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The effect of sustainable development goals and fintech adoption on financial reports quality in Jordanian Islamic banks

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Abstract

This paper investigates the relationship between SDGs, FinTech adoption, and the quality of financial reporting in Jordanian Islamic banks. It examines the moderating effect of the regulatory environment using a quantitative research design. Data were collected through a structured questionnaire survey from 157 respondents, including financial managers, IT specialists, sustainability officers, and financial analysts from three Jordanian Islamic banks, selected using random sampling. The data were then analyzed using a Structural Equation Model (SEM). The results show that both SDG alignment and FinTech adoption positively and significantly influence the quality of financial reporting. Moreover, the effect of SDG orientation on financial reporting quality and sustainability practices is considerably moderated by the regulatory environment. The rapid integration of digital tools into reporting processes has also presented challenges. Technological and sustainability innovations have improved the quality of the information reported. While these innovations help enhance the quality of reporting, a strong regulatory framework is necessary to maintain the consistency and reliability of these improvements. This finding highlights the role of aligning the SDGs in improving financial reporting quality in Islamic banks through the adoption of FinTech. It also underscores the importance of regulatory frameworks to ensure these advancements are sustained. This paper includes documentation aimed at policymakers, regulators, and banking institutions, emphasizing the essential approach of continued focus on and investment in the digitization of infrastructure, regulatory excellence, and sustainable practices. This provides actionable guidance for improving the quality of financial reporting while promoting sustainability in the banking industry.

Keywords: Digital transformation, Environmental practices, Financial disclosures, Fintech and social responsibility, Regulatory compliance, Sustainability, Transparency.

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1. Introduction

The financial services landscape has evolved dramatically since the proliferation of digital technologies and rising sustainability concerns. Financial Technology (FinTech) has redefined how banks operate by improving efficiency, transparency, and accessibility in financial reporting [1]. At the same time, the United Nations Sustainable Development Goals (SDGs) have served as a guide for banks and other organizations to align their operational activities with global sustainability goals, such as poverty reduction, environmental protection, and social equity [2]. Illustrating this emerging challenge, the nature of financial reporting has become a concern, as it is essential in maintaining shareholder confidence, regulatory adherence, and sound decision-making [3]. The banking sector in Jordan provides a unique context in which to explore these dynamics. The industry is home to 25 licensed banks and total assets amounting to approximately USD 70 billion, boasting relative resilience and moderate levels of digital penetration, with peers in the region, such as the United Arab Emirates (UAE) and Saudi Arabia [4]. The integration of Electronic Financial Reporting (EFR) by the Jordanian banking sector, in accordance with global sustainability guidelines, is leading the world as they comply with the Basel III framework [4, 5]. The nexus between FinTech adoption, SDG integration, and the quality of financial reporting has received limited attention in the literature, especially in the context of the unique cultural and regulatory environment of Islamic banking in Jordan. The swift adoption of digital technologies is transforming the worldwide financial sector, allowing banking institutions to increase operational efficiency, enhance consumer experiences, and stay competitive in a continuously evolving world [1]. FinTech adoption improves efficiency by embedding more advanced platforms into economic activities, enabling more significant social implications. At the same time, the United Nations (UN) Sustainable Development Goals (SDGs) offer a universal roadmap that drives organizations, including banks, to address global challenges of poverty alleviation, reduction of inequality, and environmental sustainability [2, 5-7]. Collectively, these elements form a twin force crisis for the financial sector to position both their digital transformation and alignment of banking with sustainability. Excellent financial reporting is essential for maintaining trust, making informed decisions, and ensuring compliance with regulations in the banking sector. This fundamental shift in financial reporting, transitioning from traditional reporting to EFR, is an innovation that enhances accessibility, timeliness, and interactivity for its stakeholders [5]. EFR increases transparency and user engagement by offering real-time updates and data visualization [8-12]. Nevertheless, this shift exerts pressure on banks, particularly in developing economies such as Jordan, where balancing regulation with implementing innovative methods is complex [13-16]. While the apparent advantages of adopting FinTech and integrating SDGs into Islamic banking have been decidedly pledged to enhance the quality of financial reporting, little is known regarding their impact on Jordanian Islamic banks. Likewise, earlier research has documented the benefits of SDG disclosures on financial performance and the quality of reporting in different contexts [17-22]. Existing research has also shown that adopting FinTech enhances the credibility of financial disclosures and internal controls [23-25]. Nonetheless, these studies deal with non-Islamic financial institutions or different geographical areas; thus, those findings do not apply to Jordanian Islamic banks operating within different regulatory and ethical parameters. Furthermore, there has been insufficient attention to the influence of the regulatory environment on the moderation of these relationships. As Pizzi, et al. [26] and Dodoo [27] mentioned, regulatory frameworks play an important role in ensuring issuers comply with the regulations and enhancing the reliability of financial disclosures. However, in Jordan, although the Central Bank has undertaken strategic initiatives to improve both digital transformation and financial inclusion, the implications of these regulations for FinTech and SDGs integration into financial reporting need to be examined [28, 29]. As such, this study is driven by a quest to address the research gaps regarding the potential influence of FinTech adoption and SDG integration on financial reporting quality in Jordanian Islamic banks. There are many reasons why understanding these dynamics is key. First, it can offer significant implications for Islamic banks in achieving their reporting practices to international standards and stakeholder expectations. Secondly, it can provide policymakers and regulators with information on the current regulatory frameworks' effectiveness in driving sustainable and transparent banking practices. This study contributes toward a more extensive conversation regarding sustainable banking in emerging economies by providing an empirical basis for the relationship between digital transformation, sustainability, and the quality of financial reporting.

