Internal Auditing Effectiveness Success Model:  
A Study on Jordanian Industrial Firms

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Abstract

The main objective of this study is to look at the factors that impact internal auditor effectiveness in industrial firms particularly. Five hypotheses were formulated based on a comprehensive review of past literature. The data were gathered from three hundred and fifty (350) usable questionnaires which were distributed to selected internal auditors in Jordan’s industrial SMEs. The data obtained comprise numerous tests. These include factor analysis, discriminate validity and hypothesis testing. As the results demonstrate, the organizational variables significantly impacted the internal auditor in terms of effectiveness. The result of this study confirmed the prior IA effectiveness research, where this study found a strong relationship between (Internal Audit Quality, Competence of Internal Audit Team, Audit Committee, Top Management Support, and Independence of Internal Audit) and effectiveness of IA. This study is of value to the literature on the effectiveness of internal auditor within a fresh context; it also elucidates the factors that aid or avert the internal auditor’s effectiveness. Additionally, presenting the proposed theoretical framework, this study bridges the gap in literature. The framework evaluates the relationships between the factors within the organization in terms of internal auditor effectiveness. Thus, the study brings forth the factors impacting internal auditor effectiveness at large especially in Jordan. The study also opens avenues for upcoming studies to delve into the similar topic for more in-depth information both in the Arab nations and in other developing nations.

Key Words: Internal Auditing Effectiveness, Jordanian Industrial Firms.
1. Introduction

Internal auditing (IA) plays a significant role as a conduit between business and financial reporting in businesses and non-for-profit providers (Reynolds, 2000). Thus, internal auditors is crucial for any firm as it serves as a monitoring role in overseeing the risk profile of the firm and in determining the weaknesses and their resolution for enhanced risk management (Rae, Subramaniam, & Sands, 2008). Internal auditing is made of four key components: written records verification, policy analysis, procedures evaluation in terms of logic and completeness, internal services and staffing for assuring alignment with the policies of organization, and reporting recommendations for management improvement (Arulalan & Anojan, 2014; Cohen & Sayag, 2010). This subject is significant since internal auditor plays a crucial role to the economy that necessitates correct information (Ejoh & Ejom, 2014). In fact, Saidin (2013) reported the significant worth of IA for management in attaining effective control in organizations both public and private.

Control mechanisms in this paper means the established processes for monitoring and directing, promoting or limiting the number of business activities for assurance of the attainment of the objectives (Onyango, 2014). With IA, the weaknesses inside management operations and IA also makes available a platform to rectify the aforesaid weaknesses before it worsens or is discovered on the auditor’s report (Penini & Carmeli, 2010). Coram, Ferguson, and Moroney (2008) for instance, reported that organizations that possess internal audit function had greater capacity to detect and self-report fraud by way of assets’ misappropriation as opposed to those that had no such function; 324 Australian and New Zealand organizations were chosen by the authors in this study.

This study also looks into the effectiveness of IA as an integral notion often under-studied with in scientific literature. As stated by Barac and van Staden (2009), most of the aforesaid studies were focusing on the perceptions of the perceived internal audit quality and clarified corporate governance in terms of its soundness. A study by Awdat (2015) formulated and tested explanatory model that describes the impact of internal audit function. This model was developed to improve the commercial banks in Jordan in terms of their financial performance. Meanwhile, Al Sawalqa and Qtish (2012) examined the internal control and audit program effectiveness in Jordan.

The literature review clearly proves the lack of studies on the impacting factors of IA effectiveness in Middle East and North Africa countries (Al-Akra, Abdel-Qader, & Billah, 2016). Except, study by Alzeban and Gwilliam (2014), who assessed factors (competence and size of internal audit department, relationship between internal and external auditors, management support and independence of internal audit) influencing internal audit effectiveness in Saudi Arabia, where they found management support drives perceived
effectiveness of the internal audit function from both management's and the internal auditors’ perspective, greater competence of the staff related with high effectiveness, size of internal audit department related with high effectiveness, relationship between internal and external auditors and independence of internal audit also had a positive relation with effectiveness but not at the same level as for the other. Salehi (2016) study in Iran, who focused on determinants of internal audit effectiveness "competency of internal audit staff, size of internal audit department, communications between internal auditors and external auditors, management’s support for internal audit department, and independent (outsourced) internal audit", he found that internal audit effectiveness has stronger relationships with management’s support and the size of internal audit department. Aburabe (2015), found a direct relation effects of management support, organizational independence of internal auditors, competence of internal auditors and audit experience with the internal audit within the Libyan commercial banks. Tadiwos (2016), used a quantitative and qualitative methods found that independence of internal audit, competence of internal audit team, and management supports has a strong effect on the effectiveness of internal audit in Ethiopian commercial banks. Further, through this study, the gap in the literature on internal auditor effectiveness can be bridged using the theoretical framework proposed. In particular, the framework measures the association between the success factors and the internal auditor effectiveness. This framework what distinguishes this study from others particularly added internal audit quality as an independent variable.

