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Effect of Staff Competence, Task Rotation and Management Support on Internal Audit Effectiveness

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Abstract

This study examines the determinants of internal audit effectiveness in a listed company. In particular, this study examines whether namely, staff competence, task rotation, and management support, influence the effectiveness of internal audit in a public listed company. Using questionnaire survey on internal audit department staff of a public listed company, the results of this study show a link between staff competence, task rotation, and management support and internal audit effectiveness. However, the results show that only staff competence and management support have a statistically significant impact on the internal audit effectiveness. The results of this study indicate that, although task rotation does not have a significant influence, this determinant is still important, as it is positively correlated with internal audit effectiveness, especially in maintaining an adequate number of competent internal audit staff. Since the correlation between staff competence and internal audit effectiveness is statistically significant, care should be taken to ensure that sufficient numbers of competent internal audit staff are available to ensure that the internal audit function is performed effectively. The results of this study also indicate that a company should emphasise ongoing management support. Hiring competent auditors, developing a growth map, and creating organisational space for auditors to work are all the result of top management decisions. In addition, a greater rotation of assignments would reduce the risk of self-review and avoid auditors' blind spots when they have to assess the same audit areas over and over again. The findings of this provide further evidences to the existing literature on the determinants of internal audit effectiveness.

Keywords: staff competence, task rotation, management support, internal audit, public company

1. Introduction

Traditionally, the roles and responsibilities of internal audit have focused exclusively on compliance, financial control, and the protection of the company's assets. Following the major financial frauds such as Enron in 2001, Worldcom in 2002 and Satyam Computer Service in 2009, the role of internal audit in improving corporate governance needs to be enhanced in many areas. Therefore, internal audit has become a valuable architect in improving risk management, monitoring systems, and the effectiveness of governance structures (Hass, Abdolmohammadi, & Burnab, 2006; Cohen, Cohen, West, & Aiken, 2010). Accordingly, the International Professional Practices Framework (2017) has described internal auditing as an independent, objective auditing and consulting activity that aims to create added value for an organisation. It achieves its objectives through a systematic and disciplined approach to assess and ultimately improve the effectiveness of risk management, control, and governance processes, leading to an improvement in the organisation's operations. Internal audit facilitates the identification of process inefficiencies and associated risks. In addition, internal audit makes recommendations for the continuous improvement of the organisation.

In the course of their many years of work in the field of auditing, internal auditors have developed into an important part of the corporate management control system. The external auditors, audit committees, and management cooperate with internal auditors in the corporate governance monitoring mechanism (Gramling, Maletta, Schneider, & Church, 2004). The purpose of internal audit vis-à-vis the organisation is to assist the company in achieving its objectives (Roth, 2003; Hass et al., 2006). In this regard, internal audit could provide assurance or consulting services through several activities. Firstly, internal audit ensures that the control systems are set up appropriately, that the system is operated effectively, and that there is confidence in the system. Second, internal audit improves risk management by acting as an advisor to management (Spira & Page, 2003). Thirdly, internal audit could help in monitoring the control mechanisms together with the external auditors and audit committes (Goodwin, 2003). Finally, internal audit may be able to reduce dishonesty, misuse of company property, and overstatement of financial data (Coram, Ferguson, & Moroney, 2008).

The Institute of Internal Auditors (2009) have stated that, knowledge, skills and other competencies are a collective term that refers to the skills required of internal auditors to fulfil their professional duties effectively, objectively and independently. However, the internal audit department of a listed company is currently represented by relatively inexperienced internal audit staff, which may affect their ability to withstand the pressure or influence of management/the auditee during audit reviews and reporting of audit results. Lack of knowledge, understanding, and experience of the organisation's business and operations may affect the auditors' effectiveness in performing their duties. Apart from this, there are instances where the auditors have not been able to objectively and independently determine the scope of the audit because management impedes the effectiveness of the internal audit due to gaps in knowledge and experience. These incidents often occur when teams are supervised by inexperienced supervisors or managers. Therefore, adequate staffing and good management are crucial for a more effective operation of the internal audit function. This includes the qualification of staff who collectively acquire the necessary education, training, knowledge, and professional skills to conduct a full audit of audit services (Al-Twaijry, Brierley, & Gwillian, 2003).

One, however, can post a question. What actually determines the internal audit effectiveness? This study aims to examine this issue. The results of this study can help the internal audit department of a listed company to develop more effective strategies and mechanisms to improve internal audit. The next section, part two, discusses the literature relevant to this study. This is followed by the research design in section three, and the results are presented in section four. The final section, section five, concludes this study.

