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The Relationship Between Internal Auditors' Personality Traits, Internal Audit Effectiveness, and Financial Reporting Quality: Empirical Evidence from Jordan

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Abstract

This study examines the interaction between internal auditors' personality traits and the internal audit function effectiveness. It also investigates the effect of such interacted variables on financial reporting quality. This study employed a questionnaire survey to collect data from 193 internal auditors of Jordanian companies listed on the Amman Stock Exchange. The study model is validated and tested using the partial least squares structural equation modelling. The results reveal that all the examined personality traits of internal auditors significantly impact internal audit function effectiveness except for the extraversion trait. The results also show that personality traits have indirect effects on financial reporting quality via internal audit function effectiveness. These results suggest that internal auditors with high scores on openness to experience, emotional stability, and conscientiousness traits can be among the most significant contributors to the internal audit function effectiveness. The results also suggest that internal auditors' personality traits can be regarded as an internal audit function intangible resource that enhances effectiveness. The study's findings might be of interest to many different parties interested in enhancing internal audit function effectiveness and boosting the financial reporting quality, such as external and internal auditors, auditees, human resource departments, and Chief Internal Audit Executives.

Keywords: Personality Traits, Internal Audit Function Effectiveness, Internal Auditors, Financial Reporting Quality

JEL Classification Code: M42, M41, M40, M12, C12

1. Introduction

Financial reporting is the principal means to communicate companies' economic events to the interested parties, such as investors and creditors (Kieso, Weygandt, & Warfield, 2020; Roychowdhury, Shroff, & Verdi, 2019; Shakespeare, 2020). High-quality financial reporting enables interested parties to

accurately assess a company's performance and make wise decisions (Pavlopoulos, Magnis, & Iatridis, 2019). Hence, financial reporting quality is connected to the reported financial information usefulness (Nobes & Stadler, 2015). The International Accounting Standards Board (IASB) explains the qualitative characteristics that make financial information useful through its financial reporting framework (Barker, Penman, Linsmeier, & Cooper, 2020; Dennis, 2018). The IASB's conceptual framework for financial reporting shows that information to be useful must have the fundamental qualities (i.e. relevance and faithful representation). It also introduces the enhancing qualities (i.e. verifiability, timeliness, understandability, and comparability) that impact the financial information degree of usefulness (IASB, 2018). The world financial scandals of the early years of this century have put more pressure on companies to sustain robust control mechanisms that improve financial reporting quality and, therefore, meet the interested parties' expectations and needs (Camfferman & Wielhouwer, 2019; Morris, 2011). In this regard, corporate governance is an integrated system with the

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primary aim of ensuring financial reporting quality (Cohen, Krishnamoorthy, & Wright, 2002). It offers a systematic basis for helping stakeholders to exercise their rights, safeguard their interests, and minimise possible disputes between them and executives (Ingley & Van der Walt, 2004). The corporate governance structure consists of four main elements: management, external auditor, audit committee, and internal audit function (Bame-Aldred, Brandon, Messier, Rittenberg, & Stefaniak, 2013).

The internal audit function is a pillar in the corporate governance framework (Hazaea, Tabash, Khatib, Zhu, & Al-Kuhali, 2020; Onica, 2013). It has been regarded as an essential function that plays a pioneering role in the governance process (Vadasi, Bekiaris, & Andrikopoulos, 2019). Its role is to provide controlling and consulting services that help companies achieving their objectives (IIA, 2017). Internal audit function effectiveness is regarded as a valuable feature of modern governance system developments that have a pivotal role in determining the whole control system's added value (Bruwer, Smit, Roux, & Siwangaza, 2020). Corporate governance reforms in several countries put a growing emphasis on the effectiveness of internal audit function to boost the relevance and faithful representation of financial reporting (Kotb, Elbardan, & Halabi, 2020). There is evidence that effective internal audit function enhances the whole control climate and enhance financial reporting quality in terms of decreasing reporting errors, preventing financial reporting violations, and increase interested parties trust in the robustness of the firm controlling system and financial reporting fairness (Arel, Beaudoin, & Cianci, 2012; Eulerich & Eulerich, 2020; Holt & DeZoort, 2009).