Thus, this study attempts to determine the variables that are linked to either attribute standards or performance standards that IPPF has established (IIA, 2012). In particular, IPPF has laid down the standards of attribute of internal audit quality namely Standard 1300, the audit team competence namely Standard 1200 as well as the internal audit independence namely Standard 1100. All these standards are discussed this study. IPPF’s performance standards of internal audit effectiveness and top management support, namely Standard 2060, are also included. This study attempts to add to the literature with its development of a conceptual comprehension of IA effectiveness in organizations aside from examining IA in terms of its determinants of effectiveness. It is important that the factors impacting effectiveness of IA is understood because it contributes to organization’s improved performance.

2. Research Framework

As studies that delve into the quality of internal auditing and its evaluation is the basis for the call for more studies in this area. Therefore, the following figure describes the success factors in this area.
2.1 Internal Audit Effectiveness

There is value-adding role that internal auditing plays demonstrating its effectiveness and owing to this, it is necessary to examine this effectiveness in order to assess the value-adding potential associated with it (D. G. Mihret, James, & Mula, 2010). The effectiveness of IA function is mirrored by the quality performance of firm and having this examined can urge individual groups as well as organizations to have their performance enhanced. In relation to this, two significant tools were brought forward in literature to realize managerial accountability in policy-making namely, evaluation and auditing. Nevertheless, academic studies dedicated to IA effectiveness are still lacking despite the evident relationship to the IA paradigm shift (Mihret et al., 2010). Most studies reported inconsistent findings and provided an assessment of IA effectiveness using various methods.

Among the few studies, Cohen and Sayag (2010) investigated IA effectiveness determinants via a developed model comprising of six potential factors that could influence IA effectiveness (i.e., audit work quality, organizational independence, career and advancement as well as support from top management. As demonstrated by the authors, the concept of IA crucial and yet within the domain of literature, there has not been comprehensive study on this subject except for a few studies that were concentrating on external auditors instead of internal auditors. As demonstrated by their study outcomes, there appears to be high correlations between the perceptions of top management support and IA effectiveness while positive relationships is found between auditing of higher quality, organizational independence and IA effectiveness. On the other hand, the authors did not find any linkage between professional proficiency, career advancement and auditing effectiveness. The author further suggested the inclusion of organizational independence and auditing work quality as the effectiveness determinants of IA in the forthcoming studies.
Additionally, in their study in Italy, Arena and Azzone (2009) stated the importance of identifying the organizational drivers of IA’s effectiveness because of the internal changes that IA is facing in terms of its role. As demonstrated by the findings, IA is steadily demonstrating its increased significance throughout the years particularly in the recent years owing to its association with the internal control-risk management system. A model was formulated and proposed by the author; this model measures the effectiveness of IA. Here, IA was regarded as the dependent variable, while the independent variables comprise the resources and competencies of internal audit, audit processes and activities as well as the degree of interaction between IA and audit committee. The authors concluded that the effectiveness of IA was impacted by characteristics of IA, processes and activities of audit and also organizational relationships. They also stated that the CEO and the Institute of Internal Auditors are related while the firm employs the method of control risk self-assessment whereas the audit committee partakes in the internal auditor’s activities. Finally, the need for a comprehensive analysis of IA in terms of its competencies was highlighted by the authors. This would allow the identification of the possessed skills that impact their work.

Further, D. Mihret and Yismaw (2007), Yee et al. (2008) and Arena and Azzone (2009) suggested that more studies should be done in this subject for the developing nations. The reason is because the studies of IA effectiveness could help bridge the gap in literature with respect to the topic.

