

The Impact of Cloud Accounting Adoption on the Auditing Profession: Between Enhancing Operational Efficiency and Preserving Professional Ethics Case Study of a Sample of Academics and Professionals in the Field of Accounting and Auditing



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Abstract:

This study looks at how cloud accounting helps make audit procedures more efficient while also considering the challenges of maintaining professional ethics, aiming to measure the impact of using cloud accounting in the auditing field. Through a survey of current pertinent literature and an examination of the effects of digital transformation on the auditing workplace, the study is founded on a descriptive-analytical methodology.

The study concluded that the adoption of cloud accounting has significantly contributed to improving the efficiency of audit processes by accelerating access to financial data, enhancing the accuracy of audit reviews, and reducing operational costs, in addition to supporting continuous and real-time auditing. On the other hand, the results showed that this transformation imposes increasing ethical and professional challenges, represented by information security risks, data confidentiality issues, auditor independence, and excessive reliance on cloud service providers

key words: Cloud Accounting; Auditing Profession; Operational Efficiency; Professional Ethics; Digital Transformation .

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Introduction:

In recent decades, the world has witnessed rapid digital transformations that have affected various economic and professional sectors. The fields of accounting and auditing have been significantly influenced by these transformations, particularly with the emergence of cloud accounting as one of the most important applications of modern information technology. This accounting model has provided advanced capabilities for processing, storing, and analysing financial data in real time, thereby contributing to improved speed of performance, greater accuracy of information, and enhanced operational efficiency for organisations. However, this rapid technological advancement simultaneously raises new professional and ethical challenges, especially for the auditing profession, which is fundamentally based on independence, objectivity, and the preservation of information confidentiality.

In this regard, the need for auditors to adjust to a new digital world that depends on cloud-based systems is growing. Given the risks related to information security, data protection, and the increasing reliance on cloud service providers, this raises fundamental questions about the extent to which these systems can support the quality of the auditing process without compromising professional ethics. This viewpoint highlights the study's main research issue.

Research Issue

Given the aforementioned, the research question might be stated as follows:

How much does the use of cloud accounting impact the auditing profession's ability to strike a compromise between maintaining professional ethics and improving operational efficiency?

Sub-Research Questions

The following sub-questions emerge from the primary research problem:

- How much does the use of cloud accounting influence the evolution of auditing procedures in an increasingly digital world?
- What effect does adopting cloud accounting have on an auditor's operational efficiency, specifically with regard to how quickly and accurately audit activities are completed?
- How much does the usage of cloud accounting impact adherence to the ethical guidelines and professional standards that regulate the auditing profession?

- Does using cloud accounting enhance the audit process's operational effectiveness without sacrificing professional ethics?

Research Theories

The following theories are the focus of this investigation:

- The evolution of auditing procedures in a digital setting is facilitated by reliance on cloud accounting.
- By increasing the speed and accuracy of audit work completion, cloud accounting has an impact on the auditor's operational efficiency.
- The degree of adherence to professional norms and ethical guidelines guiding the auditing profession is impacted by the use of cloud accounting.
- Without sacrificing professional ethics, cloud accounting helps to improve operational efficiency.

The study's objectives

The purpose of this study is to:

- Describe cloud accounting, its features, and how it affects the auditing industry.
- Examine how cloud accounting might enhance the auditing process's operational effectiveness.
- Determine the difficulties and moral dilemmas related to cloud accounting implementation.
- Evaluate how much cloud-based systems impact the independence of auditors and the calibre of their work.

Importance of the Research

Both the theoretical and practical aspects of this study contribute to its significance. Theoretically, it advances knowledge of the connection between cloud accounting and the auditing profession, especially in view of the ethical issues surrounding professional activity. Practically speaking, the study is crucial for audit companies, practitioners, and decision-makers since it offers useful conclusions and suggestions that promote the best possible use of cloud technologies and assist in reducing the risks associated with their implementation. This in turn aids in striking a balance between upholding professional ethics and improving the operational effectiveness of auditing procedures.

Chapter One: Theoretical Foundations of Cloud Accounting and Its Impact on the Auditing Profession

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1. Cloud Accounting

Cloud accounting is one of the recent technological innovations that has witnessed significant development in the fields of business and accounting. It relies on storing and processing financial data over the Internet using cloud servers, allowing access to information at any time and from any location. This has raised questions about the impact of this technology on the auditing profession, where auditing plays a vital role in ensuring the accuracy and reliability of financial information.

1.1 The Cloud Accounting Concept

Cloud accounting is a technology that offers online accounting services by utilising cloud computing capabilities. With the use of this technology, businesses can process and store financial data on cloud servers, giving them access to information from any location at any time with an Internet connection (Marston et al., 2011).

