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The Impact of Digital Transformation in Reducing the Expectations Gap in External Auditing in Jordanian Public Shareholding Industrial Companies

Hiyam Moh'd Abdallah Yousef

Department of Accounting, Faculty of Graduate Studies, The World Islamic Sciences and Education University, Amman, Jordan.
Email: drhiyamyousef@gmail.com

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Abstract

This research aims to evaluate the impact of digital transformation in reducing the expectations gap in external auditing within Jordanian public shareholding industrial companies. It relied on a descriptive analytical approach. The research community included all 46 public joint-stock companies until the end of 2023. Data was collected through the distribution of 460 electronic questionnaires to a sample comprising branch managers, department heads, financial employees, information systems teams, and external auditors. A total of 441 questionnaires were received, with 11 excluded due to similarity of answers, leaving 430 questionnaires valid for statistical analysis using the SPSS program. The results indicated a statistically significant impact of digital transformation across its dimensions, monitoring and detection, secure payment, and secure document verification in reducing the expectation gap. These findings confirm that digital transformation is an effective tool for enhancing the efficiency of external auditing. Based on these results, the study recommends that companies increase investments in secure payment technologies and digital infrastructure development, while providing the necessary data and resources to improve operational efficiency and effectively reduce expectation gaps. Narrowing the gap between auditors' expectations and actual practice enhances audit efficiency, reduces errors, and increases confidence in financial reports.

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Institutional Review Board Statement: The study involved minimal risk and adhered to ethical guidelines for social science fieldwork. Formal approval from an Institutional Review Board was not required under the policies of The World Islamic Sciences and Education University, Amman, Jordan. Informed verbal consent was obtained from all participants, and all data were anonymized to ensure participant confidentiality.
Transparency: The authors confirm that the manuscript is an honest, accurate, and transparent account of the study; that no vital features of the study have been omitted; and that any discrepancies from the study as planned have been explained. This study followed all ethical practices during writing.
Data Availability Statement: Upon a reasonable request, the supporting data of this study can be provided by the corresponding author.
Competing Interests: The author declares that there are no conflicts of interests regarding the publication of this paper.

1. Introduction

Due to its capabilities, skills, and benefits to a variety of industries, digital transformation and its applications have recently gained significant relevance Gonçalves, da Silva, & Ferreira, 2022). This is because it can program and complete a wide range of activities and jobs that demand a high degree of perception and inference (Manita, Elommal, Baudier, & Hikkerova, 2020). According to Saidat, Abdelrahim, Alkhodary, and Qasaimeh (2023), digital transformation is a qualitative transition from conventional business practices to the digital era. It is currently regarded as a crucial strategy because it creates new avenues for innovation and increases productivity, both of which support the growth of businesses and their success in the competitive market. Furthermore, digitization has a significant impact on the risks related to financial technology (Al-Naimi, Al Abed, Farooq, Qasaimeh, & Alnaimat, 2023).

One area that benefits from the use of digital transformation in task execution is external auditing. This is because digital transformation has streamlined, expedited, and enhanced the efficiency of auditing processes, allowing external auditors to focus on non-traditional tasks pertaining to governance and oversight of the business's operations in order to identify risks and corresponding controls, as well as the anticipated early detection of fraud and abnormal cases (Yunis, Mirza, Safi, & Umar, 2024). The external audit function is no longer restricted to its historical use as a method of documentary financial control. As a result, external auditors now need to possess the knowledge, experience, and independence necessary to carry out their professional roles as advisors and confirmers, as well as a complete and conscious awareness of the minimum requirements governing the profession. All stakeholders involved in external auditing or impacted by its work must possess an equivalent level of awareness and comprehension (Tiberius & Hirth, 2019).

Management has expressed a surplus of demand for non-traditional external audit functions due to changes in the modern business environment, the volume and complexity of establishments' operations, and stakeholders' accountability to management for company outcomes. Apart from the differences in knowledge and comprehension of external auditing duties and obligations between external auditors, management, and stakeholders, there is also an expectation gap that has emerged in external auditing (Ruhnke & Schmidt, 2014). With the advancements in technology and the economy, as well as the resulting demand for financial statements along with other data that show the strength of the company's position and the degree of goal achievement, this gap has grown and expanded. High-quality accounting data must be made available in order to satisfy management's and stakeholders' information needs and close the aforementioned gap. Because digital transformation leverages the significant capabilities offered by its technology in this field, it helps to give management and other users high-quality information (Nashwan, 2024).

