

Evaluating Core Components of Audit Strategy: Insights from Emerging Market Auditors

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Abstract

The study investigates the effectiveness of core components in audit strategies, namely Risk Assessment, Control Testing, Substantive Testing, and Analytical Procedures, in achieving comprehensive and efficient audits. Based on data-driven hypothesis testing, all null hypotheses were rejected, affirming the critical roles of these components in modern auditing. The findings indicate that while these elements are perceived as effective, their implementation faces challenges such as data variability, high costs, and insufficient integration of advanced analytical tools. The study highlights the need for enhanced auditor training, adoption of advanced technologies, and process optimization to bridge the gap between theoretical frameworks and practical execution. These improvements are essential for developing adaptive audit strategies capable of addressing the complexities of contemporary financial reporting and ensuring audit quality in dynamic environments.

Keywords: Risk Assesement; Test of Control; Substantive Test; analytical Procedures; Audit Strategy.

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I.Introduction

The design and development of an audit strategy play a central role in determining the efficiency and effectiveness of the audit process in a complex business environment. This complexity arises from market globalization, the emergence of modern business models, and the introduction of sophisticated financial instruments. These factors have heightened the challenges faced by auditors and necessitated a shift in the nature and scope of professional auditing practices. Accordingly, professionals are compelled to formulate audit strategies that not only comply with regulatory guidelines but also address operational, financial, and behavioral complexities. These strategies act as blueprints for conducting the audit process by defining risk assessment methodologies; resource allocation; the selection of tests and procedures; communication protocols between the audit team and the client, and the strategic mix of various procedures and tests. Furthermore, a well-crafted strategy aligns with the unique characteristics of the entities being audited, enabling auditors to focus on high-risk areas and allocate resources wisely. It enhances auditors' ability to detect material misstatements and weaknesses in internal controls, thereby improving the overall quality of the audit. Additionally, an appropriate audit strategy significantly mitigates the risks associated with misstatements in financial reporting and fraudulent activities by incorporating advanced data analytics, technology-enabled procedures, and a risk-based approach. Such a strategy serves as a safeguard against the dissemination of misleading financial information.

In the ever-evolving landscape of financial auditing, the effectiveness of various audit components—Risk Assessment, Control Testing, Substantive Testing, and Analytical Procedures—remains a critical area of exploration. Although these components are integral to the audit strategy, their practical implementation often faces challenges such as variability in data reliability, the adaptability of audit techniques, and the integration of advanced technologies. The rejection of all null hypotheses in this study underscores the significant role of these components. However, the moderate mean scores and variability in perceptions highlight a gap between theoretical importance and practical application. This raises an essential question: "To what extent do the components of Risk Assessment, Control Testing, Substantive Testing, and Analytical Procedures contribute effectively to the formulation of an adaptive, efficient, and comprehensive audit strategy in modern financial contexts?" Addressing this question is crucial for enhancing audit quality and ensuring that audit strategies remain robust in identifying risks and material misstatements in increasingly complex financial environments.

I.1 Theoretical Framework

Audit strategy is a critical component of the auditing process, forming the blueprint that guides auditors in achieving their objectives efficiently and effectively. It encompasses the overall approach to the audit, including the determination of scope, timing, and direction, influenced by the characteristics of the entity and the environment in which it operates. Audit strategy is defined by the International Standards on Auditing (ISA) 300 as "an overall plan for the audit that sets the scope, timing, and direction of the audit, and that guides the development of the more detailed audit plan" (IFAC, 2020). This strategic

approach enables auditors to allocate resources efficiently, address risks, and ensure compliance with applicable regulations and standards. The importance of audit strategy is underscored by its role in risk management. Bell et al. (2005) argue that a robust audit strategy helps auditors identify and prioritize significant risks, thereby enhancing the quality and reliability of the audit. Moreover, audit strategy is instrumental in maintaining auditor independence and objectivity, as noted by Knechel et al. (2013), by providing a structured framework that minimizes the influence of external pressures. Audit strategy comprises several components, including risk assessment, materiality determination, resource allocation, and communication protocols. These elements are interconnected and collectively guide the audit process (Ykhlef, 2023). Risk assessment is a cornerstone of audit strategy, involving the identification and evaluation of risks that may lead to material misstatements. Research by Johnstone and Bedard (2004) highlights the significance of using analytical procedures and historical data to enhance risk assessment. Determining materiality thresholds is another vital component, as it defines the magnitude of misstatements that would influence the economic decisions of users. Messier et al. (2005) emphasize that materiality judgments are complex and require a thorough understanding of the entity's financial statements. Effective audit strategy ensures optimal allocation of resources, including personnel, time, and technology. Mock and Wright (1999) suggest that resource allocation decisions are influenced by the complexity and size of the entity being audited. Establishing clear communication channels with management and those charged with governance is essential for the success of the audit strategy. ISA 260 outlines the need for timely and transparent communication to resolve issues and align expectations (IFAC, 2020). Developing and implementing an effective audit strategy involves several challenges, including the rapidly changing business landscape, which poses challenges for auditors in predicting and addressing risks. Cohen et al. (2002) note that globalization and technological advancements have increased the complexity of audits. Ensuring compliance with diverse regulatory frameworks is another challenge. According to DeFond and Zhang (2014), auditors must stay abreast of changes in regulations and standards to avoid compliance issues. Detecting and addressing fraud risks remains a persistent challenge. Research by Albrecht et al. (2016) highlights the importance of integrating forensic techniques into audit strategies to combat fraud effectively. Limited resources often hinder the implementation of comprehensive audit strategies. Gramling and Stone (2001) argue that resource constraints can lead to compromises in the scope and quality of audits. Technological advancements and evolving methodologies have significantly influenced audit strategies in recent years. The integration of data analytics into audit strategies has transformed the audit process. Appelbaum et al. (2017) assert that data analytics enables auditors to analyze large datasets, identify anomalies, and improve risk assessments. AI and machine learning have enhanced auditors' ability to identify patterns and predict risks. Kokina and Davenport (2017) highlight the potential of AI in automating routine tasks and providing deeper insights. The adoption of blockchain technology offers opportunities for real-time auditing and increased transparency. Dai and Vasarhelyi (2017) discuss how blockchain can streamline the verification of transactions and reduce audit effort. Advances in risk modeling techniques have improved auditors' ability to assess complex risks. Knechel and Salterio (2016) emphasize the need for continuous refinement of risk models