2. Literature Review

Integrating digital technologies and sustainability practices has become a focal point in banking research, especially in understanding their impact on financial reporting quality. With regulatory frameworks serving as the backbone of financial accountability, banks must navigate digital transformation and the interplay of the Sustainable Development Goals (SDGs) to enhance transparency, compliance, and stakeholder trust. FinTech adoption and sustainability have emerged as critical areas of study in banking, particularly regarding how they interrelate to improve the quality of financial reporting. Regulatory frameworks aim to ensure compliance to preserve stakeholder interests and public trust, which is crucial in determining the trustworthiness and transparency of financial disclosures [30]. Socioeconomic stability is emphasized in international standards, such as the Basel Accords; therefore, strict

reporting to control financial risk and ensure the adequacy of capital is crucial to gain the public's trust in banks [31]. Notably, regulatory oversight has consistently been associated with improved reliability and consistency in financial reporting by banks, leading to greater comparability between institutions [32, 33]. Jordan's banking sector exemplifies how regulatory compliance can be integrated with emerging technologies [34]. Although the UAE and Saudi Arabia are at the forefront of digital banking adoption, Jordanian banks have advanced steadily due to the Central Bank of Jordan's action plans to achieve financial inclusion and digital transformation [35, 36]. As a sector closely aligned with Basel III requirements, it boasts a strong regulatory backdrop that provides the perfect setting for analyzing how the process of FinTech adoption influences financial reporting practices within a well-defined compliance framework [4, 28, 29].

One important reason for this is regulatory frameworks that promote high-quality financial reporting and thus ensure a responsible balance sheet. Standards like the Basel Accords have been instrumental in creating uniformity in the information presented on finance, reducing risks, and ensuring capital sufficiency [31]. In developing markets, International Financial Reporting Standards (IFRS) have been shown to improve the quality of disclosure and governance, including in Nigeria [37] and in Jordan [38]. While strides have been made, the problem of compliance remains a challenge in developing nations where heterogeneous managerial discretion and regulatory capacity create wide gaps [39]. In alignment with Basel III requirements, the regulatory framework in Jordan has laid the basis for strong banking operations, with transparency and accountability to wider stakeholders [4]. Nonetheless, the use of electronic financial reporting (EFR) to facilitate compliance has been slow, owing to initiatives from the Central Bank of Jordan aimed at promoting digital transformation and financial inclusion [28, 29]. The very setting of these regulatory imperatives creates an ideal landscape for analyzing the effect of FinTech adoption on financial reporting quality.

Digitization has transformed the banking business worldwide by automating transactions, enhancing data accuracy, and facilitating stakeholder interaction. Banks have sought to adopt technologies like artificial intelligence, blockchain, and mobile banking to reduce reporting costs and improve service delivery [40, 41]. Studies show that digital tools hasten the speed of financial reporting, decreasing delays and ensuring regulatory requirements are met [42]. Electronic financial reporting also provides real-time updates on economic data, improving stakeholder decision-making [8]. Certainly, the uptake of digital technologies in banking in Jordan has been limited compared to regional leaders such as the UAE and Saudi Arabia. However, initiatives from the Central Bank of Jordan have advanced this due to its existing digital transformation and focus on operational efficiency and customer engagement [36]. Nevertheless, many smaller institutions are resource-constrained, which hampers their ability to maximize the benefits of digital tools [43]. Still, the advantages of FinTech adoption in improving the timeliness, accuracy, and accessibility of financial reports are clear.

Banks have already moved towards sustainable practices, with the global agenda of the United Nations' SDGs ensuring a shift towards environmentally and socially responsible practices across industries. It has been found that embedding SDG principles into banking strategies increases transparency, governance, and stakeholder trust [44, 45]. The literature emphasizes the relevance of Environmental, Social, and Governance (ESG) factors in enhancing long-term value creation and aligning corporate behavior with global sustainability goals [46, 47]. The emergence of non-financial reporting has become a key mechanism for banks to articulate their contribution to sustainability goals. In addition, materiality analyses and sustainability disclosures have enabled these institutions to prioritize non-financial issues, increasing their legitimacy and promoting their engagement with stakeholders [48, 49]. Furthermore, in Jordan, the alignment of banking practices with the SDGs has helped promote greater corporate responsibility, which, however, is still lacking in many aspects, especially in integrating these practices into financial reporting frameworks [50]. If sustainability and integrated reporting are accepted, they will not necessarily be given the same standard as mergers, acquisitions, and other policies. In addition, both digitization and sustainability have important advantages, but their combination brings its own challenges. Although digital instruments will enhance reporting efficiency, they do not automatically resolve the governance and ethical aspects related to sustainability practices [5]. Given this, the body of knowledge suggests that a balanced approach would be more appropriate, where both financial and non-financial reporting should be considered in terms of disclosure [51]. In Jordan, although a slightly advanced regulatory environment exists, with a preference for using external data sharing and open data, the strong inclination of stakeholders to react to annual reports leads to the persistence of non-electronic reporting, severely hindering the adoption of new digital tools [52]. Banks, therefore, need to navigate these challenges effectively due to the dual demand for FinTech adoption and sustainability. To strengthen transparency, improve governance, and adapt to the changing expectations of stakeholders, tailored solutions that consider local constraints and draw from global best practices are required. The Jordanian banking sector represents a unique case to study the relationship between FinTech adoption and sustainability in financial accounting and reporting. Jordanian banks are poised to implement these components with the right amount of suitable regulatory compliance and an evolving digital infrastructure. It is acknowledged that digital tools could enhance operational efficiency and the quality of reporting, as well as the importance of aligning with SDGs in a way that leads to greater transparency and stakeholder trust [4, 28, 29]. Nevertheless, such goals cannot be achieved without addressing challenges, including a lack of technology adoption and unsustainable practices.

