive orientation toward the effectiveness of the accounting information systems employed in private healthcare institutions. The findings also indicated that these systems contribute to providing accurate, reliable, and timely accounting information. The results of the second dimension showed that private healthcare institutions implement corporate governance principles to varying degrees in their administrative and financial management. Furthermore, the findings indicated awareness of transparency, disclosure, control, assignment of responsibilities, and compliance with laws and regulations. The third dimension confirmed the positive contribution of corporate governance to upgrading and operationalizing accounting information systems.

Governance contributes to strengthening control over accounting information, improving its accuracy and reliability, and safeguarding it against errors and risks. The statistical test results demonstrated support for the three study hypotheses, confirming a positive trend toward the study variables and their interrelationships. Consequently, corporate governance can be considered an essential factor for advancing accounting information systems in private healthcare institutions. Improving the implementation of governance principles enhances accounting information quality and supports management in making appropriate decisions. Based on the findings, the study underscores the necessity of achieving integration between governance principles and accounting information systems to realize more efficient and effective management. In light of these conclusions, the study proposes a set of recommendations to foster corporate governance and develop accounting information systems in private healthcare institutions.

**Study Recommendations:**

1. Reinforcing the implementation of corporate governance principles within private healthcare institutions, particularly transparency, disclosure, accountability, and control.
2. Developing accounting information systems in alignment with the operational needs of healthcare institutions and contemporary management requirements.
3. Strengthening internal control systems to mitigate errors and risks associated with accounting data and information.
4. Providing continuous training and capacity-building programs for accounting and administrative personnel on governance and accounting information systems.
5. Prioritizing data security and protection through the adoption of appropriate technical and organizational measures.
6. Enhancing the quality of accounting information regarding accuracy, reliability, relevance, and timeliness.
7. Establishing clear and effective accountability mechanisms and delineating authorities and responsibilities within private healthcare institutions.
8. Encouraging management to utilize the outputs of accounting information systems in administrative and financial decision-making.
9. Conducting periodic evaluations of accounting information systems' effectiveness and their alignment with organizational needs.
10. Enhancing coordination among various administrative and financial departments to ensure the effective flow of accounting information.
11. Upgrading the technological infrastructure of accounting information systems and keeping pace with digital developments.

12. Encouraging private healthcare institutions to adopt explicit disclosure and transparency policies and improve the quality of information provided to various stakeholders.

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