



Tikrit Journal of Administrative and Economics Sciences

مجلة تكريت للعلوم الإدارية والاقتصادية

EISSN: 3006-9149

PISSN: 1813-1719



Qualifying Accountants and Auditors to Prepare and Evaluate Digital Sustainability Reports: A survey study of a sample of professionals and academics in the Iraqi environment

Ayad Jumaah Khalaf*

Department of Administrative and Financial Affairs/University of Anbar

Keywords:

Accountants Qualification, Auditors Qualification, Digital Sustainability Reports (DSR).

ARTICLE INFO

Article history:

Received 11 Jun. 2024
Accepted 28 Jul. 2024
Available online 31 Dec. 2024

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*Corresponding author:

Ayad Jumaah Khalaf

Department of Administrative and Financial Affairs/University of Anbar



Abstract: Preparing Digital sustainability reports (DSR) is a new challenge facing the accounting and auditing profession because organizing these reports is crucial for companies facing increasing sustainability requirements. This research is an initial step in helping this profession identify the qualifications necessary for preparing (DSR) by providing a comprehensive framework for these reports. The research aims to identify the qualifications needed for accountants and auditors when preparing and evaluating (DSR). To achieve the research goal, a field study was conducted on a sample of (110) individuals drawn from the research community consisting of accountants, auditors, and academics working in accounting and auditing offices, companies, banks, and Iraqi universities. Data collection relied on a questionnaire, Descriptive and inferential statistical tools in the program (SPSS) were also used to analyze the collected data and test hypotheses. The research concluded that the scientific and professional qualification of accountants and auditors helps in preparing and evaluating (DSR).

تأهيل المحاسبين والمدققين لإعداد وتقييم تقارير الاستدامة الرقمية: دراسة استطلاعية لعينة من المهنيين والأكاديميين في البيئة العراقية

أياد جمعة خلف

قسم الشؤون الإدارية والمالية/جامعة الانبار

المستخلص

إن إعداد تقارير الاستدامة الرقمية (DSR) يعد تحدياً جديداً يواجه مهنة المحاسبة والتدقيق لأن تنظيم هذه التقارير أمر بالغ الأهمية للشركات التي تواجه متطلبات الاستدامة المتزايدة. يعد هذا البحث خطوة أولية لمساعدة هذه المهنة في تحديد المؤهلات اللازمة لإعداد (DSR) من خلال توفير إطار شامل لهذه التقارير. يهدف البحث إلى تحديد المؤهلات اللازمة للمحاسبين والمراجعين عند إعداد وتقييم (DSR) ولتحقيق هدف البحث، أجريت دراسة ميدانية على عينة من (110) فرداً تم اختيارهم من مجتمع البحث المكون من المحاسبين والمراجعين والأكاديميين العاملين في مكاتب المحاسبة والتدقيق والشركات والبنوك والجامعات العراقية. واعتمد جمع البيانات على الاستبانة، كما تم استخدام الأدوات الإحصائية الوصفية والاستدلالية في برنامج (SPSS) لتحليل البيانات المجمعة واختبار الفرضيات. وخلص البحث إلى أن التأهيل العلمي والمهني للمحاسبين والمراجعين يساعد في إعداد وتقييم (DSR).

الكلمات المفتاحية: مؤهلات المحاسبين، مؤهلات المدققين، تقارير الاستدامة الرقمية (DSR).

1. Introduction

Accounting and sustainability reporting needs to be aligned with digital transformation, taking into account the future of the accounting and auditing professions and the work they are doing to prepare for the digital transformation brought about by the fourth and fifth digital revolutions.

The digitalization of business activities in the economy has improved significantly in recent years as a result of the digital revolution, which has changed the way many companies and entire industries operate. Specific literature demonstrates changes in traditional business practices and the rise of digital business models. According to a report by the World Economic Forum, analog companies, which were large and successful companies before the digital revolution, may feel “defeated” in every way in this "new world" (Atanasov, 2023: 39). Sustainability accounting developers such as (SASB) and (EFRAG), as well as information system providers such as (AIS) and Enterprise Resource Planning System (ERP), are working to develop the basis of sustainability reporting for business operations. The digital sustainability reporting system may be relevant to the accounting and auditing profession because (DSR) refers to the reporting activities of companies that integrate sustainability reporting into a digital system in order

to provide stakeholders with quality information on sustainability reporting (Olsen, 2023).