The internal audit function's position in improving financial reporting can be tied to the assumption that improvements in legal and accounting systems' infrastructure are essential factors that improve financial reporting reliability in particular and governance processes (Al-Shetwi, Ramadili, Chowdury, & Sori, 2011). In Jordan's case, the corporate governance mechanisms, including internal audit practices, are among a set of regulations introduced in recent years to improve the capital market's performance (Rammadan, 2020). However, although the internal auditors aim to enhance the function's effectiveness by performing the tasks objectively and independently in compliance with professional standards, the effect of internal auditors' personality traits unquestionably exists and influences their judgments. It is commonly accepted that judgment output is affected by the information processor's personality and cognitive ability (Parks-Leduc, Feldman, & Bardi, 2015; Van Kuijck & Paresi, 2020). Therefore, the emphasis on the personality traits of internal auditors in the current study is not surprising.

In an endeavour to contribute to the literature, the current study employs the generally accepted Five-

Factor Model (also known as the Big Five) for classifying personality (Digman, 1990) to examine the influence of internal auditors' personality traits on the effectiveness of internal audit function and therefore on the quality of financial reporting. There are various reasons why the effectiveness of the internal audit function remains a topic of continuous importance. Firstly, the function of a company's internal audit is a cornerstone in corporate governance that improves the transparency of financial reporting, and expectations placed on internal audit have increased as it relied upon to make a significant contribution (Eulerich, Georgi, & Schmidt, 2020). Second, internal audit function effectiveness is a recent topic in emerging markets internal audit research (Ghaleb, Kamardin, & Al-Qadasi, 2020). Third, most of the studies that have researched internal audit function effectiveness worldwide have suggested that further analysis be conducted, particularly in developing countries (Abdolmohammadi, 2009; Alzeban, 2015; Endaya & Hanefah, 2016; Roussy, Barbe, & Raimbault, 2020). Fourth, there is still no consensus amongst scholars regarding the variables that affect the effectiveness or optimal framework for effective internal audit function that lead to high-quality financial reporting (Turetken, Jethefer, & Ozkan, 2019).

2. Literature Review and Hypotheses Development

2.1. Internal Audit Function Effectiveness and Financial Reporting Quality

The Institute of Internal Auditors (IIA) defined the internal audit function as "an independent, objective assurance and consulting activity designed to add value and improve an organisation's operations. It helps an organisation accomplish its objectives by bringing a systematic, disciplined approach to evaluate and improve the effectiveness of risk management, control, and governance processes" (IIA, 2017, p. 3). Internal audit function deals with matters of the utmost importance to the sustainability and success of companies; it spotlights beyond financial statements and risks to broader concerns, including, for example, the company's reputation, development, ecological consequences, and how it manages its employees (Erasmus & Coetzee, 2018; Abbott, Daugherty, Parker, & Peters, 2016). In short, internal auditors are a driver of success in companies as assurance and advisory mix achieve this. This mix includes informing management and governors of how well the company systems and procedures work. They then give recommendations to develop appropriate systems and procedures (Alzeban & Gwilliam, 2014; Dellai & Omri, 2016). Internal audit function effectiveness has gained increasing importance and kept a crucial subject

highly placed in the studies undertaken by academics and professional bodies (Turetken, Jethefer, & Ozkan, 2019). This increase is due to increased regulatory requirements and the centre of attention on governance and risk management (Dang, Jasovska, & Rammal, 2020). Effectiveness of the internal audit function refers to meeting the established objectives and the function's role in assisting other corporate governance parties in fulfilling their responsibilities successfully (Turetken, Jethefer, & Ozkan, 2019).

The current study examines the impact of internal audit function effectiveness on financial reporting quality. This impact can be connected to specific activities of the internal audit function. According to Abbott, Daugherty, Parker, and Peters (2016), at least four activities through which internal auditors can directly influence financial reporting quality: compliance auditing, assisting with the financial statement audit, financial statement audit of subsidiaries, and special consulting projects. Compliance audit can include examining transactions or journal entries for compliance with the organisation's financial reporting policy (Abbott, Daugherty, Parker, & Peters, 2016; Chen & Zhang, 2010). Special consulting projects may also include the internal auditors investigating into accounting affairs that involve more significant judgement on the side of the preparer, such as impairments of property, plant, and equipment, the fund to cover the anticipated risks of warranty claims, and reductions in inventory value (Abbott, Daugherty, Parker, & Peters, 2016; Čular, Slapničar, & Vuko, 2020).