2.1. Financial Reporting Quality

The banking sector finds itself in a highly pressured environment regarding accountability, as finance is the engine behind the entire economy; hence, accurate financial reporting is critical in the banking sector as it builds trust, promotes informed decision-making, and improves regulatory compliance. Electronic systems have improved access, speed, and interactivity over the traditional reporting process [5]. EFR stands for Ecosystem Footprint Reporting and is designed to enhance transparency and stakeholder engagement with real-time data and data visualization [8]. However, this transition poses difficulties for banks in developing economies such as Jordan, where it is still challenging to address the tension between regulatory demands and technological benefits [14]. Composed of 25 licensed banks with total assets of approximately USD 70 billion, Jordan's banking sector provides a valuable context for analyzing the relationship between FinTech acceptance, SDG-focused decisions, and the quality of financial reporting [4]. Even as one of the most conservatively digitally adopted economies globally, especially compared to their fellow Middle Eastern nations growing rapidly (UAE, Saudi Arabia) and now also initiating EFR projects, Jordanian banks have not yet fully ventured into EFR

declarations [5]. However, the reciprocal relationship between FinTech adoption and SDGs regarding financial and non-financial reporting quality has received little attention [17], particularly within Jordan's regulatory architecture and cultural norms.

2.2. Sustainable Development Goals

SDGs help improve the quality of corporate reporting. Al-Hiyari, et al. [18] reported that SDG disclosures positively impact the earnings quality of UAE firms, with foreign ownership moderating this relationship. Transparency encourages better reporting of financial flows on SDG-related activities, fostering interest from foreign investors looking for higher reporting standards within their investments. However, a study based on non-financial firms would face limitations in generalizing its findings to an Islamic bank, which operates in different contexts since Islamic banks are subject to other regulatory and ethical frameworks. Nicolò, et al. [21] indicated that when SDG disclosures lead to higher analyst forecast quality for firms listed on the Italian stock market, it highlights the dependence of report quality on standardized frameworks (e.g., Global Reporting Initiative [GRI]). Nonetheless, the specific nature of Italy's financial market could also introduce variations that limit the applicability of this study's findings to Jordanian Islamic banks. Likewise, Aranda [22] proved that SDG disclosures positively affect financial performance, as seen in ROA, ROE, and ROI in banks in Indonesia. Although the results of this study underscore the potential of SDG integration to enhance financial reporting by Jordanian universities, the unique regulatory environment in Indonesia necessitates caution when considering the generalizability of these results to Jordan. Using an African case as a counterexample, Ahmed and Anifowose [53] showed that strong governance structures positively affect SDG outcomes, even in highly corrupt contexts. These findings imply that governance plays a significant role in mediating the effects of SDGs on the quality of financial reporting, an essential aspect for Jordanian Islamic banks since they are ethically obligated.

2.3. FinTech Adoption

One of the main drivers of enhanced financial reporting quality is the adoption of FinTech. Wen, et al. [23] show that the development of regional FinTech in China hinders real earnings management, thus improving the credibility of financial disclosures. Therefore, improved information production and external monitoring mechanisms may be relevant for Islamic banks in Jordan that want to align with global reporting standards (Khalid, et al. [54] and Hamour, et al. [55]). Alkhawaldi [56] explored the drivers behind FinTech adoption and its effect on the quality of life in Jordan while emphasizing financial literacy and digital transformation. Although the study identified a meaningful relationship between higher rates of FinTech adoption and improvement in financial management and reporting practices, it did not explore the relationship between the FinTech adoption rate in banks and financial reporting quality. He, et al. [24] found that the adoption of FinTech enhances internal control quality and lowers bank risk-taking in Chinese banks, which essentially indicates that FinTech could promote the robustness of the financial reporting system, a consideration for Islamic banks because of the strict compliance and ethical standards they need to maintain. In a recent study, Al-Okaily [25] found that to adopt digital financial reporting in Jordan, perceived usefulness and perceived ease of use are significant predictive factors. The results have supported the hypothesis that digital reporting positively impacts accounting information quality because FinTech adoption improves the quality of financial reporting. However, more work is required to corroborate these results in the setting of Islamic banks. Emerging technologies, such as blockchain [57] or AI [58], are explored to mitigate fraud in financial statements, a practical way to strengthen the reliability of information, which is key for Islamic banks aiming for transparency and ethical reporting.

2.4. Regulatory Environment

The regulatory environment is crucial in moderating SDGs, FinTech adoption, and financial reporting quality. Pizzi, et al. [26], consistent with the work of Sharma, et al. [59], document cultural dimensions that matter in this context. This paper suspects that local regulatory and cultural links to Jordan could influence the developmental impact of SDGs on the quality of financial reporting. For instance, Dadoo [27] investigated the moderating effect of SDG reporting on the relationship between integrated reporting and the quality of financial reporting in Ghana, identifying that effective SDG reporting frameworks improve financial report quality, thereby highlighting the need for supportive regulation. Khan, et al. [60] and Khan, et al. [61] examined how green innovation moderates the relationship between SDG practices and financial performance. They found that environmental SDGs have a positive relationship with financial performance but found no correlation for social SDGs and a negative correlation for some social SDGs, revealing a more complex relationship. Iqbal and Nosheen [62] indicate that NPLs moderate the relationship between SDGs and bank financial performance, stressing the importance of sound credit risk management, especially in Jordanian Islamic banks.

3. Hypothesis Development

To hypothesize, the proposal of the framework for the quality of financial reporting needs to understand the complex connection between the adoption of FinTech in the Sustainable Development Goals (SDGs) and the regulatory environment within Jordanian Islamic banks.