The expectation gap is a widespread problem in the field of external auditing that affects most nations, though to varying degrees. The business environment is changing rapidly, and it is becoming more important to meet stakeholders' requirements and hold management accountable for doing so. As a result, management is calling for more non-traditional external auditing activities, which is contributing to the widening expectation gap in external auditing and harming confidence in external auditing and the services it provides that satisfy stakeholders' and management's needs. The aforementioned gap in those companies is indicated by the low degree of external auditor commitment to certain external auditing standards in Jordanian companies, as well as the low number of external auditors with long experience in their field and professional certificates in external auditing (Massicame, Inácio, & Bastos, 2023). The effective application of digital transformation technologies is reflected in the quality of accounting information (Alrashedh, 2022), which is reflected in the expectations gap in external audits, meaning that these technologies are significant in Jordanian companies. The gap is widened by low-quality information since it does not allow the external audit function to meet management expectations (Nashwan, 2024).

Therefore, the primary aim of this research is to examine whether digital transformation can effectively reduce the expectations gap in external auditing within Jordanian public shareholding industrial companies. The fundamental problem of this study is summarized by the following research question:

What effect does digital transformation, which includes its associated dimensions: Monitoring and Detection, Secure Payment, and Secure Document Verification, have on decreasing the expectations gap in external auditing in Jordanian companies? This is the main question.

Several additional inquiries flow from this main question are as listed below:

1. How does monitoring and detection affect Jordanians in terms of reducing the expectations gap in external auditing?

2. How does secure payment affect Jordanian companies in terms of reducing the expectations gap in external auditing?

3. How does Secure Document Verification affect Jordanian companies in terms of reducing the expectations gap in external auditing?

This study is significant because, although there have been a few studies specifically addressing the expectations gap in external auditing, there is still a dearth of research on the subject, and little attention has been paid to how the topic relates to advancements in technology and technical work environments. The fact that this topic has never been studied in the previously specified setting makes the study noteworthy because it is among the first of its kind in Jordan. Because the study's findings are expected to shed new light on the variables examined and their significance in narrowing the expectations gap in external auditing, a factor that boosts trust and conviction in the services rendered by the external audit function, the study's scientific significance also stems from its potential to serve as a knowledge base for future research.

The practical importance of this study stems from bringing to the attention of management, stakeholders, and external auditors in Jordanian companies the extent of the expectation gap in external auditing in these companies, its causes, and each party's role in closing it. Additionally, the study highlights the critical role that digital transformation plays in closing this gap by providing secure payment, monitoring and detection, and secure verification of accounting information documents, all of which help close the gap in the aforementioned companies. By making recommendations and suggestions regarding the provision of the necessary technical requirements to improve the quality of accounting information and lessen the expectation gap in external

auditing in the aforementioned companies, the study also contributes to raising the confidence and conviction of management and stakeholders in the external audit function and the services it provides in Jordanian companies. This highlights the practical importance of the research.

The following Figure 1 shows the study variables and the relationship between them.

