

THE EFFECT OF INTERNAL AUDIT CHARACTERISTICS ON THE EFFECTIVENESS OF INTERNAL AUDITORS

Sulaiman Bin Tahajuddin and Mahmoud Kertali

Faculty of Business, Economics and Accountancy, Universiti Malaysia Sabah, Malaysia.

ABSTRACT: *The purpose of this research is to investigate the effects of internal audit independence and objectivity on internal audit effectiveness in the Malaysian context. A quantitative method was applied based on a questionnaire which has been distributed to the internal auditors who are members of the Institute of Internal Auditors Malaysia (IIAM). A valid 119 responses have been collected. A Structural Equation Modeling technique (SEM) was employed using SmartPLS 3 to analyze and interpret the data. The findings revealed that internal audit independence was positively affecting internal audit effectiveness. However, the effect of internal audit objectivity does not appear in the relationship with internal audit effectiveness. This study provides useful information to both academics and practitioners of internal auditing in highlighting the importance and the effect of internal audit characteristics in improving the effectiveness of internal auditors.*

KEYWORDS: Internal Auditing, Independence, Objectivity, Internal Audit Effectiveness.

INTRODUCTION

Traditionally, internal audit has been viewed as just a financial compliance function and assistant tool for accounting department aims to safeguard the organizations' assets (Arena, 2013). Currently, it has become one of the major elements for companies by recognizing its place, roles, responsibilities, and contributions to the main internal and external stakeholders (Erasmus and Coetzee, 2018). The scope of internal auditing also has grown significantly in the recent years to cover more important functions within organizations such as risk management and internal control (Alzeban and Gwilliam, 2014). Therefore, a primary concern has appeared among the managers of the firms over the effectiveness of internal audit department and its role in improving the governance processes. According to Dittenhofer (2001), the effectiveness of internal auditing can be determined by its contribution to the effectiveness of the internal audit's customers and to the whole of an organization. This concept has become one of the main issues of the modern internal audit function and its targets. The previous literature revealed that effectiveness is still a relatively unexplored area in internal audit research; and thus deserve more attention from researchers (Sarens, 2009; Cohen and Sayag, 2010; Lenz, Sarens and Hoos, 2017). This phenomenon was the main motivation for conducting this study.

In the Malaysian context, although internal auditing has evolved rapidly over the last years, the recent events have shown that internal audit in Malaysia is still facing some problems which would negatively affect its effectiveness. For example, Ahmad, Othman, Othman and Jusoff (2009) attempted to discover the main problems of internal auditing in the Malaysian public sector. They concluded that the internal auditors do not have full support from top management, and there is a lack of the independence of internal auditing. Moreover, the management failure of some projects of MARA was due to the ineffective audit reports which required to be enhanced in the future (FMT, 2015; The Sundaily, 2015). This could be explained that the

internal audit in Malaysia probably still in the nascent stage as stated by Ferry, Zakaria, Zakaria and Slack (2017). Earlier, Ahmad et al. (2009) suggested future studies to investigate the relationships between the problems facing the internal audit function in Malaysia and the effectiveness of internal auditors. Although there were few studies have addressed this issue, there still a lack of academic research on internal audit effectiveness in this context. In particular, addressing the role of the professional characteristics of internal auditors in improving the effectiveness of this function. The current study, therefore, aims to examine internal audit effectiveness from this point of view. Thus, the main problem of this study is pertaining to addressing the effect of internal audit characteristics which is referred to independence and objectivity on internal audit effectiveness. As well as highlighting the similarities and the differences between the independence and the objectivity in terms of their measurement and their relationship with internal audit effectiveness.

The rest of this paper is structured as follow: the next section presents a review of previous research and some empirical studies regarding internal audit effectiveness, independence and objectivity. Then, discuss the research methodology employed in this study, the population as well as the data analysis. The last section presents the results of the study and discusses the main findings followed by the conclusion.

LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

Internal Audit Effectiveness

The concept of internal audit effectiveness has received growing attention in the recent years and has been taken seriously by several academic studies. This importance made the effectiveness of internal auditors an indispensable topic and prominently positioned in the studies conducted by researchers and professional bodies. The effectiveness is defined by Dittenhofer (2001) as the achievement of internal auditing objectives and goals. The institute of internal auditors (IIA) also defined the effectiveness as “the degree (including quality) to which established objectives are achieved” (IIA, 2010). Latest studies also adopted a few definitions of internal audit effectiveness which evaluate this concept as a degree to which the established goals are achieved (Badara and Saidin, 2013; Khalid, Haron and Masron 2017). Most authors agree that any plan of internal audit can be efficient if its outcomes are in line with its goals. All the above definitions described the effectiveness of internal auditing in terms of achieving the objectives of this function. Based on the official definition of internal auditing, the ultimate goals of an effective internal audit function can appear in the value added to the organizations by helping management to achieve organizational objectives and improving the effectiveness of risk management and internal control system. Further, George, Theofanis, and Konstantinos (2015) underlined that an effective internal audit function is one of the major conditions for the business success.

