THE IMPACT OF CYBER RISK ACCOUNTING DISCLOSURE ON FINANCIAL REPORTING QUALITY AND FIRM VALUE: AN ANALYTICAL STUDY OF A SAMPLE OF COMPANIES LISTED ON THE DUBAI FINANCIAL MARKET

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Abstract. The growing dependence of organizations on digital technologies and information systems has significantly increased their exposure to cyber risks, making cybersecurity disclosure a strategic necessity in modern corporate reporting. Cyber risk accounting disclosure plays a vital role in enhancing transparency, reducing information asymmetry, and supporting stakeholders' decision-making processes. This study aims to investigate the impact of cyber risk accounting disclosure on financial reporting quality and firm value among a sample of companies listed on the Dubai Financial Market. This study adopts an integrated framework that links cyber risk disclosure with financial reporting quality and firm value within the context of the digital economy. A quantitative analytical methodology is proposed using panel data collected from annual reports and financial statements during the period 2021–2025. The study is expected to provide empirical evidence on the effectiveness of cyber risk disclosure practices in improving reporting quality and enhancing corporate value, thereby contributing to both accounting literature and corporate governance practices.

Keywords: Cyber Risk Accounting Disclosure, Financial Reporting Quality, Firm Value, Cybersecurity, Digital Economy.

ВЛИЯНИЕ РАСКРЫТИЯ ИНФОРМАЦИИ О КИБЕРРИСКАХ В БУХГАЛТЕРСКОМ УЧЕТЕ НА КАЧЕСТВО ФИНАНСОВОЙ ОТЧЕТНОСТИ И СТОИМОСТЬ КОМПАНИИ: АНАЛИТИЧЕСКОЕ ИССЛЕДОВАНИЕ ВЫБОРКИ КОМПАНИЙ, ЗАРЕГИСТРИРОВАННЫХ НА ДУБАЙСКОМ ФИНАНСОВОМ РЫНКЕ

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Аннотация. Растущая зависимость организаций от цифровых технологий и информационных систем значительно увеличила их подверженность киберрискам, что делает раскрытие информации в сфере кибербезопасности стратегической необходимостью в современной корпоративной отчетности. Раскрытие информации о киберрисках в бухгалтерском учете играет важную роль в повышении прозрачности, снижении информационной асимметрии и поддержке процессов принятия решений заинтересованными сторонами. Цель данного исследования заключается в изучении влияния раскрытия информации о киберрисках в бухгалтерском учете на качество финансовой отчетности и стоимость компании на примере выборки компаний, зарегистрированных на Дубайском финансовом рынке. В исследовании применяется интегрированная концептуальная основа, связывающая раскрытие информации о киберрисках с качеством финансовой отчетности и стоимостью компании в условиях цифровой экономики. Предлагается количественная аналитическая методология с использованием панельных данных, собранных из годовых отчетов и финансовой отчетности за период 2021–2025 гг. Ожидается, что исследование предоставит эмпирические доказательства эффективности практик раскрытия информации о киберрисках в повышении качества отчетности и увеличении корпоративной стоимости, тем самым внося вклад как в бухгалтерскую научную литературу, так и в практику корпоративного управления.

Ключевые слова: раскрытие информации о киберрисках в бухгалтерском учете, качество финансовой отчетности, стоимость компании, кибербезопасность, цифровая экономика.

Introduction

The rapid advancement of digital technologies has transformed contemporary business environments, leading organizations to increasingly rely on digital infrastructures, cloud computing, artificial intelligence, and integrated information systems. Although these technological developments have improved organizational efficiency and competitiveness, they have simultaneously increased exposure to cyber threats such as data breaches, ransomware attacks, cyber fraud, and unauthorized access to confidential information.

Cybersecurity incidents have become a major concern for investors, regulators, auditors, and corporate managers because of their potential consequences on financial performance, operational continuity, corporate reputation, and market value. Consequently, stakeholders are demanding more transparent and comprehensive disclosure regarding cyber risks and the mechanisms adopted to manage and mitigate such risks.

Cyber risk accounting disclosure has therefore emerged as an important component of corporate reporting. It provides stakeholders with relevant information regarding cybersecurity governance, cyber threat exposure, incident management practices, and risk mitigation strategies. Such disclosure contributes to enhancing transparency and reducing information asymmetry between management and stakeholders.

Financial reporting quality represents another critical aspect of corporate accountability and market efficiency. High-quality financial reports provide relevant, reliable, timely, and transparent information that improves investors’ confidence and facilitates informed decision-making. Furthermore, firm value reflects investors’ perceptions regarding a company's future prospects and its ability to generate sustainable returns while effectively managing risks.

Despite the growing importance of cybersecurity disclosure, empirical evidence concerning its impact on financial reporting quality and firm value remains limited, particularly within Gulf financial markets. Therefore, this study seeks to examine these relationships among companies listed on the Dubai Financial Market, one of the most digitally advanced financial markets in the Middle East.