The activities related to financial statement audit assistance and audits of subsidiaries include a review of the accounting books closing process, reviewing the process of recording nonrecurring or unusual transactions and post-closing adjustments, and reviews of issues related to critical accounts such as allowance for doubtful accounts estimation and inventory valuation (Abbott, Daugherty, Parker, & Peters, 2016). It has been argued that, in any of the tasks mentioned above, the internal audit function may confront problematic areas with high-level risk (Abbott, Daugherty, Parker, & Peters, 2016; Spira & Page, 2003). The IIA advocates that, as an assurance measurement of the quarterly financial reporting process, the internal audit function should review the reporting-related policies, processes, procedures, and disclosures. More specifically, one of the recommended actions that IIA offered to the internal audit function as a best practice regarding quarterly financial reports is to conduct "special or specifically targeted reviews of high-risk, complex, and problem areas; including material accounting estimates, reserve valuations, off-balance sheet activities, major subsidiaries, joint ventures, and special purpose entities" (IIA, 2005, p. 236). Accordingly, the current study expects an effective internal audit function to influence financial reporting quality and formulate the following hypothesis.

H1: Effectiveness of the internal audit function positively impact the quality of financial reporting.

2.2. Personality Traits Effect on Financial Reporting Quality

The related literature reported several factors affecting the effectiveness of the internal audit function. For instance, Mihret and Yismaw (2007) conducted a study to identify factors that impact internal audit function effectiveness. Their results show that internal audit effectiveness is strongly impacted by management support and internal audit quality. In contrast, organisational status and attributes do not substantially affect internal audit function effectiveness. Arena and Azzone (2009) used the application level of internal audit function recommendations by senior management to measure its effectiveness. Endaya and Hanefah (2013) suggested a model that includes internal auditor's objectivity, proficiency and due professional care, effective communication, and continuous training as factors that directly impact internal audit function effectiveness.

However, a recent study by Turetken, Jethefer, and Ozkan (2019) systematically reviewed the literature to identify related publications and gather and synthesise evidence on the factors that influence the internal audit function effectiveness. They categorise the factors influencing the effectiveness of the internal audit function into supply and demand categories. The supply category refers to the factors related to the internal auditors' self-assessment, whereas the demand category concerning factors tied to other stakeholders' perceptions, such as the audit committee. Their thorough analysis of the related research resulted in a comprehensive list of 20 influential factors on internal audit function effectiveness. Table 1 shows that 13 factors are in the supply category, and the remaining seven factors grouped in the demand category.

A very recent study conducted by Dinh, Pham, and Nguyen (2021) reported factors influencing Vietnamese steel companies' audit function effectiveness, such as function independence, scope, size, capacity, and operational standards. It can be seen that part of these factors is mentioned in the list of Turetken, Jethefer, and Ozkan (2019). Furthermore, the other recent studies' review revealed almost the same factors listed above (Abdullah & Mustafa, 2020; Gaosong & Leping, 2021; Mangasih, Pinasti, & Bawono, 2020; Roussy, Barbe, & Raimbault, 2020). However, the vast majority of the reviewed studies by Turetken, Jethefer, and Ozkan (2019) and the current study were based on the assumption that internal audit function's effectiveness exists when internal auditors process information objectively and independently. Smith (1999) suggests that it is impractical to only focus on objectivity and independence due to each person's unique approach in performing tasks, such as how a

Table 1: Factors (F1–F20) Influencing Internal Audit Function Effectiveness

Supply Category		Demand Category	
F1	Competence of the internal audit function	F14	Management support for the function
F2	Size of the internal audit function	F15	Interaction with external audit s
F3	Organisational setting	F16	Cooperation with the audit committee
F4	Scope limitation	F17	Information and communication
F5	Compliance with applicable standards	F18	Existence of a follow-up process
F6	Management training ground	F19	Supportive control environment
F7	Auditee attributes	F20	Cultural dimensions
F8	Internal audit function independence		
F9	Internal audit function objectivity		
F10	Conduct risk consulting		
F11	Outsourcing internal audit function		
F12	Quality of internal audit work		
F13	Chief audit executive's leadership style		

Source: Turetken, Jethefer, and Ozkan, (2019).

person investigates information, renders judgment, and report to the interested parties. Regardless of the internal auditors' intention to perform tasks objectively and independently following applicable professional standards, the effect of personality is unquestionably there and influences an internal auditor's judgment. Parks-Leduc, Feldman, and Bardi (2015, p. 3) defined personality traits as "descriptions of people in terms of relatively stable patterns of behaviour, thoughts, and emotions".