Although only a few countries mandate companies to issue reports disclosing their environmental, social and governance (ESG) performance, risk reporting has become an integral part of reports issued by large companies. Similarly, the recent COVID-19 pandemic has prompted companies to focus on a much broader set of stakeholders. For example, companies listed in the European Union, US and China are now required to disclose information related to their environmental, social, and governance performance (Benameur et al., 2023). Therefore, although sustainability is indisputably one of the fastest growing phenomena, it remains an insufficiently discussed area of application of digital technology. This is a peculiarity of the management literature, as it is widely known that leading organizations are increasingly using these technologies to transform their business models with the aim of better addressing societal challenges. (Guandalini, 2022: 456).

There is a clear knowledge gap in how accountants are qualified to prepare (DSR) and how to audit them digitally, because accountants and auditors' response to digital developments is usually delayed, and this poses a fundamental problem. The intensity of this problem increases in the context of the Fourth and Fifth Industrial Revolutions⁽¹⁾, which have brought technologies and methods capable of making significant changes in the field of accounting and auditing.

Accountants and auditors come in second place after telemarketing in terms of risks of completion, and even if this was not scary enough at the time, but it has evolved with the increase in automation, and that the accounting function will be completely automated, while some were less pessimistic and pointed to the erosion of traditional accounting functions. And increasing the demand for skilled accountants to perform modern accounting functions affected by the technologies of the Fourth Industrial Revolution (Al-Gnbri, 2020: 210).

The research contributes to the field of accounting literature in the following ways: Firstly, it provides a comprehensive framework for

¹ The Fourth and Fifth Industrial Revolutions represent significant shifts in technology, society, and the economy, building upon the foundations laid by previous industrial revolutions (Olsen, 2023: 464).

accountants to prepare and audit (DSR), offering insights and interesting avenues for future research. This research is the first to discuss the qualifications of accountants and auditors in preparing and evaluating (DSR), introducing an innovative method to assist in knowledge building, understanding, and indicating future trends in this research area. Secondly, this research goes beyond ensuring the preparation of (DSR), as it identifies more comprehensive objective topics and important common themes in addition to theoretical development in this field that scholars can consider when revisiting the findings, discovering opportunities, and potential topics for future research. Therefore, the research aims to understand the awareness of accountants and auditors of the necessary challenges to work in the digital transformations, and to demonstrate their ability to prepare (DSR) in order to preserve the accounting and auditing profession by providing services to stakeholders and meeting future expectations. The research will be divided as follows: Section 1 describes the introduction, While Section 2 is devoted to reviewing previous literature and then developing hypotheses. Section 3 focuses on the methodology and research methods, followed by Section 4 Results and discussion, and finally Section 5 is dedicated to the conclusions.

2. Review of literature and hypothesis development

2-1. Qualifying Accountants and Auditors: The International Federation of Accountants (IFAC) Education Committee (1998) defines “qualification” as: the ability to perform the tasks and roles expected of a professional accountant, whether newly qualified or experienced, to the standards expected by employers and the general public. Recent accounting pitfalls have prompted the profession to re-examine the core competencies needed to achieve success. It sets standards for the preparation and continuous development of professional accountants around the world (Palmer et al., 2004:890). To ensure personal competitiveness and relevance in the modern world, it is necessary to constantly monitor changes in the professional environment, improve knowledge and skills. Thus, lifelong learning and creating an environment conducive to this development becomes an important aspect of life. As for the competencies required by the industry, it stipulates that there are behavioral and digital competencies such as the competency model targeted with competencies to achieve efficiency in the modern world (Tarawneh, 2021:5).

A registered accountant and auditor (RAA) are a person registered under the Accountants and Auditors Act, who engages in public practice and represents himself as an accountant and auditor and makes his services available to the public for remuneration. RAAs enjoy significant privileges, and the RAA profession, through its governing bodies, must, among other things, establish, maintain and ensure compliance with a specific set of educational requirements. The prospective RAA must demonstrate to the profession at large that he or she is prepared to perform the functions of an RAA. A pre-qualification vocational education programme, which includes educational requirements, curricula, a specific body of knowledge, assessment methods, etc., is an integral part of any profession (Botha, 2001: 34).

There are many skills and qualifications required for accountants and auditors, the most important of which are: communication skills, interpersonal skills, general business knowledge, accounting knowledge, problem-solving skills, information technology, personal attitudes and abilities, and computer skills. Therefore, the problem of which valuation to perform as mentioned in the IFAC section is not a major concern after all. However, the dilemma facing accounting educators is how to include all the skills required by the auditing profession and continue with basic and specialized accounting. As a direct result of the changing accounting professional landscape (i.e. new laws and auditing standards), accounting information is constantly changing, and the accountant needs to develop the skills necessary to continuously acquire new information (Palmer et al., 2004: 895).