Thus, it can be assumed that the effectiveness of IA is still understudied. Further, the available findings demonstrate that the function of IA may not always indicate effective functioning. As such, the perceptions of the chosen sample with respect to the effectiveness of IA were attained in this study together with the potential indicators of IA effectiveness in the context of organization.

2.2 Internal Audit Quality

This study treats internal audit quality among the variables that affect IA effectiveness. In fact, this was proposed by Mihret and Yismaw (2007). As reported by the authors studying the Ethiopian, IA effectiveness is influenced by internal audit quality and management support, organizational environment and organizational characteristics. On the other hand, Barac and Van Staden (2009) reported no correlation between corporate governance structures and the perceived internal audit quality when they looked into the relationship between perceived quality of internal audit and corporate governance structure in the South African firms. Meanwhile, in examining 108 organizations in Israel, Cohen and Sayag (2010) took into account the internal audit work quality as a factor of IA effectiveness. Additionally, Alzeban and Gwilliam (2014) emphasized on the impact of IA quality on its effectiveness in their work. Based on the findings above, this study formulates the following hypothesis;
**H1: Internal audit quality positively influences internal audit effectiveness.**

2.3 Competence of Internal Audit Team

Internal audit team is also deemed as a significant factor for IA effectiveness (George, Theofanis, & Konstantinos, 2015). Aligned with ISPPIA, Mousa (2005) deemed proficiency and due professional care in the form of competence as significant factors of IA. Similarly, Turley and Zaman (2007) investigated the factors influencing IA teams effectiveness and contended that members communication positively influence the audit results. This was also supported by Arena and Azzone (2009) who considered members’ communication as a factor that influences internal audit effectiveness. Also, Cohen and Sayag (2010), found that professional efficiency of internal auditors is integral for the effectiveness of internal auditing. Finally, increased internal audit effectiveness appeared to have association with higher internal audit competence (Alzeban & Gwilliam, 2014). Thus, this study proposes that;**

**H2: Internal audit team competence positively influences internal audit effectiveness.**

2.4 Audit Committee

As reported by studies in the past, there is a linkage between audit committee and the effectiveness of internal audit. This for instance, can be seen in the study by George et al. (2015). Further, studying the linkage between audit committee quality, the auditor independence and internal audit issues disclosure among 208 companies after the Sarbanes-Oxley Act became effective Zhang, Zhou, and Zhou (2007) concluded a weighty association between audit committee work quality, auditor independence and the weaknesses discovered in internal audit. On the other hand, Arena and Azzone (2009) found that among the Italian firms studied, it is possible that the structural characteristics of internal audit impact its effective work. The authors further reported that the increase in internal audit effectiveness is contributed by the participation of audit committee in the internal audit tasks. Therefore, this study hypothesizes the following:

**H3: Audit committee positively influences internal audit effectiveness.**

2.5 Top Management Support

As demonstrated by the present literature, support from top management impacts internal audit effectiveness. For instance, Mihret and Yismaw (2007) are among those who indicated the existence of a positive linkage between top management support and internal audit effectiveness. Similarly, Cohen and Sayag (2010), Alzeban and Gwilliam (2014) and George et al. (2015) concluded in their studies that management support is indeed a key determinant of internal audit effectiveness. The authors also indicated the positive and significant relation of this determinant with all the other variables that impact the effectiveness of internal audit. As such, this study hypothesizes the statement below:

**H4: Management support positively influences internal audit effectiveness.**
2.6 Independence of Internal Audit

Lack of internal audit independence makes internal auditing lose its ability to provide a novel perspective (Yee et al. 2008). Zhang et al. (2007) indicated that internal audit independence is a determinant of internal audit effectiveness. Also, it influences such effectiveness (Cohen & Sayag, 2010). Alzeban and Gwilliam (2014) studied the internal audit effectiveness in Saudi Arabia. The found that internal audit independence together with internal audit department competences, internal audit department size, internal-external auditors’ relationship and management support have positive linkage with the effectiveness of internal audit. An important finding is that internal audit independence has positive linkage with internal audit effectiveness but the significance is lower than that of the other four factors presented in the literature. Considering the above discussion, the fifth research hypothesis is proposed as follows;

H5: Independence of internal audit positively influences internal audit effectiveness.