3.1. Sustainable Development Goals and Financial Reporting Quality

Previous studies ascribed SDGs integration into corporate reporting to enhanced quality in financial reporting, specifically through increased transparency, governance, and trust among stakeholders [2, 18]. Moreover, Al-Hiyari, et al. [18] indicated that earnings quality benefits from SDG disclosures, while foreign ownership moderates these benefits in the UAE environment. This means SDG-related transparency encourages enhanced financial reporting and attracts investors seeking higher expectations. Nicolò, et al. [21] and Aranda [22] found that SDG disclosures improve analyst forecast quality and economic performance. By their nature, Islamic banks function within ethical frameworks that encourage transparency and accountability, a trait that warrants the hypothesis that the decision to integrate SDGs is likely to have positive implications for their financial reporting quality. Hence, the following hypotheses are:

H₁: SDGs positively affect financial reporting quality.

3.2. FinTech Adoption and Financial Reporting Quality

The quality of financial reporting is improved through FinTech adoption, including greater accuracy in information, enhanced internal controls, and improvements in time-sensitive reporting capabilities [23]. FinTech development in China effectively mitigates earnings management and improves the reliability of disclosures. In line with this, Al-Okaily [25] reported a positive impact of adopting digital financial reporting in Jordan on the quality of accounting information, implying that adopting FinTech can increase financial report quality. However, a direct application to Islamic banks still requires detailed attention regarding their specific regulatory and ethical needs. Nonetheless, the accompanying efficiency gains and transparency enhancements linked to FinTech adoption support the hypothesis that it positively influences financial reporting quality. Hence, the following hypotheses are:

H₂: FinTech adoption positively affects financial reporting quality.

3.3. Regulatory Environment as a Moderating Factor

This study suggests that a regulatory environment moderating the effect of SDGs and FinTech adoption on the quality of financial reporting would play a vital role. According to Pizzi, et al. [26], strong regulatory frameworks improve the reliability and consistency of financial reporting and ensure compliance and comparability across institutions. According to Dodoo [27], strong SDG reporting frameworks enhance the quality of financial reports in Ghana. Iqbal and Nosheen [62] mentioned how a non-performing loan could moderate the relationship between SDGs and economic performance. The central bank has pursued various strategic agendas to create a suitable climate for investing in digital transformation and aligning with sustainability in Jordan, but differences in the degree of regulatory capacity and compliance exist [4, 28, 29]. Therefore, it is hypothesized that the regulatory environment would moderate the association between SDGs and financial reporting quality. Hence, the following hypotheses are:

H₃: The regulatory environment moderates the relationship between SDGs and financial reporting quality.

4. Research Model and Measurements

These hypotheses provide a framework for examining the impact of sustainable development goals and the adoption of financial technology on the quality of financial reporting in Jordanian Islamic banks, with regulatory factors serving as a moderating factor. Figure 1 below illustrates the proposed study model.

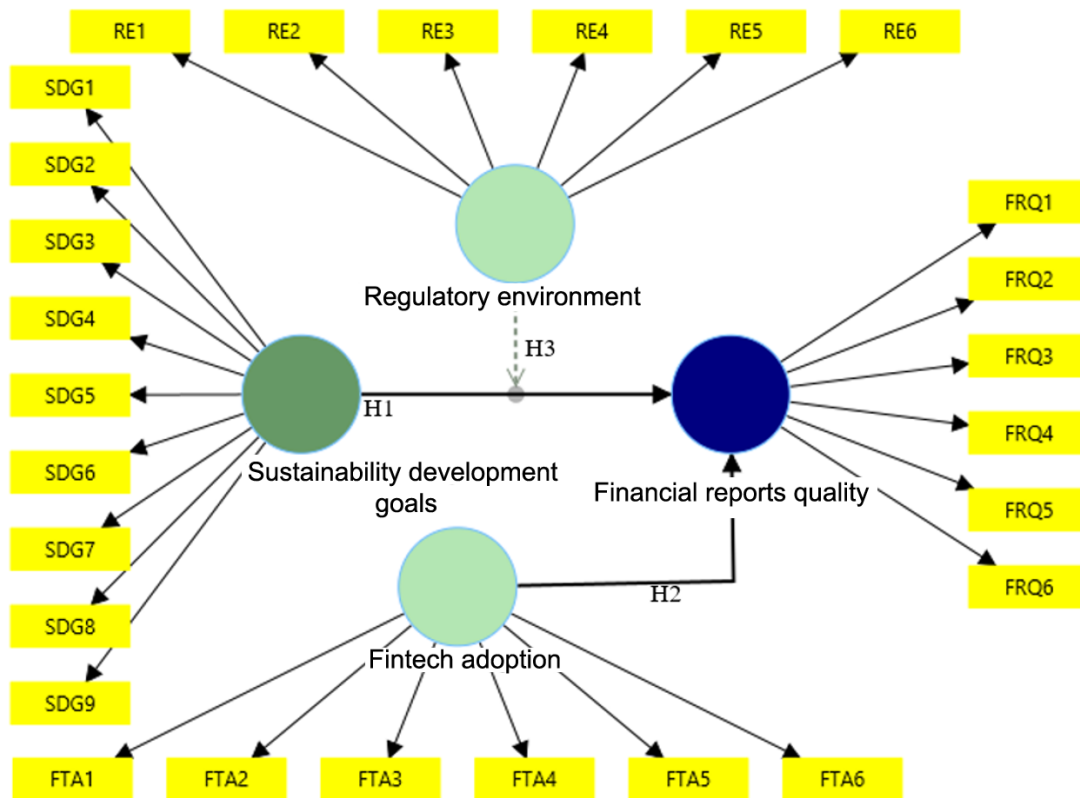


Figure 1.
Proposed research model.

Figure 1 indicates that the sustainable development goals have nine items in the questionnaire, the adoption of financial technology contains six items, the regulatory environment also includes six items, and the quality of financial reporting is measured by six items.