2. Literature Review

Beckmerhagen, Berg, Karapetrovic, and Willborn (2004) defined 'effectiveness' in internal auditing as a comparison between actual performance and predefined targets. The term 'effectiveness' is recognised as "the ability to achieve results that are coherent with the objective" (Arena & Azzone, 2009). Dittenhofer (2001), on the other hand, defines the term 'effectiveness' as the achievement of a desired situation. Even if the situation has not been precisely defined, it can be evaluated on scales. The term effectiveness corresponds to the general understanding of 'doing things right', while efficiency means 'doing things well' (Chambers, 1993). The effectiveness of internal audit shows the role it plays for the organisation, while internal audit improves the effectiveness of an organisation's risk management, internal control and governance systems (Cohen & Sayag, 2010; Mihret, James & Mula, 2010). Therefore, auditing effectiveness is essential to evaluate the associated value-creation potential.

Accordingly, the International Professional Practise Framework of Internal Auditing (2017) describes internal auditing as an independent, objective auditing and consulting activity that aims to add value and improve an organisation's processes. Internal auditors should have unrestricted access to documents, company property and staff. Information and explanations should be made available to internal auditors as required. In addition, internal auditors are responsible for evaluating and monitoring management's decisions. They also advise on the adequacy and success of internal controls. Internal audit activities should be unbiased and efficient so that they can provide an impartial and unprejudiced judgement during audit engagements (Vinten, 2009). In some organisations, management plays a role in setting the overall tone of governance and it is believed that management would help determine the direction of the IAF, which could affect its objectivity and independence (Cohen et al., 2002; Claybrook, 2004). Vinten (1999) identified several situations that can impair the effectiveness of internal audit, including:

i) A close relationship between auditor and client could result in the auditor limiting his audit;

ii) previously participated with management in the decision about the department or process to be audited;

iii) have a direct or indirect (financial) interest in the organisation to be audited

iv) Limitation of the scope of the audit due to internal/external pressure;

v) The internal audit judgement was influenced by internal/external factors so that they override the content of the audit report.

There are several determinants that can influence the effectiveness of internal audit. The first determinant is staff competence. In order to work effectively, the internal audit functions need adequate and competent staffing. Following the numerous cases of corporate accounting fraud in the 2000s, the demand for audit resources, both external and internal auditors, has increased. Due to this fact, companies are finding it difficult to retain the talent of their staff as the demand for staff increases (Harrington, 2008). McDonald (2006) has also noted that following corporate governance reforms, companies are finding it difficult to find and retain qualified and competent internal audit staff. The shortage of talent in the audit industry has thus increased the need for more internal auditor professionals.

Due to the changing role of internal audit, that is from pure compliance to risk management and governance assessment, internal auditors need to develop and acquire appropriate skills and competences to fulfil the evolving responsibilities of the profession. Therefore, internal audit staff should have the necessary training, experience and professional qualifications to perform a full review of the audit services required by the Audit Directive (Arena & Azzone, 2019; Al-Twaijry et al., 2003). The International Internal Auditing Standards state that an internal auditor should have the right skills, knowledge and competencies required to fulfil their responsibilities. Alzeban and Gwilliam (2014) stated that an internal auditor’s competency is generally calculated using four scales that include academic level, professional qualifications, work experience in internal auditing and continuous development that would contribute to the perceived effectiveness of internal auditing. Baharuddin, Shokiyah and Ibrahim (2014) also agreed that the competencies of auditors are usually assessed based on their educational qualifications, experience, skills and professional development.

Ali, Gloeck, Ali, Ahmi and Sahdan (2007) and Ahmed, Othman and Jusoff (2009) analysed the importance of internal audits in the Malaysian public sector. They realised that the failure of internal audit staff to meet the basic requirements and knowledge negatively affects some areas of internal audit. They suggested that training is an essential need for the development of internal audit in Malaysia. Baharuddin et al (2014) stated that competency specifies the auditor's effectiveness in operations, financial management and governance processes. A sufficient level of competence of internal audit staff (training, experience, knowledge and professional qualifications) would have a positive impact on auditor effectiveness. It has been generally assumed that an increase in experience and competence is positively associated with ethical judgements (Al-Twaijry et al., 2003; Johari, Sanusi, Rahman & Omar, 2013). Similarly, Lee, Su, Tsai, Lu and Dong (2016) were of the same opinion and emphasised that audit experience, knowledge acquisition and skills can effectively improve auditors’ professional judgement and performance effectiveness. Finally, there is a positive significant relationship between the increase in the level of competence of internal auditors and their effectiveness in performing their duties (Alzeban & Gwilliam, 2014). Hence, the first hypothesis was developed as follows:

H1: Competency of staff positively influence the effectiveness of internal auditing in a public listed company in Malaysia.