The term “**cloud**” generally refers to the ability to access software and data over the Internet at any time, from any location, and using any device that provides an Internet connection. The term “**cloud accounting**” describes the use of information technology that transfers accounting processing and storage from a local computer to what is known as the cloud. Users access this cloud via their web browser, transforming accounting software from a product into a service when cloud accounting technology is adopted (Shnawa & Al-Shammari, 2019).

"An accounting system that relies on the use of computers and accounting software to process and record financial transactions and accounting data instead of the traditional manual method, which increases processing speed, reduces human errors, and allows rapid access to financial reports and financial analysis for organisations" is the definition of computerised accounting (Dimitriu, Stefanescu, & Popa, 2015, p. 854).

According to the aforementioned, cloud accounting is a contemporary technology that enables users to move processed accounting data to the cloud without requiring storage space on a personal computer and to swiftly access it via the Internet at any time and from any location.

Key Components of Cloud Accounting

Adopting cloud accounting necessitates a number of crucial elements that support the system's efficacy and help it achieve efficiency in fulfilling institutions' organisational and accounting needs:

- **Cloud Infrastructure:** The cloud infrastructure, which offers robust virtual servers and scalable storage capacities that improve the effectiveness of financial data processing, is the technical cornerstone of a cloud accounting system. These characteristics reduce the financial constraints associated with traditional infrastructure while providing organisations with significant operational flexibility, enabling them to modify technical resources in accordance with business objectives (Hamzah, Suhendar, & Zainul Arifin, 2023, p. 443).
- **Internet connectivity:** To guarantee instant access to financial data and real-time changes, cloud accounting solutions completely depend on a quick and reliable Internet connection. The accuracy of financial reports and the effectiveness of decision-making can be adversely affected by any interruption or poor connection quality, which might impede accounting activities or postpone information updates (Tawfik et al., 2022, p. 6).
- **Cloud Accounting Software:** To manage accounts, invoices, and financial reporting, the system needs sophisticated applications. By automating repetitive accounting tasks like periodic budgeting and invoicing, these programmes lower human labour costs, increase data accuracy, and provide real-time financial reporting that aids in strategic planning (Hamzah et al., 2023, pp. 442–443).
- **Security Measures:** Information security is one of the most critical challenges in cloud accounting. The system includes strong encryption techniques, access control procedures, and regular backup solutions to ensure the safety of data and protect it from breaches or loss. These measures build trust in the system and encourage organisations to rely on it for processing sensitive financial data (Hamzah et al., 2023, p. 446).
- **User Management & Permissions:** Based on work roles, the system enables organisations to accurately specify user permissions. For instance, a financial manager has access to analysis and reports, whereas an accountant may just document transactions. This minimises human mistake in processing

financial data and decreases unauthorised access (Tawfik et al., 2022, p. 6).

- **Technical Support & Training:** Ensuring the best possible usage of the cloud accounting system requires the provision of technical support and training. Cloud service providers increase staff productivity and reduce technical problems by providing users with extensive training programmes and on-going technical assistance. Additionally, prompt technical assistance guarantees that any operational issues are promptly fixed, preserving the system's efficiency and continuity in handling financial data (Hamzah et al., 2023, p. 446).

Advantages of Cloud Accounting:

Cloud computing has a lot of benefits. The following is a summary of cloud accounting's primary advantages:

- **Instant data access:** Any internet-connected device can instantly access financial data, which promotes teamwork and improves the effectiveness of financial operations (Armbrust et al., 2010).
- **Cost reduction:** Because cloud service providers cover these costs, cloud accounting lowers the costs associated with technology infrastructure and maintenance (Sultan, 2010).
- **Frequent updates:** Cloud services guarantee the use of the most recent versions and features by providing software upgrades on a regular basis without requiring user intervention (Rittinghouse & Ransome, 2017).
- **Data security:** To prevent data breaches and illegal access, cloud services rely on sophisticated security measures, including encryption and authentication (Chen & Zhao, 2012).

Despite the substantial benefits it offers, organisations have a number of difficulties while using cloud accounting. These difficulties can be summed up as follows:

- **Dependency on internet connectivity:** In order to guarantee real-time data access and the effective execution of accounting activities, cloud accounting necessitates a steady and dependable online connection. The efficient usage of the system may be hampered by inadequate infrastructure in some areas (Alshamaila, Papagiannidis, & Li, 2013).
- **Security and privacy issues:** Despite cloud services' reliance on sophisticated security measures, worries about safeguarding private information from breaches and cyberattacks persist (Subashini & Kavitha, 2011).

- **Integration with current systems:** In order to guarantee compatibility and continuity of accounting processes, organisations may encounter difficulties while attempting to integrate new cloud systems with current traditional systems (Dillon, Wu, & Chang, 2010).