2-2. Digital Sustainability Reports (DSR): The concept of digital sustainability (DS) began in 2000, A sustainable digital environment means building a viable economic society and infrastructure, both social and technical, to preserve valuable data without significant loss or degradation. It is clear that it is not possible to preserve digital information without a sustainable organisational, economic, social, structural and technical infrastructure, nor is it reasonable to preserve materials without sustainable value (Bradley, 2007: 157). Sustainability is generally defined as a concept and process that aims to improve the environment, economy and society so that life on this planet is sustainable for our generations and the future. Industry 5.0 includes a digital and sustainable approach that emphasizes

people, sustainability and resilience, defined by the European Union as "a new and broad goal that goes beyond the production of goods and services for profit" (Olsen, 2023). Digital sustainability (DS) means that the digital objects are preserved (Becker et al., 2016: 6)

Al-Junaidi (2024) addressed the concept of digital sustainability (DS) as one part of a three-part system for digital preservation, alongside digital supervision, digital content organization, and processing. Atanasov (2023) He says that digital reporting refers to the process of automatically converting and presenting business reports that were previously on paper into a digital format that can be read.

By relying on digital sustainability, companies can adapt to corporate data and transform internal processes by leveraging management processes (Al-Junaidi, 2024: 318). Social media companies can play a role in closing the inequality gap by providing global reach and diverse representation to their services and websites. Access and representation must go beyond social and economic status or position and ensure that all people, regardless of status, can fully benefit from the revolution (Serrano et al., 2024). Many studies define digital sustainability from diverse perspectives, but the main goal of digital sustainability is the efficient and effective use of traditional or newer digital methods to meet the three pillars of sustainable development (people, planet and profit) (Pand & Ranish, 2021: 9). (DSR) These reports are an important call for a radical change in the information provision infrastructure in companies to ensure transparency, comparability and access to information (Adelowotan, 2024).

Sustainability includes four dimensions: economic, social, environmental, and digital. According to this classification, the United Nations has shown great interest in the digital dimension in its indicators, making digital sustainability an intriguing aspect for people. Planners can therefore contribute more significantly to integrating digital technology into comprehensive future sustainability strategies (Al-Junaidi, 2024: 326).

Digital sustainability reporting refers to reporting activities in organizations that integrate an established sustainability reporting framework into their digital systems to provide stakeholders with high-quality sustainability reporting information (Olsen, 2023: 465). Figure (1) illustrates the framework for preparing (DSR).

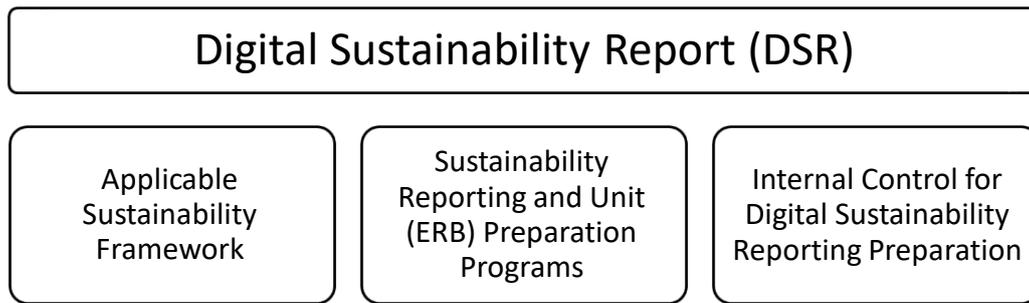


Figure (1): (DSR) Framework (Olsen, 2023: 470).

The framework shown in Figure 1 provides a roadmap for implementing digital sustainability reporting in organizations. The Digital Sustainability Reporting Framework assists the accounting profession and the sustainability management level in implementing digital sustainability reporting. This is done through (Olsen, 2023: 471; Al-Junaidi, 2024: 332):

1. Define objectives (e.g., stakeholders for whom reports are designed) for (DSR).
2. Determine the applicable sustainability framework of regulations and standards that the organization must follow or voluntarily follow.
3. Choose the best software for preparing sustainability reports.
4. Internal control activities should be designed to align with specific digital sustainability reporting objectives.

Sustainability reports can have four main benefits for any company: they are a useful tool for risk management, can help achieve savings, assist in making better decisions, and also help increase stakeholders' confidence and build a strategy for improvement (Al-Saadi, 2021:29).