Prior studies have identified and addressed different factors that are perceived to be relevant to internal audit effectiveness and its measurement. For instance, Sterck and Bouckaert (2006) pointed out that the internal audit function needs the availability of some key factors to operate effectively such as good strategy for the development of audit competency, a central unit for the advancement of this function and the top management support. Mihret and Yismaw (2007) further examined the internal audit effectiveness by determining the impact of some factors within the large public sector higher education in Ethiopia. According to their model, these

factors are internal audit quality, management support, organizational setting; and auditee's attributes. They focused on the interaction of which factor will result in internal audit effectiveness. Additionally, Arena and Azzone (2009) discussed in a related study internal audit effectiveness based on the influence of some concepts. The findings of their study established that the effectiveness of internal auditing increases when realized four main factors: first, the ratio between the number of internal auditors and employees grows, second, the Chief Audit Executive is affiliated to the IIA, third, the company adopts control risk self-assessment techniques, and last, the audit committee is involved in the process of internal audit activities.

Finally, it can be argued that the previous literature revealed that there are some determinants that can affect and measure the internal audit effectiveness, these factors can be provided by the management of organizations such as hiring competent internal audit staff, the adequate support for the internal audit activities, provide sufficient resources and the responding to the internal audit recommendations; or it can be provided by the internal audit unit itself such as the quality of internal audit activity and the commitment to audit standards, as well as the independence and objectivity of auditors

Internal Audit Characteristics

Internal audit characteristics are essential advantages for internal auditors and critical factors for the success of an internal audit function. This study focuses on the notions of independence and objectivity as two main characteristics of internal auditing and its nature. According to the IIA Glossary (2012), independence and objectivity are closely related concepts. However, it can be distinguished between them in terms of the level of processing these characteristics whether in the individual, functional or organizational level.

Internal Audit Independence

The assurance services provided by the internal auditors derive their credibility and value from the essential presumptions of independence of mind and independence in appearance (Stewart and Subramaniam, 2010). The capability to function and act with independence is a long-standing challenge for the internal auditors and the internal audit function, this challenge gained a renewed attention in the development of the role of internal auditing in corporate governance. Independence is an unavoidable condition for internal auditors (Vanasco, 1994). The IIA defined the independence in terms of the freedom from the conditions that threaten the ability of internal auditors to carry out the responsibilities of internal audit function in an unbiased manner (IIA, 2012). This definition also highlighted the importance of the chief audit executive in achieving a high degree of direct and unrestricted access to the board and senior management. This can be realized via having a dual-reporting relationship between the parties. Moreover, the standard 1100 of the ISPPA stated by the IIA described the internal auditing as an independent function and asserted that the internal audit activities should be independent of management. Independence of internal auditing has long been seen as a key driver of the role of internal auditors and an essential element of the success of internal audit function (Alzeban and Gwilliam, 2014). According to Stewart and Subramaniam (2010), the independence of internal auditing is considered as a state of affair that allows the internal auditor to operate objectively with an impartial attitude.

Many research and professional bodies have raised concerns regarding the lack of independence and its consequences on internal audit function (Schyf, 2000; Ahmad et al., 2009; IIA, 2012). Van Peurse (2005) in a case study in six New Zealand organizations concluded

that the independence of internal auditors from management is a critical feature of a successful internal audit program. To guarantee the desired independence, the CAE should report regularly and functionally to the highest level within an organization. This also leads to ensure that corrective actions will be taken to implement the recommendations of an internal audit department. Thus, the concept of the independence of internal auditing is very important for this function and can affect its quality and performance.

Internal Audit Objectivity

Objectivity is a crucial element for any person who attempts to provide a professional judgment or opinion. Without objectivity, this judgment or opinion may lose its meaning and value. In general, it is obvious that the need for objectivity is an important condition in any function, especially in the professions that depend on the human thinking to provide an opinion or make a decision. In the context of internal auditing, objectivity is one of the most important elements for internal audit function and for internal auditors which can help them to perform their duties properly. Internal audit objectivity is defined as an unbiased mental attitude that allows internal auditors to perform their responsibilities without compromising the quality of their work (IIA, 2012). This requires that internal auditors must have an impartial and objective attitude in order to avoid the inappropriate effects on their assessments and decisions as well as avoid any conflict of interest which can undermine their credibility. Mutchler (2003) also defined objectivity as a state of mind and a desired characteristic of individual or group who make the necessary choices and decision regarding the assurance services. According to Stewart and Subramaniam (2010), being objective means that the internal auditors must exhibit the greatest level of professional objectivity during performing their jobs.

Several previous studies have deemed the objectivity as a crucial factor for internal auditing (Goodwin and Yeo, 2001; Schneider, 2003; Stewart and Subramaniam, 2010; Endaya and Hanefa, 2016). In these studies, objectivity has been treated and measured based on the organizational status of the internal audit function or based on the threats that exist at the individual level. Despite the variety of methods that evaluate internal audit objectivity and its related factors, there is a consensus among researchers and professional bodies that the business environment and the scope of internal audit function contain various risks that may impair this important characteristic for internal auditors. For example, Haas (2001) argued that the pressure on the internal auditors exerted by the top management to execute multiple tasks can decrease their ability of internal auditor to remain objective. Also, Mutchler (2003) evaluated internal audit objectivity by identifying the impact of a number of factors including self-review, social pressure, familiarity, personal relationship, and economic interest. In the Malaysian context, Kertali and Tahajuddin (2018) adopted the same previous characteristics to evaluate the objectivity in terms of addressing the effect of the level of internal auditors' involvement in ERM process on internal audit objectivity. They further suggested that internal auditors should not engage in the inappropriate activities, especially those activities that fall under the management responsibility. Earlier, Sawyer, Dittenhofer, and Scheiner (2003) asserted that internal auditors should not perform some high management responsibilities including designing, installing and operating systems because conducting may impair their objectivity. Therefore, it is clear that the concept of objectivity is one of the greatest perceptions in the context of internal auditing.