3. Methodology

3.1 Study Sample

As this study employs the quantitative method, survey has been chosen for data gathering purpose. Thus, a questionnaire containing items on internal audit effectiveness was used. The Jordanian Industrial Firms were chosen as the sample in this study and the questionnaires were distributed to these firms. Following their retrieval and dropping the incomplete and invalid questionnaires, the researchers ended up with 350 valid and usable questionnaires.

3.2 Measurement of Variables

The effectiveness of internal audit has been linked to a number of factors. Based on a comprehensive review on the literature, the five variables that appropriately measure the effectiveness of internal audit are: internal audit quality, competence of internal audit team independence of internal audit, audit committee and management support. This study classifies internal audit effectiveness as the dependent variable. It should be noted that according to Arena and Azzone (2009), although the need for its measurement has been emphasised, its agreed form of measurement is yet to exist. As such, this study decides to examine the dependent variable with the assistance of three items: internal audit’s added value, improvement of department’s performance, and positive impact on organizational performance. The items were adopted from Bota-Avram and Palfi (2009) and Alzeban and Gwilliam (2014). Meanwhile, the independent variables include: internal audit quality, internal audit team’s competency, audit committee, internal audit’s independence and top management support. For measurement purposes, six items were employed to gauge the quality of internal audit, four of which were adopted from Bota-Avram & Palfi, 2009) while the other two were taken from Cohen and Sayag (2010). These items are: the accomplishment of internal audit objectives,
communication between internal and external audit, efficiency of internal audit’s work, appropriate justification of internal audit’s findings, significance of internal audit’s recommendations, and rationality of internal audit’s report.

The measurement of internal audit team’s competency is based on six items adopted from Bota-Avram and Palfi (2009), Mihret et al. (2010) and Alzeban and Gwilliam (2014). These items are: internal auditors’ consideration as professionals, internal auditors’ level of professional qualifications, the communication between internal auditors and auditee, internal auditors consideration as proactive, the involvement of internal auditors in educational seminars, the level of internal auditors’ education.

Moving on to audit committee, three items were adopted from Zhang et al. (2007) and Arena and Azzone (2009). These items are: independence of audit committee, size of audit committee and committee meetings. The fourth independent variable, (top management support of internal audit), its three items were adopted from Cohen and Sayag (2010) as well as Alzeban and Gwilliam (2014). They are: support of senior management to internal audit, the appropriate size of internal audit department, and the awareness of top management with respect to the requirement of internal audit.

Lastly, independence of internal audit comprises three items from Cohen and Sayag (2010) and Alzeban and Gwilliam (2014). The measurement of this variable looks into: internal audit’s report to the highest level, the unrestricted access of internal auditors and the involvement of internal audit in the processes of development of the company.

4. Data Analysis and Results

This study employed the methods of PLS (Partial Least Square) to analyse the obtained data. The use of PLS enables simultaneous interconnection analysis between theoretical constructs without necessitating the variables-indicators be normally distributed in a range of variances. At the same time, the analysis of structural equations can also be performed on smaller samples irrespective of the level of multicollinear nature between the independent variables. As such, the analysis of data using PLS2.0 software was performed in two stages. The measurement model analysis for psychometric features of the utilised measurement scales was performed in the first stage while the hypotheses testing using the determination of the structural model was performed in the second stage.

4.1 Measurement Model

4.1.1 Factor Analysis

The one-dimensionality, reliability, convergent and discriminant validity of the scales of measurement applied were tested via the measurement model. J. Hair (2010) proposed performing the exploratory analysis before the measurement model is tested. Here, Cronbach’s alpha coefficient was ascertained. This is to clean the measurement scales and attain the
rationalization of the amount of indicator variables as presented in Table 1. Based on the exploratory factor analysis result attained and the Cronbach’s alpha coefficient values of the manifest variables, all are retainable because of their high factor loadings on their corresponding factors; in particular, the values all are greater than 0.70), while on the other factors, their loadings are lower. Following the cleaning of the scales of measurement, measurement model was analysed. Table 1 presents the outcomes of the measurement model together with the indicators of psychometric characteristics.