2. The Auditing Profession in the Digital Environment

2.1 Concept of Auditing and Its Objectives

According to the American Accounting Association (AAA), auditing is "a systematic and structured process of objectively obtaining and evaluating evidence and information related to the results of economic activities and events, in order to determine the degree of correspondence between those results and established criteria, and communicating the results to interested parties" (Belaiboud, 2005, p. 110).

In order to provide an unbiased professional opinion on the fairness of the financial statements and their representation of the balance sheet and the company's operational results, the American Institute of Certified Public Accountants (AICPA) defined auditing as the process of examining and testing the items included in the financial statements by referring to the relevant accounts and records as well as the supporting documents.

Based on the above, auditing can be defined as an independent profession practised by a professional who enjoys independence, with the aim of expressing an objective and professional opinion on the reliability and credibility of the financial information presented in the financial statements.

2.2 Objectives of the Auditing Profession

Auditing has many objectives, which can be summarized as follows:

- Adherence to basic values and a reasonable level of confidence.
- Acquiring convincing and definitive audit evidence.
- Releasing a report with findings supported by audit data.
- Provide a reasonable assurance that there are no extraordinary instances of fraud or substantial misstatements in the financial accounts.
- Making decisions about the type, scope, and timing of audit processes.
- Defining the roles involved in financial statement preparation and presentation.

- Evaluating management's accountability for creating and delivering the entity's financial data.

The basic principles of auditing are the same whether the audit is carried out in the public or private sector. However, the goals and scope of public sector audits vary. This is primarily because public sector organisations may be needed to create more financial reports than private sector organisations due to differences in legal mandates, regulatory requirements, and the types of financial reporting required (Arens et al., 2020).

3.2 Personal Characteristics of the Auditor and Their Impact on Report Quality

Applying ethical norms that directly affect financial statement preparation and review is necessary to guarantee the availability of qualified professionals in the accounting and auditing fields. The interests of those who use these statements are consequently impacted. As a result, independence, ethical behaviour, and professional competence are crucial qualities for practitioners and elements that boost confidence in their ability to carry out their responsibilities.

Decision-makers who rely on financial information or those who prepare it are more likely to make mistakes due to inexperience and inadequate professional care. Another element of risk is the uncertainty around future events that might transpire in ways not foreseen at the time the information is generated.

Professional Competence:

Every international law stipulates that those who work in the accounting and auditing fields must possess a certain degree of scientific and practical training. Professional associations have also focused a great deal of work on creating regulations and guidelines that offer adequate practical and scientific protections to assure the maximum level of efficiency in the profession's performance (Talba, Ali Ibrahim, 2000, p. 31).

A practitioner with a scientific qualification has a sufficient degree of academic expertise in the accounting and auditing disciplines. In addition to knowledge in other fields, including management, economics, behavioural sciences, and statistics, this qualification is obtained by study at institutions and colleges that specialise in teaching these disciplines. Furthermore, in the current era of information technology and quick advancements in a variety of disciplines, on-going education, training,

and research are required to update technical knowledge and skill in accounting and auditing concepts.

In terms of practical qualification, persons with a university degree in accounting who want to work in the field must complete two years of practical experience. Higher qualified individuals may be able to shorten this time, but it should never be less than a year. In public accounting and auditing organisations, this hands-on training must be carried out under the guidance of a certified public accountant.

Ethical Conduct:

Commitment to ethical conduct is no less important than professional competence. Accounting and financial tasks must be performed properly to ensure the integrity and reliability of information. This requires adherence to certain professional, personal, and ethical behaviours, such as maintaining professional confidentiality, honesty, and objectivity and respecting regulatory limits when determining professional fees. All these matters, among others, have become mandatory rules governing the profession. Supervisory bodies must give them significant importance, at least to reduce deviations, even though eliminating them entirely is impossible and difficult to achieve in practice (Ghaith, Suleiman, 2008, p. 15).

Independence and Bias:

To begin, it is vital to distinguish between bias connected to the accountant in the context of accounting measurement and bias related to the independence that auditors must retain when doing their tasks.

Accounting measurement bias, according to its sources, is classified into three types:

- Measurement rules introduce bias.
- The individual performing the measurement introduces a bias.
- Bias resulting from both the person making the measurement and the measuring rules utilised.

In terms of auditor independence, the auditor is viewed as a representation of shareholders, and their job is focused on serving their interests. In contrast, the audited accounts demonstrate management's efficiency in carrying out its activities, even where interests may conflict. As a result, an unbiased assessment from an outside party is required about the truth and fairness of the financial accounts (Matar, Mohammed, 2008, p. 149).

In this application, independence refers to the absence of prejudice in the audit programme's design and implementation, evidence collection and evaluation, and audit report preparation.