The Five-Factor Model is the world's most examined classification system of personality characteristics. Under this model, numerous traits are combined into five comprehensive characteristics: openness to experience, neuroticism, conscientiousness, extraversion, and agreeableness (Digman, 1990). Openness to experience characteristic involves four sub-characteristics 'innovation orientation', 'intellectual versus action orientation', 'self-reflection and openness to change' (Van Kuijck & Paresi, 2020). High scores on this dimension represent an innovative and creative person who can think outside the box. High scores also refer to a person open to new concepts, techniques, and processes. A person prefers, and is willing, to carry out logical and philosophical analyses to prepare for the future with an open mind to advice and criticism. There is evidence that openness to experience is positively associated with particular information exploration behaviour, such as in-depth investigation and comprehensive scanning (Heinström, 2005; McCrae, 1996; Van Kuijck & Paresi, 2020). An in-depth investigation of information is a significant and thorough manner of acquiring knowledge. This knowledge acquisition strategy is exceptionally

fundamental to internal auditors to be effective, whether they need to provide detailed reports or examine an issue's core (Turetken, Jethefer, & Ozkan, 2019).

Neuroticism characteristic (also called emotional stability) expresses sub-characteristics, including 'sensitivity', 'self-confidence' and 'stress sensitivity' and 'frustration resistance' (Van Kuijck & Paresi, 2020). Persons who score high on this trait can cope with difficulties and disturbing conditions very well because of their emotional stability (e.g. time constrain, criticism, conflicts). They can deal with challenges, ignore situations, and pursue solutions peacefully. They are also first-rate at handling obstacles and have superior mental elasticity (Parks-Leduc, Feldman, & Bardi, 2015; Van Kuijck & Paresi, 2020). Practically, an internal auditor faced ambiguity about many audit tasks due to the complexity of the tasks. The more complex the audit task, the higher the associated ambiguity (Bonner, 1994; Shahneaz, Amin, & Eni, 2020).

The intolerance of ambiguity is related to the emotional stability trait that arises from negative beliefs about ambiguity and its consequences (Rosen, Ivanova, & Knäuper, 2014). It can be argued that an internal auditor intolerance of ambiguity increases anxiety and stress, negatively influencing audit performance, impact the internal audit function effectiveness, and therefore the quality of financial reporting. 'Systematic approach', 'self-discipline', and 'motivation' are the sub-characteristics of conscientiousness characteristic (Van Kuijck & Paresi, 2020). Persons who score high on the conscientiousness trait are disciplined, well-organised and perform tasks systematically. They are strongly motivated

and have a clear emphasis on the objectives that need to be achieved (De Fruyt & Wille, 2013; Parks-Leduc, Feldman, & Bardi, 2015; Van Kuijck & Paresi, 2020).

The IIA, in its definition of the internal audit function, describes how the function assists a company to achieve its objectives. That is through bringing a ‘systematic’ and ‘disciplined approach’ (IIA, 2017). Thus, this trait enables the internal auditors of adding value to the company effectively, which would enhance the financial reporting quality. Extraversion trait includes ‘enthusiasm’, ‘sociability’, ‘energy’ and ‘assertiveness’ characteristics (Miralam, Ali, & Jeet, 2020; Van Kuijck & Paresi, 2020). Extravert persons are enthusiastic and sociable. They flourish in the social contexts, are accessible and access others without difficulty. They also search for publicity and continuously expanding their social capital. Finally, they are tactful and able to convince others of their ideas and put them forward (Parks-Leduc, Feldman, & Bardi, 2015; Van Kuijck & Paresi, 2020).

The internal auditors perform tasks in various phases of an audit requiring extravert persons, for instance, conducting interviews and presenting or defending reports (Lin, Lamond, Yang, & Hwang, 2014). Agreeability characteristic (also known as altruism) is predicted through ‘competitiveness’, ‘focusing on others’, ‘trusting others’, and ‘accommodating others’ (Van Kuijck & Paresi, 2020). Agreeable persons are rational and considerate of others. Their concentration is mostly on how other persons feel, and they alter their behaviour to accommodate others (Huynh, Nguyen, & Kieu, 2020). Perhaps these individuals are judged by peers to be emotionally immature. Persons with high agreeability scores typically evade disagreements and conflicts and often have trouble solving issues or bringing forward their views (Parks-Leduc, Feldman, & Bardi, 2015). However, previous studies indicated that agreeableness is not significantly associated with tasks performance. That is, agreeableness has a weak relationship with tasks performance effectiveness (Barrick, Mount, & Judge, 2001; Oreg & Sverdluk, 2014; Rothmann & Coetzer, 2003; Van Kuijck & Paresi, 2020). Therefore, the current study excludes the agreeability trait from the investigation and focus on the other four personality traits according to the above discussion to formulate the following hypotheses.