The Effect of Internal Audit Characteristics on Internal Audit Effectiveness

As already mentioned in this research, internal auditing must be an independent function and internal auditors need to remain objective in performing their duties. The review of the previous literature indicates that there is a growing body of evidence to suggest that internal audit independence and objectivity have a positive and great impact on internal audit effectiveness. First, internal audit independence considered as one of the critical elements for the success of internal audit function. Without the attribute of independence, internal audit function may lose its ability to provide a fresh perspective and becomes a part of the management team (Yee, Sujan, James, and Leung, 2008). Several studies concluded that internal audit independence is a key factor that can positively affect internal audit effectiveness (Hung and Han, 1998; Al-Twaijry, Brierley, and Gwilliam, 2003; Alizadeh, 2011; George et al., 2015). Furthermore, Cohen and Sayag (2010) in a study about internal audit effectiveness in the Israeli context found that greater organizational independence of internal audit function was significantly related to internal audit quality and auditees' evaluation which were key dimensions of internal audit effectiveness. Similar findings were reported by Alzeban and Gwilliam (2014) when they confirmed that a higher perception of internal audit effectiveness was related to a greater independence of internal audit function in the Saudi public sector. However, a latest study conducted by Khalid et al. (2017) in Bahrain found that internal Shariah audit independence has no positive and significant association with the effectiveness of internal Shariah audit.

Equally importantly, the objectivity of internal auditors is considered as an essential factor that can contribute to improving internal audit effectiveness. Objectivity is a key determinant for internal audit effectiveness (Schneider, 2003). The professional definition of internal auditing highlighted the importance of objectivity to the internal audit function and its effectiveness. Internal auditors should exhibit an objective and impartial attitude which permits them to provide a proper opinion regarding the audit activities. Soh and Martinov-Bennie (2011) stated that the internal audit effectiveness could be contributed by ensuring the objectivity which is considered as an important subject for internal audit function. Further, Dukic and Dordevic (2014) stated that the effectiveness of internal auditing is properly determined by the objectivity of internal auditors. Dellai and Omri (2016) found that the objectivity of internal auditors is positively related to internal audit effectiveness according to the point of view of the chief audit executives. Further, a study conducted by Endaya and Hanefah, (2016) also revealed that internal auditors' characteristics including objectivity are significantly affecting internal audit effectiveness.

In fact, it is doubtless that internal audit independence and objectivity are extremely crucial elements of the internal audit function and driving its effectiveness. As such, the above discussion leads this study to argue that independence and objectivity have a positive and significant relationship with internal audit effectiveness. In other words, internal auditors would be more willing to act effectively when they maintain their independence and objectivity. This leads to the following hypotheses:

H1: Internal audit independence will positively affect internal audit effectiveness.

H2: Internal audit objectivity will positively affect internal audit effectiveness.



Figure 1: Research Framework

RESEARCH METHOD

This section provides explanations regarding the methodology employed in this study as well as a description of the development of the research instruments, followed by a presentation of the population of the study and data collection procedures. For the research design, a quantitative research method was selected to perform this study. This approach is an investigation of an acknowledged issue by examining the relationships between the variables of the study, as well as measure and analyzes them through values and several statistical techniques (Kumar, Abdul Talib and Ramayah, 2013). Thus, this method was employed based on a cross-sectional survey to gather the necessary data.

Instruments Development

The questionnaire used in this study comprises of questions regarding the demographic profile of the respondents and closed-ended questions using a five-points Likert-scale to measure the variables of the study. First, internal audit effectiveness is determined in this study by evaluating such concepts based on the perceptions of internal auditors regarding the quality and the performance of internal audit activities. As mentioned earlier, several methods have been employed to address and measure internal audit effectiveness. for the current study, internal audit effectiveness is measured based on some concepts such as the value added to organizational performance, evaluating and improving enterprise risk management and internal control; the compliance with the policies and regulation; and the recommendations of internal auditing. Consequently, eight items are adopted from the studies of Cohen and Sayag (2010); and Alzeban and Gwilliam (2014) to measure the internal audit effectiveness.

Secondly, to measure independence and objectivity, the study takes into consideration the concepts provided by the IIA regarding the commitment to their personal characteristics and the audit standards; as well as the threats to independence and objectivity that can appear at the individual and organizational levels. As for independence, six items were adopted from Alzeban and Gwilliam (2014); and George et al. (2015). These items are pertaining to examine the status and the freedom of internal audit function such as the reporting to the highest level within organizations and the relationships with senior management and the boards. Simultaneously, internal audit objectivity is measured by six items adopted from Endaya and Hanefah (2016). They developed some indicators provided by Mutchler (2003) in identifying and measuring internal audit objectivity such as self-review, social pressure and economic interest. However, the measurement scale of objectivity differs from the scale of independence due to the nature of each concept. The participants were asked in this part some questions regarding the extent of the influence of some concepts on internal audit activity; where values of the measurement scale were expressed as follow: 1= Not influence at all, 2= Limited

influence, 3= Moderate influence, 4= Substantial influence; and 5= Total influence. The advantage of using this scale is to avoid the response bias of internal auditors when they answer questions regarding their personal objectivity.