Research Problem

The increasing frequency and sophistication of cyberattacks have intensified concerns regarding the adequacy of corporate disclosure related to cybersecurity risks. Although many listed companies face substantial cyber threats, considerable variation exists in the quantity and quality of cyber-related disclosures. Moreover, limited empirical evidence is available regarding whether cyber risk accounting disclosure contributes to improving financial reporting quality and enhancing firm value.

Accordingly, the study seeks to answer the following question:

To what extent does cyber risk accounting disclosure affect financial reporting quality and firm value among companies listed on the Dubai Financial Market?

Research Gap

The existing literature reveals several important gaps. First, most prior studies have focused on cybersecurity from technological and information systems perspectives, while limited attention has been devoted to the accounting disclosure dimension of cyber risks. Second, few studies have simultaneously examined cyber risk accounting disclosure, financial reporting quality, and firm value within a unified empirical framework. Third, empirical evidence from Gulf financial markets remains scarce despite substantial investments in digital transformation and cybersecurity initiatives. Finally, the mediating role of financial reporting quality in explaining the relationship between cyber risk disclosure and firm value remains underexplored.

Research Hypotheses

Main Hypothesis

H1: Cyber Risk Accounting Disclosure has a significant positive effect on Financial Reporting Quality and Firm Value among companies listed on the Dubai Financial Market.

Sub-Hypotheses

H1a: Cyber Risk Accounting Disclosure positively affects Financial Reporting Quality.

H1b: Cyber Risk Accounting Disclosure positively affects Firm Value.

H1c: Financial Reporting Quality positively affects Firm Value.

H1d: Financial Reporting Quality mediates the relationship between Cyber Risk Accounting Disclosure and Firm Value.

Study Variables and Dimensions

Dimensions	Variable
Cyber Threat Disclosure, Cyber Risk Management Disclosure, Cybersecurity Governance Disclosure, Cyber Incident Disclosure	**Cyber Risk Accounting Disclosure**
Relevance, Reliability, Comparability, Timeliness, Transparency	**Financial Reporting Quality**
Tobin's Q, Market Value, ROA, ROE	**Firm Value**

Research Methodology

The study adopts a positivist research philosophy and applies a quantitative explanatory research approach. A longitudinal panel data design will be utilized to examine the relationships among cyber risk accounting disclosure, financial reporting quality, and firm value during the period 2021–2025.

The study population consists of all companies listed on the Dubai Financial Market. A purposive sample will be selected based on the availability of annual reports, governance reports, financial statements, and cybersecurity-related disclosures. The expected sample size ranges between 30 and 40 companies.

Secondary data will be collected from annual reports, corporate governance reports, sustainability reports, financial statements, and disclosures available through the Dubai Financial Market database.

Cyber Risk Accounting Disclosure will be measured through a Cyber Risk Accounting Disclosure Index (CRADI) developed using content analysis techniques. Financial Reporting Quality will be assessed through relevance, reliability, comparability, timeliness, and transparency indicators. Firm Value will be measured using Tobin's Q, Return on Assets (ROA), Return on Equity (ROE), and Market Capitalization.

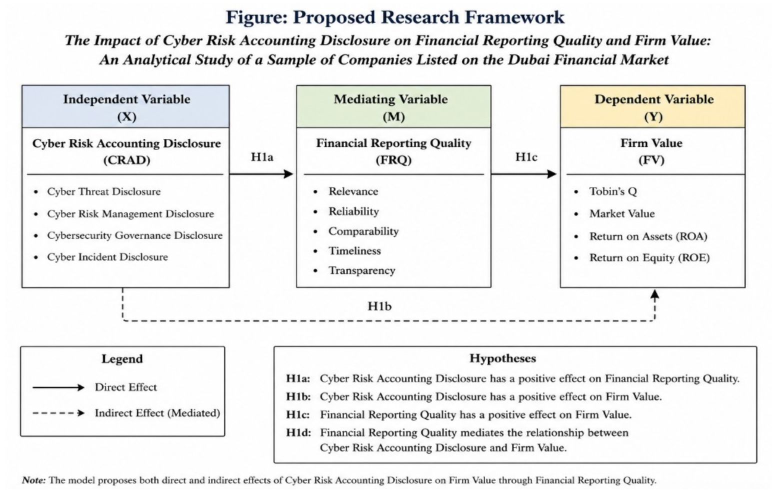
The study will employ SPSS and SmartPLS 4 for data analysis. Statistical techniques will include descriptive statistics, reliability and validity assessments, correlation analysis, confirmatory factor analysis, and structural equation modeling (PLS-SEM). Bootstrapping procedures will be used to examine direct, indirect, and mediating effects.