2-3. Qualification of accountants, auditors and (DSR): The inevitability of digital transformation in the field of accounting and auditing will be part of the digital transformation at the societal level and subsequently the economic sectors with the aim of updating all systems within companies to ensure support for their competitiveness and improve their productivity efficiency (Rashid, 2023: 230). The application of digital transformation technology in financial accounting can impact from several aspects, as companies disclose information by publishing documents related to transactions, events, policies, and methods included in smart contracts on their platforms. In case of any modifications, all changes will be recorded on the platform, easily traceable through smart digital transformation tools. It is expected that investors who have technological and financial advantages and

have early access to company information will be able to express their opinions on the information published by the company through the platform. Regulatory and oversight bodies may also become part of these platforms to better perform their supervisory role with more transparency (McComb & Smalt, 2018).

Accountants today have the opportunity to move away from traditional routine and repetitive tasks and break free from the narrow scope that involves slow and manual operations. The technologies of the Fourth Industrial Revolution will give accountants the opportunity to transition to more consultative and analytical roles, leading to further automation of accounting processes that were once costly or required significant human effort (Nafi, 2022). The Big Four auditing firms have already implemented some digital advancements in the services they provide to their clients, including electronic tax filing applications, highlighting the need for auditors to develop more skills and knowledge in the field of information technology (Karapinar, 2021).

Thus, the effective use of digital transformation tools in the accounting and auditing environment is essential to improve the quality of information presented in reports, making accounting information more reliable and timelier by providing a better alternative to traditional accounting systems (Wahba, 2023). Access to digital information allows beneficiaries to access more accurate information, enabling better and more timely decision-making, giving companies a competitive advantage (Almeida et al., 2022).

Therefore, research hypotheses can be formulated as follows:

H1. Appropriate qualification of accountants helps in preparing of (DSR).

H2. Appropriate qualification of auditors helps in evaluating of (DSR).

3. Methodology and Research Methods

3-1. Research Community and Sample: The researcher conducted a field study to analyze the opinions of a random sample consisting of (110) individuals from the research community, represented by accountants and auditors in the Iraqi environment working in companies, banks, accounting and auditing offices, and faculty members from accounting and auditing. This sample was chosen on the basis that it represents all the characteristics of society and that they Specialists in this field of research on qualification requirements for accountants and auditors for preparation and evaluation

(DSR). The research sample can be described based on a number of characteristics as shown in Table (1).

Table (1): Description of the sample

Sample details	Characteristics	Number of repetitions	Percentage %
Gender	Male	71	64.5
	Female	39	35.5
		110	100
Educational attainment	Bachelor's degree	42	38.2
	Diploma	10	9.1
	Master's degree	44	40
	Doctorate	14	12.7
		110	100
Place of work	Companies and banks	28	25.5
	Accounting and auditing offices	22	20
	Faculty member	25	22.7
	Other	35	31.8
		110	100
work nature	Accountant	62	56.4
	Auditor and auditor	33	30
	University teaching	15	13.6
		110	100
Years of experience	1-5 years	51	46.4
	6-10 years	35	31.8
	11-15 years old	15	13.6
	16 years and over	9	8.2
		110	100

Source: Table prepared by the researcher using SPSS.

Table (1) describes the selected research sample and its analysis according to the personal and job information of the respondents by displaying the number of frequencies and percentages for each answer to benefit from it in knowing the characteristics of the sample.

3-2. Research Methods: Research data will be collected on the basis of the descriptive analytical approach through reviewing specialized literature and scientific journals in the fields of qualification of accountants and auditors

and DSR reports. The practical aspect includes choosing the appropriate sample size and testing hypotheses using statistical treatments to measure respondents' reactions to the questionnaire.

In collecting field research data, I relied on a questionnaire that was designed in accordance with the research objectives and testing its hypotheses. The questionnaire was divided into three sections: The first section related to general information (gender, educational attainment, place of work, nature of work, and years of experience). The second section relates to the relationship between qualifying accountants and preparing the digital sustainability report and consists of (15) statements. While the third section relates to the relationship between the qualification of internal auditors and the evaluation of the digital sustainability report and consists of (15) statements. Answers to the second and third sections are provided using a (Likert scale).

3-3. Scale Stability Test: The stability and validity of the scale were verified using the Cronbach's alpha method and the split-half method according to the Spearman-Brown coefficient as shown in Table (2).

Table (2): Stability coefficients for research scales

N.	Distance	Number of paragraphs	Cronbach's Alpha	Half-split
1	Qualifying accountants to prepare (DSR)	15	0.85	0.84
2	Qualifying auditors to evaluate (DSR)	15	0.88	0.83
Total		30	0.91	0.80

Source: Prepared by the researcher using (SPSS).