Participants and Data Collection

The target population of this study is the internal auditors who are currently working in both private and public sectors' organizations in Malaysia, narrowly, focussing on the internal auditors who are members of the Institute of Internal Auditors Malaysia (IIAM) in order to observe their compliance with the recommendations and the standards of their institute. The questionnaire was distributed randomly to the internal auditors by email with the assistance of the IIAM. A probability simple random sampling was utilized in order to provide each member an equal chance of being selected as a subject in the survey (Kumar et al., 2013). After two weeks, a valid 119 responses have been collected.

DATA ANALYSIS AND RESULTS

Data obtained from the questionnaire was analyzed and interpreted based on Structural Equation Modeling technique (SEM). According to Hair Hult, Ringle, and Sarstedt (2014), Partial Least Square (PLS) based SEM can be applied as a preferred approach compared to Co-Variance based (CV-SEM) when the objectives are predicting the key target construct; and when the sample size is relatively small. Thus, PLS-SEM was chosen for this study due to its advantages and consistency. SmartPLS 3 was used in order to carry out the necessary statistical tests.

Profile of Respondents

Table 1 presents the demographic profile of respondents. From the first glance, it can be shown that the number of males was slightly more than females. As for age, the great majority of respondents (86.6%) were under 50 years old while 13.4% were 50 years old or above. The table also shows that almost all respondents are well educated and more than the half of them possess at least a bachelor degree. Regarding the field of study, the slight majority of the sample (65.5%) were specialists in accounting. The remaining has studied economics, finance, management and other courses. The number of participants who have a professional certificate was relatively big (roughly 70%). This includes Certified Internal Auditors (29.4%), Certified Public Accountant (16%), Certified Management Accountant (5%); and ACCA Qualifications (10.1%). Also, a simple majority of participants (72.3%) are working in private sector organizations. In terms of the professional experience, 14.3% of the sample has less than 1 year of experience. 60.5% have experience between 1 and 10 years, and approximately 25% have over 10 years of experience. Finally, all participants of the survey were members of the IIAM. The previous characteristics of the respondents qualify them to be relevant to the objectives of the study.

Table 1: Profile of Respondents

Classification		Frequency	Percentage %
Gender	Male	62	52.1
	Female	57	47.9
Age	20 – 29 years old	30	25.2
	30 – 39 years old	49	41.2
	40 – 49 years old	24	20.2
	50 years and above	16	13.4
Education Level	SPM	29	24.4
	STPM or Diploma	12	10.1
	Bachelor Degree	70	58.8
	Master Degree	8	6.7
Field of Study	Accounting	78	65.5
	Management	14	11.8
	Economics	10	8.4
	Finance	11	9.2
	Others	6	5.0
Professional Certificate	Certified Internal Auditor	35	29.4
	Certified Public Accountant	19	16.0
	Certified Management Acc.	6	5.0
	ACCA Qualification	12	10.1
	Other Prof. Certificate	11	9.2
	No Prof. Certificate	36	30.3
Job Sector	Private Sector	86	72.3
	Public Sector	33	27.7
Years of Experience	Less than 1 year	17	14.3
	1 – 5 years	39	32.8
	6 – 10 years	33	27.7
	11 – 15 years	12	10.1
	16 – 20 years	7	5.9
	More than 20 years	11	9.2
Total		119	100%

Measurement Model

The evaluation of the measurement model can be done by assessing two main factors in general, reliability and validity (Sarstedt, Ringle and Hair, 2018). This is a critical test to ensure that all indicators are measuring the constructs accurately. Concerning the relationship between the construct and the indicators, there are two main types of measurement model: reflective model and formative model. As for the current study, all constructs were treated as reflective where each construct causes and explains its indicators (Diamantopoulos and Winklhofer, 2001). Figure 2 presents the measurement model of the study. In brief, this study contains two independent variables: (1) Internal Audit Independence, and (2) Internal Audit Objectivity. And one dependent variable: Internal Audit Effectiveness. According to Hair, Hult, Ringle and Sarstedt (2017), the examination of the measurement model requires some statistical tests including internal consistency, indicator reliability, convergent validity and discriminant validity.