to address emerging challenges. Several theoretical frameworks and models underpin audit strategy development. The Risk-Based Auditing (RBA) framework, for instance, focuses on identifying and addressing risks of material misstatement. Lemon et al. (2000) advocate for the use of RBA to enhance audit efficiency and effectiveness. Another influential model is the Strategic-Systems Auditing (SSA) approach, which considers the broader business context and strategic objectives of the entity. Bell et al. (1997) argue that SSA provides a comprehensive perspective that aligns audit strategy with the entity's goals. The future of audit strategy lies in further integrating technology, enhancing collaboration, and addressing emerging risks. Auditors must adapt to advancements such as quantum computing and evolving regulatory landscapes. Research by Gepp et al. (2018) suggests that continuous learning and adaptation are crucial for auditors to remain relevant and effective. Audit strategy is a dynamic and multifaceted process that underpins the success of the auditing function. By addressing risks, allocating resources effectively, and leveraging technological advancements, auditors can enhance the quality and reliability of their audits. However, challenges such as regulatory compliance, fraud risk, and resource constraints must be navigated carefully. Continued research and innovation in audit strategy will ensure its relevance in an ever-changing business environment. The strategic approach to auditing has evolved to describe how objectives and goals are achieved. Boynton defines audit strategy as the methodology employed by the auditor in planning to gather sufficient evidence to form an appropriate opinion (Boynton and Johnson). Whittington highlights that an audit strategy enables auditors to perform their tasks in a manner that ensures the objectives of the audit are met with high quality (Whittington and Pany). Simnett, however, regards audit strategy as a process that outlines the standard behavior of auditors during audit engagements. It involves detailing appropriate audit procedures, their nature, and extent at each stage of the engagement to form a neutral and appropriate professional opinion. The strategy also emphasizes the importance of planning, which involves identifying suitable tests that constitute the strategic mix (Simnett). Glezen and Taylor further describe audit strategy as the process of determining the strategic mix, which includes control tests and substantive tests (Glezen and Taylor, 1996). Boynton underscores the nature of audit strategy as comprising an effective combination of audit tests, including risk assessment tests, understanding and control tests, substantive tests of financial operations, detailed account balance tests, and analytical procedures.

II. Result and Discussion:

II.1 Risk Assessment:

The audit strategy in the current study represents the dependent variable through which auditors seek to plan the audit process more efficiently, effectively, and with higher quality. This helps them meet professional requirements. The audit strategy can take various forms depending on the strategic mix of tests and procedures, including risk assessment tests, control tests, substantive and detailed tests, and analytical procedures. These may lead the auditor to rely heavily on one test over the others. Through descriptive analysis of the components of the audit strategy, the following results were obtained:

Table 01: Agreement Levels on Risk Assessment Test Statements

Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	($\bar{X}$)	(σ)	Trend
Assessing business risks through understanding the client's environment	14.22%	39.22%	22.55%	19.61%	4.41%	3.392	1.086	Moderate
Availability of suitable expertise to assess client industry risks	18.63%	39.22%	21.57%	16.18%	4.41%	3.515	1.100	High
Assessing the complexity of the client's organizational structure and the breadth of its activities	25.49%	47.55%	11.27%	9.80%	5.88%	3.770	1.112	High
Assessing inherent risks and the initial estimation of audit risks when accepting a new audit assignment	18.14%	43.63%	20.10%	12.25%	5.88%	3.559	1.099	High
Ability to access the previous auditor's reports to determine the initial risk level	11.76%	29.90%	23.04%	24.51%	10.78%	3.074	1.200	Moderate
Planning the audit process based on initial estimations of detection risk level	39.22%	51.47%	2.45%	3.43%	3.43%	4.196	0.908	High
Overall scoring	21.24	41.83	16.83	14.30	5.80	3.584	1.084	High

Source: Prepared by researchers based on SPSS outputs

From Table 01 above, it can be observed that Statement No. 06 received the highest approval rate of 90.69% from professional auditors, who believe that planning the audit process based on initial estimates of detection risk is one of the most important factors in an audit strategy built on risk assessment tests. This indicates that auditors plan the audit process according to the detection risk level, which, in turn, determines the intensity of tests and procedures to be applied, as well as the human and material resources required to implement specific procedures. According to ISA 330, the auditor is required to design and implement audit procedures that are responsive to the assessed risks of material misstatement, including detection risk, to obtain sufficient appropriate audit evidence (ISA 330, para. 5), detection risk levels directly influence the extent and nature of audit evidence gathered. Statement No. 06 also had the highest arithmetic mean among the statements in this category, which was 4.196, with the lowest dispersion of 0.907, suggesting a high level of agreement from the study sample on the content of this statement. The rejection rate for this statement was 6.86%, the lowest among the statements in this category, confirming the consensus of the study sample in favor of the statement. So this consensus aligns with the widely accepted premise that detection risk significantly influences the allocation of audit resources and the rigor of procedures applied (ISA 315; Knechel et al., 2016). ISA 200 emphasizes the auditor's responsibility to reduce audit risk to an acceptably low level and highlights how detection risk interacts with inherent and control risks within the audit risk model (ISA 200, para. A32). Detection risk acts as the final layer in the audit risk model, determined after evaluating inherent and control risks (Messier et al., 2019). Consequently, auditors heavily emphasize this aspect to minimize the likelihood of material misstatements going undetected. The interaction between detection risk and audit procedures is especially crucial in high-risk audits, where material misstatements may have more severe consequences. However, a potential critique of over-reliance on detection risk is its dependence on the accuracy of prior risk assessments. If inherent or control risks are underestimated, the audit's overall reliability could be compromised, leading to potential audit failures. ISA 315 (Revised 2019) acknowledges this concern by requiring auditors to reassess risks continuously throughout the audit (ISA 315, para. 31), reducing reliance on initial estimates. Regarding Statement No. 03, it ranked second in terms of approval, with a rate of 73.04%, addressing the importance of evaluating the risks associated with the

complexity of the client's organizational structure and the expansion of its activities as one of the most important factors in an audit strategy based on risk assessment tests. In practice, the greater the complexity of the client's organizational structure and the larger the scope of its operations, the higher the risks. This is because such clients, with their complexity and extensive operations, are continuously developing and tend to use modern management techniques for their operations. They also possess significant economic weight, which may enable them to exert control and influence, particularly on the independence of the auditor and other regulatory bodies in some countries. Additionally, the risks of material misstatements can cause global financial crises, so evaluating risks related to complexity and scope is considered a key component in risk assessment tests. The rejection rate for Statement No. 03 was 15.69%, which is relatively low, and its arithmetic mean was 3.770, indicating strong agreement from the study sample. This statement ranked second within the risk assessment test category, with a dispersion value of 1.112. The approval of Statement No. 03 underscores the importance of considering the client's organizational complexity and activity breadth. Modern organizations, especially multinational corporations, operate in intricate regulatory and economic environments, increasing the risk of misstatements (Chan & Vasarhelyi, 2018). ISA 315 explicitly requires auditors to obtain an understanding of the entity's organizational structure and business risks that may result in material misstatements (ISA 315, para. 11 & A35–A36). Complex structures often feature decentralized operations, diverse financial instruments, and varying compliance obligations, all of which complicate the audit process. Nonetheless, addressing such complexity requires significant expertise and advanced analytical tools, such as data analytics and artificial intelligence, which may not be uniformly available across all audit firms, particularly in developing economies like Algeria. Auditors are encouraged under ISA 315 to incorporate technological resources where available to enhance risk identification and response (ISA 315, para. A50).