H2: Internal auditors’ personality traits represented by openness to experience (H2a), emotional stability (H2b), conscientiousness (H2c), and extraversion (H2d) positively influence the internal audit function effectiveness.

H3: Internal auditors’ personality traits represented by openness to experience (H3a), emotional stability (H3b), conscientiousness (H3c), and extraversion (H3d) positively influence the internal audit function effectiveness, which, in turn, will boost the financial reporting quality.

3. Research Methodology

3.1. Measures and Data Collection

The current study employs the Five-Factor Model to examine the internal auditors’ personality traits. The Personality for Professional Inventory (PFPI) validated measure (De Fruyt & Wille, 2013) is utilised following the methods used by Van Kuijck and Paresi (2020). The measurement items of the under investigation four personality traits are based on indicators of fourteen sub-traits. Internal audit function effectiveness is measured using self-assessment items from the IIA’s Global Internal Audit Survey (IIA, 2010). This survey was used in the 2010s most comprehensive global study on the profession conducted by the internal audit foundation’s common body of knowledge (CBOK). Lastly, financial reporting quality is assessed in terms of the qualitative characteristics of useful financial information. The Nijmegen Centre for Economics (Radboud University Nijmegen, Netherlands) validated measurement tool is used. Beest, Braam, and Boelens (2009) developed this measurement tool. Therefore, it has been slightly modified by the present study to accommodate the 2018 revision made to the Conceptual Framework for Financial Reporting. The measurement items for all of the study constructs are rated on the five-point Likert scale.

Three hundred fifty questionnaires were distributed to internal auditors of companies listed on the Amman Stock Exchange in Jordan. Two hundred two questionnaires were returned, and one hundred ninety-three of them were usable for analysis, representing a response rate of nearly 55%.

3.2. Analysis Method and Model Structure

The current study utilised partial least squares structural equation modelling (PLS-SEM) to analyse the data. The PLS-SEM method analyses the data through two phases. First, it assesses the measurement model to ensure its reliability and validity. Secondly, it evaluates the structural model (Hypotheses testing) (Hair, Hufit, Ringle, & Sarstedt, 2017). Figure 1 presents the measurement and structural specifications of the study model. All the constructs are measured by multiple items representing the measurement model. On the other hand, the structural model is formed by the paths representing the study hypotheses (see Figure 1). As stated earlier, the study hypotheses expect: (1) effectiveness of internal audit function to have an impact on financial reporting quality, (2) internal auditors’ personality traits will influence the internal audit function effectiveness, and (3) internal auditors’ personality traits to affect financial reporting quality via internal audit function effectiveness.