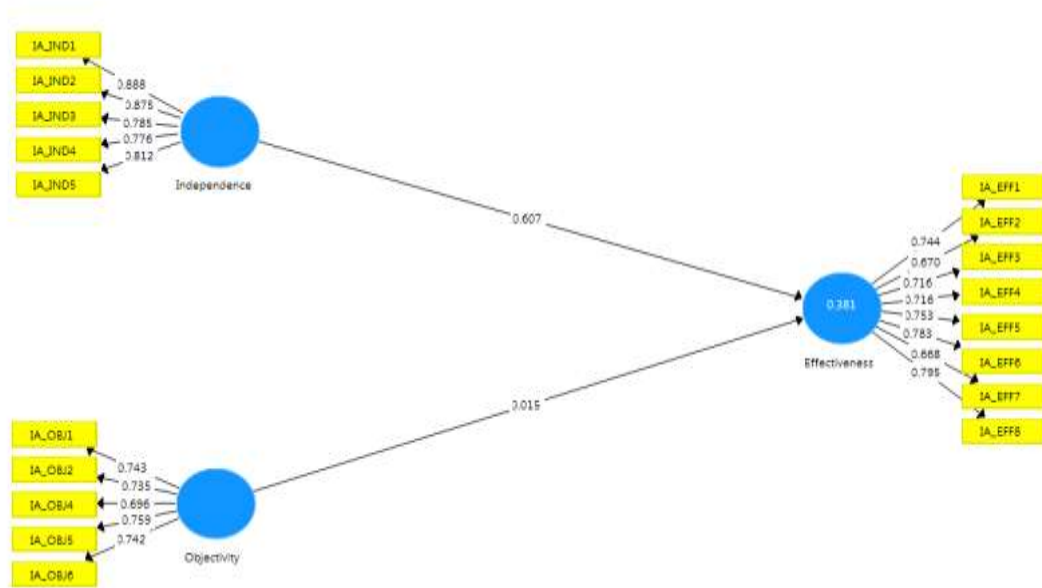


Figure 2: The Measurement Model

Using SmartPLS 3, the analysis of PLS algorithm has been carried out by running 5000 random subsamples. First, table 2 reports the results of factors loading, Composite Reliability (**CR**) and Average Variance Extracted (**AVE**). In order to reach satisfactory indicators' reliability, Items with low loadings have been removed from the model in accordance with the rule of thumb suggested by Ramayah Cheah, Chuah, Ting and Memon, (2018). The standardized estimates of all items were found to be acceptable. Specifically, the factor loadings of the items that explain internal audit effectiveness range from 0.668 to 0.795. Factor loadings of the items of internal audit independence range from 0.776 to 0.880. And finally, factor loadings of the items that explain objectivity range from 0.696 to 0.812. The findings of the construct reliability and validity test also revealed that composite reliability (CR) ranged between 0.855 and 0.916 which exceeds the recommended threshold 0.7 (Hair et al., 2014; Chin, 2010). These values indicated a good internal consistency of the model and all constructs are reliable. In a similar way, convergent validity is considered favorable when the Average Variance Extracted (AVE) of each construct equals or exceeds (0.5) which is consistent with the result of this study. This indicates that all items converge between them in estimating the construct and thereby provide evidence for a good convergent validity of the model (Hair et al., 2014; Chin, 2010).

Table 2: Construct Reliability and Validity

Construct	Items	Loading	CR	AVE
Internal Audit Effectiveness	IA_EFF1	0.744	0.902	0.536
	IA_EFF2	0.670		
	IA_EFF3	0.716		
	IA_EFF4	0.716		
	IA_EFF5	0.753		
	IA_EFF6	0.783		
	IA_EFF7	0.668		
	IA_EFF8	0.795		
Internal Audit Independence	IA_IND1	0.888	0.916	0.687
	IA_IND2	0.875		
	IA_IND3	0.785		
	IA_IND4	0.776		
	IA_IND5	0.812		
Internal Audit Objectivity	IA_OBJ1	0.743	0.855	0.541
	IA_OBJ2	0.735		
	IA_OBJ4	0.696		
	IA_OBJ5	0.759		
	IA_OBJ6	0.742		

Table 3: Discriminant Validity (Fornell-Lacker Criterion)

	IA. Effectiveness	IA. Independence	IA. Objectivity
IA. Effectiveness	0.732		
IA. Independence	0.617	0.829	
IA. Objectivity	0.457	0.728	0.735

Table 4: Heterotrait-Monotrait ratio (HTMT)

	IA. Effectiveness	IA. Independence	IA. Objectivity
IA. Effectiveness			
IA. Independence	0.655		
IA. Objectivity	0.488	0.827	

Second, Discriminant validity is evaluated to prove that any construct in the model is truly distinct from other constructs by empirical results (Hair et al., 2014). According to this, the assessment of discriminant validity in this study includes Fornell-lacker criterion and the Heterotrait-Monotrait ratio (HTMT). The result of Fornell-Lacker criterion shows that each square root value of any construct was higher than its correlations with other constructs (Fornell and Lacker, 1981; Chin, 2010) (see table 3). Similarly, table 4 shows that there are no values regarding HTMT ratio approached or exceed 1.0. This indicates that the discriminant validity is not violated (Henseler and Hubona and Ray, 2016). Finally, the evaluation of this test indicates that the overall reliability and validity of the research model was satisfactory.

Structural Model and Hypotheses Testing

After ensuring the reliability and the validity of all constructs by testing the measurement model, it is necessary to evaluate the structural model of the study in order to test the

significance of the hypotheses. This step of analysis includes assessing the path coefficient, the coefficient of determination (**R² value**) and the predictive relevance (**Q² value**) (Hair et al., 2014; Ramayah et al., 2018). Therefore, the bootstrapping test has been carried out using SmartPLS 3 by re-sampling 5000 random subsamples. The results are illustrated in table 5.

Table 5: Result of Hypotheses Testing

Relationships	Std. Beta	Std. Dev.	T-Statistics	Decision	R ²	Q ²
H₁: IND ---> EFF	0.607	0.117	5.168*	Supported	0.381	0.289
H₂: OBJ ---> EFF	0.015	0.143	0.103^{ns}	Not Supported	0.381	0.289

Notes: IND: Internal audit independence; OBJ: Internal audit objectivity; EFF: Internal audit effectiveness. * P-value < 0.05; ns P-value > 0.05.