From Table (2), it is clearly seen that the value of the stability coefficient is higher than all questions, that is, 0.80 when the partial distribution method is used, and 0.91 when the Cronbach's alpha method is used. This demonstrates the reliability and validity of the scale and gives the researcher confidence in the accuracy and appropriateness of analyzing the results and testing the hypotheses.

The correlation between the score of each phrase and the total score of the questionnaire axes was also measured, and it was found that all correlation coefficients are statistically significant at a significance level of

0.000, indicating the validity of the relationship between the qualification of accountants and auditors for preparing and evaluating (DSR).

3-4. Measuring variables: The questionnaire list was relied upon to measure the variables by formulating statements in accordance with the research objectives and hypotheses, and the study (Al-Junaidi, 2024) was relied upon in formulating the questionnaire paragraphs.

4. Results and discussion: Descriptive statistical analysis (mean, standard deviation, and relative importance) was used to describe the expressions indicating the impact of the qualification of accountants and auditors on the preparation and evaluation of (DSR), as well as the adoption of the t-test for a single sample, and the linear correlation coefficient.

4-1 First hypothesis test:

H1. Appropriate qualification of accountants helps in preparing of (DSR).

To test this hypothesis, Table (3) will be created, which includes a set of statistical analyses to infer acceptance or rejection of this hypothesis.

Table (3): Test of the first research hypothesis

N.	The phrase	Mean	Standard Deviation	T value Sig.(.000)	Correlation coefficient Sig. (.000)	Direction
1	Accountants have sufficient knowledge and understanding of the concept of digital sustainability	3.18	.969	34.436	.471**	Neutral ⁽²⁾
2	Accountants play an active role in preparing (DSR)	3.51	1.002	36.721	.569**	Agree
3	Preparing (DSR) is important for companies and organizations	4.15	.764	56.886	.527**	Agree

The arithmetic mean values for the five-point Likert scale are (1-1.80 completely disagree), (1.81-2.60 disagree), (2.61-3.40 neutral), (3.41-4.20 agree), and (4.21-5 completely agree).

N.	The phrase	Mean	Standard Deviation	T value Sig.(.000)	Correlation coefficient Sig. (.000)	Direction
4	Accountants have the necessary skills and expertise to prepare (DSR)	2.94	.951	32.388	.409**	Neutral
5	Accountants have a role in collecting the necessary data for preparing (DSR)	3.79	.791	50.268	.560**	Agree
6	To what extent do you agree on the role of accountants in analyzing and using data to prepare (DSR)	3.77	.809	48.918	.688**	Agree
7	Accountants have a role in applying appropriate standards when preparing (DSR)	3.76	.867	45.551	.700**	Agree
8	The role of accountants in preparing (DSR) enhances their transparency	4.03	.772	54.732	.566**	Agree
9	The role of accountants in preparing (DSR) enhances their quality	4.21	.791	55.813	.670**	Strongly agree

N.	The phrase	Mean	Standard Deviation	T value Sig.(.000)	Correlation coefficient Sig. (.000)	Direction
10	The application of modern technology can help accountants in preparing (DSR)	4.28	.791	56.747	.535**	Strongly agree
11	Accountants follow international and local developments and standards for preparing (DSR)	3.69	.984	39.349	.627**	Agree
12	Modern accounting software is used in preparing (DSR)	3.85	.940	42.892	.716**	Agree
13	You have the ability to organize and prepare (DSR)	3.48	.926	39.436	.593**	Agree
14	You have received training on data collection and analysis and the use of modern techniques in preparing (DSR)	2.68	1.066	26.386	.462**	Agree
15	You have the inclination to develop the necessary skills and capabilities to prepare (DSR)	4.27	.866	51.724	.449**	Strongly agree
General Average		3.700	.507	76.596	.569**	Agree

Source: Prepared by the researcher using (SPSS).

It is noted from Table (3) that the average value of the qualification of accountants for preparing (DSR) was (3.700), and the average values of the statements ranged from (2.68 – 4.28). In addition, the results of the analysis indicate the importance of accounting qualification for preparing these reports. The results of the research confirmed that the role of accountants in preparing (DSR) enhances their quality, and that applying modern technology techniques helps accountants in preparing (DSR). As long as accountants have a tendency to develop their skills and abilities necessary to prepare a DSR, their qualification lies in developing their skills and knowledge by participating in training courses and workshops, using digital technology, and obtaining the necessary qualification that enables them to prepare a DSR.