Statement No. 04 ranked third in terms of approval, with an approval rate of 61.76%. This statement suggests that evaluating inherent risks and the initial assessment of audit risks when accepting a new audit engagement are among the most important factors related to an audit strategy based on risk assessment tests. The statement describes how evaluating inherent risks and the level of acceptable audit risk helps clarify the auditor's initial response when accepting an engagement. A high level of both inherent risks and acceptable audit risks indicates that the client's financial reports are more likely to contain material misstatements. The rejection rate for Statement No. 04 was 18.14%, a relatively low figure, and the arithmetic mean for this statement was 3.559, reflecting a high level of agreement from the study sample, ranking it third within the risk assessment tests category. Statement No. 04 reflects the auditors' acknowledgment of the critical role of inherent risk evaluation when accepting new engagements. This practice aligns with theoretical frameworks such as the audit risk model (Louwers et al., 2018) and is often mandated in auditing standards (ISA 300). Specifically, ISA 300 (para. 7) requires the auditor to perform risk assessments and plan the audit to reduce audit risk to an acceptably low level. Assessing inherent risks at the outset is fundamental to this process. However, practical challenges arise when client-provided information is incomplete or unreliable, as noted by Knechel and Salterio (2017). This limitation is particularly acute in less transparent business environments, where regulatory oversight may be weaker, such as in developing economies. To address these concerns, ISA 580 requires auditors to obtain written representations from management when risk indicators are difficult to substantiate through external evidence. As for Statement No. 02, it received approval from the study sample, as reflected in the arithmetic mean of 3.515 and a dispersion of 1.100. This indicates that most auditors in the study sample agree that the availability of suitable experience for the auditor

in evaluating the client's industry risks is one of the most important factors in an audit strategy based on risk assessment tests. This is supported by the moderate approval rate of 57.84% and a relatively low rejection rate of 20.59%. The availability of professional experience in evaluating industry risks allows auditors to handle risk identification and response more efficiently. Moreover, experience in evaluating industry risks positions the audit strategy, based on risk assessment tests, as the leading factor for other components of the overall audit strategy, enabling the auditor to focus on identifying risks related to material misstatements in financial data and addressing and reporting them. The moderate approval of Statement No. 02 suggests that industry-specific expertise is a valuable but not universally applied factor in risk assessment. Research by Griffith et al. (2015) indicates that auditors with industry specialization perform higher-quality audits due to their ability to identify subtle risks and anomalies. Yet, the availability of such expertise may be unevenly distributed, especially in smaller audit firms or less developed markets, limiting the application of this approach. ISA 220 (Revised), which deals with quality management for audits, recognizes the importance of assigning engagement team members with appropriate competence and capabilities, including industry expertise (ISA 220, para. 25–26). Regarding Statement No. 01, it received moderate approval from 53.43% of the audit sample, supported by the arithmetic mean of 3.392 and a dispersion of 1.086. This statement suggests that assessing business risks through understanding the client's environment is one of the most important factors in an audit strategy based on risk assessment tests. It implies that understanding the client's environment is an important phase for risk assessment tests, as it helps guide the preliminary planning process and provides insights into the major business risks faced by the client that are related to financial data. However, business risks may not be considered highly important for risk assessment tests, as the majority of auditors tend to exclude business risks from the risk model, relying instead on inherent risks, control risks, acceptable audit risks, and detection risks. While Statement No. 01 received moderate approval, it raises an interesting debate about the role of business risk in audit strategy. Auditors often prioritize inherent, control, and detection risks, viewing business risks as peripheral (Bell et al., 2005). Yet, understanding the client's environment provides valuable context for assessing material misstatements. ISA 315 requires auditors to gain a comprehensive understanding of the entity and its environment, including the entity's business risks that may result in material misstatement (ISA 315, para. 11 & A38). A counterpoint is the potential for information overload, as business risks encompass a broad spectrum of factors not directly tied to financial reporting (Bedard & Johnstone, 2004). This could dilute the focus of the audit strategy and increase inefficiencies.

Finally, Statement No. 05 received approval from 41.67% of the auditors, indicating a below-average level of agreement. This statement suggests that the auditor's ability to access the previous auditor's reports to determine the initial risk level plays a significant role in building an audit strategy based on risk assessment tests. The previous auditor may refuse to provide the current auditor with the audit report if the client does not approve it, which could be due to the client's desire to influence the re-assessment of audit risks based on new data, especially if the previous audit report contains negative points on key issues. Statement No. 05 had a moderate approval level, with an arithmetic mean of 3.074 and a dispersion of 1.200. Overall, the approval rate for the entire risk assessment tests category was high, at 63.07%, with a very low rejection rate of 20.10%. The arithmetic mean for all the statements in this category was 3.584, with a dispersion of 1.084, which indicates that the statements in the first axis of the audit strategy are considered essential by the study sample, consisting of account holders and expert accountants in Algeria. The relatively low agreement on Statement No. 05 reflects practical barriers in accessing previous audit

reports, often due to client-imposed restrictions. Prior audit documentation can provide critical insights into historical risks and recurring issues, facilitating a more informed audit strategy (Public Company Accounting Oversight Board [PCAOB], 2019). However, the reliance on such reports introduces dependency risks, where the current auditor's judgment might be overly influenced by the prior auditor's conclusions, potentially perpetuating errors or omissions. ISA 510 (Initial Audit Engagements) requires the incoming auditor to request access to the predecessor auditor's working papers to assist in planning the audit (ISA 510, para. 6). However, such access is conditional upon client consent, as outlined in professional codes of ethics, such as the IESBA Code. The overall high approval rate of 63.07% across all statements highlights the consensus among Algerian auditors on the importance of risk assessment in audit strategy. The dispersion values suggest a consistent agreement across respondents, reflecting shared professional standards and practices. However, the results also indicate areas where practical challenges, such as resource availability and regulatory environments, may limit the full application of best practices.

II.2 Test of Control:

Examining the client's internal control system is a fundamental procedure in the audit process, as it determines the strategic mix of audit procedures. The significance of an audit strategy based on control testing is measured through the statements illustrated in the table below:

Table 02: Agreement Levels on Control Test Statements

Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	($\bar{X}$)	(σ)	Trend
Gaining sufficient understanding of the internal control system and its procedures	29.90%	41.67%	13.73%	10.29%	4.41%	3.824	1.102	High
Confirming the effectiveness of internal control procedures and elements	28.92%	40.69%	18.14%	10.78%	1.47%	3.848	1.006	High
Estimating the initial level of control risk	29.41%	34.80%	26.96%	7.84%	0.98%	3.838	0.969	High
Selecting an appropriate sample size for the timing and procedures related to control tests	24.02%	37.75%	24.02%	12.25%	1.96%	3.696	1.027	High
Evaluating internal audit reports and their relevance for external audit processes	23.04%	35.29%	26.47%	8.82%	6.37%	3.598	1.122	High
The auditor's prior experience with the client over the years	32.35%	29.90%	31.86%	1.96%	3.92%	3.848	1.025	High
The adequacy of the client's risk management performance	24.02%	38.73%	29.41%	4.90%	2.94%	2.838	0.821	Medium
Relying solely on basic and detailed tests for selected items without in-depth analysis	30.88%	37.75%	25.98%	1.96%	3.43%	3.907	0.973	High
Overall scoring	27.82	37.07	24.57	7.35	3.19	3.675	1.006	High

Source: Prepared by researchers based on SPSS outputs

From Table 02 above, it is observed that Statement 01 has achieved the highest approval rate, with 71.57% of professional auditors agreeing that obtaining sufficient understanding of the elements and procedures of the internal control system is one of the most important factors in an audit strategy based on control testing. This finding aligns with ISA 315: Identifying and Assessing the Risks of Material Misstatement (IAASB, 2017), which mandates that auditors obtain an understanding of the entity's internal control system to identify and assess risks effectively. This indicates that the auditor must perform a series

of procedures, such as inquiry, observation, and inspection, to understand the client's internal control system and its components, as outlined in ISA 330: The Auditor's Responses to Assessed Risks (IAASB, 2017). Statement 01 had a mean score placing it fifth in terms of agreement level among the axis's statements, with a mean of 3.824 and a standard deviation of 1.102. The statement also recorded a rejection rate of 14.71%, which is low, affirming the consensus of the study sample on the content of the statement. Research by Glover et al. (2016) supports this, emphasizing that a thorough understanding of internal controls is critical for effective audit planning and risk assessment. Additionally, Norman et al. (2019) highlight that Auditors who invest time in understanding internal controls are better equipped to identify control weaknesses and mitigate risks of material misstatement.