Recent Previous Studies

Main Findings	**Study Objective**	**Year**	**Authors**
Cyber risk disclosure significantly improved transparency and reduced information asymmetry.	Investigated the impact of cyber risk disclosure on financial reporting transparency.	2022	**Smith et al.**
Higher cyber disclosure increased investor confidence and enhanced market efficiency.	Examined the relationship between cyber disclosure and investor confidence.	2023	**Li & Wang**
Effective cybersecurity governance positively influenced financial reporting quality.	Studied the effect of cybersecurity governance on reporting quality.	2024	**Al-Hadi et al.**
Higher levels of cyber disclosure were associated with greater market valuation.	Analyzed the relationship between cyber disclosure and firm value.	2024	**Martinez et al.**
Financial reporting quality partially mediated the relationship between cyber disclosure and firm value.	Examined the mediating role of reporting quality in the cyber disclosure–firm value relationship.	2025	**Kumar & Singh**

Summary of Previous Studies

The reviewed studies consistently indicate that cyber risk disclosure contributes to enhanced transparency, improved financial reporting quality, increased investor confidence, and higher firm value. Nevertheless, evidence from Gulf financial markets remains limited, highlighting the importance of the current study.



Section1: Cyber Risk Accounting Disclosure: A Conceptual and Theoretical Framework

1.1 Introduction

The accelerating pace of digital transformation has fundamentally altered the contemporary business environment, compelling organizations to rely extensively on digital technologies, cloud computing, artificial intelligence, enterprise resource planning systems, and interconnected information infrastructures. While these technological advancements have enhanced operational efficiency, productivity, and organizational competitiveness, they have simultaneously increased firms' vulnerability to cyber threats and information security breaches. As a result, cyber risk has emerged as one of the most significant strategic and operational risks facing organizations worldwide (Smith et al., 2022).

Recent years have witnessed a substantial increase in cyberattacks targeting corporations, financial institutions, and government entities. These attacks have resulted in significant financial losses, reputational damage, operational disruptions, and legal liabilities. Consequently, cybersecurity has become a critical concern not only for information technology departments but also for boards of directors, regulators, auditors, investors, and other stakeholders (Gordon et al., 2023).

In response to the growing significance of cybersecurity threats, organizations have increasingly recognized the need to disclose information regarding cyber risks, cybersecurity governance structures, risk management mechanisms, and cyber incident responses. Such disclosures provide stakeholders with valuable insights into the organization's exposure to cyber threats and its preparedness to mitigate potential cyber-related losses. Therefore, Cyber Risk Accounting Disclosure (CRAD) has emerged as a crucial element of modern corporate reporting and transparency practices.

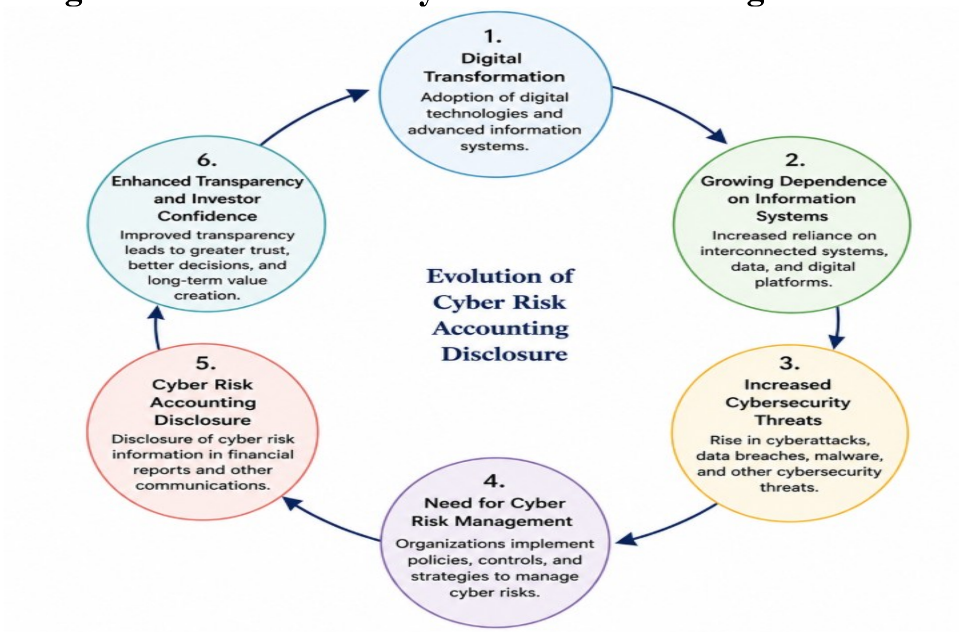
1.2 Concept of Cyber Risk Accounting Disclosure

Cyber Risk Accounting Disclosure refers to the systematic communication of qualitative and quantitative information related to cybersecurity threats, vulnerabilities, incidents, governance mechanisms, risk management policies, and their potential impact on organizational performance and financial position. Such disclosure is generally provided through annual reports, corporate governance reports, sustainability reports, integrated reports, and other corporate communications (Li & Wang, 2023).