The second factor is task rotation. The Sarbanes-Oxley (SOX) Act 1 describes and defines task rotation as the period during which an internal audit function (firm and staff) is active in the accounting function. The Act also states that an auditor is required to remain with the audit firm for a specified period of time. Mandatory rotation is discussed as a likely method of increasing the effectiveness of auditors, which usually inspires public confidence as the function of auditing has been undermined with the consequences of corporate fraud or audit failure. It is repeatedly argued that mandatory auditor rotation could bring both benefits and costs to the audit markets. The desire to obtain a clean view of financial statements is often cited as an advantage. It has also been argued that by the need to break the commercial relationship that potentially jeopardises auditor objectivity, as well as an effort to recognise increased competition in audit markets.

The IIA (2011) and the Basel Committee on Banking Supervision (2001) pointed out that rotation is possible as the same auditor auditing the same activity over a long period of time can lead to conflicts of interest. There would be a number of opportunities and flexibility for staff rotation in a larger internal audit function, which could improve the effectiveness and objectivity of the audit by the internal auditors. In the study by Cameran, Prencipe and Trombetta (2008), using statistics from Italy, they found that a mandatory rotation rule did not improve the quality of the audit, even though it had been in place for over twenty years. In contrast, Harris (2012) found that audit quality is compromised when mandatory auditor rotation is not implemented. He further stated that auditors become familiar with the client or the audited entity, are over-satisfied with the processes and tend to have blind spots as the client-auditor relationship increases (due to the long duration of the relationship). The increase in the auditor-client relationship would result in auditors being less critical and less attentive to errors because they are unable to maintain their effectiveness and objectivity of the IAF (IIA, 2001).

The risk of familiarity may arise from the auditor working with the auditee over a long period of time, which may result in the auditor losing perspective or being overly sympathetic to the auditee. Otherwise, it may also lead to auditor bias in the audit of their client, as the auditor may make a judgement about the current audit based on past issues and take a position that is in line with their bias rather than being objective (Institute of Internal Auditors, 2009). The Basel Committee on Banking Supervision (2001) noted that the non-rotation of tasks could affect the ability of internal auditors to make analytical decisions as they are unlikely to be objective. In addition, long relationships with clients could have a negative impact on auditor effectiveness (Su et al., 2016). Su et al. (2016) further argued that the long-time leading to strengthening personal relationship with their clients could make auditors tolerant to some things that affect audit effectiveness and quality and threaten auditors' independence and integrity. Gul and Subramaniam (1994) and Teoh and Lim (1996) found that auditors' familiarity with the audited companies makes them less objective. Thus, rotation of tasks ensures that auditors remain independent and efficient in the fulfilment of their task. In contrast, Cameran et al. (2008) found that they found no empirical support that the mandatory rotation rule improves audit quality. Therefore, the second hypothesis for the study is as follows:

H2: Task rotation positively influence the effectiveness of internal auditing in in a public listed company in Malaysia.

The third determinant is management support. Things that are provided and decided by the organisation to sustain a work activity, such as training and development, performance standards, equipment and technology, are called 'management support'. In internal audit, management support includes a facility that the internal audit team needs to support its work. It also includes a good relationship between the members of the internal audit team and the timetable for the audit work to be done. A sufficient budget provided by management for the training and development of internal audit staff is also considered to be management support. (Alzeban & Gwilliam, 2012).

A number of studies had identified the importance of management support in enhancing the efforts of staff in the organisation to meet their goals (Ebrahimpour & Lee, 1988; Fernandez & Rainey, 2006). These studies have shown that top management commitment and support can play a crucial role in organisational renewal. This is because as senior executives, they would be able to coordinate the critical group needed to realise the efforts initiated by one or two visionary thinkers. In addition, many empirical studies have shown that top management support for quality is an essential element for improvement. It has also been observed and found that the attitude and behaviour of top management is related to the practise of quality management. A study conducted by Takeuchi (1981) found that 89% of companies whose CEOs repeatedly reviewed their production, participated in training courses and engaged in company-wide quality improvement activities had high quality performance.

The success of the internal audit functions depends on management support and acceptance. Management should take it seriously because the success of IAF would lead to effective internal auditing. (Sawyer, 1973). In a study of Australian internal auditors, Leung, Cooper and Robertson (2004) found that internal audit managers tend to be incredibly optimistic about the performance of internal auditors. Auditors believe that they play an important role in the management team and can influence decision making. Maintaining a certain level of objectivity, integrity and competence in the fulfilment of their duties, excellent support from their own staff and continuous encouragement from top management are the most important elements to ensure the effectiveness of their tasks. Apart from this, Sarens and De Beelde (2006) in Belgium found that boards and top management provide much more support to IAFs due to and change in regulations (national and governance regulations). Mustika (2015) and Baharuddin et al. (2014) found that management support provides internal auditors with all necessary information. By supporting internal auditors, management would encourage them to work freely and effectively. The internal audit department should have sufficient resources to make their work more effective (Huong, 2018). Without the support and commitment of management to implement them, the audit findings and recommendations will not make much difference (Cohen & Sayag, 2010). Hence, the third research hypothesis was formulated as follows:

H3: Management support positively influence the effectiveness of internal auditing in in a public listed company in Malaysia.