Regarding Statement 02, it ranked second in terms of agreement rate, with 69.61% of auditors emphasizing the importance of confirming the effectiveness of internal control procedures and elements as a key factor in an audit strategy based on control testing. This aligns with ISA 402: Auditing Considerations Relating to an Entity Using a Service Organization (IAASB, 2017), which requires auditors to evaluate the design and operating effectiveness of internal controls. This suggests that, while understanding the internal control system and verifying the existence of various control elements are essential, it is equally important to ensure that these controls are designed effectively to reduce the risks of material misstatements in financial data, as highlighted in ISA 330 (IAASB, 2017). The effectiveness of internal control procedures drives the strategic mix of the audit process, enabling auditors to reduce control risks and increase reliance on the internal control system to mitigate material misstatements, consistent with ISA 315 (IAASB, 2017). The rejection rate for Statement 02 was 12.25%, relatively low, with a mean score of 3.848, confirming the high level of agreement among the study sample. This is crucial because effective controls reduce control risks and guide the auditor's reliance on substantive testing, as supported by studies by Knechel et al. (2016). Further, Church et al. (2018) emphasize that effective internal controls are associated with higher audit quality and reduced audit effort. Statement 08 ranked third, with an agreement rate of 68.63%. The statement indicates that limiting substantive and detailed testing of certain items to a selective and non-intensive approach is one of the significant factors in an audit strategy based on control testing. This aligns with ISA 330 (IAASB, 2017), which permits auditors to adjust the extent of substantive procedures based on the assessed risks and the effectiveness of internal controls. The auditor's adoption of this strategy depends on the effectiveness of the client's control procedures, as outlined in ISA 315 (IAASB, 2017), and more reliance on internal controls reduces the need for extensive substantive tests of financial transactions and detailed testing of balance sheet accounts (Moula, 2023). Conversely, weak internal controls compel the auditor to intensify substantive and detailed tests to adequately respond to high control risks, consistent with ISA 330 (IAASB, 2017). The rejection rate for Statement 08 was 5.39%, the lowest among the axis statements, and the mean score was the highest at 3.907, indicating strong agreement, placing it first among the control testing axis statements. Effective controls allow auditors to reduce extensive testing and focus on areas with higher risks, aligning with the risk-based audit approach (Arens et al., 2020). Additionally, Bauer et al. (2021) argue that a risk-based approach to substantive testing enhances audit efficiency without compromising quality. Statement 03 received agreement from the study sample, as reflected by its mean score of 3.838 and a standard deviation of 0.969. This shows that most auditors agree that estimating the initial level of control risk is one of the key components of an audit strategy based on control testing, consistent with ISA 315 (IAASB, 2017). This is supported by an agreement rate of 64.22% and a low rejection rate of 8.82% among the study sample. The initial estimate of control risk arises from understanding the client's internal control system as a preliminary phase of control testing,

followed by confirming the effectiveness of control measures, which helps reduce control risks and enhances the reliability of an audit strategy based on control testing, as outlined in ISA 315 (IAASB, 2017). This step is foundational to identifying risks of material misstatements and planning appropriate audit procedures, as emphasized in ISA 300: Planning an Audit of Financial Statements (IAASB, 2017). The PCAOB (2017) highlights that assessing control risks early ensures that auditors can allocate resources efficiently and address significant risks effectively, which is supported by Prawitt et al. (2012). Furthermore, Gramling et al. (2019) stress that early risk assessment is critical for tailoring audit procedures to the specific needs of the client.

Statement 07 received an above-average agreement rate of 62.75% from the study sample, as supported by a mean score of 2.838 and a standard deviation of 0.821. It highlights that acceptable performance in the client's risk management process is of moderate importance according to the study sample. This suggests that the auditor may not independently focus on the client's risk management outputs as a standalone unit but rather considers them as an integrated element of the internal control system, interacting with other internal control elements, consistent with ISA 315 (IAASB, 2017). Thus, risk management does not constitute a primary focus for the auditor in isolation, as confirmed by Beasley et al. (2005). Additionally, Brown and Hillegeist (2020) argue that risk management processes should be evaluated within the broader context of internal controls rather than in isolation. Statement 06 recorded an agreement rate of 62.25%, an above-average level, with a rejection rate of 5.88%. It emphasizes that the degree of prior experience with the client in previous years plays an important role in forming an audit strategy based on control testing. This aligns with ISA 220: Quality Management for an Audit of Financial Statements (IAASB, 2017), which highlights the importance of auditor expertise and experience. However, professional experience is a fundamental requirement for building an audit strategy, although previous experience with the same client may not always be required or may conflict with regulations prohibiting auditors from serving the same client for consecutive terms. Statement 06 had a high agreement level, with a mean score of 3.848 and a standard deviation of 1.025, placing it fifth in rank. Research by Deis and Giroux (1992) highlights that prior client experience enhances auditors' ability to identify and assess risks effectively. Statement 04 achieved an agreement rate of 61.76%, highlighting the importance of selecting an appropriate sample size for the timing and procedures related to control testing as a general factor forming an audit strategy based on control testing. This aligns with ISA 530: Audit Sampling (IAASB, 2018), which provides guidance on designing and selecting audit samples. The sample rejection rate was 14.22%, relatively low. Sampling is a technique that auditors must employ because the assurance provided in an audit report is reasonable rather than absolute, as emphasized in ISA 530 (IAASB, 2018). Failure to use sampling increases audit costs and prolongs execution time, leading to inefficiencies, consistent with ISA 300 (IAASB, 2017). Determining an appropriate sample size in terms of timing and procedures is a key step toward achieving efficiency in the audit process. Additionally, Cannon and Bedard (2017) emphasize that effective sampling strategies are essential for balancing audit efficiency and effectiveness.

Statement 05 achieved an agreement rate of 58.33%, a moderate level, emphasizing that evaluating internal audit reports and their utility for external audit processes is one of the key procedures in an audit strategy based on control testing. This aligns with ISA 610: Using the Work of Internal Auditors (IAASB, 2017), which provides guidance on leveraging internal audit work. The rejection rate among the study sample was 15.20%, low compared to other statements. Internal auditors, despite not being fully independent, contribute to guiding external auditors in assessing the internal control system, particularly regarding weaknesses related to financial data, as emphasized in ISA 610 (IAASB, 2017). The mean score for Statement 05 was 3.598, with a standard deviation of 1.122, indicating a

moderate level of agreement. Research by Prawitt et al. (2012) supports this, showing that internal audit reports can enhance the efficiency and effectiveness of external audits when properly evaluated.

Overall, the agreement rate for the control-testing axis was high, with a mean score of 3.675 and a standard deviation of 1.006 for all statements. The agreement rate among the study sample was 64.89%, with a very low rejection rate of 10.54%, indicating that the statements in the second axis of the audit strategy are fundamental to the study sample, which consisted of chartered accountants and certified accountants in Algeria. Sampling was highlighted as a critical component (61.76% agreement, mean of 3.696), consistent with ISA 530 (IAASB, 2018), which emphasizes its role in providing reasonable assurance efficiently. Evaluating internal audit reports (58.33% agreement, mean of 3.598) was recognized as important, with a moderate level of reliance. This aligns with findings by Prawitt et al. (2012), which suggest that internal audit contributions can improve audit efficiency but require independent validation. The overall high agreement rate (64.89%) and mean score of 3.675 underscore the fundamental role of control testing in audit strategies. The findings indicate that auditors prioritize understanding and evaluating internal controls as part of a risk-based audit approach, consistent with academic and professional literature emphasizing the integration of control assessments into comprehensive audit strategies to enhance quality and efficiency (Simunic, 1980; Knechel et al., 2016).

