

Research on Audit Risks in the Digital Transformation of Enterprises

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Abstract: With the development of the digital economy, digital transformation has become a significant trend for enterprises. The application of technologies such as cloud computing, artificial intelligence, and blockchain presents new audit risks for auditors in the context of enterprise digital transformation. By analyzing the audit risks associated with this transformation, this paper states the major audit risks faced by enterprises from four perspectives: new audit risks in digital transformation, material misstatement risks at the financial statement level, material misstatement risks at the assertion level, and detection risk. Based on this analysis, the paper proposes preventive measures for each type of audit risk. The research reveals that digital transformation increases the demand for auditors' information technology audit capabilities and that IT-based auditing can effectively address and mitigate various audit risks. However, audit independence and objectivity remain core principles. This paper aims to provide preventive measures to reduce audit risks for enterprises, promote comprehensive business upgrades, enable successful digital transformation, and reduce barriers to sustainable development.


1 INTRODUCTION

With the development of technologies such as cloud computing, artificial intelligence, blockchain, automation, and the internet, digital transformation has gradually become particularly important for enterprises. Björkdahl (Joakim Björkdahl, 2020) states that in the future, companies that fail to seize the right opportunity to implement digital transformation will face risks of declining profitability, being surpassed by competitors, or even being pushed out of the market. The report from the 20th National Congress of the Communist Party of China emphasized supporting the development of specialized, high-tech enterprises and promoting deep integration of the digital economy with the real economy. The State Council's executive meeting approved the Action Plan for the Digital Transformation of Manufacturing. Prior to this, in April 2020, the U.S. Senate introduced a new version of the Endless Frontier Act, indicating that major world powers have already incorporated digital transformation into their national strategies, making it one of the primary fields of future competition.

Digital transformation has become a major trend for enterprises today. However, while this transforma-

tion brings unprecedented opportunities, it also comes with new challenges. In the field of corporate auditing, digital transformation may objectively improve audit efficiency and quality to some extent, thus reducing audit risk. However, this does not mean that audit risks will decrease significantly or disappear altogether. Therefore, during the process of digital transformation, companies should take adequate measures to prevent potential audit issues and incidents. Analyzing the objectivity, potential and pervasiveness of audit risks is crucial for effectively controlling them and minimizing their impact on the company's normal operations. This paper aims to accelerate the pace of digital transformation for enterprises, promote the digital transformation process, enhance the quality and efficiency of corporate audits, conduct efficient audits, and strengthen the prevention of major audit risks. By aligning with the trends of the new era, the paper seeks to help companies upgrade while reducing audit risks, maintaining normal operations, and promoting sustainable development.

Through the analysis of the new audit risks and other types of audit risks brought about by digital transformation, this paper discusses the audit mechanisms and measures enterprises should adopt in the new e-

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ra from four perspectives: new audit risks, The risk of misreporting at two levels of corporate finance and detection risk. Additionally, it highlights the audit techniques and professional skills that auditors in the new era should master.

A review of the existing literature reveals that research on audit risks related to digital transformation in enterprises is limited. Most studies focus on changes in overall enterprise value, governance levels, performance and collaboration between upstream and downstream enterprises, with an emphasis on audit quality and audit value. However, few studies address the impact of digital transformation on audit risks.

2 CONCEPTS RELATED TO DIGITAL TRANSFORMATION AND CORPORATE AUDIT RISK

2.1 Digital Transformation

Digital transformation is a broad concept. Digitization is defined by Merriam-Webster as the process of converting something into a digital form (Yang Yanxin & Gao Minxue, 2024). When digitization is applied to various aspects of an enterprise's daily operations, it is referred to as enterprise digitization. Enterprise digital transformation refers to the integration of digital technologies that lead to fundamental changes, impacting multiple areas such as business models, organizational structure, production manufacturing, products and services, and business processes (Zhong Xiaolong & Li Huihui, 2024). The aim of this transformation is to improve an enterprise's flexibility, agility, innovation capability and competitiveness, while creating new value and business opportunities, ensuring the sustainable development of the enterprise through new operating models in the digital era.

Digital transformation is not merely an upgrade at the technological level; it is a comprehensive organizational change and a continuous process that requires phased advancement across various levels. It demands adjustments and optimizations in the enterprise's mindset, organizational structure and operational models. Enterprises should shift their mindset in management and operations to meet the strategic needs imposed by their development in the new era. Optimizing organizational structures by building more flexible, open, and collaborative frameworks, and fostering a workforce with digital thinking and skills, is critical to responding to rapidly changing market environments and enabling enterprises to successfully complete their digital transformation.