Agency theory is a useful economic theory of accountability that helps to explain the conflict of internal audit with principals. A simple agency model states that bosses do not trust their agents due to informational inconsistencies and opportunistic behaviour. Therefore, they must overcome these fears by setting mechanisms that align the interests of agents with those of managers in the hope of reducing the extent of information asymmetries and unscrupulous behaviour. Agency theory states that the role of auditing is to monitor management's activities and confirm management's performance for the benefit of the board of directors, investors and stakeholders (Colbert & Jahera, 1988). The agency philosophy can help explain the existence of internal audits, the nature of the internal audit function and the particular approach of internal auditors in their work. It can also help predict the impact of organisational restructuring and rationalisation on internal auditors. Internal auditors are often appointed by management. However, they are also members of the board and audit committee who rely on the internal auditors' ability to assess management's work (Endaya & Hanefah, 2013). In this context, agency theory provides the basis for describing the independent role and responsibilities assigned to internal audit (Adams, 1994).

The framework of this study comprised one dependent variable and three independent variables supported by the selected underpinning theories. The dependent variable is the effectiveness of the internal auditing in a public listed company, while the independent variable comprised three factors: staff competency, task rotation, and management support. Figure 1 depicts the framework of this study.

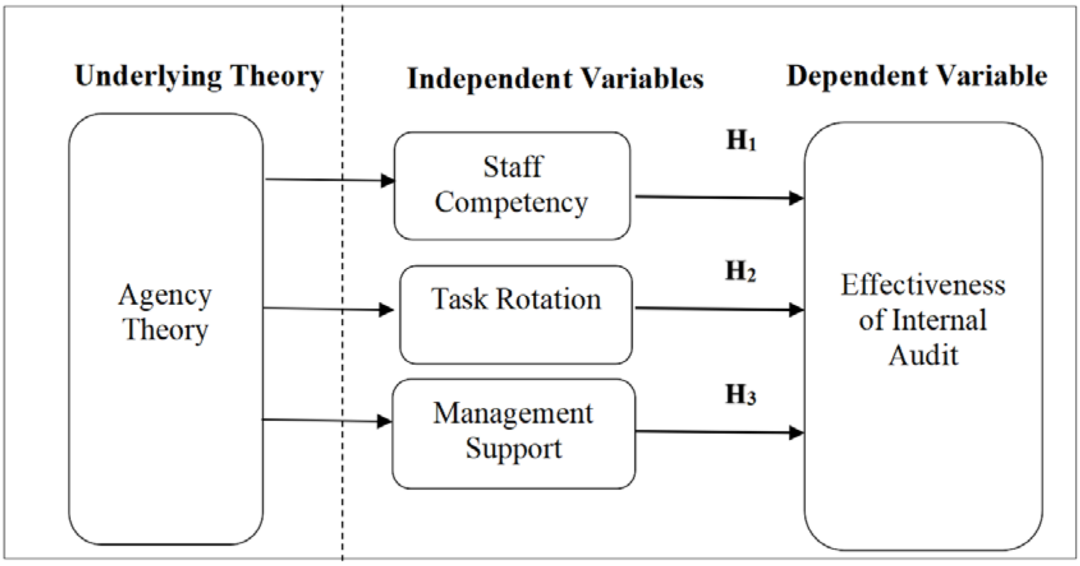

Figure 1. Study Framework

3. Research Design

3.1 Respondents

The respondents in this study are the internal auditors of a listed company in Malaysia. The listed company is one of the oldest conglomerates in Malaysia, established as a trading company in Singapore as early as 1828. The company is primarily active in international trade, shipping and insurance brokerage. Later, a branch office was established in Penang in 1864 to support the company's expansion.

The public listed company's audit committee was established on 27 June 1994 with the mandate to assist the Board of Directors in fulfilling its oversight responsibilities of (i) assessing the financial statements and financial reporting process, (ii) adequately implementing internal controls and risk management, (iii) evaluating the internal and external audit process, (iv) assessing related party transactions to avoid conflicts of interest and (v) reviewing the Group's corporate governance. Currently, the Group's internal audit functions are centralised at the Holdings Bhd level to assist the AC in evaluating and improving the effectiveness of the Group's risk management, internal controls and corporate governance processes (all entities and subsidiaries). The Group's Internal Audit Department was headed by a team of professionals from diverse academic and industry backgrounds, including accounting, business administration, engineering, plantation engineering and information technology, to cater for the diversification of the Group's businesses. The department is divided into three (3) main divisions: (i) Plantations, (ii) Property, Manufacturing, Business Services and Trading and Services and (iii) Heavy Industry.