Table 1: Results of the Exploratory Factor Analysis and Value of Cronbach’s Alpha

<table>
<thead>
<tr>
<th></th>
<th>(IA Effectiveness)</th>
<th>(Internal audit quality)</th>
<th>(Competence of internal audit)</th>
<th>(Audit committee)</th>
<th>(Top management support)</th>
<th>(Independence of internal audit)</th>
</tr>
</thead>
<tbody>
<tr>
<td>IAE1</td>
<td>0.908</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IAE2</td>
<td>0.948</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IAE 3</td>
<td>0.966</td>
<td></td>
<td></td>
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<tr>
<td>IAQ1</td>
<td></td>
<td>0.839</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IAQ2</td>
<td></td>
<td>0.866</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IAQ3</td>
<td></td>
<td>0.887</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IAQ4</td>
<td></td>
<td>0.864</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>IAQ5</td>
<td></td>
<td>0.986</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>IAQ6</td>
<td></td>
<td>0.985</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>CIA1</td>
<td></td>
<td></td>
<td></td>
<td>0.967</td>
<td></td>
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</tr>
<tr>
<td>CIA2</td>
<td></td>
<td></td>
<td></td>
<td>0.951</td>
<td></td>
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</tr>
<tr>
<td>CIA3</td>
<td></td>
<td></td>
<td></td>
<td>0.835</td>
<td></td>
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<tr>
<td>CIA4</td>
<td></td>
<td></td>
<td></td>
<td>0.861</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CIA5</td>
<td></td>
<td></td>
<td></td>
<td>0.852</td>
<td></td>
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</tr>
<tr>
<td>CIA6</td>
<td></td>
<td></td>
<td></td>
<td>0.884</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AC1</td>
<td>0.965</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AC2</td>
<td>0.875</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>AC3</td>
<td>0.862</td>
<td></td>
<td></td>
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<td>TM1</td>
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<td>0.876</td>
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<td>TM2</td>
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<td>0.882</td>
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<tr>
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<td></td>
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<td>0.855</td>
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<tr>
<td>IIA1</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.830</td>
</tr>
<tr>
<td>IIA3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.904</td>
</tr>
<tr>
<td>Cronbach alpha</td>
<td>0.935</td>
<td>0.871</td>
<td>0.887</td>
<td>0.981</td>
<td>0.934</td>
<td>0.918</td>
</tr>
<tr>
<td>CR</td>
<td>0.959</td>
<td>0.912</td>
<td>0.922</td>
<td>0.986</td>
<td>0.947</td>
<td>0.942</td>
</tr>
<tr>
<td>AVE</td>
<td>0.885</td>
<td>0.722</td>
<td>0.746</td>
<td>0.945</td>
<td>0.719</td>
<td>0.804</td>
</tr>
</tbody>
</table>

Table 1 demonstrates the one-dimensionality, reliability and satisfactory level of convergent validity of the scales used in this study. As for the factor loadings of the indicator variables on their corresponding factors, all are greater than 0.70 and are statistically significant at (p<0.05). Further, for the entire scales, both the composite reliability indicator and AVE indicators values are greater 0.70 (as proposed by J. F. Hair et al. (2010) where the scales’ composite reliability indicators are within the range of 0.886 and 0.959, with the values of AVE indicators are within the range of 0.719 to 0.945.
4.1.2 Discriminant Validity

Discriminant validity is determined through the comparison between AVE indicators and squared correlation coefficients between specific variables (Fornell & Larcker, 1981). Table 2 presents the discriminant validity test result. Here, the AVE indicators shown on a diagonal line exceed the squared correlation coefficients; this means that, the scales of measurement demonstrate suitable discriminant validity level.

Table 2: Intercorrelation Matrix of the Constructs and AVE Indicators

<table>
<thead>
<tr>
<th>Construct</th>
<th>Internal audit quality</th>
<th>Competence of internal audit</th>
<th>Audit committee</th>
<th>Top management support</th>
<th>Independence of internal audit</th>
<th>IA effectiveness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internal audit quality</td>
<td>0.722</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Competence of internal audit</td>
<td>0.516</td>
<td>0.746</td>
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<tr>
<td>Audit committee</td>
<td>0.489</td>
<td>0.389</td>
<td>0.945</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Top management support</td>
<td>0.567</td>
<td>0.495</td>
<td>0.397</td>
<td>0.719</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Independence of internal audit</td>
<td>0.456</td>
<td>0.349</td>
<td>0.546</td>
<td>0.657</td>
<td>0.804</td>
<td></td>
</tr>
<tr>
<td>IA effectiveness</td>
<td>0.397</td>
<td>0.289</td>
<td>0.449</td>
<td>0.548</td>
<td>0.646</td>
<td>0.885</td>
</tr>
</tbody>
</table>

4.2 Structural Model

The hypotheses of this study were examined using the analysis of structural model correlation between specified variables. The method of bootstrapping re-sampling was used on 500 sub-samples in order to determine the statistical significance of certain relationships. Table 3 presents the outcomes of the analysis of structural model.