After digital transformation, an enterprise's operating model must be driven by customer needs, with a focus on direct connections with customers through technological innovations such as big data, the Internet of Things (IoT), and cloud computing. These technologies enable enterprises to meet user demands precisely by providing point-to-point services based on data platforms supported by cloud computing. This approach optimizes products and services, enhances customer experience, improves operational efficiency, reduces costs, creates new business models and growth opportunities.

2.2 Audit Risk

Audit risk, in simple terms, refers to the possibility that significant misstatements or omissions exist in the financial statements and that the auditor fails to detect these errors, resulting in an inappropriate audit opinion. This definition encompasses two main aspects of the auditing process: one is the problem with the financial statements themselves, and second, negligence or misjudgment of the auditor during the audit.

According to the Auditing Standards Board of the United States, Statement No. 47 states that audit risk is the risk that auditors unintentionally issue an inappropriate opinion on financial statements containing significant misstatements. The Chartered Professional Accountants of Canada describe audit risk as the risk that audit procedures fail to detect significant errors. International Auditing Standard No. 25, Materiality and Audit Risk, defines audit risk as the risk that the auditor may provide an inappropriate opinion on financial statements that are materially misstated." The Chinese Institute of Certified Public Accountants defines audit risk in Article 17 of the China Certified Public Accountants Auditing Standards No. 1101 - Objectives and General Principles of Financial Statement Audits (2007) as the possibility that significant misstatements exist in the financial statements and that the certified public accountant issues an inappropriate audit opinion.

There are numerous reasons for the occurrence of audit risk, and it cannot be completely eliminated. However, most audit risks can be mitigated through scientific assessment and reasonable management strategies, enhancing audit risk prevention and improving audit quality and efficiency. Audit risk possesses objectivity, potentiality, and pervasiveness, allowing for effective control.

3 AUDIT RISKS IN THE PROCESS OF ENTERPRISE DIGITAL TRANSFORMATION

There is certain audit risks associated with the digital transformation of enterprises, which can primarily be categorized as follows.

3.1 New Audit Risks Brought About by Digital Transformation

Digital transformation not only enhances an enterprise's core competitive advantages and improves its capacity for risk-taking but also utilizes digital technologies to generate a vast amount of structured and unstructured information, thereby providing auditors with reliable accounting information and improving audit quality (Zhai Huayun & Li Qianru, 2022). Enterprises utilize information technology to build databases and employ the rapid filtering, sorting, and computing functions of these databases for data processing, significantly enhancing data processing efficiency and the accuracy of audit work (Zhou Gang, 2023). While digital technologies facilitate auditing and increase efficiency, they also introduce new audit risks. These risks arise from the new characteristics of technology and the changes in enterprise operational models associated with it.

First, as enterprises deepen their reliance on information technology and automated systems, any system failures or security vulnerabilities may affect the accuracy of financial statements, thereby increasing audit risk. Events such as hacker attacks, malware, and internal data breaches can lead to the alteration or leakage of financial information, significantly complicating auditors' efforts to assess and verify the authenticity of this information.

Second, as enterprises adopt big data and advanced data analytics tools, data quality and data management become significant risk points in the audit process. Since databases serve as a crucial source of audit information, inaccurate or unreliable data can present major obstacles during the audit process and significantly impact the quality of audit results. Auditors may need to invest substantial time and effort to verify the accuracy and authenticity of data. Furthermore, the rapid technological advancements brought about by digital transformation may lead to auditors lacking the necessary technical knowledge and skills. Digital transformation requires auditors to not only possess traditional financial and accounting knowledge but also to have a certain understanding of information technology (IT) systems, data analysis, and cybersecurity

risk, along with related skills. Auditors must continually learn and adapt to new technologies; otherwise, they may be unable to effectively identify and assess the resulting audit risks.

3.2 Material Misstatement Risks at the Financial Statement Level

From the perspective of the external environment, the current market share is nearly saturated, significantly increasing competitive pressure on enterprises. Additionally, the economic climate in recent years has been less than favorable, with rising operating costs and diminishing profitability. At the same time, the demands of emerging markets resulting from digital transformation cannot be overlooked, as the pressure on cash flow during this transformation process is substantial. Digital transformation increases management and labor costs, which may lead to less noticeable improvements in performance in the short term (Qi Yudong & Cai Chengwei, 2020). For enterprises, sustainable development becomes an unavoidable challenge.