3. The Impact of Digital Transformation on the Auditing Profession

- Definition of the Digitization of the Auditing Profession

Auditors generally define digitisation as the use of computers and digital information only. This entails reducing paper-based labour and transforming all papers and information to digital records, resulting in reduced utilisation of physical files. The digitisation of the auditing profession is also characterised as the use of digital information, tools, procedures, and information technology skills to carry out the audit process. This helps to simplify auditors' everyday work, allowing it to be finished faster and with less effort. (Karlsen & Wallberg, 2017).

Cloud accounting uses new technologies to process and record financial transactions in real time over the internet, resulting in a qualitative shift in the compilation of financial reports and accounting statements. Its impact can be clearly seen in the following aspects:

Increasing	Financial	Data	Accuracy
Cloud accounting greatly minimises human interaction, which could lead to mistakes, by using automated technologies to record every financial transaction in real time. Data enters only once and synchronises automatically throughout the system, eliminating the need for manual reprocessing. This increases the dependability and ease of verification of financial statements, including the income statement, balance sheet, and cash flow statement, during audit procedures (Alagbe & Yinus, 2015, p. 6).			

- Quicker Financial Statement and Report Preparation Compared to traditional or locally computerised systems, cloud-based systems provide real-time updating of accounting data, enabling organisations to compile monthly or annual financial statements more quickly. This shortens the time needed to release reports and helps businesses to promptly satisfy investors' and regulatory bodies' demands. Additionally, it helps with better operational and financial planning (Alagbe & Yinus, 2015, p. 6).
- Increasing Openness and Decreasing Earnings Manipulation Any changes to accounting data can be quickly identified because real-time and verifiable financial records are readily available. Cloud solutions make profit management more challenging by recording every change, including the user's identity and the

moment of modification. This openness boosts stakeholders' and investors' trust in the information presented and helps the accuracy of financial reporting (Mesioye & Bakare, 2024, pp. 1145–1146).

- **Enhancing Accrual Recording** The accrual method of accounting, which recognises revenues and expenses in the appropriate financial period in compliance with IFRS standards, can be applied automatically thanks to cloud accounting. This gives a true view of operational performance and profitability and minimises errors that arise from manual journal entries. The study of a company's financial trends and comparisons between various financial periods are also made easier by such accuracy (Mesioye & Bakare, 2024, p. 1146).
- **Facilitating Strategic Financial Decision-Making** When it comes to budget planning, cash flow management, and the assessment of possible investments, accurate and current information enables management and investors to make strategic decisions based on trustworthy financial facts. Additionally, it makes it easier to analyse profitability and performance metrics in real time, which improves an organisation's capacity to react swiftly to changes in the economy (Alagbe & Yinus, 2015, p. 6).
- **Encouraging Adherence to Accounting Standards** Cloud accounting improves the accuracy and transparency of financial reporting by assisting organisations in adhering to local and international accounting standards through ongoing monitoring and automatic adjustments. Additionally, legal or regulatory risks resulting from mistakes or inadequate disclosure are decreased by such compliance (Alagbe & Yinus, 2015, p. 6).
- **Lowering the Dangers of Manipulation and Managerial Flaws** Despite its many benefits, there may be room for manipulation due to lax internal controls or unclear access-right regulations. Strong security features, such as unchangeable audit logs, notifications for modifications to critical data, and accurate role-based access control for every user, are offered by contemporary cloud systems. These characteristics greatly reduce these hazards (Mesioye & Bakare, 2024, pp. 1145–1147).
- **Giving Financial Data Instant Access from Anywhere** Financial accounts and reports can be accessed online at any time and from any location by management and stakeholders thanks to cloud

systems. This facilitates ongoing supervision and speeds up analysis and decision-making procedures, improving the organisation's capacity to act quickly to resolve any operational or financial problems (Alagbe & Yinus, 2015, p. 6).

3.1. How Cloud Accounting Affects the Auditing Profession

In addition to lowering operating expenses, the usage of cloud computing helps to increase task completion speed, improve data availability, and facilitate ease of access and use. But obtaining these advantages necessitates weighing them against the hazards involved. Adopting contemporary techniques that improve the accuracy of financial data is becoming more and more necessary for the auditing process due to the corporate environment's quick changes. By enabling them to offer reasonable assurance that the services provided by audit companies conform with professional requirements and established auditing standards, cloud computing aids auditors at different phases of the audit process. Additionally, its utilisation facilitates automated data processing and offers a basis for drawing in new clients, both of which have a beneficial impact on audit firms' market share growth in a setting that is becoming more and more competitive. Additionally, cloud computing helps to improve task performance efficiency and effectiveness, cut down on the time and effort needed for the audit process, and minimise the operational costs related to auditing accounts. As a result, it becomes clear how crucial it is to use contemporary technology to improve the auditing process's quality throughout all of its phases.