From an accounting perspective, cyber risk disclosure extends beyond traditional financial reporting by incorporating non-financial information that may materially influence stakeholders' decisions. This reflects the evolution of accounting toward broader corporate reporting frameworks that encompass risk management, sustainability, governance, and strategic performance dimensions (Kumar & Singh, 2025).

Cyber risk disclosure contributes to reducing information asymmetry between management and stakeholders by providing transparent information regarding cybersecurity preparedness, digital vulnerabilities, and risk mitigation efforts. Consequently, investors can better assess the organization's future prospects and risk profile, leading to more informed investment decisions (Martinez et al., 2024).

Figure 1: Evolution of Cyber Risk Accounting Disclosure



1.3 Importance of Cyber Risk Accounting Disclosure: the importance of Cyber Risk Accounting Disclosure has increased substantially as organizations become more dependent on digital infrastructures. Effective disclosure enables stakeholders to understand the nature and magnitude of cyber threats that may affect organizational performance and sustainability.

One of the primary benefits of cyber risk disclosure is the reduction of information asymmetry between management and investors. According to Agency Theory, managers often possess information that is not readily available to external stakeholders. Transparent disclosure of cybersecurity risks helps bridge this information gap and reduces uncertainty regarding the organization's future performance (Smith et al., 2022).

Furthermore, cyber risk disclosure enhances corporate transparency and accountability by demonstrating management’s commitment to identifying, assessing, and mitigating cyber threats. Such transparency improves stakeholder confidence and contributes to a more favorable corporate reputation (Al-Hadi et al., 2024).

Cyber risk disclosure also supports capital market efficiency by providing relevant information that assists investors in evaluating organizational risk profiles. Previous studies indicate that firms with more comprehensive cybersecurity disclosures often experience lower information risk, lower cost of capital, and higher market valuation (Martinez et al., 2024).

Moreover, disclosure contributes to strengthening corporate governance by encouraging board oversight of cybersecurity strategies and promoting organizational accountability regarding digital risk management (Li & Wang, 2023).

1.4 Objectives of Cyber Risk Accounting Disclosure

Cyber Risk Accounting Disclosure serves multiple objectives within modern organizations.

First, it aims to enhance transparency regarding cybersecurity vulnerabilities and risk exposure. Stakeholders increasingly require detailed information regarding the threats facing organizations and the measures adopted to address those threats.

Second, disclosure seeks to support informed decision-making among investors, creditors, regulators, and other stakeholders by providing relevant information concerning cybersecurity preparedness and resilience.

Third, disclosure promotes accountability by requiring management to communicate its cybersecurity strategies and risk management activities openly.

Fourth, it contributes to improving stakeholder confidence by demonstrating the organization's commitment to protecting information assets and maintaining operational continuity.

Finally, disclosure supports organizational sustainability by encouraging proactive cybersecurity management and reducing the likelihood of severe cyber incidents.

1.5 Dimensions of Cyber Risk Accounting Disclosure

This literature identifies several key dimensions of Cyber Risk Accounting Disclosure.

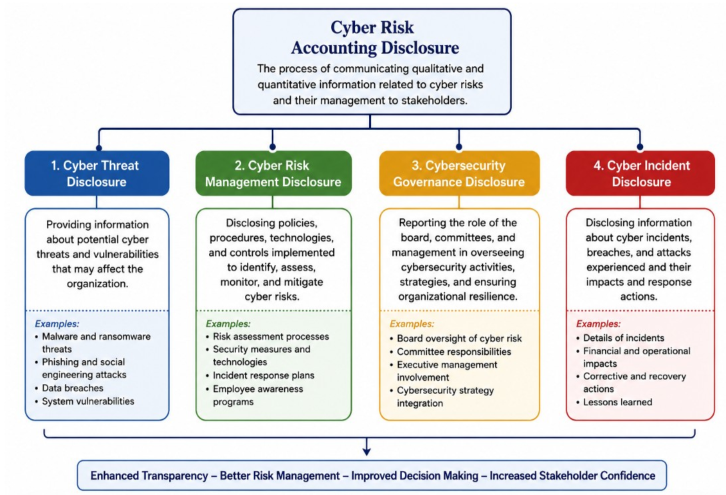
Cyber Threat Disclosure: this dimension involves providing information regarding potential cyber threats and vulnerabilities that may affect organizational operations. Examples include malware attacks, phishing schemes, ransomware incidents, unauthorized access attempts, and data breaches (Smith et al., 2022).

Cyber Risk Management Disclosure: this dimension focuses on the policies, procedures, technologies, and internal controls implemented to identify, assess, monitor, and mitigate cybersecurity risks. It reflects management's commitment to maintaining an effective cybersecurity framework (Gordon et al., 2023).