II.3 Substantive and Detailed Tests:

Substantive and detailed tests represent a set of in-depth considerations and procedures for examining financial transactions and account balances. Table 03 and Figure 4-21 below present the items related to the audit strategy based on substantive and detailed tests, as detailed below:

Table 03: Agreement Levels on Substantive and Detailed Test Items

Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Mean ($\bar{X}$)	SD (σ)	Trand
Client management's attitude toward internal control procedures	23.53%	49.02%	21.08%	4.90%	1.47%	3.882	0.872	High
Ability to identify weaknesses in the internal control system	28.92%	45.10%	25.49%	0.49%	0.00%	4.025	0.750	High
Low detection risk level	25.00%	41.67%	22.06%	10.78%	0.49%	3.799	0.952	High
Material significance level of high-risk items	27.94%	35.29%	30.39%	5.39%	0.98%	3.838	0.928	High
High complexity of client organizational structures and branches	21.57%	50.49%	15.69%	8.33%	3.92%	3.775	1.004	High
Existence of non-routine transactions in some items	18.63%	45.59%	26.47%	5.88%	3.43%	3.701	0.952	High
Selecting an appropriate sample size for audit procedures	20.10%	51.96%	19.12%	6.37%	2.45%	3.809	0.912	High
Adequacy of expertise and number of audit teams to perform substantive and detailed tests	46.08%	47.55%	2.45%	1.47%	2.45%	4.333	0.808	High
Overall Score	26.47%	45.83%	20.34%	5.45%	1.90%	3.895	0.897	High

Source: Prepared by researchers based on SPSS output.

This table indicates that the overall agreement level regarding the items related to substantive and detailed tests was high with an average mean score of 3.895 and a standard deviation of 0.897. The results highlight the importance of various factors influencing the

audit strategy based on substantive and detailed tests, as perceived by the sample group of auditors and accounting experts. From Table 03 above, it is observed that Statement 08 achieved the highest approval rate, reaching 93.63% of professional auditors who agree that the adequacy in terms of expertise and number of audit teams for conducting substantive and detailed tests is one of the most critical factors for an audit strategy based on such tests. This aligns with ISA 220 on "Quality Control for an Audit of Financial Statements", which emphasizes assigning engagement teams with sufficient time and appropriate capabilities, competence, and resources. This indicates that audit teams with strong working relationships, high levels of communication, and sufficient expertise can perform substantive and detailed tests effectively, given the in-depth and specialized expertise required in accounting frameworks and relevant standards. Audit firms and companies may therefore develop plans to meet the necessary human resource requirements to fulfill auditing needs, particularly by hiring experienced and competent individuals. They may also enhance human resources through training and development programs aimed at improving capabilities related to detailed examination procedures for account balances and financial transactions. Statement 08 achieved a mean score placing it in the first rank of approval levels among the statements in the axis, with an average of 4.333 and a standard deviation of 0.808. The statement also had a low rejection rate of 3.91%, highlighting consensus among the study sample in agreeing with its content. Prior studies highlight the importance of auditor expertise in enhancing audit quality and detecting material misstatements (DeFond & Zhang, 2014). The role of well-trained audit teams in implementing complex audit procedures is also emphasized in ISA 230, which underscores documentation and professional competence. Regarding Statement 02, it ranked second in terms of approval rate at 74.02%, emphasizing the importance of the ability to identify weaknesses in the internal control system as one of the key factors in an audit strategy based on substantive and detailed tests. According to Messier et al. (2017), the auditor's ability to pinpoint internal control deficiencies informs the extent of substantive procedures. This aligns with the risk-based audit approach embedded in ISA 315 (Revised), which requires auditors to identify and assess risks of material misstatement through understanding the entity and its environment, including internal control. This underscores that reliance on such tests for audit strategy development depends on the auditor's ability to demonstrate and confirm the effectiveness of the internal control system. Detecting significant weaknesses in the internal control system drives auditors to rely more heavily on substantive and detailed tests (Seini et al., 2022). Statement 02 recorded the lowest rejection rate among the axis statements at 0.49%, with a mean score of 4.025 and a low standard deviation of 0.750, affirming the high agreement of the study sample with its content.

Statement 07 ranked third in terms of approval rate at 72.06%, indicating that determining the appropriate sample size for audit procedures is one of the most important factors related to an audit strategy based on substantive and detailed tests. Audit sampling methodologies, as discussed in ISA 530, stress the importance of selecting an appropriate sample size to achieve sufficient and appropriate audit evidence. The role of statistical and non-statistical techniques in this regard is critical (Hall, 2015). The significance of an appropriate sample size lies in granting greater credibility and reliability to the applied procedures, proportional to the representativeness of the sample to the population of accounts and balances at the client's end. Errors in sampling may lead to generalizing results that do not reflect the actual state of the audited accounts and balances, thereby leading to incorrect conclusions about the financial data as a whole. Auditors may thus seek to establish standardized procedures for determining appropriate sample sizes and provide the technical and knowledge-based resources to improve the quality of sampling outcomes. Firms may also revise and update statistical and non-statistical sampling methodologies for

substantive and detailed tests. Statement 07 had a rejection rate of 8.82%, a low figure, and a mean score of 3.809 with a low standard deviation of 0.912, indicating a high level of agreement. Statement 05 ranked fifth in terms of approval rate at 72.06%, addressing the importance of client organizational complexity as a key factor for an audit strategy based on substantive and detailed tests. Complex organizations often pose challenges for audit procedures due to multiple reporting lines and decentralized controls (Arens et al., 2020). Substantive tests are vital in such scenarios to ensure accurate financial reporting. Increased organizational complexity necessitates intensive reliance on substantive and detailed tests, as high levels of complexity may hinder the ability of other audit strategy tests to detect material misstatements in financial data. Despite the high cost of substantive and detailed tests, they may be the most efficient in identifying significant errors. Statement 05 recorded a relatively low rejection rate of 12.25%, a mean score of 3.775, and a moderate standard deviation of 1.004, indicating slight variation in responses. Statement 03 had an above-average approval rate of 66.67%, supported by a mean score of 3.799 and a standard deviation of 0.952. These indicators suggest that a low level of detection risk is an essential factor for developing an audit strategy based on substantive and detailed tests. Detection risk is inversely related to substantive procedures (Hayes et al., 2014). Lower detection risk thresholds compel auditors to perform more extensive testing to mitigate the risk of undetected material misstatements. The results of the audit risk model, as established in ISA 200, demonstrate that low detection risk signals the need for increased substantive and detailed testing, as it implies the presence of significant risks concerning the adequacy of the auditor's report in addressing the audit's contextual circumstances. Consequently, adopting a strategy based on substantive and detailed tests reduces the negative impact of detection risk and enables auditors to demonstrate due professional care.