3.2 How Cloud Computing Affects the Auditing Process Efficiency

Because cloud computing facilitates quick decision-making and easy access to information, it is used in the auditing process to cut down on time and effort. High accuracy, quick data accessibility, and lower effort and expense are the main benefits of using cloud computing technology. The use of cloud computing in auditing improves the audit process' efficiency, which has been a major driving force for its adoption by numerous businesses.

As a result, the auditing process can be finished more quickly, allowing auditors to test a lot of cloud-based transactions and use standardised algorithms included in these software programs to evaluate the accuracy of many accounting entries. Additionally, this results in less work being put into the audit process and less time needed for the planning phase. Additionally, it uses computerised and cloud-based

accounting software to reach a high degree of accuracy that is advantageous to both auditors and information users. When using specialised software, human errors coming from numerical confusion or overlapping formulas are almost eliminated because these programs offer the level of precision necessary due to the sensitivity of the auditing process.

The implementation of automated control systems and comparison and matching procedures should be included when creating computer programs in order to minimise errors related to human audits. Additionally, the publication of audit report conclusions has been made easier by the use of cloud computing, enabling online virtual meetings to debate these results. Additionally, the number of people who get reports and use information has increased, and online platforms have made it simpler to obtain information (Yati, 2016).

Chapter Two: The Field (Empirical) Aspect of the Study

2.1 Study Sample, Instruments, and Methodology

- Study Sample:

A questionnaire was employed by the researcher as a means of gathering study-related data and information. Licensed audit offices received the surveys. Thirty of the thirty-five questionnaires that were distributed were recovered and found to be valid for study.

- Study Instrument:

A questionnaire with two main components was utilised to assess the research hypotheses. The respondent's personal data, including factors like gender, age, educational background, and others, was covered in the first section.

The suggested theories and associated topics were covered in the second section. This portion was further broken down into four primary dimensions, each of which contained multiple sub-items and represented the central hypotheses:

- Dimension One: The establishment of auditing procedures in a digital setting is facilitated by reliance on cloud accounting.
- Dimension Two: By increasing the speed and precision of audit task completion, cloud accounting improves the auditor's operational efficiency.

- Dimension Three: The degree of adherence to ethical guidelines and professional norms guiding the auditing profession is impacted by the use of cloud accounting.
- Dimension Four: Using cloud accounting enhances operational effectiveness without sacrificing moral principles.

The sample respondents' responses to the questionnaire items were coded using a five-point Likert scale for measuring reasons. This scale is shown in the following table.

Table (01): Illustration of the Coding Process for Response Options

Category	Strongly Disagree	Disagree	Moderately Agree	Agree	Strongly Agree
Coding	1	2	3	4	5

Statistical Processing of the Study: The Statistical Package for the Social Sciences (SPSS), version 19, was utilised to analyse the data following the completion of the collection of valid questionnaire forms for the study.

Reliability of the Study Instrument: The measuring items' Cronbach's Alpha coefficient was computed to assess the questionnaire's dependability. The findings are shown in the following table.

Table (02): Cronbach's Alpha Coefficient for Measuring the Reliability of the Questionnaire

Domain	Number of Items	Cronbach's Alpha
M1	5	0.804
M2	5	0.872
M3	6	0.867
M4	4	0.899
All Domains	15	0.850

Source: Created by the researchers using SPSS results.

As can be seen from the above table, each of the questionnaire's domains had strong Cronbach's Alpha scores, ranging from 0.804 to 0.899. Furthermore, the overall reliability coefficient attained a high value of 0.850. This shows that the questionnaire exhibits both validity and reliability, which gives us confidence that it is appropriate for evaluating the findings, answering all research questions, and testing the hypotheses.

Normality Test: To determine whether the data have a normal distribution, skewness and kurtosis coefficients were employed.

Table (03): Results of the Normality Test

Domain	Skewness	Kurtosis
M1	0.450	2.003
M2	1.297	4.306
M3	0.489	0.630
M4	1.500	5.004

Source: The researcher created it using the results of SPSS.

The table shows that each questionnaire domain has a skewness coefficient of less than 3 and a kurtosis coefficient of fewer than 20. As a result, the distribution of the data is normal. As a result, the data distribution for these domains is regarded as normal, enabling the application of inferential statistical tests to investigate the research hypotheses.

The statistical instruments utilised were as follows:

- Percentages and frequencies to determine and evaluate the sample members' responses;
- To ascertain the tendencies and inclinations of the respondents' attitudes for each topic, calculate the mean and standard deviation;
- The results of the study are extrapolated to a broader population using the student's t-test (T-test).

Analysis of Study Results

2.2.1 Description of the Study Sample Results

- Gender

Table (04): Distribution of the Sample by Gender

Gender	Male (1)	Female (2)	Total
Frequency	30	0	30
Percentage (%)	100	0	100

Source: Prepared by the researcher based on SPSS results.

From these results, it can be observed that the entire study sample consists of males, which is attributed to their dominance in this profession.