As presented in table 5, **T-statistics** values can explain the significance of the path coefficient which indicates whether the hypotheses were statistically supported or not. Specifically, the values of T-statistics should be equal or higher than 1.96 to consider the hypothesis is supported (Garson, 2016; Ramayah et al., 2018). As for this study, the results show that **H₁** found to be supported where the statistical estimation for this hypothesis was significant with T-statistics = **5.168**. This indicates a positive relationship between internal audit independence and internal audit effectiveness. However, **H₂** found to be statistically not supported. Surprisingly, the statistical estimation for this hypothesis found not significant with T-value = **0.103** and P-value higher than 0.05. This indicates that there is no positive association between internal audit objectivity and internal audit effectiveness.

The coefficients of determination (**R²**) and the predictive of relevance (**Q²**) are important tests to measure and evaluate the predictive accuracy and the predictive relevance of the research model (Hair et al., 2014). First, the value of the coefficient of determination (**R²**) must be ranged from 0 to 1; where the highest value indicates a greater predictive accuracy of the model. Hair et al. (2017) recommended that (**R²**) values of 0.75, 0.5 and 0.25 respectively indicate substantial, moderate and weak levels of predictive accuracy. For the present study, the (**R²**) value was **0.381** which can be described as satisfactory for the interpretation proposes. This means that independence and objectivity together explain 38.1% of internal audit effectiveness. Second, the predictive relevance (**Q²**) can be applied by running the blindfolding procedure in order to test the predictive power of the model (Sarstedt et al 2018). They further suggested that the value of (**Q²**) is larger than zero indicates that the model has a predictive relevance. Table 5 shows that (**Q²**) is 0.289 indicating that the predictive relevance of the model is acceptable.

DISCUSSION AND CONCLUSION

This study proposed a research model to provide some useful insight concerning the relationship between internal audit characteristics and internal audit effectiveness. Particularly, highlight the role of independence and objectivity in improving the effectiveness of internal auditors. The results of testing the measurement model indicate that the reliability and validity of each construct, as well as the overall model, were good. Meanwhile, the results of the

hypotheses testing procedure showed two different findings. The result of hypothesis 1 indicated that there is a positive relationship between internal audit independence and internal audit effectiveness. Whereas the result of hypothesis 2 pointed out that internal audit objectivity was found not to have a significant relationship with internal audit effectiveness. These findings can provide beneficial discussions and argumentations.

First, it can be argued that internal audit independence was the most important factor that affects internal audit effectiveness in the current study with $t\text{-value} = 5.168$. In other words, the effect of internal audit independence on internal audit effectiveness was significant. In fact, the results of the present study collaborate with other findings reported by prior studies in this regard. Cohen and Sayag (2010) concluded that the organizational independence of the internal audit function was positively associated with the quality of internal audit function. Alizadeh (2011) also found that the organizational independence is a key indicator in improving internal audit effectiveness in the Iranian context. As mentioned earlier, latest studies likewise detected that internal audit independence can contribute to perceive a greater effectiveness and performance of internal auditors (George et al., 2015; Alzeban and Gwilliam, 2014). Consequently, the result of this study provides additional support to claim that internal audit independence is a necessary factor for the success of internal audit function and its effectiveness. This finding is in line with the ISPPA standards (IIA, 2012) which consider internal audit independence as one of the main factors of the effectiveness of internal auditing.

On the other hand, the findings of the study indicate that the second hypothesis is rejected. This means that internal audit objectivity has no significant effect on internal audit effectiveness in the context of the current study. The result observed in this study is quite surprising due to that the expectations in the theory considered internal audit objectivity as a key factor for internal audit effectiveness. It has been revealed that items such as self-review, economic interest, familiarity, social pressure, cognitive bias; as well as racial, cultural and gender bias are reflecting internal audit objectivity; but the effectiveness may not be perceived through these mentioned items. In other words, the internal auditors in Malaysia perceived that the compliance with the recommendation of the IIA would maintain internal audit objectivity by considering its importance, but they did not perceive its significance to internal audit effectiveness.

The result of this relationship is inconsistent with the most previous literature in this regard. For instance, a study conducted by Abdolmohammadi (2009) in the Anglo-culture countries concluded that objectivity is positively related to an effective use and compliance of the IIA standards. Earlier, Mutchler (2003) defined objectivity as a key element of internal audit effectiveness. In the Malaysian context, Baharuddin Shokiyah and Ibrahim, (2014) established that there is a positive relationship between the independence and objectivity of the internal audit function and its effectiveness. However, the result is consistent with the notions that emphasize the importance of maintaining internal audit objectivity (Goodwin and Yeo, 2001; Ahlawat and Lewé, 2004). Thus, the result of this study suggests that the literature on the relationship between internal audit objectivity and internal audit effectiveness may still inconclusive. Therefore, this result suggested that internal audit objectivity was the lowest factor in terms of its effect on internal audit effectiveness compared to internal audit independence.

The findings of the study provide important implications regarding the effects of internal audit independence and objectivity on internal audit effectiveness. Moreover, the analysis presents empirical evidence regarding the substantial difference between independence and objectivity

in terms of their relationships with internal audit effectiveness. While independence found to be positively related to internal audit effectiveness, objectivity, on the contrary, found to be not a critical factor in this relationship. This evidence is supporting the propositions of Stewart and Subramaniam (2010); and Goodwin and Yeo (2001) concerning the similarities and the differences between the concepts of independence and objectivity. Therefore, the result of this study would extend the existing literature of internal auditing especially in the context of Malaysia.