5. Methods

This study aims to systematically investigate the impact of FinTech adoption and SDGs alignment on the quality of financial reports in Jordanian Islamic banks. During data collection, the structured nature, where the data will be quantitative, adds to systematic

data collection and reliable analysis. Adapting the theory, the independent variables are FinTech adoption and SDG alignment, while the dependent variable is electronic financial reporting quality. It looks at some of the most prominent Islamic banks: Jordan Islamic Bank, Islamic International Arab Bank, and Safwa Islamic Bank. These banks were identified due to their prominent role in Jordan's financial sector and their ongoing digital transformation initiatives. The target population consists of financial managers, IT professionals, sustainability officers, and financial analysts directly engaged in financial reporting and digital transformation in these banks. Purposive sampling was used to ensure that the respondents had essential expertise and a sufficient level of knowledge about the focus areas of the study. They were spread out through email and social media for four weeks. One hundred eighty-nine questionnaires were distributed, and one hundred fifty-seven valid questionnaires were collected, which can be considered a good sample size for the statistical analysis. The questionnaire explored the demographic information, which captured the job descriptions of respondents, the years of their experience, and their academic backgrounds; FinTech Adoption Dimensions, which evaluated the degree of adoption of digital tools, the extent of digital infrastructure implementation, and the efficiency of data management systems; SDG Alignment, which assessed the business accounting practices of consumers to ensure sustainability, social responsibility programs, and governance; and finally, Financial Reporting Quality, which was evaluated by metrics of accuracy, transparency, reporting risk, and regulatory compliance. Responses were assessed via a five-point Likert-type scale from 1 (strongly disagree) to 5 (strongly agree). The core concepts of this research study, namely FinTech adoption (Independent Variable), SDG alignment (Moderator Variable), and financial reporting quality (Dependent Variable), were implemented using survey items developed based on existing validated research measures and tailored to the context of the Jordanian banking sector. Descriptors, including digital tools, digital infrastructure capabilities, and data management systems, were used to measure FinTech adoption. Environmental sustainability initiatives, social responsibility activities, and governance practices were studied to determine whether companies are aligned with the SDGs. To analyze the data, Partial Least Squares Structural Equation Modeling (PLS-SEM) running on SmartPLS 4.0 was used as it is suitable for estimating complex models with latent variables and smaller sample sizes [34, 37, 63, 64].

6. Results

The descriptive analysis showed that most of the respondents were financial managers (40%), followed by IT specialists (30%), sustainability officers (20%), and financial analysts (10%). Over 67% of the respondents worked in the role for over five years, suggesting considerable experience. The results indicated that FinTech adoption was relatively high across the three retail banks, with common strengths being robust digital infrastructure and efficient data management systems. In particular, SDG alignment was rated positively, especially regarding environmental sustainability and governance practices. The quality of financial reporting was seen as very high, with transparency and compliance with regulations representing particular strengths. Nonetheless, several respondents pointed to difficulties in timely data collection due to new digital tools. However, Figure 2 is a structural representation of the relationships between the constructs in this study: Sustainable Development Goals (SDGs), FinTech Adoption, Regulatory Environment, and Financial Reports Quality. Constructs (SDG1–SDG9, FTA1–FTA6, RE1–RE6, FRQ1–FRQ6). The path coefficients, or factor loadings, between these constructs and indicators, indicate the strength of linkages between observed variables and the underlying latent constructs.

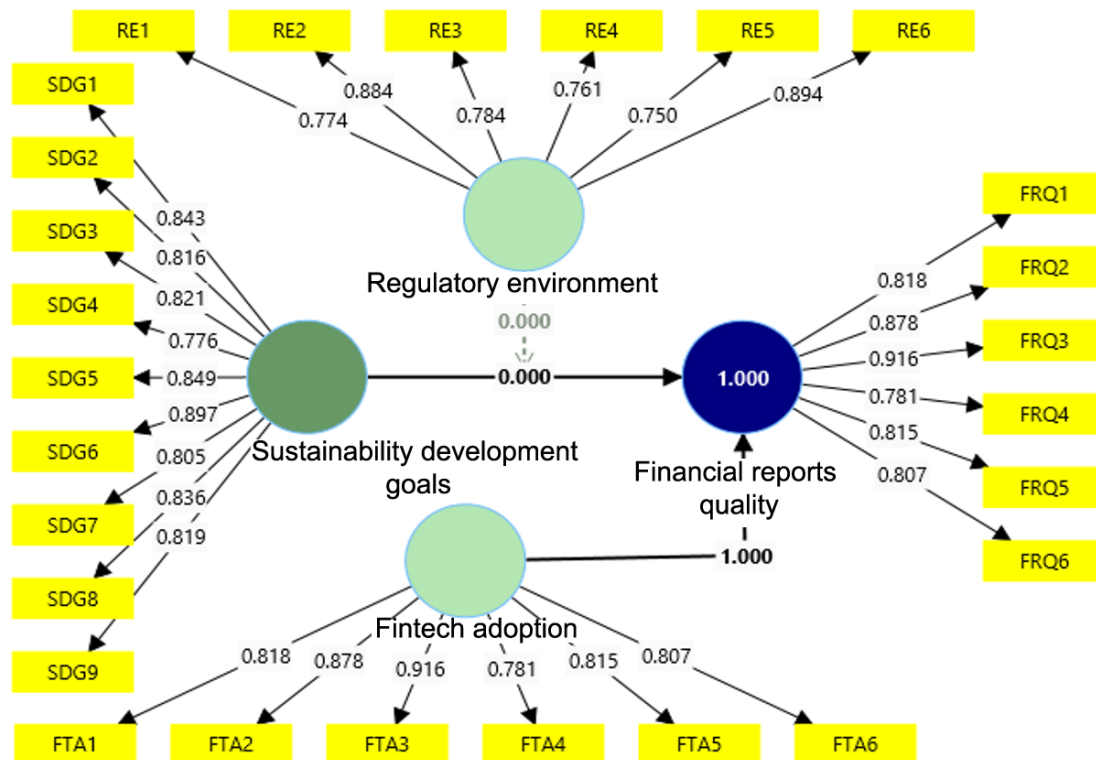


Figure 2.
Result of measurement model.