Based on the current structure, 10 auditors have been assigned to the Plantations Division, 11 auditors to the Property, Manufacturing and Business Services Division and 10 auditors to the Heavy Industry Division. In addition, the Risk Management and Integrity and Governance departments with 7 staff (four staff in the Risk Management department and 3 employees in the Integrity and Governance department) are also under and direct supervision of the Head of Internal Audit. The Group's Internal Audit department is also supported by 3 clerks. In total, there is a total of 40 internal auditors working in the public listed company. Therefore, all internal auditors participated in this study, which makes this study a consensus study.

3.2 Research Instrument

The questionnaire was adopted and adapted from previous studies containing similar variables. All measurement items were collected and arranged according to the variables developed in this study. The questionnaire consists of 3 main sections, namely Section A, Section B and Section C. Section A contains questions regarding the demographic data of the respondents. Section B measured the dependent variable, i.e. the effectiveness of internal audit during audit reviews and audit opinion reporting. Section C measured the independent variables of the study. Table 1 lists 7 demographic items in Section A, with most of the items using a nominal scale. The nominal scale allows this researcher to categorise respondents into multiple groups, such as male and female (Sekaran & Bougie, 2013). Respondents were asked to indicate the option that best represented them. The demographic information was important to ensure that the target respondents were the correct units for the questionnaire.

Table 1. Respondents' Demographic Information Elements

No.	Elements	Options
1.	Gender	Male or Female
2.	Age group	20–30 of age, 31–40 of age, 41–50 of age, or over 51 of age
3.	Level of education	Certificate, Diploma, Degree, Master, or PhD
4.	Professional certificate	CIA, ACCA, CPA, CIMA, NIL, or Others (Please specify)
5.	Working experience	Below 5 years, 6–10 years, or 11 years and above
6.	Number of years in the current organisation	Below 2 years, 3–5 years, 6–9 years, 10–14 years, or 15 years and above
7.	Position	Head of Internal Audit, Manager, Assistant Manager, Senior Executive, Executive, or Audit Assistant

Section B and Section C consist of items to measure the outcome and predictor variables, respectively. Each of the variables was measured and tested to gain a proper understanding of the relationship between them. Measurement was important to test each of the hypotheses developed for this study. In order to obtain the correct response to the relationship of all components, all items are measured using a 5-point Likert scale. The details of the measurement scale for the variables are shown in Table 2.

Table 2. Variables Section and Measurement Scale

Variable	Measurement scale
1) Section B: Dependent Variable	
• Effectiveness of Internal Auditing	Interval – 5-point Likert Scale [1- Strongly Disagree to 5- Strongly Agree]
2) Section C: Independent Variable	
• Staff Competence *Part I*	Interval – 5-point Likert Scale [1- Strongly Disagree to 5- Strongly Agree]
• Task Rotation *Part II*	Interval – 5-point Likert Scale [1- Strongly Disagree to 5- Strongly Agree]
• Management Support *Part III*	Interval – 5-point Likert Scale [1- Strongly Disagree to 5- Strongly Agree]

Information on the measurement of the dependent variable, the effectiveness of internal auditing, are provided in section B of the questionnaire. In this section, information was requested on the internal auditors' understanding of the internal audit functions in a listed company. This section consists of 13 questions. Three statements are adapted from George et al. (2015) and 10 statements were adapted from Cohen et al. (2010). Table 3 contains the items for the dependent variable.

Table 3. Items for the Dependent Variable – Effectiveness of Internal Auditing

No.	Measurement item
1.	Internal audit helps the organisation accomplish its objectives.
2.	Internal audit improves organisational operations.
3.	The internal audit creates added value to the organisation.
4.	Internal auditing (IA) provides information on problems in the activity or control systems in the organisation.
5.	When examining the issues that are audited, the internal auditors also cover issues related to effectiveness, performance, and savings.
6.	All control and auditing activities in the organisation are performed by the internal auditors
7.	The evaluation of internal audit reports by external auditors and other external authorities is positive
8.	The evaluation of internal audit reports by the audit committee is positive.
9.	The information provided by the internal auditors is vital to organisational operations.
10.	All auditing functions that were approved in the auditing plans are performed completely.
11.	The internal auditors' reports are rigorous and accurate.
12.	The internal auditors' reports are clear and well presented.
13.	The findings of internal audits are always based on documents and reliable data.

The questions in section C provided information on whether staff competence, task rotation and management support can influence the effectiveness of internal audit in a public listed company. The questions are divided into 3 parts, namely Part 1, Part II and Part III and each independent variable are separated to facilitate analysis. Table 4 shows the items in Part 1 on staff competency. There are 6 statements adopted from Huong (2018).

Table 4. Items for Independent Variable – Staff Competence

No.	Measurement item
1.	The professional knowledge of internal auditors is high.
2.	Internal auditors are considered professionals.
3.	Internal auditors are proactive.
4.	There is communication between internal auditors and auditees.
5.	Internal auditors attend educational seminars for continuous training.
6.	Internal auditors have adequate education.