Based on the above, and after considering a group of considerations and statistical results, we can conclude that the first hypothesis is accepted, which states that appropriate accounting qualification helps in preparing (DSR).

Table (4): results of testing the first hypothesis

Mean	Standard Deviation	Relative Importance	T		Confidence Interval		Direction
			T Value	Sig.	Minimum	Maximum	
3.700	.507	.74	76.596	.000	3.60	3.80	Agree

Source: using (SPSS).

It is evident from Table (4) that the opinions of the research sample are positive, as the relative importance reached (74%), falling within the agreement range, and the confidence limits fall between (3.60-3.80), which is greater than the average value of the Likert scale (3). Also, the t-value is greater than its tabular value at (0.000), indicating a positive impact of qualifying accountants in preparing (DSR). In other words, the more qualified accountants are in terms of their experiences and skills, the greater the possibility of preparing (DSR).

Therefore, the process of transitioning to (DSR) has a complexity aspect and requires accountants with sufficient experience and skills, as well as the need to unify data sources and implement digital classification. The availability of objective indicators of environmental, social and governance (ESG) will simplify the data calculation process and facilitate the creation of integrated statistical and sustainability data. This is crucial because

transforming data flow and data management has become imperative for companies to trust the data their partners use and analyze every day, and companies need to have machine-readable, understandable, auditable, auditable and accessible data.

Since (DSR) will create a positive impact both among companies and among information users, the most important things we can say include obtaining comparable information between companies, improving decision-making processes, increasing the quality of sustainable reports, and improving existing reports. The company's performance can increase untapped benefits in the company's work. However, to achieve all this, a single sustainable reporting system for needs to be established.

4-2. Testing the second hypothesis:

H2. Appropriate qualification of auditors helps in evaluating of (DSR).

To test this hypothesis, Table (5) will be organized, which includes a set of statistical treatments to infer acceptance or rejection of this hypothesis.

Table (5): Testing the second hypothesis

N.	The phrase	Mean	Standard Deviation	T value Sig.(.000)	Correlation coefficient Sig. (.000)	Direction
16	The internal auditor has the ability to understand (DSR).	3.38	.967	36.672	.656**	Agree
17	The internal auditor has the expertise and knowledge necessary to evaluate and examine (DSR).	2.99	1.113	28.188	.389**	Neutral
18	The internal auditor uses the necessary assessment skills to examine (DSR).	3.39	1.041	34.153	.625**	Agree

N.	The phrase	Mean	Standard Deviation	T value Sig.(.000)	Correlation coefficient Sig. (.000)	Direction
19	The internal auditor is an essential part of the digital sustainability report evaluation process.	3.95	.771	53.803	.574**	Agree
20	The internal auditor can help improve internal processes for preparing (DSR).	3.96	.777	53.482	.626**	Agree
21	The role of the internal auditor in (DSR) includes evaluating environmental, social, and economic risks.	3.76	.856	46.118	.441**	Agree
22	The internal auditor follows ethical practices and international standards related to (DSR).	3.91	.873	46.958	.685**	Agree
23	The internal auditor's assessment helps enhance the credibility of (DSR).	4.09	.914	46.934	.720**	Agree

N.	The phrase	Mean	Standard Deviation	T value Sig.(.000)	Correlation coefficient Sig. (.000)	Direction
24	The internal auditor plays an important role in promoting (DSR) in compliance with social and environmental responsibility.	3.68	.938	41.176	.654**	Agree
25	The internal auditor has a role in improving the quality and accuracy of (DSR).	4.15	.811	53.617	.706**	Agree
26	The internal auditor can provide suitable recommendations and solutions to improve (DSR).	3.89	.881	46.296	.641**	Agree
27	The internal auditor can enhance the transparency of (DSR).	4.03	.893	47.300	.741**	Agree
28	The quality of (DSR) is regularly assessed by the internal auditor.	3.86	.903	44.856	.563**	Agree
29	Standards and guidelines are properly applied in (DSR).	3.85	.848	47.564	.608**	Agree

N.	The phrase	Mean	Standard Deviation	T value Sig.(.000)	Correlation coefficient Sig. (.000)	Direction
30	The internal auditor collaborates with management and employees responsible for (DSR) to assess risks, processes, and new policies.	4.05	.828	51.228	.530**	Agree
General Average		3.79	.543	73.223	.611**	Agree

Source: the researcher using (SPSS)

It is noted from Table (5): The overall average value of the auditors' qualification for evaluation (DSR) was (3.79), and the average values for the statements ranged between (2.99-4.15). The research results also confirmed that qualifying the internal auditor helps enhance the credibility and quality of the DSR, as the internal auditor can provide appropriate recommendations and solutions to improve these reports. Therefore, it is important to qualify auditors using digital technologies, participate in training courses, workshops and seminars and obtain the necessary qualifications for inspection and evaluation (DSR).