Statement 04 achieved a 63.23% approval rate, above the average, reflecting the significance of materiality levels for high-risk items in building an audit strategy based on substantive and detailed tests. The rejection rate was 6.37%. Substantive and detailed tests often rely on the monetary value of accounts and balances, meaning that materiality thresholds for accounts or overall levels help identify deviations in accounting items by monetary value. Statement 04 recorded a high level of approval, with a mean score of 3.838 and a standard deviation of 0.928, which leads to say Materiality plays a fundamental role in audit planning and execution, guiding the extent of substantive testing (ISA 320). High-risk items, particularly those with monetary significance, necessitate closer examination to ensure that financial statements are free from material misstatements. Statement 06 achieved a 64.22% approval rate, highlighting that non-routine transactions in certain items are significant factors for an audit strategy based on substantive and detailed tests. The rejection rate was 9.31%, which is relatively low. Non-routine transactions often serve as red flags or indicators of material misstatements in financial data, requiring auditors to exercise professional judgment and skepticism. Non-routine transactions are often associated with increased risk of material misstatements, as they may lack established control procedures (Eilifsen et al., 2020). Auditors must apply professional skepticism and judgment in these areas; such transactions demand in-depth and specialized testing procedures to identify potential deviations in the relevant accounts. The mean score for Statement 06 was 3.701, with a standard deviation of 0.952, indicating moderate variation in the responses.

Overall, for the axis of substantive and detailed tests in Table 03, the average approval rate was high, with a mean score of 3.895 and a standard deviation of 0.897. The approval rate among the sample reached 72.30%, with a low rejection rate of 7.35%, indicating that the statements in the third axis of the audit strategy are considered

fundamental by the study sample. The high overall agreement level (mean = 3.895, SD = 0.897) indicates that substantive and detailed tests are perceived as a cornerstone of audit strategy by auditors. This aligns with the broader principle that substantive procedures are essential in addressing residual risks after assessing internal controls (IAASB, 2016; ISA 330).

II.4 Analytical Procedures :

Analytical procedures represent indicators that assist in identifying areas of risk and misstatements. These are measured according to the statements of the axis, as shown in Table 04 below:

Table 04: Approval Ratings for Analytical Procedure Statements

Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Mean ($\bar{X}$)	SD (σ)	Trand
The accuracy of predictions from analytical procedures	42.65%	46.08%	2.45%	2.45%	6.37%	4.162	1.047	High
The comparability of financial and non-financial data	42.16%	45.59%	1.96%	4.90%	5.39%	4.142	1.05	High
The availability of detailed financial information with high reliability	50.00%	37.75%	1.47%	4.41%	6.37%	4.206	1.106	High
The need to reduce costs and save time in auditing processes	35.29%	29.41%	23.53%	6.37%	5.39%	3.828	1.14	High
The level of audit risk and detection risk	49.02%	38.73%	3.43%	2.94%	5.88%	4.221	1.06	High
The level of professional expertise and the nature of prior client relationships	30.39%	32.35%	24.02%	5.39%	7.84%	3.721	1.178	High
Overall Rating	41.58	38.32	9.48	4.41	6.21	4.047	1.096	High

Source: Prepared by researchers based on SPSS outputs

We observe from Table 04 above that Statement No. 01 achieved the highest approval rate, estimated at 88.73%. This indicates a strong positive perception and high approval among professional auditors, emphasizing the importance of prediction accuracy as a critical factor in audit strategies based on analytical procedures. Analytical procedures rely on the accuracy of predictions to compare expected and actual financial outcomes. ISA 520 highlights that effective analytical procedures enhance the auditor's ability to identify unusual transactions and trends (IAASB, 2016). This standard further explains that predictive accuracy improves when reliable data and sound expectations are established, particularly when comparisons are made with budgets, forecasts, or industry averages. Additionally, Knechel et al. (2013) note that predictive modeling and temporal analysis improve the reliability of audit conclusions. This suggests that auditors tend to employ analytical procedures during audits due to their ability to predict a client's financial status and identify weaknesses and non-routine items through temporal comparisons. These procedures are especially relevant in planning and overall review stages, where ISA 520 encourages their use as both risk assessment and substantive procedures. In this context, AI techniques—such as machine learning, anomaly detection algorithms, and natural language processing—can enhance the predictive capacity of analytical procedures by automating the identification of patterns, learning from historical data, and refining expectations based on multidimensional data sources. These tools allow auditors to anticipate risks and detect anomalies with greater precision, supporting the design of more adaptive and data-informed audit strategies. Statement No. 01 achieved a mean score of 4.162 and a standard deviation of 1.047. The rejection rate for this statement was 8.82%, a low percentage confirming the

consensus of the study sample regarding its content. Regarding Statement No. 05, it ranked second with an approval rate of 87.75%, highlighting the importance of audit risk and detection risk levels as key factors in audit strategies based on analytical procedures. As Hayes et al. (2014) explain, analytical procedures are integral during the planning phase to assess inherent and control risks. ISA 315 (Revised 2019) also emphasizes that identifying and assessing the risks of material misstatement is supported by analytical procedures, particularly when evaluating the financial statements as a whole. By identifying high-risk areas, auditors can allocate resources efficiently, thereby reducing detection risk and enhancing audit effectiveness. This signifies that reliance on analytical procedures plays a crucial role in audit strategy, particularly during early risk assessment phases and prior to detailed testing, guiding auditors toward areas requiring in-depth examination. AI tools contribute to this process by analyzing large datasets and highlighting correlations or risk indicators that may not be evident through manual methods. For example, AI-driven clustering and predictive models can help isolate high-risk transactions or accounts, supporting more focused and strategic audit planning. The rejection rate for Statement No. 05 was also 8.82%, and the mean score was 4.221, reflecting high approval by the study sample. It ranked first within this axis with a low standard deviation of 1.060, indicating minimal variance in responses.

Statement No. 02 ranked third in terms of approval, with a mean score of 4.142 and an approval rate of 87.75%, reflecting high consensus. This statement emphasizes that the comparability of financial and non-financial data is one of the key factors associated with audit strategies based on analytical procedures. Comparability is vital for identifying deviations from expected patterns (Eilifsen et al., 2020). Discrepancies between financial and operational data often signal potential misstatements, prompting further investigation (Arens et al., 2020). ISA 520 explains that analytical procedures involve comparisons between recorded amounts and expectations developed by the auditor, which often includes both financial and non-financial data. Temporal comparisons of financial reporting direct auditors to deviations in financial data. The lack of uniformity in financial data preparation and presentation may hinder effective comparisons, necessitating additional time and effort, which could negatively affect audit timelines and costs. AI techniques improve this aspect by harmonizing and standardizing disparate data sources, enhancing comparability, and reducing the time auditors spend reconciling inconsistencies manually. Through AI-powered data integration, auditors gain clearer visibility across multiple systems, improving the effectiveness of analytical procedures. Statement No. 03 ranked fourth, with a mean score of 4.206 and an approval rate of 87.75%, supported by a rejection rate of 10.87%. This statement points to the critical role of reliable and detailed financial information in encouraging the adoption of audit strategies based on analytical procedures. Reliable and detailed financial data are prerequisites for effective analytical procedures, as emphasized in ISA 520. The standard outlines that the reliability of data used in analytical procedures affects the effectiveness of those procedures, and the auditor should assess that source degree of comparability of data. Incorrect or incomplete data can lead to flawed conclusions, undermining the audit process (Messier et al., 2017). Ensuring the integrity of financial data is, therefore, fundamental in designing meaningful audit expectations and interpreting deviations. In this regard, AI-powered tools can automate data validation, flag inconsistencies, and enhance the accuracy of datasets used in analytical procedures. Natural language processing can also extract structured insights from unstructured data (e.g., contracts, invoices), adding further depth and reliability to analytical procedures. Statement No. 04 had an above-average approval rate of 64.71%, as supported by a mean score of 3.828 and a standard deviation of 1.140. These indicators suggest that the need to reduce costs and save time in audit processes is an important factor in building audit strategies