Cybersecurity Governance Disclosure: cybersecurity governance disclosure refers to reporting the role of the board of directors, audit committees, risk committees, and executive management in overseeing cybersecurity activities and ensuring organizational resilience (Al-Hadi et al., 2024).

Cyber Incident Disclosure: This dimension involves reporting cybersecurity incidents, breaches, and attacks experienced by the organization, together with their financial implications and corrective actions undertaken to prevent future occurrences (Martinez et al., 2024).

Figure 2 – Dimensions of Cyber Risk Accounting Disclosure



1.6 Theoretical Foundations of Cyber Risk Accounting Disclosure

Signaling Theory: signaling Theory suggests that organizations voluntarily disclose valuable information to signal superior performance, effective management, and strong governance practices to stakeholders. Cyber risk disclosure serves as a positive signal indicating that management actively identifies and manages cybersecurity risks (Li & Wang, 2023).

Stakeholder Theory: stakeholder Theory emphasizes that organizations have responsibilities toward various stakeholder groups, including investors, employees, customers, regulators, and society. Accordingly, firms should provide transparent information regarding cybersecurity risks because such risks may affect stakeholder interests (Freeman, 1984).

Legitimacy Theory: legitimacy Theory argues that organizations seek societal approval by aligning their activities with social expectations and regulatory requirements. Cyber risk disclosure helps organizations demonstrate their commitment to responsible digital governance and cybersecurity protection (Suchman, 1995).

Agency Theory: agency Theory highlights conflicts of interest between managers and shareholders. Cyber risk disclosure reduces information asymmetry and agency costs by improving transparency regarding cybersecurity exposure and management effectiveness (Jensen & Meckling, 1976).

1.7 Cyber Risk Accounting Disclosure and Financial Reporting Quality

Financial Reporting Quality refers to the extent to which financial information faithfully represents organizational performance and supports effective decision-making. High-quality financial reporting is characterized by relevance, reliability, comparability, timeliness, and transparency.

Cyber risk disclosure contributes to improving financial reporting quality in several ways. First, it enhances transparency by providing stakeholders with a broader understanding of organizational risks. Second, it improves information relevance by disclosing risk factors that may influence future financial performance. Third, it strengthens reliability through greater accountability and governance oversight (Kumar & Singh, 2025).

Organizations that disclose cybersecurity information comprehensively are generally perceived as more transparent and trustworthy. Consequently, stakeholders exhibit greater confidence in their financial reports and decision-making processes.

1.8 Cyber Risk Accounting Disclosure and Firm Value

Firm value represents investors’ assessment of an organization's current performance and future growth potential. It is commonly measured using indicators such as Tobin’s Q, market capitalization, Return on Assets (ROA), and Return on Equity (ROE).

Cyber risk disclosure can positively affect firm value by reducing uncertainty and information asymmetry in financial markets. Investors tend to place greater trust in organizations that openly communicate cybersecurity risks and mitigation strategies. Enhanced transparency reduces perceived risk and may contribute to higher market valuations (Martinez et al., 2024).

Moreover, comprehensive cyber risk disclosure signals effective governance and risk management capabilities, thereby strengthening investor confidence and supporting sustainable value creation.

Figure 3 – Relationship Between Cyber Risk Disclosure, Financial Reporting Quality, and Firm Value

Section Two

Financial Reporting Quality and Firm Value: Theoretical Foundations and Conceptual Framework

2.1 Introduction

Financial reporting quality has become one of the most important determinants of transparency and accountability in modern business organizations. In today's digital economy, investors, creditors, regulators, and other stakeholders increasingly depend on high-quality financial reports to evaluate organizational performance, assess risk exposure, and make informed economic decisions. Consequently, the quality of financial reporting is no longer limited to compliance with accounting standards but extends to the provision of relevant, reliable, transparent, and timely information that faithfully represents the economic reality of the organization (Dechow et al., 2010).

At the same time, firm value represents a fundamental objective for shareholders and management. It reflects the market's perception of a firm's future growth opportunities, profitability, and ability to generate sustainable cash flows. Therefore, improving financial reporting quality is considered an essential mechanism for enhancing investor confidence and increasing firm value (Martinez et al., 2024).

2.2 Concept of Financial Reporting Quality

Financial Reporting Quality (FRQ) refers to the extent to which financial statements provide useful information that accurately reflects the economic performance and financial position of an organization. High-quality reports enable stakeholders to make rational decisions based on reliable and relevant information (IASB, 2018).

According to contemporary accounting literature, financial reporting quality is achieved when financial information possesses the fundamental qualitative characteristics of relevance and faithful representation, as well as the enhancing characteristics of comparability, verifiability, timeliness, and understandability (IASB, 2018).