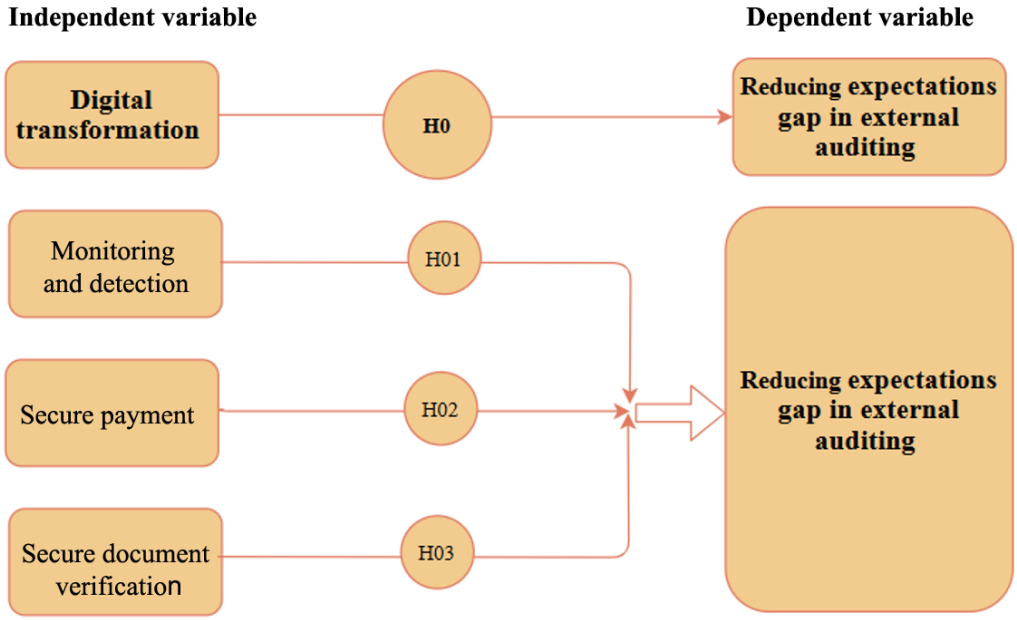

Figure 1. Study model.

The following study hypotheses have been designed to examine how digital transformation affects the reduction of the external auditing expectations gap in Jordanian companies:

H_0: Digital transformation in its dimensions (Monitoring and Detection, Secure Payment, and Secure Document Verification) does not statistically significantly reduce the expectations gap in external auditing in Jordanian companies at a significance level ($0.05 \geq \alpha$).

This primary hypothesis leads to the subsequent supporting hypotheses:

H_{01}: "Monitoring and detection have no statistically significant effect in reducing the expectations gap in external auditing in Jordanian companies at a significance level ($0.05 \geq \alpha$).

H_{02}: "Secure payment does not statistically significantly reduce the expectations gap in external auditing in Jordanian companies at a significance level ($0.05 \geq \alpha$).

H_{03}: "Secure Document Verification does not significantly reduce the expectations gap in external auditing in Jordanian companies at a significant level ($0.05 \geq \alpha$)."

2. Theoretical Framework and Previous Studies

Using contemporary digital tools and cutting-edge technology efficiently helps to foster business progress, which includes creating new business models, streamlining internal operations, and enhancing customer service (Volodina & Grossi, 2024). Digital transformation can be defined as an all-encompassing process of development that involves making significant improvements to operations, procedures, qualifications, business models, as well as structures of operations in order to take advantage of opportunities and quickly changing digital technology in a way that is both strategic and distinctive. This process is used to confirm the full value of digital and its growing influence in different social circles (Al-Own, Saidat, Kasem, & Qasaimeh, 2023).

Since digital transformation brings about structural and cultural changes, it necessitates significant modifications in terms of prioritization, flexibility, and taking advantage of the potential advantages that arise from the emergence of digital technologies with their accelerated impact. Through the use of cutting-edge technologies like machine learning, big data analytics, along cloud computing, digital transformation attempts to more accurately represent and present potential risks for businesses as leaders strive to integrate technological advances into all facets of the company and develop novel approaches to achieve comparable excellence (Garzoni, De Turi, Secundo, & Del Vecchio, 2020).

Several studies underline the significant role of digital transformation, through the adoption of technologies such as blockchain and cybersecurity measures, in reducing the expectations gap in external auditing within company industries.

In actuality, the concept of ownership and management separation served as the foundation for the development and evolution of external auditing over time. Regarding the effectiveness of management and the

utilization of the resources at hand, the owners require an unbiased, expert assessment. The following succinct definitions highlight the salient characteristics of this evolution (Jabbar, 2018).