Table 5 lists the items for task rotation. The items were developed to answer the question of how task rotation could improve the effectiveness of internal audit in a listed company. They were adopted from Ahmad and Taylor (2009) and modified to fit the context of the organisation and to be more relevant to this study.

Table 5. Items for Independent Variable – Task Rotation

No.	Measurement item
1.	Majority of the IAs have been assigned to the same audit division (i.e., Plantation / NP / Heavy Industry) for more than three (3) years.
2.	Sometimes, the same IA will be assigned to review the same audit unit / company during the subsequent audit cycle.
3.	Sometimes, the same IA will be assigned to review the same audit areas / sections during the subsequent audit cycle.
4.	Some of the IAs are very familiar with some of the management personnel.
5.	Some of the IAs are very familiar with some of the business units / operations.

Table 6 lists the items to measure management support. The items were designed to answer how management support could positively influence the effectiveness of internal auditing in the public listed company. The items were adapted from Huong (2018).

Table 6. Items for Independent Variable – Management Support

No.	Measurement item
1.	Senior management underpins internal audit to perform its obligations.
2.	Senior management is included in the internal audit arrangement.
3.	Senior management provides adequate, solid, and pertinent support about the work the IAs perform and proposals made.
4.	The reaction to internal audit reports by senior management is sensible.
5.	The internal audit department receives large support to effectively complete its obligations and responsibilities.
6.	The internal audit department has adequate spending plan to effectively do its obligations and responsibilities.

3.3 Data Collection Procedure

The survey was conducted online via the Google form. The link to the survey was forwarded to all internal auditors in the public listed company via Whatsup application or email. According to Sekaran and Bougie (2016), the online survey is used to ensure a quick response. It is also cost-effective and easy to use. Moreover, the results can be generated in real time if needed (Sekaran & Bougie, 2016). Respondents were asked to complete the questionnaire within a fortnight. The link to the questionnaire was distributed following verbal authorisation from the Head of Corporate Audit. This permission was to ensure that the data collected by the internal audit staff could be properly collected and lawfully used in this study.

4. Results and Discussion

4.1 Demographic Profile

The questionnaire of the respondents' profile of demographic that include gender, age group, level of education, professional certificate obtains, working experience, length of services, and position held in the organisation was on in Section A. The results of the descriptive analysis on the demographic information are displayed in Table 7. Table 7 shows that, out of 40 respondents, 65% are males. Most of the repliers (45%) are between 31–40 years of age, followed by 20–30 years of age (27.5%), 41–50 years of age (20%), and above 51 years of age (7%). The majority of the respondents (82.5%) hold a bachelor's degree. Three or 7.5% of the respondents hold a master's degree, and two respondents each (5%) hold a certificate or diploma. These outcomes indicate that the respondents have the relevant qualifications to conduct audit work in the public listed company, thereby providing relevant information for the study. Most of the respondents (80%) do not have professional qualifications, 7.5% are Certified Internal Auditors (CIA), and a similar number qualified with the Association of Chartered Certified Accountants (ACCA) certificate. Another 2.5% of the respondents are Certified Public Accountants (CPA), and 2.5% are auditors with the Chartered Institute of Management Accountants (CIMA) certificate. Although almost all of the respondents do not have professional certificates, this outcome did not influence the validity of the responses in this study because most of them (75%) have audit work experience of more than 6 years.

Table 7. Demographic Profile

Demographic Categories		**Frequency**	**Percentage**
Gender	Male	26	65.0
	Female	14	35.0
	Total	40	100.0
Age	20–30 years of age	11	27.5
	31–40 years of age	18	45.0
	41–50 years of age	8	20.0
	Above 51 years of age	3	7.5
	Total	40	100.0
Education Level	Certificate	2	5.0
	Diploma	2	5.0
	Degree	33	82.5
	Master	3	7.5
	Total	40	100.0
Professional Certificate	CIA	3	7.5
	ACCA	3	7.5
	CPA	1	2.5
	CIMA	1	2.5
	NIL	32	80.0
	Total	40	100.0

Working Experience	Below 5 years	10	25.0
	6–10 years	11	27.5
	11 years and above	19	47.5
	Total	40	100.0
Tenure with the company	Below 2 years	10	25.0
	3–5 years	11	27.5
	6–9 years	8	20.0
	10–14 years	6	15.0
	15 years and above	5	12.5
	Total	40	100.0
Position	Head of Internal Audit	1	2.5
	Manager	4	10.0
	Assistant Manager	12	30.0
	Senior Executive	12	30.0
	Executive	9	22.5
	Audit Assistant	2	5.0
	Total	40	100.0

Table 7 also shows that 52.5% (21) of respondents are relatively new to the organisation, having only been with the company for five years or less. A further 15% (6) of respondents have worked for the organisation for 10–14 years, and 12.5% (5) have worked for more than 15 years. As shown in Table 7, most internal auditors (87.5%) work at the lower level (assistant manager and below) and 12.5% (5) work at the management level. Based on these demographic characteristics, the respondents could provide a better insight into the subject (i.e. the effectiveness of internal audit). They are the audit staff directly affected by the situation.