Table No. (04): Distribution of the Sample by Gender

- Age

Table (05): Distribution of the Sample by Age

Age	Under 30 years	31–40 years	41–50 years	Over 51 years	Total
Frequency	0	5	10	15	30
Percentage	0	16.67	33.34	50	100

(%)					
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Source: The researcher created it using the results of SPSS.

The table makes it evident that 50% of the individuals in the sample are above 51 years old. The age group of 41–50 years old comes next at 33.34%, followed by the group of 31–40 years old. The study sample did not include any responders who were younger than thirty. This age distribution indicates that the sample members have a significant amount of auditing-related professional experience.

- Nature of Respondent's Work

Table (06): Distribution of the Sample by Nature of Respondent's Work

Educational Qualification (Degree)	Accountant Supervisor	Expert Accountant	Total
Frequency	26	4	30
Percentage (%)	86.67	13.33	100

Source: The researcher created it using the results of SPSS.

According to the table, 86.67% of the sample members are accountant supervisors, while the remaining percentage are expert accountants. According to this distribution, the majority of respondents have a significant amount of professional experience, which gives them a thorough grasp of the practical and professional aspects of the area and enables them to answer the questionnaire with greater accuracy and objectivity.

- Years of Experience

Table (07): Distribution of the Sample by Years of Experience

Experience	Less than 5 years	5–<10 years	10–<15 years	More than 15 years	Total
Frequency	0	5	8	17	30
Percentage (%)	0	16.67	26.66	56.66	100

Source: Prepared by the researcher based on SPSS outputs.

2.2.2. Section

According to the table, most sample members had more than 15 years of professional experience, followed by those with 10–15 years and those with 5–10 years. There are no responders with fewer than five years of experience. This suggests that the participants have a high degree of professional knowledge.

2.2.3 Analysis of Hypotheses Results

- Analysis of the Items in Dimension One

Table (08): Analysis of the Items in Dimension One

N°	Statement	Mean	Standard Deviation	Calculated t	Significance Level (p)
1	Because cloud accounting facilitates control in a digital environment and speeds up data access, it helps to improve the effectiveness and calibre of auditing procedures.	4.19	0.821	7.429	0.0000
2	Utilising cloud accounting improves auditing procedures' efficacy, precision, and adaptability in accordance with the demands of the contemporary digital world.	4.15	0.368	15.990	0.0000
3	By supplying timely and trustworthy data in a digital setting, cloud accounting enables auditors to enhance auditing processes and report quality.	4.18	0.491	12.370	0.0000

4	In the midst of digital transformation, the usage of cloud accounting systems strengthens internal control and risk management while also improving auditing procedures.	4.00	0.490	10.408	0.0000
5	The auditing profession's capacity to stay up to date with technology advancements and enhance audit performance in an integrated digital environment is improved by reliance on cloud accounting.	4.04	0.344	15.385	0.0000
Overall Mean	—	4.1240	0.32676	17.456	0.0000

Source: The researcher created it using the results of SPSS.

We may see the following from the table:

- With a mean of 4.19 and a standard deviation of 0.821 for the first item, respondents' attitudes skewed toward agreement. This demonstrates how using cloud accounting helps to improve the effectiveness and calibre of auditing procedures by speeding up data access and facilitating control in a digital setting.

- With a mean of 4.15 and a standard deviation of 0.368 on the second item, respondents' opinions also tended toward agreement. This suggests that the usage of cloud accounting helps to design auditing procedures that are accurate, flexible, and effective in order to meet the demands of the contemporary digital environment.
- With a mean of 4.18 and a standard deviation of 0.821 for the third item, respondents' attitudes once more skewed toward agreement. This demonstrates how using cloud accounting, which provides timely and trustworthy data in a digital setting, helps auditors enhance auditing processes and report quality.
- With a mean of 4.00 and a standard deviation of 0.490, the respondents' opinions on the fourth question tended toward agreement. This demonstrates that, in the context of digital transformation, the adoption of cloud accounting solutions strengthens internal control and risk management while also improving auditing procedures.
- With a mean of 4.12 and a standard deviation of 0.344, the respondents' views on the fifth item also tended toward agreement. This suggests that depending on cloud accounting increases audit efficiency in an integrated digital environment and helps the auditing profession stay up to date with technology advancements.

All objects in this dimension had an overall mean of 4.1240 and a standard deviation of 0.32676. The significance threshold was 0.0000, which is less than 0.05, and the computed t-value was 17.456, which is greater than the critical value. This bolsters the hypothesis' acceptance:

"The development of auditing practices in a digital environment is facilitated by reliance on cloud accounting."

- Analysis of Dimension Two

Use of cloud accounting enhances the operational efficiency of the auditor by improving the speed and accuracy of audit task completion.