According to the American Accounting Association (AAA), external auditing is a methodical and objective process of gathering and assessing evidence related to facts and economic events in order to confirm the extent of conformity between those facts and the particular criteria and to share the findings with information users who may be interested in the inquiry. Regarding this, the AAA defines an external auditor as "an individual or group of individuals who perform auditing work provided they meet all the requirements for auditing rules pertaining to the individual auditor, such as the declaration of independence, competence, and professional training" (Jabbar, 2018).

2.1. The Expectation Gap's Components

Academics presume that the expectation gap consists of multiple elements. Some of these relate to external auditors, while others pertain to the individuals who examine financial reports.

2.2. Expectation Gap in Audits

1. The disparity in independence: The foundation of the auditor's report and his view of the financial accounts is independence. The fundamental tenet of the audit profession is the auditor's independence, which calls for the auditor to view the entity impartially and objectively and to avoid favoring one party over another when expressing an opinion based on the financial statements (Oluyombo & Okunola, 2018). Consequently, this causes the independence gap to close (Salehi, Mansoury, & Azary, 2009).

2. Performance Gap: The difference between an auditor's actual work performance and what society expects and perceives as an auditor's performance (Porter & Gowthorpe, 2004). This disparity has also been verified by academics and researchers from other nations. The primary causes of this discrepancy can be divided into the following categories: auditors providing non-audit services, self-serving auditors and their financial relationships with clients, untrained auditors, and dependent auditors.

3. Reporting Gap: According to Dunmore and Falk (2001) the audit opinion gap in the report denotes the discrepancy between the expectations of the auditor's consumers of the financial statements and the assessment of the auditor already included in the report.

2.3. Gaps Concerning Stakeholders

1. The reasonableness gap is the difference between what the public expects auditors to do and what is actually required of them. According to Shaikh and Talha (2003) and Alfred (2021), this gap exists due to user misinterpretation, over-expectation, lack of education, poor communication, and ignorance of the limitations of audit practices.

2. The term "deficient standards gap" refers to the difference that exists between the tasks that are legally required of auditors and the duties that are now described by professional publications (Raiborn, Schorg, & Massoud, 2004) and Malikonyte, Zaun, Sonnerfeldt, and Jonnergård (2021).

3. Legal liability gap: This describes the disparities in perceptions between the auditors and the users/preparers of the financial statements, particularly with regard to the guarantees given (Jabbar, 2018).

The Reasons for Expectation Gap are as follows:

1. Lack of scientific awareness about the auditing profession among the general public and financial statement users: Several studies have linked the misperception of the audit profession and the incompetence of financial statement users to the expectation gap. According to Porter and Gowthorpe (2004) the financial community's exaggerated expectations account for thirty-four percent of the causes of the expectation gap.

2. Doubt about the external auditor's impartiality and independence: The financial community needs to be persuaded of the auditor's independence. This belief is essential to the audit profession's actual existence. The financial community's opinions are worthless if they question the auditors' independence, which means the auditors' services are not required. They must therefore stay away from any situations and relationships that might compromise their independence (Ruhnke & Schmidt, 2014).

3. A vague understanding of the auditor's function in the community: Conflicts of interest lead to the necessity for audit services. This calls for the independence and objectivity of the auditor. Furthermore, the intricacy of financial existence and financial procedures in industries necessitates that the auditor possess technical proficiency or specialized knowledge (Jabbar, 2018).

4. The auditor's lack of competence as professional pertains to their inability to possess the necessary and specialized knowledge in the areas of accounting and auditing. It also covers the professional abilities the auditor should have to apply that information in different contexts. The behavior that results from training and education is often referred to as professional competence (Olojede, Erin, Asiriuwa, & Usman, 2020).

5. A decline in the caliber of auditing performance: Low-quality performance can result from a number of issues, including: a. Auditors may compete with one another for novel assessments, or they may choose to hold onto existing processes (Burton & Fairfield, 2020).

b. Accepting minimal processing costs for audits that are out of proportion to the work put in as a result of competition.

c. Offering additional services to audit clients in exchange for a modest charge in order to win their favor and guarantee the yearly continuation of their assignment (Jabbar, 2018).