The factor loadings in the model ranged from 0.750 to 0.916, and all saturation coefficients were above the minimum reference threshold of 0.70. This demonstrates reasonable and adequate reliability and convergent validity for the constructs in the model. These results indicate that the indicators represent their respective latent variables, confirming the robustness of the measurement model in examining the relationships among Sustainable Development Goals, FinTech Adoption, Regulatory Environment, and Financial Reports Quality. We performed the reliability test and Average Variance Extracted (AVE) calculations to confirm the validity and reliability of the constructs measured in this study. The internal consistency of constructs was evaluated using Cronbach's alpha and composite reliability (rho_a and rho_c), and the assessment of convergent validity was approached via average variance extracted (AVE). The findings are summarized in Table 1.

Table 1.
Reliability testing and AVE.

| Variables | Cronbach's alpha | Composite reliability (rho_a) | Composite reliability (rho_c) | Average variance extracted (AVE) |
|-------------------------------|------------------|-------------------------------|-------------------------------|----------------------------------|
| FinTech adoption | 0.914 | 0.917 | 0.933 | 0.701 |
| Financial reports' quality | 0.914 | 0.917 | 0.933 | 0.701 |
| Regulatory environment | 0.906 | 0.956 | 0.919 | 0.656 |
| Sustainable development goals | 0.943 | 0.945 | 0.952 | 0.689 |

As displayed in Table 1, all constructs demonstrate good reliability with acceptable convergent validity. All variables were well above Cronbach's alpha value of 0.70 thresholds, showing acceptable internal consistency. Additionally, both rho_a and rho_c values are greater than 0.70, which means constructs are reliable. AVE > 0.50 for all variables indicates that their variance is explained significantly by the constructs compared to measurement error. These results collectively confirm the measurement model, ensuring the study's findings represent true and accurate information.

6.1. Hypotheses Testing Results

In statistical analysis, the hypotheses are tested using different significant parameters. These metrics show the significance and direction of correlations between variables (t-statistics (T), original value sample estimates (O), p-value (P)). O represents the numerical estimate with the sample. A value approaching +1 indicates a positive association, while a value approaching -1 indicates an inverse or negative relationship. The letter T is also used to indicate the significance of the association. When the T result is higher than 1.96, it suggests a significant link between the variables (with a confidence level of 95%). P-values are also crucial for significance assessment. A p-value < α (α (level of significance) = 0.050) indicates the statistical significance of the effect variables. Using its O (original value sample estimate), it can help researchers determine the focus of the connection and its P and T significance levels, as summarized in Figure 2 and Table 2, of the values calculated for the above three indicators as a result of sequential hypothesis testing. How do medicines work? These discoveries are the keys, to helping researchers make conclusions backed by data. Below is the graph of the structural model, which shows the path of SDGs, FinTech Adoption, Regulatory Environment, and Financial Reports Quality.

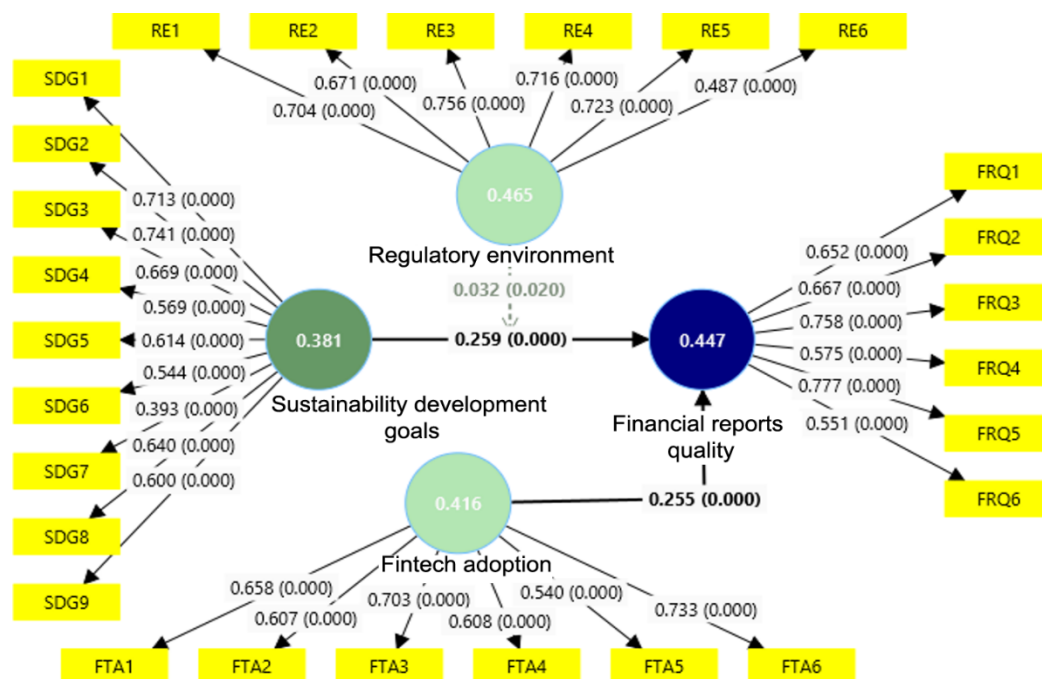


Figure 3.
Hypothesis testing results.