Despite the contribution made with regards to the effectiveness of internal auditing and its association with its characteristics, this study shows some limitations and opportunities to be considered for future research. First, the research model proposed in this study is relatively small in terms of addressing all characteristics of internal auditing and their effects on internal audit effectiveness. Future studies can extend the research framework by adding other characteristics such as internal auditors' proficiency, skills and effective communication. Second, this study collected the data through a survey technique. However, the analysis was applied based on a modest sample size (119). Although SmartPLS can treat and generate the data of small sample sizes, obtaining more responses would provide more statistical power to the findings. Thus, future studies are recommended to cover a large sample size of internal auditors in addressing this issue.

REFERENCES

- Abdolmohammadi, M. J. (2009). Factors Associated with the Use of and Compliance with the IIA Standards: A Study of Anglo-culture CAEs. *International Journal of Auditing*, **13**(1): 27–42.
- Ahlawat, S. S., & Lowe, D. J. (2004). An examination of internal auditor objectivity: in-house versus outsourcing. *Auditing: A Journal of Practice & Theory*, **23**(2): 147–158.
- Ahmad, H. N., Othman, R., Othman, R., & Jusoff, K. (2009). The Effectiveness of Internal Audit in Malaysian Public Sector. *Journal of Accounting and Auditing*, **5**(9): 53–62.
- Alizadeh, N. (2011). The criteria of implementing and employing the effectiveness of internal auditing. *Australian Journal of Basic and Applied Sciences*, **5**(12): 955–962.
- Al-Twaijry, A. A. M., Brierley, J. A., & Gwilliam, D. R. (2003). The development of internal audit in Saudi Arabia: An institutional theory perspective. *Critical Perspectives on Accounting*, **14**(5): 507–531.
- Alzeban, A., & Gwilliam, D. (2014). Factors affecting the internal audit effectiveness: A survey of the Saudi public sector. *Journal of International Accounting, Auditing and Taxation*, **23**(2): 74–86.
- Arena, M. (2013). Internal Audit in Italian Universities: An Empirical Study. *Procedia - Social and Behavioral Sciences*, **93**: 2000–2005.
- Arena, M., & Azzone, G. (2009). Identifying Organizational Drivers of Internal Audit Effectiveness. *International Journal of Auditing*, **60**(13): 43–60.
- Badara, M., & Saidin, S. (2013). Antecedents of Internal Audit Effectiveness: A Moderating Effect of Effective Audit Committee at Local Government Level in Nigeria. *International Journal of Finance and Accounting*, **2**(2): 82–88.
- Baharuddin, Z., Shokiyah, A., & Ibrahim, M. S. (2014). Factors that Contribute to the Effectiveness of Internal Audit in Public Sector. *International Proceedings of Economics Development and Research*, **70**(24): 126–132.
- Chin, W. W. (2010). How to Write Up and Report PLS analyses. In V. E. Vinzi (Ed.),

- Handbook of Partial Least Squares: Concept, Methods and Applications* (pp. 655–690). Springer Heidelberg Dordrecht London New York.
- Cohen, A., & Sayag, G. (2010). The effectiveness of internal auditing: An empirical examination of its determinants in Israeli organisations. *Australian Accounting Review*, **20**(3): 296–307.
- Dellai, H., & Omri, M. A. B. (2016). Factors Affecting the Internal Audit Effectiveness in Tunisian Organizations. *Research Journal of Finance and Accounting*, **7**(16): 208–221.
- Diamantopoulos, A., & Winklhofer, H. M. (2001). Index construction with formative indicators : An alternative to scale development. *Journal of Marketing Research. JMR*, **38**(2): 269–277.
- Dittenhofer, M. (2001). Internal auditing effectiveness: an expansion of present methods. *Managerial Auditing Journal*, **16**(8): 443–450.
- Đukić, T., & Đorđević, M. (2014). Needs and Specifics of Ensuring Effective Internal Audit. *Series: Economics and Organization*, **11**(4): 353–365.
- Endaya, K. A., & Hanefah, M. M. (2016). Internal auditor characteristics, internal audit effectiveness, and moderating effect of senior management. *Journal of Economic and Administrative Sciences*, **32**(2): 160–176.
- Erasmus, L., & Coetzee, P. (2018). Drivers of stakeholders ' view of internal audit effectiveness Management versus audit committee. *Managerial Auditing Journal*, **33**(1): 90–114.
- Ferry, L., Zakaria, Z., Zakaria, Z., & Slack, R. (2017). Watchdogs , helpers or protectors ? – Internal auditing in Malaysian Local Government. *Accounting Forum*, **41**(4): 375–389.
- FMT. (2015). PwC to probe Mara's Aussie property purchase. Retrieved August 28, 2017, from <http://www.freemalaysiatoday.com/category/nation/2015/08/24/pwc-to-probe-maras-aussie-property-purchase/>
- Fornell, C., & Larcker, D. (1981). Evaluating Structural Equation Models with Unobservable Variables and Measurement Error. *Journal of Marketing Research*, **18**(3): 39–50.
- Garson, G. D. (2016). *Partial Least Squares: Regression & Structural Equation Models*. Statistical Associates Publishing. Asheboro, USA
- George, D., Theofanis, K., & Konstantinos, A. (2015). Factors associated with Internal Audit Effectiveness : Evidence from Greece. *Journal of Accounting and Taxation*, **7**(7): 113–122.
- Goodwin, J., & Yeo, T. Y. (2001). Audit Independence and Objectivity : Evidence from Singapore. *International Journal of Auditing*, **5**: 107–125.
- Haas, L. D. (2001). The Bottom Line. *Internal Auditor*, **50**(3): 88.
- Hair, J. F., Hult, G. T. M., Ringle, C. ., & Sarstedt, M. (2014). *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*. Sage Publications, Thousand Oaks.
- Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2017). *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*. USA: Sage Publications, Inc. Thousand Oaks.
- Henseler, Hubona, G., & Ray, P. A. (2016). Using PLS Path Modeling in New Technology Research : Updated Guidelines. *Industrial Management & Data Systems*, **116**(1): 2–30.
- Hung, J., & Han, H.-L. (1998). An Empirical Study on Effectiveness of Internal Auditing for Listed Firms in Taiwan. *National Central University*, 1–21.
- IIA. (2010). *Measuring Internal Audit Effectiveness and Efficiency*. Altamonte Springs, Florida.
- IIA. (2012). *International standards for the professional practice of internal auditing. The Institute of Internal Auditors*. Altamonte Springs, Florida. Retrieved from <https://scholar.google.com/scholar?q=International+standards+for+the+professional+pr>