based on analytical procedures. Analytical procedures are characterized by lower costs compared to other audit tests and by their integration of advanced data analysis and artificial intelligence techniques. With reliable and comparable financial data, the outcomes of analytical procedures are highly credible and directive, aiding in reducing audit time and costs. ISA 520 also acknowledges the cost-effectiveness of analytical procedures, particularly in large-scale audits or initial planning stages. So analytical procedures often leverage technology and data analytics, reducing the reliance on labor-intensive tests (Alles & Gray, 2015). These efficiencies align with broader trends in audit innovation and the integration of artificial intelligence. AI streamlines the audit process by automating repetitive tasks, such as data extraction, variance analysis, and outlier detection, enabling auditors to focus on areas that require judgment and professional insight. Furthermore, AI enhances scalability, allowing audit firms to handle large and complex datasets without proportionally increasing audit costs. Statement No. 06 ranked sixth in terms of approval, with a mean score of 3.721 and an approval rate of 62.75%, which is above average. The rejection rate for this statement was 13.24%, a relatively low value. This statement highlights the role of professional expertise and prior relationships with the client as motivating factors for adopting audit strategies based on analytical procedures. Professional expertise is essential for applying analytical procedures, as they require updated knowledge in advanced financial analysis, analytical models, and artificial intelligence, which are necessary given the increasing complexity of organizations and their accounting information systems (Baar & Bara, 2024). ISA 200 states that the auditor shall exercise professional judgment and maintain professional skepticism throughout the audit, including when designing and applying analytical procedures. The standard also implies that experience with the client enhances risk assessments and judgment quality. AI tools, when used appropriately, complement professional expertise by offering decision-support insights, detecting non-obvious patterns, and testing multiple hypotheses rapidly. However, their effectiveness depends on the auditor's understanding and ability to evaluate AI outputs critically, underscoring the continued importance of human judgment in AI-assisted audits.

In modern audit practices, the integration of Artificial Intelligence (AI) and Big Data analytics significantly enhances the effectiveness of analytical procedures as defined in ISA 520 (IAASB, 2016). These technologies allow auditors to analyze massive, complex datasets with greater precision, supporting the development of accurate expectations and the timely identification of anomalies. AI, through machine learning algorithms, improves predictive modeling by learning from historical audit data, automatically adjusting analytical benchmarks and enhancing anomaly detection over time (Moffitt, Rozario, & Vasarhelyi, 2018). This adaptability enables auditors to shift from retrospective analyses to forward-looking insights, increasing the relevance and responsiveness of audit procedures. Big Data further expands the informational base by incorporating structured and unstructured data—including transactional logs, social media sentiment, and external economic indicators—into risk assessment processes (Appelbaum, Kogan, & Vasarhelyi, 2017). Such data diversification enhances auditors' ability to establish robust expectations, aligning with ISA 315 (Revised 2019), which emphasizes understanding the entity's environment and internal controls (IAASB, 2019). Moreover, AI-powered tools enable real-time data visualization and risk scoring, allowing for the dynamic identification of outliers and unusual trends that may suggest material misstatements (Richins et al., 2017). This capacity supports auditors in applying analytical procedures not only during planning but also as substantive procedures and in final review stages, as recommended by ISA 520. Ultimately, integrating AI and Big Data into analytical procedures enhances audit efficiency, strengthens risk identification, and reduces detection risk—all while maintaining

alignment with international auditing standards and professional judgment requirements (Yoon, Hoogduin, & Zhang, 2015).

Overall, the results for the entire axis, as presented in Table 04, show a high approval rate with a mean score of 4.047 and a standard deviation of 1.096. Professional expertise enhances the effectiveness of analytical procedures, particularly in complex and dynamic audit environments. Prior client relationships can improve understanding of historical data; further supporting accurate analysis (DeFond & Zhang, 2014). The approval rate among the sample was 79.90%, with a low rejection rate of 10.62%, indicating that the statements related to the fourth axis of the audit strategy are significant to the study sample. This aligns with ISA 315 and ISA 520, both of which confirm the importance of understanding the entity and using analytical procedures to direct attention to unusual or unexpected relationships that may indicate risks of material misstatement. While AI practices should enhance analytical procedures, when aligned with ISA guidance, enable auditors to navigate these relationships with increased clarity, accuracy, and efficiency in Audit mission.

II.5 Hypothesis Testing:

The results in Table 05 provide a comprehensive evaluation of the hypothesis testing across four axes: Risk Assessment, Control Testing, Substantive Test, and Analytical Procedures. The rejection of all hypotheses raises several important points for discussion regarding the effectiveness and perception of these audit processes.

Table 05: Hypothesis Testing

No.	Axis	Mean Score	Standard Deviation	t-Value (Critical)	p-Value	Hypothesis Result
01	Risk Assessment	3.584	1.084	--	--	Rejected
02	Control Testing	3.675	1.006	--	--	Rejected
03	Detailed Testing	3.895	0.897	--	--	Rejected
04	Analytical Procedures	4.047	1.096	--	--	Rejected

Source: Prepared by researchers based on SPSS outputs

Hypothesis 01: there is no effective role of Risk assessment in Audit strategy

Hypothesis 02: there is no effective role of Test of control in Audit strategy

Hypothesis 03: there is no effective role of substantive test and test of details in Audit strategy

Hypothesis 04: there is no effective role of Analytical procedure in Audit strategy

III. Conclusion

This research explores the components of audit strategy from the perspective of auditors operating in Algeria, with particular attention to risk assessment, tests of control, substantive testing, and analytical procedures. These elements are crucial in shaping the overarching framework of audit strategy, ensuring that auditors meet their objectives while maintaining compliance with standards and addressing stakeholder expectations. The findings of the study shed light on the dynamic interplay of these determinants within the Algerian auditing landscape, revealing both challenges and opportunities for auditors in this context. Risk assessment is a foundational aspect of audit strategy, allowing auditors to