The structural relationships among the study variables are shown in [Figure 3](#). Sustainable Development Goals and Fintech Adoption have path coefficients with Financial Reports Quality of 0.259 and 0.255, respectively, and the significance level is 0.000. Moreover, at 0.032, the Regulatory Environment moderates the relationship between the SDGs and Financial Reports Quality, indicating the regulation's role in aligning SDGs with Financial Reports Quality. These values (0.381, 0.416, 0.465, and 0.447) suggest that this model can explain a moderate variability in the data, specifically, the R-squared values for Sustainable Development Goals, FinTech Adoption, Regulatory Environment, and Financial Reports Quality. Most constructs' saturation coefficients are also greater than 0.70, indicating reasonable reliability and measurement validity. However, [Table 2](#) shows the hypothesis test results of the effect of Sustainable Development Goals (SDGs), FinTech Adoption, and the Regulatory Environment on Financial Reports Quality in Jordanian Islamic banks. Statistical analysis (O, M, STDEV, |O/STDEV| p-value t values) indicates how the relationship between variables is moving, the strength of the relationship, and the importance of the relationship. Statistical significance was $p < 0.050$ with t-statistics greater than 1.96, signaling a significant relationship at the 95% confidence level.

Table 2.
Hypothesis testing results.

| Path | Original sample (O) | Sample mean (M) | Standard deviation (STDEV) | T statistics (O/STDEV) | P values |
|---|---------------------|-----------------|----------------------------|--------------------------|----------|
| FinTech adoption -> Financial reports quality | 0.255 | 0.254 | 0.035 | 7.317 | 0.000 |
| Regulatory environment -> Financial reports quality | 0.646 | 0.644 | 0.031 | 21.113 | 0.000 |
| Sustainable development goals -> Financial reports quality | 0.259 | 0.260 | 0.034 | 7.583 | 0.000 |
| Regulatory environment x sustainable development goals -> Financial reports quality | 0.032 | 0.032 | 0.014 | 2.336 | 0.020 |

The hypothesis tests are shown in [Table 2](#), indicating the strength of the correlations and whether they were significant. All p-values are below the commonly used confidence interval p-value of 0.050, which means that all the hypotheses can be considered statistically significant. In particular, the relationship between FinTech adoption and financial report quality ($p = 0.000$) supports hypothesis H2, implying that adopting financial technology positively and significantly influences the quality of financial reports. In other words, enabling accounting processes using digital tools and solutions improves the accuracy, transparency, and quality of reporting. Likewise, the connection between SDGs and financial report quality ($p = 0.000$) confirms hypothesis H1, highlighting the considerable impact of integrating sustainability practices (SDGs) on financial report quality. This study emphasizes the importance of integrating sustainability goals within the business context to improve financial reporting practices. Additionally, since the interaction between the regulatory environment and SDGs significantly moderated the relationship between SDGs and financial report quality ($p = 0.020$), H3 is supported, as it shows that a stronger regulatory environment enhances the positive effects of SDG adoption on financial reporting quality. These findings suggest that external oversight in regulation provides greater credibility to sustainability initiatives and that such initiatives will translate into improvements in income statements. Moreover, the outer path coefficients of all paths are greater than 1.96, demonstrating that these relationships are sustained and confirmed. In conclusion, the findings highlight the crucial determinants of financial report quality, namely FinTech adoption, SDG alignment, and regulatory frameworks. These offer important implications for policymakers and practitioners seeking to enhance financial reporting quality.

7. Discussion

The results of the present study contribute significantly to the body of literature relating to the determinants of FinTech Responsible Quality (FRQ) in the context of Jordanian Islamic banks by furnishing strong evidence that the proposed relationships are supported by data. These key factors are deemed significant in shaping FRQ and recommend avenues for improvement, future investigation, and actionable insight into FRQ through the lenses of Sustainable Development Goal (SDG) alignment, FinTech adoption, and regulatory practices. The positive and significant association between SDG alignment and FRQ ($\beta = 0.259$, $p = 0.000$) aligns with previous studies highlighting the role of sustainability practices in increasing transparency and reliability in financial reporting [\[44, 45\]](#). This is appropriate considering that the necessity to develop SDGs in Jordanian Islamic banks has emerged from moral beliefs and pressure from stakeholders and other countries that invest in higher levels of governance [\[18\]](#). These findings illustrate that alignment with the SDGs leads to improved reported earnings quality and enhances stakeholders' trust in how corporations solve Environmental, Social, and Governance (ESG) issues. Yet, the study also highlights operational complexities, including lags in incorporating non-financial metrics into financial reports, that could impede the timely dissemination of information. This is reminiscent of concerns expressed by [Adams \[44\]](#), who stated that although sustainability reporting enhances transparency, the processes adopted by organizations to enable such reporting may be resource-intensive and time-consuming. Targeted future research will explore tools to facilitate data integration with existing financial accounting frameworks through an efficiency lens to replicate the dos and don'ts of ESG reporting. Digitization in financial reporting has a substantial, positive effect on financial reporting quality ($\beta = 0.255$, $p = 0.000$), showing how revolutionary new technologies can influence reporting. This finding aligns with that of [Pazarbasioglu, et al. \[42\]](#) and [Kurniawan, et al. \[40\]](#), who showed that digital systems (blockchain, artificial intelligence, and data analytics) contribute to more accurate, effective, and timely reporting. In Jordan, for example, competitive pressures and customer demands have driven the adoption of FinTech, with support from top management as a key enabler for success [\[43, 65\]](#). The authors suggest that adopting FinTech effectively reduces earnings management, thus improving the credibility of financial statements [\[23\]](#). However, the report also points to problems incorporating new digital tools into already established reporting systems, especially regarding timeliness and accuracy. These top-line conclusions highlight the