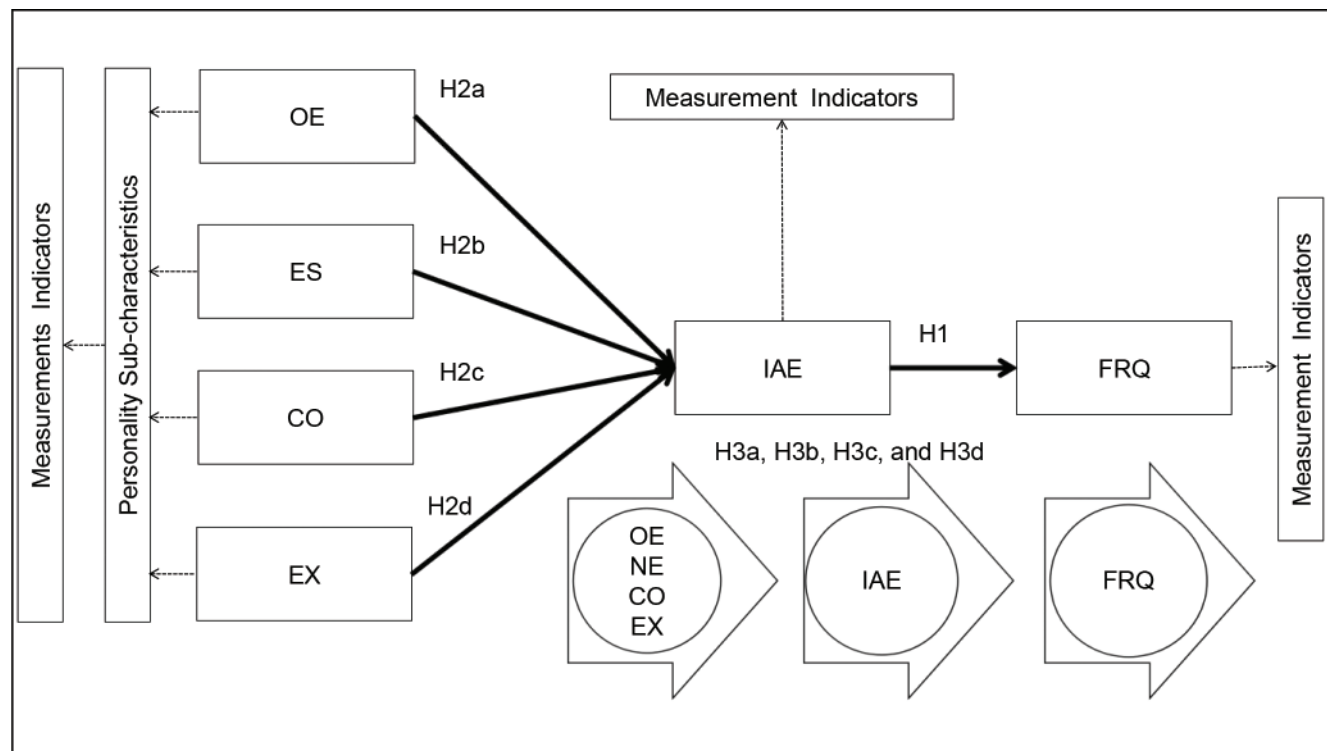


Figure 1: The Study Model

Note: OE: Openness to Experience; ES: Emotional Stability; CO: Conscientiousness; EX: Extraversion;
IAE: Internal Audit Function Effectiveness; FRQ: Financial Reporting Quality

4. Results

4.1. Measurement Model Reliability and Validity

Cronbach's Alpha criterion and Composite Reliability (CR) test are commonly used to evaluate constructs' internal consistency reliability (Albawwat & Al Frijat, 2021). Table 2 shows that composite reliability and Cronbach's alpha values for all constructs in the current study are above the acceptable value (i.e. 0.70) (Hair, Hufit, Ringle, & Sarstedt, 2017). These results imply that the internal consistency reliability of the study model is ensured. The validity, on the other hand, is assessed through convergent validity criteria. Convergent validity is ascertained when all measurement items of a construct are well representing that construct. As a guidepost provided by Esposito Vinzi, Chin, Henseler, and Wang (2010), each construct's AVE value should be above 0.5. Table 2 shows that all the current study constructs can explain more than 0.5 of the average variance in their measurement items. Further, the measurement items loadings on their constructs were inspected to ensure reliability at the item level. An item loading on its latent variable (construct) should be equal to or higher than 0.7 (Hair, Hufit, Ringle, & Sarstedt, 2017).

Table 2 demonstrates that item reliability has met for all constructs as their items loadings are above 0.7. Discriminant validity criterion (cross-loadings) was also utilised to confirm that each latent variable exclusively captures signals that are not represented by other latent variables in the model (Henseler, Ringle, & Sarstedt, 2015). Item loading on its latent variable should be higher than all its loadings on other latent variables, and loadings on non-related latent variables (i.e. cross-loading) should be lesser than 0.4 (Hair, Hufit, Ringle, & Sarstedt, 2017). In the present study, cross-loadings for each measurement item are lower than 0.4, thus, fulfilling the discriminant validity requirements. Besides, the variance inflation factor (VIF) criterion was employed to examine for collinearity between predictor latent variables. An acceptable value of VIF should fall within the range from 0.2 to 5.00 (Hair, Hufit, Ringle, & Sarstedt, 2017). The analysis results show that VIF values are within the acceptable range, and collinearity is not a problem in the current study.