Table (09): Items of Dimension Two

No.	Statement	Mean	Standard Deviation	Calculated t	Significance Level (p)
1	Using cloud accounting helps cut down	3.81	0.743	17.489	0.000

	on the amount of time needed to finish auditing tasks.				
2	The quality of auditing work is enhanced by using cloud accounting.	4.54	0.610	22.806	0.000
3	The use of cloud accounting aids in the rationalisation of audit operating expenses.	4.07	0.580	23.904	0.000
4	In order to facilitate auditing procedures, cloud accounting gives auditors rapid access to data.	4.22	0.850	17.541	0.000
Overall Mean	—	4.227 0	0.55273	23.819	0.000

Source: Prepared by the researcher based on SPSS outputs.

From the table, we observe the following:

With a mean of 3.81 and a standard deviation of 0.743, the respondents' opinions on the first question inclined toward agreement, suggesting that using cloud accounting helps shorten the time needed to finish auditing activities.

With a mean of 4.54 and a standard deviation of 0.610 for the second item, respondents' opinions likewise tended toward agreement, indicating that cloud accounting enhances the calibre of auditing work.

The use of cloud accounting aids in rationalising audit operational costs, as seen by the third item's mean of 4.07 and standard deviation of 0.580.

With a mean score of 4.22 and a standard deviation of 0.850 for the fourth item, the respondents agreed that using cloud accounting enables auditors to rapidly access data to help auditing procedures.

All objects in this dimension had an overall mean of 4.2270 and a standard deviation of 0.55273. The significance threshold was 0.0000, which is less than 0.05, and the computed t-value was 23.819, which is greater than the critical value. This demonstrates that the hypothesis is accepted:

"By increasing the speed and accuracy of audit task completion, the use of cloud accounting improves the auditor's operational efficiency."

- Analysis of Dimension Three

Effect of cloud accounting on adherence to auditing standards and professional ethics.

Table (10): Analysis of the Items in Dimension Three

N°	Statement	Mean	Standard Deviation	Calculated t	Significance Level (p)
1	Cloud accounting helps auditors become more credible professionals.	3.88	0.833	17.489	0.000
2	External auditors are better able to identify financial manipulations because of cloud accounting.	4.44	0.600	22.806	0.000
3	Cloud accounting makes it easier for external auditors to adhere to professional ethical	4.00	0.580	23.904	0.000

	requirements.				
4	The confidentiality of financial data is sufficiently protected by cloud accounting systems.	4.03	0.750	17.541	0.000
5	The use of cloud accounting guarantees the freedom of auditors to voice their thoughts.	4.10	0.886	18.201	0.000
6	The cloud environment lessens prejudice when assessing audit evidence.	4.30	0.676	18.770	0.000
Overall Mean	—	4.237 0	0.66264	24.719	0.000

Source: Prepared by the researcher based on SPSS outputs.

From the table, we observe the following:

With a mean of 3.88 and a standard deviation of 0.600 for the first item, the respondents' opinions inclined toward agreement, suggesting that cloud accounting helps auditors become more credible professionals.

With a mean score of 4.44 and a standard deviation of 0.600 for the second item, respondents likewise agreed that cloud accounting enhances external auditors' capacity to identify financial manipulations.

The third item's mean was 4.00 with a standard deviation of 0.580, indicating that using cloud accounting makes it easier for external auditors to adhere to professional ethical standards.

With a mean score of 4.03 and a standard deviation of 0.750 for the fourth question, the respondents felt that cloud accounting systems offer sufficient security for the privacy of financial data.

The use of cloud accounting guarantees auditors' independence in voicing their judgements, as seen by the fifth item's mean of 4.10 and standard deviation of 0.886.

Respondents agreed with a mean of 4.30 and a standard deviation of 0.676 for the sixth item, indicating that the cloud environment lessens bias when assessing audit evidence.

All objects in this dimension had an overall mean of 4.2370 and a standard deviation of 0.66264. The significance threshold was 0.0000, which is less than 0.05, and the computed t-value was 24.719, which is greater than the critical value. This bolsters the hypothesis' acceptance:

"The degree of adherence to professional ethical rules and auditing standards is impacted by the use of cloud accounting."

3. Analysis of Dimension Four:

"The use of cloud accounting contributes to enhancing operational efficiency without compromising professional ethics."

Table (11): Analysis of the Items in Dimension Four

N°	Statement	Mean	Standard Deviation	Calculated t	Significance Level (p)
1	Cloud accounting helps auditors become more productive while upholding their accountability.	3.72	0.272	17.321	0.0000
2	Professional integrity is not jeopardised by using cloud accounting to expedite auditors' processes.	3.92	0.484	10.733	0.0000
3	It is possible to acquire operational benefits from cloud accounting without compromising the independence of auditors.	4.19	0.491	12.370	0.0000

4	By using electronic protection and control systems, cloud accounting helps to safeguard the confidentiality of professional information.	3.85	0.355	10.042	0.0000
Over all Mean	—	4.0035	0.20647	24.782	0.0000

From the table, we observe the following:

With a mean of 3.72 and a standard deviation of 0.272 for the first item, respondents' attitudes tended toward agreement, suggesting that cloud accounting helps auditors be more efficient while still upholding their responsibilities.