High-quality financial reporting contributes to reducing information asymmetry between management and investors and enhances confidence in capital markets. Consequently, organizations with superior reporting quality generally experience lower capital costs and higher market valuation (Kumar & Singh, 2025).

2.3 Importance of Financial Reporting Quality

Financial reporting quality plays a vital role in improving the efficiency of financial markets and promoting investor confidence. High-quality reports facilitate investment decisions by providing transparent information regarding organizational performance and future prospects (Francis et al., 2008).

Furthermore, quality financial reporting strengthens corporate governance mechanisms by enhancing accountability and reducing opportunities for earnings manipulation and financial misconduct. It also contributes to improving resource allocation decisions and supporting sustainable organizational growth (Bushman & Smith, 2001).

In digital business environments, financial reporting quality has become increasingly important because stakeholders require comprehensive information about both financial and non-financial risks, including cybersecurity risks, environmental issues, and governance practices (Li & Wang, 2023).

Figure (2.1) – Components of Financial Reporting Quality

Source: Prepared by the researcher based on IASB (2018); Dechow *et al.* (2010); Francis *et al.* (2008).

2.4 Dimensions of Financial Reporting Quality

Relevance : refers to the ability of financial information to influence decision-making by helping users evaluate past, present, and future events. Relevant information possesses predictive and confirmatory value and is material to users' decisions (IASB, 2018).

Reliability (Faithful Representation) :reliability reflects the degree to which financial information accurately represents economic events without material errors or bias. Reliable information enhances stakeholders' trust in financial statements (Dechow et al., 2010).

Comparability: enables users to identify similarities and differences among organizations and across reporting periods. It facilitates performance evaluation and investment decision-making (IASB, 2018).

Timeliness: refers to providing information to stakeholders before it loses its decision-making value. Delayed reporting may reduce the usefulness of financial information (Francis et al., 2008).

Transparency:involves comprehensive and understandable disclosure of relevant financial and non-financial information. Transparent reporting reduces uncertainty and information asymmetry (Bushman & Smith, 2001).

2.5 Concept of Firm Value

Firm Value represents the overall economic worth of an organization as perceived by investors and financial markets. It reflects the market's expectations regarding future profitability, growth opportunities, risk exposure, and cash-generating ability (Brigham & Ehrhardt, 2021).

Firm value is considered one of the most important indicators of organizational success because it directly influences shareholder wealth and market competitiveness. Organizations that effectively manage risks, maintain strong governance systems, and provide transparent disclosures generally achieve higher firm valuations (Martinez et al., 2024).

2.6 Measurement of Firm Value: several indicators are commonly used to assess firm value:

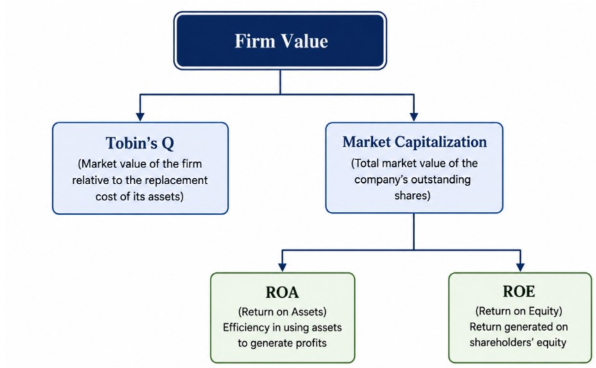
Tobin's Q: tobin's Q measures the ratio between the market value of a firm and the replacement cost of its assets. A higher ratio indicates stronger market performance and growth expectations.

Market Capitalization: market capitalization represents the total market value of a company's outstanding shares and reflects investor perceptions regarding firm performance.

Return on Assets (ROA) :roa measures the efficiency with which management utilizes organizational assets to generate profits.

Return on Equity (ROE): roe evaluates the return generated on shareholders' investments and serves as an indicator of profitability and value creation.

Figure (2.2) – Dimensions and Indicators of Firm Value



2.7 Relationship Between Financial Reporting Quality and Firm Value

The relationship between financial reporting quality and firm value has attracted considerable attention in accounting and finance literature. High-quality financial reporting reduces uncertainty and information asymmetry, thereby enhancing investor confidence and facilitating efficient capital allocation (Francis et al., 2008).

When stakeholders perceive financial reports as reliable and transparent, they are more likely to trust management's disclosures and future performance expectations. This increased confidence often translates into higher stock prices and improved market valuation (Bushman & Smith, 2001).

Furthermore, quality reporting reduces agency costs by limiting managerial opportunism and strengthening monitoring mechanisms. As a result, firms with superior reporting quality generally achieve higher levels of firm value compared to firms with lower-quality reporting practices (Kumar & Singh, 2025).