Investment and financing are among the primary sources of capital for enterprises; thus, companies that report average or even negative operating results may resort to practices such as producing fraudulent financial statements or manipulating annual reports to present a more favorable image. This behavior can significantly increase audit risk. Internally, if the digital transformation does not meet the enterprise's expectations, fails to open new markets, and does not generate new economic growth points, the losses incurred during the transformation process will not be recoverable. In a highly competitive market, if the enterprise cannot leverage its transformation to enhance profitability, it becomes more susceptible to material misstatement risks. Additionally, if internal oversight fails and irregularities in the financial statements are not detected, there may be potential significant misstatement risks.

3.3 Material Misstatement Risks at the Assertion Level

Digital transformation in enterprises inevitably involves various transactions. Some companies may pursue mergers and acquisitions to expedite the transformation process. If an enterprise cannot accurately assess the operational status and goodwill of the acquired company, it may face subsequent repercussions. Furthermore, if an enterprise inflates transaction information, reports losses as profits, or exaggerates earnings while claiming to be profitable, such earnings manag-

ement practices will not accurately reflect the enterprise's true financial condition, thereby triggering material misstatement risks at the assertion level.

3.4 Detection Risk

Detection risk is closely related to the auditors' own capabilities. Insufficient quality among the auditing team is a significant factor contributing to audit risk in corporate economic responsibility (Chen Wenpeng, 2024). Therefore, auditors need to continually learn and adapt to new technologies, with a focus on data identification and processing. Traditional auditing techniques and processes may not align with the needs of digitally transformed enterprises. If auditors lack strong digital auditing skills and do not have sufficient knowledge of emerging technologies, this can lead to incomplete or inaccurate data acquisition, thereby increasing detection risk. Auditors who cannot effectively utilize digital technologies may find it challenging to perform audits for digitally transformed enterprises.

4 EFFECTIVE MEASURES TO PREVENT AUDIT RISKS IN THE PROCESS OF ENTERPRISE DIGITAL TRANSFORMATION

4.1 Preventing New Audit Risks

Preventing new audit risks is an important challenge currently faced in auditing work. With the complexity of the market environment, technological development, and audit subjects, audit risks exhibit characteristics of diversity and concealment. To effectively prevent new audit risks, several approaches can be adopted. First, enhancing the quality and capabilities of auditors is essential. In the information age, auditors need to master digital auditing technologies. Professional training should be strengthened for both auditors who have yet to acquire these skills and those who have already done so, with regular training sessions covering digital auditing, information technology, auditing practices, and legal regulations to improve auditors' professional competencies and business capabilities.

Second, it is crucial to improve the enterprise data information system, strengthen security, and address vulnerabilities to ensure that enterprise systems can respond to and mitigate threats such as hacker attacks,

malware, and internal data breaches. Protecting critical data and information is essential to provide a stable and efficient foundation for conducting big data audits (Yan Lixin, 2024). Finally, with the rapid development of new technologies such as the internet and big data, new economic models continue to emerge. Auditors must closely monitor the risk characteristics in these areas and develop corresponding audit strategies and measures. In summary, enhancing the quality and capabilities of auditors, adopting advanced auditing technologies and methods, and focusing on emerging risk areas can effectively reduce the probability and impact of audit risks, ensuring the smooth progress of auditing work and the objectivity and fairness of audit results.

4.2 Preventing Material Misstatement Risks at the Financial Statement Level

Preventing material misstatement risks at the financial statement level is a crucial measure to ensure the truthfulness, accuracy, and completeness of corporate financial information. Digital transformation may negatively impact corporate operations and increase the risk of significant misstatements, a risk that auditors can perceive (Ni Guoai & Sun Dandan, 2023). In today's environment, some enterprises may take risks to enhance profits, stabilize stock prices, and secure additional financing by resorting to practices such as falsifying financial statements or misrepresenting annual reports, which undoubtedly harms investor interests.

To avoid such situations, auditors must thoroughly understand the internal and external environments of the enterprises being audited, identify potential risks, and determine appropriate auditing methods suitable for the specific enterprise to ensure the accuracy of the audit procedures. During the preparation of financial statements, it is essential to identify areas that may carry misstatement risks, evaluate the identified potential risks, and analyze their impact on the accuracy and authenticity of the financial statements. By executing substantive procedures such as confirmations, inventories, and inspections, auditors can obtain sufficient audit evidence to verify the truthfulness and accuracy of the financial statements. Auditors must ensure their independence during the audit process, maintaining the independence of the auditing department and avoiding interference from management or other stakeholders. They should adhere to the ethical standards and relevant legal regulations, ensuring the objectivity and fairness of the audit results.