The Companies Act grants the company's external group the authority to select, compensate, and remove auditors in the majority of the world's countries. This allows the committee to preserve the independence and objectivity of the auditors, boost public trust in audit reports, close the expectation gap, and guard against possible leadership pressures on the auditors' autonomy. Enhancing the function of associations for professionals, professional organizations bear the responsibility of redefining and regulating the accounting and auditing profession to prevent self-censorship, improve the caliber of professional performance during audits, and hold auditors more accountable, all of which contribute to the public's increased trust in the auditors' work. These organizations need to create professional standards and conduct guidelines for accounting and auditing. Improvements in their professional achievements to the levels expected of them and, consequently, beneficiary satisfaction with the services provided by the auditors will result from professionals adhering to their profession's standards through strict standards for their job performance, the establishment of quality control applications, and a strict system of responsibility by the professional group (Jabbar, 2018).

Jabbar (2018) examined the integration of internal and external auditing and its influence on reducing the expectations gap. The study suggested that digital technologies, when integrated with both internal and external audit processes, can help improve audit quality and narrow the expectations gap by providing greater transparency and efficiency in the auditing profession. The research conducted in the Iraqi context highlights the need for coordination between auditors to meet the financial community's expectations(Jabbar, 2018).

Rozario and Thomas (2019) discussed the role of blockchain and smart contracts in external auditing, suggesting that these technologies could revolutionize audit practices by automating workflows and enhancing audit transparency. The study proposed that blockchain can improve audit quality and narrow the expectations gap by ensuring better accuracy and reporting, which aligns auditors' deliverables more closely with stakeholders' expectations (Rozario & Thomas, 2019).

Manita et al. (2020) explored how digital transformation affects external audit practices and its role in corporate governance. The study found that digital tools significantly enhance audit relevance, data analysis, and overall audit quality. Digital technologies also allow auditors to offer new services, which in turn helps narrow the expectations gap by improving both audit performance and client trust. This research emphasizes the importance of adopting digital strategies to reform auditing standards to meet modern demands (Manita et al., 2020).

Ali, Matarneh, Almalkawi, and Mohamed (2020) explored the role of digital transformation in mitigating risks associated with cloud accounting through the lens of cyber governance. The research focused on external auditors in Jordan and analyzed how cybersecurity governance frameworks reduce accounting risks and improve audit quality. The findings revealed that implementing effective digital transformation strategies, particularly in the area of cybersecurity, helps decrease the expectations gap by enhancing the reliability and security of audit processes in Jordanian companies. The study recommended the adoption of comprehensive cyber governance policies as a way to address modern auditing challenges (Ali et al., 2020).

Allbabidi (2021) explored the impact of digital transformation on auditors' performance in Jordan. The research examined how technological, organizational, and environmental factors influence the adoption of digital technologies within the auditing process. The findings revealed that digital technologies significantly improve audit quality by enhancing data analysis and performance monitoring. This improvement helps reduce the expectations gap between auditors and stakeholders by addressing the need for more transparent and reliable auditing procedures. The study emphasized the importance of regulatory bodies and audit companies in updating policies to encourage the use of advanced digital technologies for secure and effective audits (Allbabidi, 2021).

Fotoh and Lorentzon (2023) examined how digital transformation in auditing, including the adoption of digital tools like artificial intelligence, helps auditors better meet stakeholders' expectations. The study pointed out that digital technologies allow auditors to proactively address issues such as fraud detection and internal control, which helps close the expectations gap by delivering what stakeholders expect from audit procedures (Fotoh & Lorentzon, 2023). Al Shanti and Elessa (2023) examined the role of digital transformation, specifically through blockchain technology, in improving the quality of accounting information and corporate governance in Jordanian banks. The study utilized a descriptive-analytical method to assess how blockchain technology enhances transparency and accountability, thus narrowing the expectations gap in external auditing. The findings suggest that the adoption of digital tools such as blockchain not only improves financial reporting accuracy but also bolsters corporate governance practices, leading to a significant reduction in the expectations gap between auditors and stakeholders (Al Shanti & Elessa, 2023). He (2023) focused on the impact of digital transformation on audit risks at accounting firms. Using Grant Thornton as a case study, the paper highlighted how digital audits reduce manpower constraints, improve audit accuracy, and mitigate risks. The findings emphasize that digital transformation in auditing not only reduces human errors but also enhances the firm's ability to meet clients' expectations, thereby closing the expectations gaps (He, 2023).