Based on the above and after verifying the results of the analysis, we can conclude that the second hypothesis is confirmed, which states that the appropriate qualification of auditors helps in evaluating and monitoring (DSR).

Table (6) presents the results of testing of the second hypothesis.

Mean	Standard Deviation	Relative Importance	T		Confidence Interval		Direction
			T Value	Sig.	Minimum	Maximum	
3.79	.543	.76	73.223	0.000	3.69	3.90	Agree

Source: using (SPSS)

It is clear from Table (6) that the relative importance reached (76%), which falls within the scope of agreement. The confidence limits range between (3.69-3.90), which is greater than the average value of the five-point

Likert scale (3). Also, the value of t is greater than its tabular value at the level of significance (0.000), which indicates the importance of appropriate qualification of auditors in order to evaluate (DSR). This means that the more qualified the auditors are in terms of the experience and skills they have acquired, the greater the possibility of examining and evaluating (DSR).

DSRs will present real challenges for auditors in preparing, collecting, accessing, investigating, evaluating and acting on relevant information. Accountability and auditing of data processing and increased capacity must be important to address these challenges. These challenges will not be easy, but they will provide many opportunities for companies that realize this; Especially since the survey results showed that auditors' desire to follow developments and improve their development skills related to assessment and evaluation requirements (DSR) plays an important role in improving the accuracy and quality of the report.

5. Conclusions: The research reached a set of conclusions, including: Proper qualification of accountants through accounting education and practical practice helps them acquire the skills and experience necessary to prepare a DSR. He also concluded the importance of appropriate qualification for auditors through education and practice, adherence to standards, guidelines and ethical practices, and participation in courses and workshops in the field of auditing. All of this helps them in evaluating and monitoring DSR.

I recommend that the authorities responsible for regulating the Iraqi Stock Exchange need to pay attention to digital sustainability reports and oblige companies listed on this market to prepare them, as a result of the digital transformations that have occurred in the business environment. By preparing these reports, we can provide sustainability information on companies' digital platforms so that users can view it at any time and make their appropriate decisions.

References

1. Adelowotan, M. (2024). Digital Transformation of Corporate Reporting. In *Digital Transformation in South Africa: Perspectives from an Emerging Economy* (pp. 137-150). Cham: Springer Nature Switzerland. https://doi.org/10.1007/978-3-031-52403-5_10
2. Al-Gnbri, Mohammad Qais, (2020), The impact of modern technologies of the Fourth Industrial Revolution on accounting and auditing, Third International Conference on Technical Sciences, Libyan Academy, Tripoli - Libya. <http://dx.doi.org/10.2139/ssrn.3910850>