4.2. Hypotheses Testing

The study relationships' nature and strength are evaluated based on the paths coefficients that range from -1 to $+1$ (path coefficient $< zero$ represents a negative relationship, while

Table 2: Measurement Model Reliability and Validity

Constructs and Items	Item Loading	Cronbach's Alpha	CR	AVE
Openness to Experience Trait (OE)		0.738	0.771	0.719
Innovation-orientation	0.841			
Intellectual versus action orientation	0.742			
Self-reflection	0.737			
Openness to change	0.896			
Emotional Stability Trait (ES)		0.746	0.748	0.653
Self-confidence	0.746			
Stress sensitivity	0.798			
Frustration resistance	0.837			
Conscientiousness (CO)		0.765	0.811	0.792
Systematic approach	0.862			
Self-discipline	0.860			
Motivation	0.853			
Extraversion (EX)		0.714	0.802	0.637
Enthusiasm	0.740			
Sociability	0.749			
Energy	0.755			
Assertiveness	0.781			
Internal Audit Function Effectiveness (IAE)		0.812	0.862	0.712
Value-added to company	0.768			
Compliance with professional standards and codes	0.702			
Independency	0.772			
Objectivity	0.860			
Organisational status	0.760			
Application of a systematic approach	0.710			
Financial Reporting Quality (FRQ)		0.733	0.868	0.751
Relevance	0.885			
Faithful representation	0.805			
Comparability	0.768			
Verifiability	0.843			
Timeliness	0.867			
Understandability	0.824			

a path coefficient > zero refers to a positive relationship). *T*-value associated with each path coefficient determines its significance. *T*-values higher than 1.65, 1.96, and 2.57 indicate a path significance at $P < 0.10$, 0.05, and 0.010, respectively (Hair, Hufit, Ringle, & Sarstedt, 2017; Esposito Vinzi, Chin, Henseler, & Wang, 2010). The structural model test results shown in Table 3 revealed that H1 is supported

by a path coefficient of 0.724 with a *t*-value of 15.720 that significant at $P < 0.010$. This result implies that internal audit function effectiveness positively influences financial reporting quality. Likewise, the analysis results support H2a, H2b, and H2c as their paths generate a coefficient of 0.702, 0.647, and 0.549 with *t*-values of 10.433, 13.256, and 12.326, respectively (All are significant at $P < 0.010$).

Table 3: Hypotheses Testing Results

Hypothesis	Path	Path Coefficient	T-Value	P-Value	H Supported?
H1	IAE → FRQ	0.724	15.720	0.000	Yes
H2a	OE → IAE	0.702	10.433	0.000	Yes
H2b	ES → IAE	0.647	13.256	0.000	Yes
H2c	CO → IAE	0.549	12.326	0.000	Yes
H2d	EX → IAE	0.196	1.737	0.183	No

Note: OE = Openness to Experience; ES = Emotional Stability; CO = Conscientiousness; EX = Extraversion; IAE = Internal Audit Function Effectiveness; FRQ = Financial Reporting Quality.

Table 4: Specific Indirect Effects

Hypothesis	Path	Path Coefficient	T-Value	P-Value	H Supported?
H3a	OE → IAE → FRQ	0.596	9.833	0.009	Yes
H3b	ES → IAE → FRQ	0.489	7.541	0.000	Yes
H3c	CO → IAE → FRQ	0.529	8.232	0.000	Yes
H3d	EX → IAE → FRQ	0.142	1.597	0.303	No

Note: OE = Openness to Experience; ES = Emotional Stability; CO = Conscientiousness; EX = Extraversion; IAE = Internal Audit Function Effectiveness; FRQ = Financial Reporting Quality.

The path representing H2d was not significant, so the current study's data do not support this hypothesis. These results indicate positive impacts of openness to experience, emotional stability, and conscientiousness personality traits on the internal audit function effectiveness.

Specific indirect effects values produced by PLS-SEM are used to evaluate each personality trait's effect on the financial reporting quality via internal audit function effectiveness. Table 4 shows that the specific indirect effects are significant for all personality traits except the extraversion trait. More specifically, H3a (OE → IAE → FRQ), H3b (ES → IAE → FRQ), and H3c (CO → IAE → FRQ) are supported, which signify positive influences of openness to experience, emotional stability, and conscientiousness personality traits through internal audit function effectiveness on financial reporting quality. Among the influential personality traits, openness to experience characteristic had the strongest effect on the financial reporting quality through a path coefficient of 0.596, followed by conscientiousness trait with a path coefficient of 0.529. The trait with the lowest significant effect on financial reporting quality via internal audit function effectiveness was the emotional stability trait (path coefficient = 0.489).

4.3. Model Predictive Power

R-squared values are used to evaluate the study model's in-sample predictive power. It also represents the

total variance in the endogenous variables that exogenous variables can explain. R-squared's value ranges between 0.00 and 1.00, in which a value closer to 1 indicates a higher level of predictive power (Esposito Vinzi, Chin, Henseler, & Wang, 2010). As a rule of thumb, Hair, Hufit, Ringle, and Sarstedt (2017) suggested that R-squared values of 0.75 and above, between 0.25 and 0.75, equal to or below 0.25 to be considered as strong, moderate, and weak predictive power, respectively. In the present study, R-squared's highest value was for internal audit function effectiveness (0.603), followed by the financial reporting quality (0.524). These results indicate a moderate in-sample predictive power of the study model.