importance of ongoing investments in digital infrastructure and staff training to unlock FinTech's potential in financial reporting. At the same time, the regulatory environment's moderating effect on the link between SDG alignment and FRQ ($\beta = 0.032$, $p = 0.020$) makes clear that regulatory frameworks strongly shape how sustainability efforts translate into improved financial reporting. This finding supports [Istaiteyeh, et al. \[29\]](#), who pointed out that the enforcement of sound regulation allows such compliance and strengthens the reliability of financial reports. Likewise, in Jordan, the Central Bank's strategic initiatives to enhance digital transformation and ensure sustainability alignment have fostered a favorable ecosystem for improving FRQ [\[4, 28, 29\]](#). Moreover, the study corroborates the argument by [Ahmed and Anifowose \[53\]](#), which states that robust corporate governance frameworks can limit the adverse influence of weak institutional contexts on SDG realization.

8. Conclusion

This study examined the influence of SDGs on the quality of financial reporting in Jordanian Islamic banks, the moderating role of FinTech adoption, and the regulatory environment. The results suggest that SDG alignment and FinTech adoption positively affect financial reporting quality. SDG integration scales up the level of transparency and governance in general through the addition of significant reporting metrics, while simultaneously, the integration of FinTech into accounting processes has a direct and positive influence on the quality, accuracy, timeliness, and inclusiveness of stakeholder participation in data collection regarding these metrics. Similarly, the study also emphasized that the efficacy of SDGs on financial reporting is strengthened under a favorable regulatory environment. A solid regulatory framework not only leads to compliance but also results in a higher number of sustainability initiatives and greater disclosure of information for financial alliances. Such improvements have only been possible thanks to the Central Bank of Jordan's initiatives related to digital transformation and sustainability alignment, which have created an environment conducive to such advancements and elucidated the relationship between regulatory oversight and financial ingenuity. In contrast, balancing the role of digital in the overall reporting timetable and the requirement for non-financial metrics in traditional reporting without overstressing their systems remains a key issue. Overall, the obstacles highlighted here further reinforce the importance of investing in digital infrastructure, regulatory frameworks, and capacity-building initiatives to promote sustainable and transparent banking practices in the region. Consequently, this study fills a gap in the literature on sustainable banking and digital transformation, providing valuable insights for policymakers, banking institutions, and regulators looking to improve financial reporting standards. Through a shortcut, by enrolling in innovative green finance concepts, Jordanian Islamic banks may also examine challenges in regulatory approaches and environments (green standards) that may bolster governance and stakeholder trust to support long-term economic resilience.

The interaction effects illustrate a nuanced best-case scenario where such lending to bolster financial stability in Jordan contributes to better regulation to assist lending alignment, where FinTech can stabilize SDG efforts, essentially improving FRQ across the banking sector in Jordan. One of the ways FinTech takes the reporting process to the next level is through technical aspects, such as accuracy and timeliness. At the same time, SDG alignment helps report qualitative elements, such as ethical governance and stakeholder trust in the regulatory impetus for these advancements to be homologated and comparable to each nation. Yet there are also continuing challenges, such as balancing the urgency of digital transformation and new demands for transparency with traditional reporting timelines and approaches, as well as integrating non-financial metrics without overstressing reporting systems. These conclusions have significant implications for policymakers and banking institutions, urging ongoing investment in digital infrastructure, regulatory systems, and eco-friendly principles. Additional studies should focus on the long-term impact of these factors on FRQ and ways of alleviating the operational challenges highlighted in this study.

The study's findings are contextualized against the findings of earlier studies, based on Jordan's unique regulatory and economic environment, where standards compliant with Basel III and other international frameworks have already been implemented. While these regulatory measures offer a basis for sound financial reporting, FinTech adoption and congruence with SDGs allow Jordanian banks to go beyond, providing more affluent, dynamic, and frequent disclosures. Automated data management (which helps avoid reporting errors) and increased visibility with stakeholders are all facilitated by digital tools, enabling banks to respond to fast-evolving financial circumstances. Additionally, the global push for sustainability and ESG principles has motivated Jordanian banks to align with best practices, enhancing their ESG performance and stakeholder trust. Economically, findings reveal that FinTech adoption lowers operational costs due to the automation of data collection and analysis, leading to a better cost-to-income ratio and long-term profitability. Improved quality of reporting also reduces information asymmetries and lowers perceived risk by investors, reducing the cost of capital. SDG alignment strategically enhances long-term value creation by appealing to socially responsible investors and clients, cultivating public trust, and aligning banks with global sustainability standards. These elements give Jordanian bank leaders a unique position in responsible banking and improve their competitiveness in an increasingly digital and sustainable market.

This study offers practical implications for policymakers and regulators. By encouraging even more expansive use of digital technology and embedding sustainability themes, progress can be faster, leading Jordanian banks to dynamic development in the direction of more effective and transparent financial reporting. Special tax incentives could accelerate digital transformation and sustainability initiatives, enabling banks to achieve stakeholder expectations while sustaining competitiveness in the economic ecosystem. Regulatory authorities must double down on the need for oversight and facilitation of SDG implementation, enhancing the integration of sustainability objectives into companies' FRQ. The results open several directions for future research. With Jordanian banks eager to invest in digital infrastructure, future studies may examine the long-term implications of technology like artificial intelligence, machine learning, and blockchain on financial reporting quality. In addition, further research questions regarding SDG alignment's utility in guiding non-financial reporting and its effect on corporate reputation and stakeholder trust are warranted. A holistic approach toward cross-country comparison of emerging markets could also provide a more generalizable perspective on understanding the interrelationship between FinTech adoption, sustainability, and financial reporting.

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