Table 3: Analysis of the Structural Model

<table>
<thead>
<tr>
<th></th>
<th>Original Sample (O)</th>
<th>Sample Mean (M)</th>
<th>Standard Deviation (STDEV)</th>
<th>T Statistics (O/STDEV)</th>
<th>P Values</th>
<th>( R^2 )</th>
<th>Hypotheses</th>
</tr>
</thead>
<tbody>
<tr>
<td>IAQ -&gt; IAE</td>
<td>0.172</td>
<td>0.171</td>
<td>0.027</td>
<td>6.263</td>
<td>0.000</td>
<td>.50</td>
<td>Accepted</td>
</tr>
<tr>
<td>CIA -&gt; IAE</td>
<td>0.342</td>
<td>0.341</td>
<td>0.039</td>
<td>8.236</td>
<td>0.000</td>
<td></td>
<td>Accepted</td>
</tr>
<tr>
<td>AC -&gt; IAE</td>
<td>0.062</td>
<td>0.062</td>
<td>0.009</td>
<td>6.755</td>
<td>0.000</td>
<td></td>
<td>Accepted</td>
</tr>
</tbody>
</table>
The structural model analysis demonstrates the acceptance of hypotheses H1, H2, H3, H4 and H5. In detail, internal audit quality (IAQ) ($\beta=0.172$), Competence of Internal Audit (CIA) ($\beta=0.342$), Audit Committee (AC) ($\beta=0.062$), Top Management Support (TM) ($\beta=0.897$) and Independence of Internal Audit (IIA) ($\beta=0.432$) have positive impact on Internal Audit Effectiveness (IAE), at a statistical significance level of ($p<0.001$). The model demonstrates that 50% of IAE variance was elucidated by the independent variable. Hence, it can be established that the model satisfactorily (average-very good) specific variables.

5. Conclusion

As far as the literature is concerned, the present study provides fresh comprehensive information on the effectiveness of internal auditor. It also elucidates the factors that help or inhibit the effectiveness of internal auditor. Further, through this study, the gap in the literature on internal auditor effectiveness can be bridged using the theoretical framework proposed. In particular, the framework measures the association between the success factors and the internal auditor effectiveness.

Thus, the result of this study confirmed the prior IA effectiveness research, where this study found a strong relationship between Internal Audit Quality and effectiveness of IA ($\beta=0.172$, $t=6.263$, $p<0.001$), this result identified before in the prior research (e.g. Mihret & Yismaw, 2007). Competence of Internal Audit Team was found a important factor have influence on IA effectiveness ($\beta=0.342$, $t=8.236$, $p<0.001$), this result confirmed before by George et al. (2015). Meanwhile, as reported by studies in the past (e.g. George et al., 2015; Zhang et al., 2007; Azzone, 2009) here is a linkage between audit committee and the effectiveness of IA, this study found a positive and significant relation between this factors ($\beta=0.062$, $t=6.755$, $p<0.001$). This study found also a very strong positive linkage between management support and IA effectiveness ($\beta=0.897$, $t=29.492$, $p<0.001$), as found by number of previous research (e.g. Alzeban & Gwilliam, 2014; George et al., 2015). Finally, the results of this study found that internal audit independence is an important determinant of IA effectiveness ($\beta=0.432$, $t=8.673$, $p<0.001$), as expected based on prior research (e.g. Cohen & Sayag, 2010; Alzeban & Gwilliam, 2014).

Result also highlight the role of management support for the internal audit function as a key driver of IAE. Thus, this study adds to existing literature on internal auditing in Jordan and Middle East countries. Also, it opens up opportunities for studies in the future to expand the comprehension of the effectiveness of internal auditor not only for the context of Jordan, but also for other emerging nations.
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