4.2 Descriptive Analysis

The results in Table 8 show the respondents' opinion or experience of the effectiveness of internal audit in the organisation. There were 13 statements or items related to the effectiveness of internal audit. The table shows that the highest mean score of 4.33 (SD = 0.616) for statement number 3, 'Internal audit adds value to the organisation This score clearly shows that the respondents believe that internal audits can add value to the organisation. The lowest mean value (2.90) was found for statement number 6 (SD = 1.215): 'All control and audit activities in the organisation are carried out by the internal auditors' This value shows that the internal auditors in the listed company are of the opinion that it is not their task to carry out all control activities in the organisation. This opinion is in line with corporate governance, where internal audit is only the third defence of an organisation's internal control mechanism. The first and second defence of internal control is in the hands of the board of directors and the company's management, respectively.

Table 8. Descriptive Statistics of Effectiveness of Internal Auditing

Items in Section B	Min	Max	Mean	Std. Deviation (SD)
1. IA helps organisation accomplish its objectives	3	5	4.27	.599
2. IA improves organisational operations	3	5	4.30	.648
3. The IA creates added value to the organisation.	3	5	4.33	.616
4. Internal auditing provides information on problems in the activity or control systems in the organisation.	1	5	4.08	.944
5. When examining the issues that are audited, the IAs also cover issues related to effectiveness, performance, and savings.	1	5	3.58	.984
6. All control and auditing activities in the organisation are performed by the IAs.	1	5	2.90	1.215
7. The evaluation of internal audit reports by external auditors and other external authorities is positive.	1	5	3.75	1.127
8. The evaluation of internal audit reports by the Audit Committee is positive.	1	5	3.23	1.187
9. The information provided by the IAs is vital to organisational operations.	2	5	3.80	.911
10. All auditing functions that were approved in the auditing plans are performed completely.	1	5	3.72	1.037
11. The IAs' reports are rigorous and accurate.	2	5	4.15	.834
12. The IAs' reports are clear and well presented.	1	5	3.70	.966
13. The findings of internal audits are always based on documents and reliable data.	3	5	3.95	.639
Valid N (listwise)			3.8269	.53087

The results of the respondents' perceptions of employee competence are shown in Table 9. The questionnaire contains six statements designed to illustrate the competence of internal auditors in the organisation. The mean score for all items in the survey questions is above 3.5, which means that the respondents either agree or strongly agree with the statements regarding the competence of employees. The highest mean score is 4.40 for statement number 4, with a standard deviation of 0.632. The lowest mean score is 3.68 for statement number 1. Overall, the results indicate that the respondents believe that there are no competence problems, as 75% (30) have more than 5 years of professional experience in the company.

Table 9. Descriptive Statistics of Competency of Staff

Question Section C – Part 1	Min	Max	Mean	Std. Deviation
1. The professional knowledge of IA is high.	1	5	3.68	1.163
2. IA are considered professionals.	1	5	4.20	.823
3. IAs are proactive.	1	5	3.75	.870
4. There is communication between IAa and auditees.	3	5	4.40	.632
5. IAs attend educational seminars for continuous training.	1	5	4.10	.982
6. IAs have adequate education.	1	5	3.75	1.214
Valid N (listwise)			3.9792	.76347

The results in Table 10 provide an indication of the respondents' opinion or experience of the task rotation of duties in the public listed company's internal audit department. Five statements were made regarding rotation of duties in the department. The table shows that the mean of all statements is above 3.5, which means that the respondents either agree or strongly agree with the statements. The highest mean is 4.15 for statement number three, with a standard deviation of 0.834. The lowest mean is 3.60 for statement number 5 (SD = 0.841). The statistics indicate that the majority of respondents agree that they have not been scheduled for audit reviews. Some of them have been conducting the same audit reviews for years in the same audit units or departments and dealing with the same managers.

Table 10. Descriptive Statistics of Task Rotation

Question Section C – Part 2	Min	Max	Mean	Std. Deviation
1. Majority of the IAs have been assigned to the same audit division (i.e., Plantation / NP / Heavy Industry) for more than three (3) years.	1	5	3.65	.921
2. Sometimes, the same IA will be assigned to review the same audit unit / company during the subsequent audit cycle.	1	5	3.87	.911
3. Sometimes, the same IA will be assigned to review the same audit areas / sections during the subsequent audit cycle.	2	5	4.15	.834
4. Some of the IAs are very familiar with some of the management personnel.	2	5	4.00	.816
5. Some of the IAs are very familiar with some of the business units / operations.	1	5	3.60	.841
Valid N (listwise)			3.8550	.69132

Table 11 shows the descriptive statistics for the respondents' perception of management support for internal audit. Six statements were made regarding management support. The mean scores of more than 3.63 for all items mean that most internal auditors in the public listed company agree with all statements. A closer look at the statements reveals that the highest mean score (4.18) (SD = 0.594) is for statement number 3 'management strongly and appropriately supports the work of internal audit whereas the lowest mean score is 3.63 for statement number 2.