- actice+of+internal+auditing+2004&btnG=&hl=en&as_sdt=0,5#0
- Kertali, M., & Tahajuddin, S. Bin. (2018). The Effect of Internal Auditors ' Involvement in Enterprise Risk Management on Internal Audit Objectivity : Evidence from Malaysia. *Asian Journal of Economics, Business and Accounting*, **6**(3): 1–11.
- Khalid, A. A., Haron, H. H., & Masron, T. A. (2017). Relationship between internal Shariah audit characteristics and its effectiveness. *Humanomics*, **33**(2): 221–238.
- Kumar, M., Abdul Talib, S., & Ramayah, T. (2013). *Business Research Methods*. New York: Oxford University Press.
- Lenz, R., Sarens, G., & Hoos, F. (2017). Internal Audit Effectiveness: Multiple Case Study Research Involving Chief Audit Executives and Senior Management. *The EDP Audit, Control, and Security Newsletter*, **55**(1): 1–17.
- Mihret, D. G., & Yismaw, A. W. (2007). Internal audit effectiveness: an Ethiopian public sector case study. *Managerial Auditing Journal*, **22**(5): 470–484.
- Mutchler, J. F. (2003). Independence and Objectivity: A Framework for Research Opportunities in Internal Auditing (pp. 231–268). Altamonte Springs, Florida: The Institute of Internal Auditors.
- Ramayah, T., Cheah, J., Chuah, F., Ting, H., & Memon, M. A. (2018). *Partial Least Squares Structural Equation Modeling (PLS-SEM) using SmartPLS 3.0: An Updated and Practical Guide to Statistical Analysis* (2nd ed.). Kuala Lumpur: Pearson Malaysia Sdn Bhd.
- Sarens, G. (2009). Internal Auditing Research: Where are we going? Editorial. *International Journal of Auditing*, **13**(1): 1–7.
- Sarstedt, M., Ringle, C. M., & Hair, J. F. (2018). *Partial Least Squares Structural Equation Modeling. In Advanced Issues in Partial Least Squares Structural Equation Modeling*. Springer International Publishing AG 2017.
- Sawyer, L. B., Dittenhofer, M. A., & Scheiner, J. H. (2003). *Sawyer's Internal Auditing: The Practice of Modern Internal Auditing* (5th ed.). Florida, USA: The Institute of Internal Auditors.
- Schneider, A. (2003). An Examination Of Whether Incentive Compensation And Stock Ownership Affect Internal Auditor Objectivity. *Journal of Managerial Issues*, **15**(4): 486–497.
- Schyf, D. B. Van Der. (2000). Obstacles in establishing and operating a public sector internal auditing function in a developing country : The South African experience. *Meditari Accountancy Research*, **8**: 145–181.
- Soh, D. S. B., & Martinov-Bennie, N. (2011). The internal audit function: Perceptions of internal audit roles, effectiveness and evaluation. *Managerial Auditing Journal*, **26**(7): 605–622.
- Sterck, M., & Bouckaert, G. (2006). International audit trends in the public sector. *Internal Auditor*, **63**(4): 49–53.
- Stewart, J., & Subramaniam, N. (2010). Internal audit independence and objectivity: emerging research opportunities. *Managerial Auditing Journal*, **25**(4): 328–360.
- The Sunday. (2015). Mara hands documents related to Melbourne building purchase issue to MACC. Retrieved August 21, 2017, from <http://www.thesundaily.my/news/1472840>
- Van Peursem, K. A. (2005). Conversations with internal auditors: The power of ambiguity. *Managerial Auditing Journal*, **20**(5): 489–512.
- Vanasco, R. R. (1994). The IIA code of ethics: An international perspective. *Managerial Auditing Journal*, **9**(1): 12–22.

Yee, C. S. L., Sujan, A., James, K., & Leung, J. K. S. (2008). Perceptions of Singaporean Internal Audit Customers Regarding the Role and Effectiveness of Internal Audit. *Asian Journal of Business and Accounting*, **1**(2): 147–174.