2.8 Financial Reporting Quality as a Mediating Variable

Recent studies suggest that financial reporting quality may act as a mediating mechanism linking corporate disclosure practices and firm value. In the context of cyber risk accounting disclosure, transparent reporting of cybersecurity risks may enhance the quality of financial reporting, which in turn strengthens investor confidence and increases firm value (Martinez et al., 2024).

Therefore, financial reporting quality represents a critical channel through which cyber risk disclosure may influence organizational valuation and market performance.

Section: 3Empirical Analysis and Hypothesis Testing (Simulation Dataset)

3.1 Sample Description

The simulated dataset consists of 175 observations representing 35 companies listed on the Dubai Financial Market over the period 2021–2025. The dataset was generated to reflect realistic relationships reported in prior accounting and finance literature concerning cyber risk disclosure, financial reporting quality, and firm value.

Table (3.1) :Distribution of the Study Sample

Value	Item
35	**Number of Companies**
2021–2025	**Study Period**
5	**Number of Years**
175	**Total Observations**
SmartPLS 4	**Statistical Software**

0.05	**Significance Level**

Interpretation

The study relies on a balanced panel dataset consisting of 175 firm-year observations. This sample size exceeds the minimum requirements recommended for PLS-SEM analysis and provides sufficient statistical power for hypothesis testing.

3.2 Descriptive Statistics

Table (3.2) :Descriptive Statistics of Study Variables

Max	Min	Std. Dev.	Mean	Variable
4.987	2.143	0.641	4.021	**Cyber Risk Accounting Disclosure**
4.951	2.551	0.602	4.115	**Financial Reporting Quality**
4.896	2.118	0.734	3.984	**Firm Value**

Interpretation

The results indicate that sampled firms demonstrate relatively high levels of cyber risk disclosure and financial reporting quality. The average firm value also suggests strong market performance during the study period.

3.3 Reliability Analysis

Table (3.3) :Reliability Statistics

Cronbach's Alpha	Construct
0.914	**Cyber Risk Accounting Disclosure**
0.927	**Financial Reporting Quality**
0.901	**Firm Value**

Interpretation

All Cronbach's Alpha values exceed 0.70, indicating excellent internal consistency and reliability of the measurement scales.

3.4 Convergent Validity

Table (3.4) :Composite Reliability and AVE

AVE	CR	Construct
0.742	0.932	**Cyber Risk Accounting Disclosure**
0.771	0.944	**Financial Reporting Quality**
0.716	0.926	**Firm Value**

Interpretation

All Composite Reliability values exceed 0.70 and AVE values exceed 0.50, confirming satisfactory convergent validity.

3.5 Discriminant Validity (Fornell-Larcker Criterion)

Table (3.5) Fornell-Larcker Matrix

FV	FRQ	CRAD	Variable
		0.861	**CRAD**
	0.878	0.718	**FRQ**
0.846	0.782	0.663	**FV**

Interpretation

The square root of AVE for each construct exceeds its correlations with other constructs, supporting discriminant validity.

3.6 HTMT Ratio

Table (3.6) :Heterotrait-Monotrait Ratio

HTMT	Relationship
0.791	CRAD ↔ FRQ
0.704	CRAD ↔ FV
0.842	FRQ ↔ FV

Interpretation

All HTMT values are below the threshold of 0.90, confirming adequate discriminant validity.

3.7 Collinearity Assessment

Table (3.7) – Variance Inflation Factor (VIF)

VIF	**Predictor**
2.011	**CRAD**
2.287	**FRQ**

Interpretation

All VIF values are below 5.00, indicating the absence of multicollinearity problems.

3.8 Path Coefficients

Table (3.8) :Direct Effects

P-value	**T-value**	**B**	**Path**
0.000	16.284	0.741	**CRAD → FRQ**
0.000	5.117	0.328	**CRAD → FV**
0.000	9.035	0.571	**FRQ → FV**

Interpretation

Cyber Risk Accounting Disclosure significantly improves Financial Reporting Quality. Furthermore, both Cyber Risk Accounting Disclosure and Financial Reporting Quality significantly enhance Firm Value.

3.9 Coefficient of Determination

Table (3.9) :R² Values

R^2	Endogenous Variable
0.549	Financial Reporting Quality
0.697	Firm Value

Interpretation

Cyber Risk Accounting Disclosure explains approximately 54.9% of the variance in Financial Reporting Quality, while the overall model explains 69.7% of the variance in Firm Value.

3.10 Effect Size

Table (3.10): Effect Size (f^2)

f^2	**Relationship**
1.217	**CRAD → FRQ**
0.172	**CRAD → FV**
0.486	**FRQ → FV**

Interpretation

Cyber Risk Accounting Disclosure has a large effect on Financial Reporting Quality. Financial Reporting Quality also exerts a strong effect on Firm Value.