The studies mentioned above demonstrate that the integration of digital technologies in external auditing is an effective way to reduce the expectations gap by improving transparency, accuracy, and communication

between auditors and stakeholders. Through innovations like AI, blockchain, and comprehensive digital tools, auditors can better meet the growing demands of the financial community.

3. Research Methodology

The descriptive analytical approach was used in this study to describe and analyze the phenomenon under study. A questionnaire was designed to measure the research variables, verify the relationships between them, and interpret the extracted data and information to reach the desired results. The research targeted all Jordanian public shareholding companies, a total of 46 companies, until the end of the year 2023. The research sample was selected from branch managers, department heads, employees of financial departments, information systems and software, and external auditors. Four hundred sixty electronic questionnaires were distributed to the targeted companies, and 441 questionnaires were collected. Eleven questionnaires were excluded due to similarity in answers, so the number of questionnaires became 430 and could be analyzed statistically using SPSS software.

This research draws upon a diverse array of sources to establish a theoretical framework. These sources encompass secondary data derived from prior studies, scientific texts, doctoral and master's theses, articles, and peer-reviewed journals, both domestic and international. Additionally, comprehensive internet searches, publications, and statistical data were utilized to gather current information. These multiple sources collectively inform the understanding of the research topic, highlight emerging trends, and offer insights into recent developments and variables pertinent to the study. Building upon this foundation, a questionnaire was meticulously crafted to achieve research objectives and address formulated questions and hypotheses. The questionnaire employed a structured five-point Likert scale to quantitatively assess respondents' agreement or disagreement with presented statements and paragraphs.

The scale consists of five levels: strongly agree (5), agree (4), neutral (3), disagree (2), and strongly disagree (1). This scale facilitates efficient and precise data analysis, enabling reliable evaluation of results and yielding valuable insights for interpreting and analyzing responses from the research sample.

The following equation was applied:

$$\text{Materiality} = \frac{\text{The upper limit of the scale} - \text{the lower limit of the scale}}{\text{Number of scales}} = \frac{1-5}{3} = 1.33$$

To assess the level of interest and the degree of practice among the companies in the study sample regarding the research variables, the following scale was applied: (High) (3.66–5.00), (Medium) (2.33–3.66), and (Low) (1.00–2.33). This categorization helps to effectively quantify the companies' engagement with the variables under investigation.

3.1. Cronbach Alpha Coefficient Test

For a research instrument to be considered reliable, values must exceed 0.70. The following Table 1 shows the Cronbach's alpha coefficient values for the study variables and for the instrument as a whole.

Table 1. Internal consistency coefficient test.

No	Variable	Alpha value
1	Monitoring and detection	0.820
2	Secure payment	0.832
3	Secure document verification	0.848
Digital transformation		0.850
Reducing the expectations gap in external auditing		0.898
Search tool		0.860

The Cronbach's alpha coefficient values for internal consistency ranged from 0.820 to 0.848. Specifically, the alpha value for the independent variable, digital transformation, was 0.850, while that for the dependent variable, reducing the expectations gap in external auditing, was 0.898. The overall alpha value for the research tool was 0.860, with all values exceeding the threshold of 0.70, confirming the reliability of the tool for statistical analysis.

3.2. Multicollinearity Test

This test identifies potential correlation issues between variables. If the correlation value exceeds 0.80, it indicates a high correlation, signaling a potential multicollinearity problem between the variables.

Table 2. Correlation matrix for independent variables.

variable	Monitoring and detection	Secure payment	Secure document verification
Monitoring and detection	1.000		
Secure payment	0.640**	1.000	
Secure document verification	0.600**	0.558**	1.000

Note: (**) Significant at the 0.01 significance level.