3. Al-Janidi, Hanan Ahmed, (2024), The role of digital sustainability reporting in improving sustainable performance - a new challenge for the accounting and auditing profession, *Al-Fikr Al-Muhasabi*, 28(1), 309-360. <https://doi.org/10.21608/atasu.2024.348956>
4. Almeida, R., Pérez-López, J. Á., & Abreu, R. (2022). Digital Corporate Social Responsibility Reporting in the Water Industry. *Water Resources Management*, 36(11), 3929-3947. <https://doi.org/10.1007/s11269-022-03132-1>
5. Al-Saadi, Wisam Joudah Nasir, (2021), The relationship between sustainability audit reports and the quality of accounting information and its impact on investor confidence, Master's thesis in accounting, College of Management and Economics, University of Karbala - Iraq. <https://uokerbala.edu.iq/wp-content/uploads/2021/11/Rp>
6. Atanasov, A. (2023, May). Digitalization of Sustainability Reporting-Current Trends and Future Problems. In *Conference on Sustainability and Cutting-Edge Business Technologies* (pp. 39-45). Cham: Springer Nature Switzerland. https://doi.org/10.1007/978-3-031-42463-2_5
7. Becker, C., Maemura, E., Moles, N., Whyte, J., & Mann, J. (2016). Assessing Digital Sustainability: The Digital Sustainability Model. Benchmark DP. <https://hdl.handle.net/1807/104046> .
8. Benameur, K. B., Mostafa, M. M., Hassanein, A., Shariff, M. Z., & Al-Shattarat, W. (2023). Sustainability reporting scholarly research: a bibliometric review and a future research agenda. *Management Review Quarterly*, 1-44. <https://doi.org/10.1007/s11301-023-00319-7>
9. Botha, W. J. J. (2001). Pre-qualification education of registered accountants and auditors in South Africa: Perspectives on whether the education process is normatively justifiable. *Meditari: Research Journal of the School of Accounting Sciences*, 9(1), 33-59. <https://hdl.handle.net/10520/EJC72619>
10. Bradley, K. (2007). Defining Digital Sustainability. *Library Trends* 56(1), 148- 163. [10.1353/lib.2007.0044](https://doi.org/10.1353/lib.2007.0044).
11. Guandalini, Ilaria, (2022). "Sustainability through digital transformation: A systematic literature review for research guidance," *Journal of Business Research*, Elsevier, vol. 148(C), pages456-471. <https://doi.org/10.1016/j.jbusres.2022.05.003>
12. Karapinar, A. (2021). Turkish Auditing Profession in the Digital Era: From Audit 1.0 to Audit 4.0. *World of Accounting Science*, 23(2), 289-301. <https://doi.org/10.31460/mbdd.792561>.
13. McComb, J. M., & Smalt, S. W. (2018). The rise of blockchain technology and its potential for improving the quality of accounting information. *Journal of Finance and Accountancy*, 23(1). <https://www.aabri.com/manuscripts/182817.pdf>
14. McLean, J, Maalsen, S & Lake, L (2022), 'Digital (un)sustainability at an urban university in Sydney, Australia', *Cities*, vol. 127, 103746, pp. 1 10. <https://doi.org/10.1016/j.cities.2022.103746>.
15. Nafea, Mahmoud Abdel Maksoud. (2022). The impact of Fourth Industrial Revolution technologies on the accounting and auditing profession - a field study. *Alexandria Journal of Accounting Research*, 6(3), 397-430. [10.21608/ALJALEXU.2022.268602](https://doi.org/10.21608/ALJALEXU.2022.268602)

16. Olsen, C. (2023). Toward a Digital Sustainability Reporting Framework in Organizations in the Industry 5.0 Era: An Accounting Perspective. In: Musleh Al Sartawi, A.M.A., Razzaque, A., Kamal, M.M. (eds) From the Internet of Things to the Internet of Ideas: The Role of Artificial Intelligence. EAMMIS 2022. Lecture Notes in Networks and Systems, vol 557. Springer, Cham. https://doi.org/10.1007/978-3-031-17746-0_37
17. Palmer, K. N., Ziegenfuss, D. E., & Pinsker, R. E. (2004). International knowledge, skills, and abilities of auditors/accountants: Evidence from recent competency studies. *Managerial auditing journal*, 19(7), 889-896. <https://doi.org/10.1108/02686900410549411>
18. Panda, S., & Ranish, R. (2021). Digital Sustainability Outsourcing Assessment Department of Informatics, Lund School of Economics and Management, Lund University Master Thesis. <http://lup.lub.lu.se/student-papers/record/8727479>.
19. Prelims, Özsungur, F. (Ed.) (2022), Conflict Management in Digital Business, Emerald Publishing Limited, Bingley, pp. i-vi. Chapter 13. Digital Sustainability in Businesses; Duygu Hidiroğlu. <https://doi.org/10.1108/978-1-80262-773-220221029>.
20. Rashed, Mohamed Ibrahim Mohamed, (2023), The extent of awareness of accountants in accounting offices and the Central Accounting Organization of the implications of the Fourth Industrial Revolution on financial statement auditing as an integrated professional service - a comparative exploratory study. *Alexandria Journal of Accounting Research*, 7(2), 223-332. [10.21608/ALJALEXU.2023.310286](https://doi.org/10.21608/ALJALEXU.2023.310286)
21. Serrano, J. C., Diduc, S., Šilenskytė, A., Stephens, M., & Nava-Aguirre, K. M. (2024). Fostering Awareness of Social Sustainability in Digital Business. In *The Palgrave Handbook of Social Sustainability in Business Education* (pp. 147-166). Cham: Springer Nature Switzerland. https://doi.org/10.1007/978-3-031-50168-5_8
22. Tarawneh, A. S. (2021). Developing a model for qualifying and training accountants in the light of a coming digital future. *Sciences*, 24(S6), 1-13.
23. Wahba, Amani Ahmed. (2023). Digital transformation and its relationship to digital governance and financial reports to achieve sustainable development. *Scientific Journal of Accounting Studies*, 5(2), 114-183. [10.21608/SJAR.2023.305102](https://doi.org/10.21608/SJAR.2023.305102)