identify, evaluate, and prioritize areas that present a higher risk of material misstatements. In Algeria, as in other contexts, this process involves understanding the client's business, industry, and control environment. The study reveals that Algerian auditors place significant emphasis on risk assessment as a proactive step in the audit process. Effective risk assessment not only helps auditors allocate resources more efficiently but also provides the basis for tailoring other components of the audit strategy, such as tests of control and substantive testing. However, the research highlights challenges in this area, including the lack of advanced tools and technologies that can enhance risk identification and evaluation processes. Tests of control play a pivotal role in determining the extent and nature of substantive procedures required during an audit. These tests help auditors assess whether an entity's internal controls are designed and operating effectively to prevent or detect material misstatements. In the Algerian context, the quality and robustness of internal control systems vary significantly across organizations. The study finds that auditors often face limitations due to weak or inconsistent internal controls, which necessitate a greater reliance on substantive testing. This reliance increases the time and effort required for audits and poses challenges in terms of resource allocation. Nevertheless, auditors in Algeria exhibit a high degree of professional judgment in evaluating the results of control tests and making informed decisions about subsequent audit procedures. Substantive testing remains a critical determinant of audit strategy, particularly in settings where internal controls are weak or inadequately documented. Substantive procedures, including detailed tests of transactions and account balances, provide direct evidence about the accuracy and completeness of financial statements. The study reveals that Algerian auditors prioritize substantive testing in their strategies, especially when dealing with high-risk accounts or transactions. While this approach ensures a higher level of assurance, it also highlights the need for efficiency in designing and executing these procedures. The use of substantive tests is influenced by the results of risk assessment and control testing, underscoring the interconnected nature of audit strategy components. Analytical procedures, which involve evaluating financial and non-financial data to identify trends, anomalies, or unusual relationships, are another essential component of audit strategy. These procedures enable auditors to focus on areas of potential concern and complement other audit tests. In Algeria, auditors increasingly recognize the value of analytical procedures in enhancing the efficiency and effectiveness of their audits. However, the study identifies barriers to the widespread adoption of advanced analytical tools, such as limited access to technology and a lack of specialized training. Despite these challenges, Algerian auditors demonstrate a commitment to integrating analytical techniques into their audit processes, leveraging available resources to achieve meaningful insights. The interplay of these determinants within the Algerian auditing environment is shaped by several contextual factors. The regulatory landscape in Algeria presents unique challenges and opportunities for auditors. While local regulations align with international standards to some extent, there are gaps in implementation and enforcement that affect the consistency of audit practices. This study underscores the need for a more harmonized regulatory framework that provides clear guidelines for auditors, particularly in areas such as risk assessment and control testing. Technological constraints also influence the effectiveness of audit strategies in Algeria. The limited availability of advanced tools and systems for data analysis and audit automation poses a significant

barrier to enhancing the efficiency of audit procedures. However, the study highlights the potential for technology adoption to transform the audit process, enabling more accurate risk assessments, streamlined testing, and improved decision-making. By investing in technology and training, Algerian audit firms can overcome these limitations and align their practices with global standards. Another critical factor is the professional expertise and judgment of auditors, which play a decisive role in shaping audit strategies. The study finds that auditors in Algeria rely heavily on their experience and knowledge to navigate the complexities of the audit process, particularly in the absence of robust technological support or well-established internal controls. This reliance underscores the importance of continuous professional development and knowledge-sharing among auditors to enhance their capabilities and keep pace with evolving industry practices. The findings of this research have broader implications for understanding audit strategy in emerging markets. Algeria represents a unique case where contextual challenges, such as regulatory inconsistencies, resource limitations, and varying levels of organizational transparency, intersect with global trends in auditing. The insights gained from this study contribute to a deeper understanding of how auditors in similar environments can optimize their strategies to address these challenges while maintaining the integrity and reliability of their audits.

In conclusion, the determinants of audit strategy—risk assessment, tests of control, substantive testing, and analytical procedures—serve as the building blocks of effective auditing. Each of these components is interdependent, and their integration into a cohesive strategy is essential for achieving audit objectives. In the Algerian context, auditors must navigate a complex landscape characterized by limited resources, evolving regulations, and diverse organizational environments. Despite these challenges, they exhibit resilience and adaptability, leveraging their expertise to develop tailored audit strategies that meet the needs of stakeholders and uphold professional standards. The study highlights the need for enhanced regulatory alignment, technological investment, and professional development to address the challenges faced by Algerian auditors. By focusing on these areas, the auditing profession in Algeria can advance toward greater efficiency, effectiveness, and alignment with international best practices. This research not only provides valuable insights into the determinants of audit strategy in Algeria but also serves as a foundation for further studies in similar contexts, paving the way for continuous improvement and innovation in the field of auditing.

III.1 Recommendations :

1. **Enhance Risk Assessment Practices Using AI and ISA 315:** Auditors should adopt advanced risk assessment methodologies that incorporate artificial intelligence (AI), machine learning (ML), and data analytics to detect patterns and anomalies across large datasets. In accordance with ISA 315 (Revised 2019), auditors are required to obtain a comprehensive understanding of the entity and its environment, including internal controls. AI tools can automate the extraction of historical financial patterns, client behavior, and external data (e.g., industry trends), enabling more precise identification of risks of material misstatement. Predictive

models can further enhance planning by flagging high-risk accounts and transactions for focused audit procedures.

2. **Strengthen Internal Control Systems in Line with ISA 330:** Algerian organizations should enhance their internal control systems to support audit efficiency and reliability. According to ISA 330, auditors must evaluate the operating effectiveness of internal controls to determine the nature, timing, and extent of substantive procedures. By integrating continuous control monitoring systems, organizations can provide real-time data access to auditors, reducing reliance on time-consuming substantive testing. Investments in control automation, supported by blockchain for real-time verification, will also promote greater transparency and auditability.
3. **Optimize Substantive Testing with Risk-Based AI Models (ISA 500, ISA 330):** Substantive audit procedures should be dynamically aligned with the outcomes of risk assessments and control testing, as required by ISA 500 and ISA 330. The use of AI-enhanced sampling algorithms, anomaly detection systems, and predictive audit tools can guide auditors toward transactions or account balances that deviate significantly from expected norms. This targeted approach increases audit effectiveness while conserving resources, particularly when auditing high-volume transactional environments.
4. **Promote Advanced Analytical Procedures in Compliance with ISA 520:** Analytical procedures are crucial throughout all audit phases, especially during planning and review, as established in ISA 520. Algerian audit firms should implement structured training programs focused on AI-powered audit analytics platforms that perform multi-variable trend analysis, correlation checks, and outlier detection. These platforms can process financial and non-financial data simultaneously, facilitating early warning systems for fraud or misstatements. Enhancing auditor proficiency in data visualization tools e.g., Power BI, Tableau will further support intuitive risk assessments.
5. **Invest in Emerging Technologies to Modernize Audit Practice:** Algerian audit firms should prioritize investments in technologies such as AI-driven audit software, Natural Language Processing (NLP) for contract and document analysis, Robotic Process Automation (RPA) for repetitive tasks, and blockchain for transaction integrity verification. These tools significantly reduce human error, improve audit trail reliability, and support compliance with ISA 230 on audit documentation by automatically generating structured and timestamped evidence logs.
6. **Encourage Regulatory Alignment with the International Framework (ISAs & IFAC Guidelines):** Algerian regulatory authorities should actively work to harmonize local audit regulations with the International Standards on Auditing (ISAs) and IFAC's audit quality framework. Emphasis should be placed on adopting ISA 315, ISA 330, ISA 500, and ISA 520, which collectively provide a robust structure for audit planning, execution, and evaluation. A unified regulatory framework will support the development of consistent, high-quality audit strategies and improve investor confidence in local audit practices.
7. **Foster Knowledge Sharing, AI Literacy, and Collaboration:** Establishing national forums and digital knowledge platforms for auditors will promote

cross-firm learning, particularly regarding best practices in AI-enabled audits, data security, and risk modeling. Collaboration through webinars, workshops, and joint audit engagements can accelerate the adoption of smart auditing tools and promote shared interpretations of international auditing requirements. These initiatives will align with IFAC's call for ongoing continuing professional development (CPD) in a fast-evolving audit landscape.

8. Conduct Industry-Specific Studies: Future research should delve into the application of these audit determinants across specific industries in Algeria, identifying unique challenges and tailoring solutions to sector-specific needs.
9. Support Continuous Professional Development: Continuous training programs should be introduced to keep auditors updated on the latest techniques in risk assessment, control testing, and substantive auditing, ensuring the integration of best practices in audit strategy.

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