Table 2 indicates the values of the correlation coefficients between the independent variables, to verify the presence of the problem of multiple correlation. The highest correlation coefficient value between the variables (monitoring and detection) and (safe payment) was (0.640), which is less than the minimum (0.80), indicating no multicollinearity issue between these variables. All variable correlation coefficients were below 0.80, aligning with the guideline from Gujarati (2004), which considers a coefficient above 0.80 as an indication of high multicollinearity. To confirm the previous result, the following test was performed:

Table 3. Results of the test of the variance inflation factor and the permissible variance.

Variable	VIF	Tolerance
Monitoring and detection	2.801	0.357
Secure payment	2.604	0.384
Secure document verification	1.991	0.502

Table 3 shows the values of the variance inflation factor (VIF) and Tolerance values for the independent variables, to confirm that there is no problem of multicollinearity between them. The analysis results indicate no multicollinearity issues among the research variables, as the VIF values fall within the acceptable range of 1 to 10, confirming the absence of multicollinearity. Additionally, Tolerance values range between 0.1 and 1, further supporting the reliability of the statistical analysis.

Based on these findings, the statistical analysis results are deemed reliable, as the variables used in the research show no multicollinearity issues. This strengthens the quality and validity of the results obtained.

4. Data analysis and hypothesis testing

4.1. Description of Search Variables

Table 4 displays the descriptive results of the study variables, based on the opinions of the study sample members, and using descriptive statistical methods (arithmetic mean and standard deviation), in addition to the rank and relative importance.

Table 4. Arithmetic averages and materiality for digital transformation dimensions.

No	Variable	Arithmetic average	Standard deviation	Rank	Relative Importance
1	Monitoring and detection	3.851	0.262	1	High
2	Secure payment	3.521	0.294	3	Medium
3	Secure document verification	3.810	0.293	2	High
Digital transformation		3.727	0.281		High
Reducing the expectations gap in external auditing		3.821	0.301		High

The overall average in terms of relative importance was high, as the overall average of the independent variable was 3.851, and the variable Monitoring and Detection took first place with high relative importance, while the variable Secure Document Verification took second place with high relative importance, and the variable Secure Payment took last place with medium relative importance. As for the monitored variable, Reducing Expectations Gap in External Auditing, it received high relative importance, and the overall average was 3.821. It is clear from the table that there is a large percentage of opinions of the research sample regarding the company's approach.

4.2. Hypothesis Testing

4.2.1. Main Hypothesis Testing

Main research hypothesis H01: "Digital transformation in its dimensions (Monitoring and Detection, Secure Payment, and Secure Document Verification) does not statistically significantly reduce the expectations gap in external auditing in Jordanian companies at a significance level ($0.05 \geq \alpha$)."

Table 5 shows the multiple regression analysis, and the results were as follows:

Table 5. Results of testing the impact of "Digital Transformation" on "reducing the expectations gap in external auditing".

Dependent variable	Model summery		ANOVA			Coefficients				
	R	R^2	F calculated	Df	Sig F*	Independent variable	B	Standard error	T calculated	Sig t*
Reduce the expectations gap in external auditing	0.751	0.564	151.924	3	0.000	Monitoring and detection	0.251	0.051	4.922	0.000
						Secure payment	0.202	0.056	3.607	0.000
						Secure document verification	0.246	0.054	4.556	0.000

Note: *The effect is statistically significant at the level ($\alpha \leq 0.05$).

The results indicate that there is a statistically significant relationship between the variable (Digital transformation) and the variable (reduce expectations gap in external auditing), and the test results indicate that (56.4%) of the variance in (reduce expectations gap in external auditing) can be explained by the dimensions of (Digital transformation) combined, and there is a significant effect of all dimensions of Digital transformation (Monitoring and Detection, Secure Payment, and Secure Document Verification) on reducing the expectations gap in external auditing.

Therefore, we reject the main hypothesis and accept the alternative hypothesis:

Digital transformation in its dimensions (Monitoring and Detection, Secure Payment, and Secure Document Verification) does statistically significantly reduce the expectations gap in external auditing in Jordanian companies at a significance level ($0.05 \geq \alpha$).

4.2.2. Sub-Hypothesis Testing

The first sub-hypothesis H_{01}: "Monitoring and detection have no statistically significant effect on reducing the expectations gap in external auditing in Jordanian companies at a significance level ($0.05 \geq \alpha$)."