5. Discussion and Conclusion

This study aimed to examine: (1) the influence of internal audit function effectiveness on financial reporting quality, (2) the impact of internal auditors' personality traits on internal audit function effectiveness, and (3) the effect of internal auditors' personality traits through internal audit function effectiveness on financial reporting. The present study incorporated the Five-Factor Model to classify the personality traits to achieve its goals. Openness to experience, emotional stability, conscientiousness, and extraversion traits are used to elicit the effect of internal auditors' personality characteristics on internal audit function effectiveness and, therefore, on financial reporting quality.

The results show that all the examined internal auditors' personality traits have a strong impact on internal audit function effectiveness except for the extraversion trait. The openness to experience trait had the strongest indirect effect among the influential personality traits on the financial reporting quality, followed by the emotional stability trait and the emotional stability conscientiousness trait. These results indicate that openness to experience internal auditor is the most significant contributor to the internal audit function effectiveness.

The results also indicate that openness to experience, conscientiousness, and emotional stability traits (respectively arranged in terms of the effect's strongness) have indirect effects on financial reporting quality via internal audit function effectiveness. These findings can be justified by openness to experience internal auditors' ability to solve emerging or dissimilar problems and sustain excellent general ideas about different circumstances. They can summarise, conceptual analyses, and try new methods to make plans that they intend to perform. This personality characteristic is essential to the internal audit function to enhance its effectiveness by ensuring that it surveys enough evidence to support its findings (Van Kuijk & Paresi, 2020). When inspecting the 'systematic approach and self-discipline sub-traits of conscientiousness, it can be suggested that the more predictable and well-organised internal auditors are better able to motivate themselves to complete their tasks and enhance the effectiveness of internal audit function, which in turn, will improve the financial reporting quality (Hazaea, Tabash, Khatib, Zhu, & Al-Kuhali, 2020). Also, this trait can be seen as an enabler of internal auditors to generate precise, clear, brief, comprehensive, and timely communications that will positively influence the message quality and the function's effectiveness, and therefore the financial reporting quality (Huynh, Nguyen, & Kieu, 2020).

On the other hand, the emotional stability trait enables internal auditors to be more self-confident, not swiftly frustrated with undesirable feedback, less anxious, to persuade others of the quality of the function message and evidence, and the know-how lessens stress when facing problems with a high audit workload (Oreg & Sverdlik, 2014). This suggests that being emotionally stable internal auditors may be predominantly essential for internal audit function effectiveness, leading to high-quality financial reporting. The results also show a positive influence of internal audit function effectiveness on financial reporting quality. The effectiveness drivers that influence the financial reporting quality were value-added to the company, compliance with professional standards and codes, independence, objectivity, organisational status, and the application of a systematic approach. These results agree with the IIA recommendations for internal audit functions to boost their effectiveness by complying with the IIA standard related to objectivity, proficiency and professional care.

The overall conclusion is that internal auditors' personality traits positively influence internal audit function effectiveness, which positively affects financial reporting quality. The current study results can be precious for auditees, recruiters, human resource departments, and Chief Internal Audit Executives when hiring new internal auditors to contribute to the internal audit function effectiveness. The present study results may be also valuable for the developmental purposes of existing internal auditors. For instance, the findings could help internal auditors to identify those personality characteristics that obstruct the advancement of the internal audit function effectiveness. This might enable internal auditors to determine the suitable development program that they should seek. For instance, internal auditors with low scores on emotional stability can benefit from mindfulness-training to better handle stress and anxiety. Moreover, the Chief Internal Audit Executives might also advantage from the knowledge related to internal auditors' personality profiles. For instance, these personality profiles can help the Chief Internal Audit Executives make proper practical decisions regarding which team member best assigns to a specific task.

Despite the contribution made by the current study, it has some limitations that could be avenues for future studies. The study model was tested based on 193 observations gathered from internal auditors of Jordanian companies listed on the Amman Stock Exchange. Consequently, future studies may examine the model further using samples from other countries with different regulations. Also, the study model focusses on personality traits and their influence on internal audit function effectiveness and financial reporting quality. Future research can extend the present model by incorporating other factors that could impact the current model variables.

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