4.3 Preventing Material Misstatement Risks at the Assertion Level

Material misstatement risks at the assertion level pertain to specific transactions, account balances, or disclosures, directly impacting the accuracy and reliability of financial statements. To prevent material misstatement risks at the assertion level, enterprises must conduct thorough due diligence before acquiring another company. It is essential to take a firm stance on their own interests, confirming that the target company possesses robust profitability and normal operational conditions that align with the enterprise's acquisition objectives and that it can yield significant benefits for the enterprise's digital transformation progress. To mitigate risks associated with material misstatements at the assertion level, auditors need to conduct comprehensive financial due diligence before any acquisitions, maintain a correct audit attitude, and avoid merely performing audits as a formality. Detailed testing of various transactions, account balances, and disclosures should be conducted to identify misstatements and detect fraudulent activities.

4.4 Preventing Detection Risk

To prevent detection risk, enterprises should first strengthen the construction of the audit team and enhance the quality of auditors. A qualified auditor should possess solid professional capabilities, high ethical standards, and advanced risk awareness (Jia Tingting, 2024). By enhancing their professional knowledge, auditors should acquire a variety of auditing methods and multidisciplinary knowledge, including digital auditing, information technology, and internal auditing, to effectively address the increasingly complex auditing environment.

Fostering professional ethics is crucial; auditors should receive thorough training in ethical standards to ensure they maintain objectivity, integrity, and professionalism throughout the auditing process. Establishing a robust auditing system involves formulating and refining various regulations governing auditing practices, clarifying auditing procedures, methods, and standards, thereby providing auditors with clear guidance and norms.

Optimizing the audit process is necessary to ensure an orderly auditing operation, minimizing detection risks stemming from improper procedures. Establishing auditing standards, such as internal financial management systems, codes of conduct for auditors, and auditing workflows and regulations, can facilitate the smooth execution of auditing tasks (Bai Xiaolin, 2022). Implementing an audit review system to evalua

te critical audit documents, such as working papers and audit reports, is essential to ensure the accuracy and completeness of the auditing process.

Furthermore, a comprehensive audit supervision mechanism should be established to monitor the auditing process in real-time, allowing for the timely identification and correction of issues that arise during the audit. Utilizing modern auditing techniques and methodologies, such as big data and cloud computing, can significantly enhance the efficiency and accuracy of auditing work, reducing detection risks caused by human error. Strengthening communication with other departments through timely information exchange can help verify the accuracy and reliability of audit information. Ensuring the independence of auditors is paramount; the audit department must maintain its independence during the audit process, free from interference from management or other stakeholders, while adhering to ethical standards and relevant legal regulations to ensure the objectivity and fairness of audit results.

5. CONCLUSION

In summary, the digital transformation of enterprises significantly impacts audit risks, encompassing emerging risk audits, material misstatements at the financial statement level, material misstatements at the assertion level, and detection risks. To mitigate these risks, enterprises must implement corresponding preventive measures, enhance the professionalism of auditors, cultivate adherence to ethical auditing standards among audit personnel, ensure auditor independence, and adeptly utilize digital technologies.

The effects of digital transformation on auditing are multifaceted; they manifest not only at the technological level but also involve updates to auditing philosophies and methodologies. For auditors, adapting to new auditing approaches in this evolving environment requires continuous learning, particularly in information audit technologies. This commitment is essential for providing robust support for the sustainable development of enterprises and preventing the recurrence of audit risks.

Moreover, it is crucial to ensure that auditing practices meet the demands of the digital age while proactively addressing emerging audit risks and formulating flexible and effective risk management strategies. Throughout this process, maintaining independence and objectivity in audits remains a core principle.

This study acknowledges that research on emerging audit risks and information audit technologies is still insufficiently developed. Future research could e

xplore, from a dialectical perspective, the impacts of enterprise digital transformation on audit risks and identify key areas of digital technologies relevant to this context. Such exploration would provide further support for the study of audit risks associated with digital transformation. Digitalization is not only the path forward for enterprises and auditing but is also permeating various aspects of modern society and individual life. Consequently, the implications of digitalization and the societal issues that arise warrant careful consideration.

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