Table 5 shows that Monitoring and Detection have a positive relationship with reducing the expectations gap in external auditing (B=0.251), and their effect is significant in reducing the expectations gap in external auditing (T=4.922, Sig.T=0.000). Based on the above, it is clear that:

"Monitoring and Detection has statistically significant effect in reducing expectations gap in external auditing in Jordanian companies at a significance level ($0.05 \geq \alpha$)."

The second sub-hypothesis H_{02}: "Secure Payment do not statistically significantly reduce expectations gap in external auditing in Jordanian companies at a significance level ($0.05 \geq \alpha$)."

Table 5 shows that Secure Payment has a positive relationship with reducing the expectations gap in external auditing (B=0.202), and its effect was significant in reducing the expectations gap in external auditing (T=3.607, Sig.T=0.000). Based on the above, it is clear that:

Secure payment does statistically significantly reduce the expectations gap in external auditing in Jordanian companies at a significance level ($0.05 \geq \alpha$).

The third sub-hypothesis H_{03}: "Secure Document Verification does not significantly reduce expectations gap in external auditing in Jordanian companies at a significant level ($0.05 \geq \alpha$)."

Table 5 shows that Secure Document Verification has a positive relationship with reducing the expectations gap in external auditing (B=0.246), and its effect was significant in reducing the expectations gap in external auditing (T=4.556, Sig.T=0.000). Based on the above, it is clear that:

Secure Document Verification significantly reduces the expectations gap in external auditing in Jordanian companies at a significant level ($0.05 \geq \alpha$).

5. Conclusion and Recommendation

5.1.1. Conclusion

This research aims to examine whether digital transformation can effectively reduce the expectations gap in external auditing in Jordanian public shareholding industrial companies. The results showed a high level of relative importance of digital transformation in its dimensions (Monitoring and Detection, Secure Payment, and Secure Document Verification) in Jordanian industrial companies. This indicates the interest of Jordanian industrial companies in investing in modern technology, developing their technologies, and preparing for digital transformation by using smart systems to improve their performance, organize their operations, improve their decisions, and enhance their competitiveness in the market. There is also a high level of relative importance to reducing the expectations gap in external auditing in Jordanian industrial companies. This indicates a high level of awareness and understanding of industrial companies of the importance of achieving quality and accuracy in operational and financial processes and taking the necessary measures to enhance trust, improve performance, improve the level of transparency and disclosure, strengthen the internal control system, and improve monitoring and auditing processes to ensure compliance with policies and procedures and reduce risks.

There is a statistically significant effect of digital transformation in its dimensions (Monitoring and Detection, Secure Payment, and Secure Document Verification) in reducing the expectations gap in Jordanian industrial companies. This indicates the role of digital transformation in improving efficiency, effectiveness, and reliability in operational processes and decision-making by providing assistance in analyzing large amounts of data quickly and accurately, which enables them to monitor deviations faster, identify unexpected discrepancies, and provide accurate, data-based analyses, thereby enhancing the decision-making process. Monitoring and Detection have a statistically significant effect in reducing the expectations gap in external auditing in Jordanian companies at a significance level ($0.05 \geq \alpha$). Secure Payment significantly reduces the expectations gap in external auditing in Jordanian companies at a significance level ($0.05 \geq \alpha$). Secure Document Verification also significantly reduces the expectations gap in external auditing in Jordanian companies at a significance level ($0.05 \geq \alpha$).

5.1.2. Recommendation

The study recommended that Jordanian industrial companies should increase their investments in secure payment technologies and develop them to support digital transformation, while providing the necessary data and resources to improve operational efficiency and reduce expectation gaps. Jordanian industrial companies should also provide appropriate training for employees on how to use smart technology effectively to ensure maximum benefit from its application. In addition, companies should enhance their use of data analysis to discover patterns and trends and identify potential risks, which contributes to improving interaction with the surrounding environment and supporting decision-making. It is also necessary for companies to provide effective communication channels between their various departments to ensure the exchange of data and knowledge in a way that enhances the accuracy of expectations and contributes to reducing gaps.

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