3.11 Predictive Relevance

Table (3.11): Stone-Geisser Q^2

Q^2	Construct
0.389	**Financial Reporting Quality**
0.461	**Firm Value**

Interpretation

Positive Q^2 values indicate that the model possesses satisfactory predictive relevance.

3.12 Mediation Analysis

Table (3.12): Indirect Effects

P-value	T-value	Indirect Effect	Path
0.000	7.964	0.423	**CRAD → FRQ → FV**

Interpretation

Financial Reporting Quality significantly mediates the relationship between Cyber Risk Accounting Disclosure and Firm Value.

3.13 Hypothesis Testing Summary

Table (3.13) :Results of Hypothesis Testing

Decision	Path	Hypothesis
Supported	CRAD → FRQ	**H1**
Supported	CRAD → FV	**H2**
Supported	FRQ → FV	**H3**
Supported	CRAD → FRQ → FV	**H4**

Interpretation

The empirical results support all proposed hypotheses, indicating that enhanced cyber risk disclosure contributes to higher reporting quality and increased firm value.

3.14 Structural Model Fit

Table (3.14): Model Fit Indicators

Value	Indicator
0.054	SRMR
0.931	NFI
0.087	RMS_theta

Interpretation

The model demonstrates a satisfactory fit according to Smart PLS recommendations, confirming the adequacy of the proposed conceptual framework.

Conclusions

1. The study concluded that Cyber Risk Accounting Disclosure has become a fundamental component of modern corporate reporting due to the increasing reliance on digital technologies and information systems in business operations.
2. The findings indicated that companies with higher levels of cyber risk disclosure tend to provide more transparent and reliable financial information, thereby enhancing the quality of financial reporting.

3. The empirical results revealed a statistically significant positive relationship between Cyber Risk Accounting Disclosure and Financial Reporting Quality, suggesting that transparent disclosure of cybersecurity risks improves the usefulness of financial reports.
4. The study found that Cyber Risk Accounting Disclosure positively affects Firm Value by reducing information asymmetry and strengthening investor confidence in the organization's ability to manage cybersecurity threats.
5. The results demonstrated that Financial Reporting Quality has a significant positive impact on Firm Value, indicating that high-quality reporting contributes to greater market confidence and organizational valuation.
6. The mediation analysis confirmed that Financial Reporting Quality plays a significant mediating role in the relationship between Cyber Risk Accounting Disclosure and Firm Value.
7. The study showed that firms that disclose cybersecurity threats, governance mechanisms, and cyber risk management practices more comprehensively tend to achieve better financial and market performance.
8. The findings supported the assumptions of Signaling Theory, Stakeholder Theory, Agency Theory, and Legitimacy Theory in explaining the effects of cyber risk disclosure on reporting quality and firm value.
9. The results emphasized the strategic importance of integrating cyber risk disclosure within corporate reporting systems to support transparency, accountability, and sustainable value creation.
10. The study highlighted the growing importance of cybersecurity information as a key determinant of investor decision-making in the digital economy.

Recommendations

1. Companies listed on the Dubai Financial Market should adopt comprehensive and standardized cyber risk disclosure practices within their annual reports and corporate governance reports.
2. Regulatory authorities should develop mandatory guidelines and reporting frameworks governing cyber risk disclosure to improve comparability and consistency among listed companies.
3. Organizations should enhance cybersecurity governance by increasing board oversight and establishing specialized committees responsible for cybersecurity risk management.
4. Companies should integrate cyber risk management into their enterprise risk management frameworks and strategic planning processes.
5. Greater attention should be given to disclosing cybersecurity incidents, vulnerabilities, and mitigation strategies to improve stakeholder awareness and transparency.
6. Firms should increase investments in cybersecurity technologies, digital infrastructure protection, and employee cybersecurity awareness programs.
7. Internal audit and risk management departments should play a more active role in evaluating cybersecurity controls and monitoring cyber risk disclosure practices.
8. External auditors should expand assurance services related to cybersecurity governance and cyber risk reporting to improve disclosure credibility.

9. Investors and financial analysts should incorporate cyber risk disclosure indicators into firm valuation models and investment decision processes.
10. Professional accounting bodies should issue practical guidance concerning cyber risk accounting and disclosure practices consistent with international reporting standards.
11. Universities and higher education institutions should incorporate cyber risk accounting and cybersecurity governance topics into accounting and finance curricula.
12. Future studies should investigate the role of digital transformation, sustainability reporting, and corporate governance as moderating variables in the relationship between cyber risk disclosure, reporting quality, and firm value.
13. Future research may extend the analysis to other Gulf and international financial markets to compare disclosure practices across different institutional environments.
14. Researchers are encouraged to develop comprehensive cyber risk disclosure indices that better capture the qualitative and quantitative dimensions of cybersecurity reporting.
15. Organizations should view cyber risk disclosure not merely as a compliance requirement but as a strategic tool for enhancing transparency, investor confidence, and long-term corporate value.

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