With a mean score of 3.92 and a standard deviation of 0.481, the second item's results demonstrate that respondents agreed that using cloud accounting to expedite auditors' processes does not jeopardise professional integrity.

With a mean score of 4.19 and a standard deviation of 0.491, the third item's results show agreement among respondents, indicating that operational benefits from cloud accounting can be attained without compromising auditors' independence.

With a mean of 3.85 and a standard deviation of 0.355, the results of the fourth item demonstrate agreement, suggesting that the use of cloud accounting supports preserving the confidentiality of professional information through control and protection methods.

All items in this dimension had an overall mean of 4.0035 and a standard deviation of 0.20647. The significance threshold was 0.0000, which is less than 0.05, and the computed t-value was 24.782, which was higher than the critical value. This demonstrates that the hypothesis is accepted:

"Using cloud accounting improves operational efficiency without sacrificing professional ethics."

- Study Results

Based on both theoretical analysis and field statistical testing, this study yielded a number of important conclusions on how cloud

accounting has affected the auditing industry. The following is a summary of these findings:

- Cloud Accounting's Role in Developing Auditing Procedures

The findings show that the establishment of auditing procedures in a digital setting is greatly aided by the use of cloud accounting. Faster data availability, improved audit process quality, and improved internal control and risk management are ways to do this. Cloud accounting successfully supports digital transformation and enhances audit performance, as evidenced by the high degree of agreement given by respondents on every item in this category.

- Increasing the Operational Effectiveness of Auditors

The results demonstrate that using cloud accounting significantly increases the operational efficiency of auditors by cutting down on the amount of time needed to finish audit activities, improving the calibre of work, minimising operating expenses, and providing real-time access to financial data. This illustrates how cloud technologies can effectively improve audit execution speed and accuracy.

- Improving Adherence to Ethics and Professional Standards

The third dimension's findings show that cloud accounting has a favourable impact on auditors' adherence to ethical guidelines and professional standards. It helps to increase the credibility of auditors, strengthen their capacity to identify financial manipulations, protect information confidentiality, promote independence and objectivity in professional judgements, and lessen bias while assessing audit evidence.

- Finding a Balance Between Professional Ethics and Operational Efficiency

The overall findings demonstrate that, when appropriate controls are in place, technical risks are controlled, and professional and regulatory standards are closely adhered to, cloud accounting can improve the operational effectiveness of the auditing process without sacrificing professional ethics.

- Examining the Research Hypotheses

The following is a summary of the study's hypothesis based on the T-test results and significant levels:

- **First Hypothesis:** "Developing auditing practices in a digital environment is facilitated by relying on cloud accounting." Since the computed t-value was 17.456 with a significance threshold below 0.05, indicating a statistically significant positive effect, the hypothesis was accepted.
- **The second theory** "By increasing the speed and accuracy of audit tasks, the use of cloud accounting affects auditors' operational efficiency." The data demonstrated a high t-value of 23.819 at a significance level of 0.000, supporting the premise that cloud accounting improves auditors' productivity.
- **The third theory** "Adherence to professional standards and ethical rules in auditing is impacted by the use of cloud accounting." The results showed substantial statistical significance ($T = 24.719$, $Sig = 0.000$), indicating a definite beneficial impact on ethical compliance, and the hypothesis was accepted.
- **The fourth theory** "Using cloud accounting improves operational efficiency without sacrificing professional ethics." Based on the combined findings of the earlier dimensions, which verified the potential for striking a balance between operational effectiveness and upholding professional ethics, the hypothesis was approved.

3. Study Recommendations

This study suggests the following in light of the findings:

- **Encouraging the Adoption of Cloud Accounting:** Because cloud accounting systems effectively improve audit quality and operational efficiency, audit firms and economic institutions should be encouraged to embrace them.
- **Creating the Regulatory and Professional Framework:** In order to meet the demands of cloud settings, professional standards and codes of ethics need to be updated. The use of these technologies in the auditing profession should be governed by explicit regulations.
- **Training and Capacity Building for Auditors:** It is important to give priority to ongoing professional development in information technology, information security, and cloud auditing. This guarantees the best possible use of cloud accounting solutions and enhances the technological proficiency of auditors.

- Improving Information Security and Internal Controls: To safeguard financial data, bolster internal control systems, and specify access permissions, explicit policies should be put in place. By taking these steps, cloud computing's ethical and technical dangers are lessened.

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