Table 11. Descriptive Statistics of Management Support

Question Section C – Part 3	Min	Max	Mean	Std. Deviation
1. Senior management underpins IA to perform its obligations.	2	5	3.98	.862
2. Senior management is included in the internal audit arrangement.	1	5	3.63	1.030
3. Senior management provides with solid and pertinent support about the work the IAs perform and proposals made.	3	5	4.18	.594
4. The reaction to internal audit reports by senior management is sensible.	2	5	3.90	.744
5. The internal audit department receives large support to effectively complete its obligations.	2	5	3.98	.768
6. The internal audit department has adequate spending plan to effectively do its obligations and responsibilities.	1	5	3.82	.903
Valid N (listwise)			3.9125	.56863

4.3 Reliminary Analysis

In this study, Cronbach's alpha (α) was used to assess the consistency of the survey questions. The questionnaire is unacceptable if the alpha value is less than 0.6. It is considered acceptable if the alpha value is greater than 0.6 (Hair, Babin, Money & Samouel, 2003). Hair et al (2003) established a general rule for Cronbach's alpha values: below 0.6 is poor reliability, 0.6 to below 0.7 is modest, 0.7 to below 0.8 is decent, 0.8 to below 0.9 is incredibly good and above 0.9 is exceptionally reliable. Table 12 shows the Cronbach's alpha for this study. The table shows that all variables have a Cronbach's alpha of more than 0.6, which means that all statements in the questionnaire are reliable and can be used for the upcoming analyses.

Table 12. Results of Reliability Test

Variable	N of Items	Cronbach's Alpha	Relationship
Effectiveness of Internal Auditing	13	.830	Very Good
Staff Competence	6	.878	Very Good
Task Rotation	5	.858	Very Good
Management Support	6	.776	Good

The test for normality is used to calculate the probability that the sample was drawn from a normal population. Large probabilities indicate normally distributed data. Field (2009) has emphasised that if the test is not significant ($p > 0.05$), the distribution of the sample does not deviate significantly from a normal distribution. Probabilities more than 0.05 mean that the data are normal, while probabilities less than 0.05 mean that the data are abnormal. Table 13 shows the results of the normality test performed. The Shapiro-Wilk results were used for interpretation as the sample size is less than 50. A p-value of less than 0.030 was achieved, indicating a violation of the normality assumption.

Table 13. Test of Normality

Variable	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Effectiveness Of Internal Auditing	.136	40	.062	.938	40	**.030**

*. This is a lower bound of the true significance.
a. Lilliefors Significance Correction

Other statistics such as skewness and kurtosis were therefore used in this study. Skewness is a measure of asymmetry and kurtosis is a measure of the peaks of a distribution. West et al (1996) stated that there is a significant deviation from normality if the absolute value of skewness is > 2 and the value of kurtosis is > 7. For small samples (n < 50), if the absolute z-scores for either skewness or kurtosis are greater than 1.96, which corresponds to an alpha level of 0.05, the null hypothesis is rejected. Thus, the sampling distribution is not normal (Kim, 2013). Table 14 shows the skewness and kurtosis test for this study. The table shows that the dependent variable has a skewness value of 0.356, which is less than 1.96. The kurtosis statistic is -1.008, which is also less than -1.96, corresponding to an alpha level of 0.05. These values show that the data are normally distributed.

Table 14. Results of Normality Test using Skewness and Kurtosis

Variable	Mean	Std. Dev.	Skewness		Kurtosis	
			Statistic	Std. Error	Statistic	Std. Error
Effectiveness Of Internal Auditing	3.8269	0.53087	**0.356**	0.374	**-1.008**	0.733
Valid N (listwise)	40					

4.4 Correlation Analysis

As the normality test shows that the data collected is normally distributed, the Pearson correlation test was used to determine the correlations between two continuous variables. The results of the correlation analysis for this study are shown in Table 15. Overall, it can be seen that all variables in this study show significant positive correlations. The values of the correlation coefficient (r) for the overall relationships show a value of more than 0.5. Staff competence has a value of r = 0.638 (p<0.01), service rotation has a value of r = 0.534 (p<0.01) and management support has a value of r = 0.679 (p<0.01). The results show that there are positive, moderate relationships between the variables. Regarding the direction of the relationships, the positive signs indicate that the predictor variables and the outcome variable move in the same direction. These results indicate that the effectiveness of internal auditors in auditing increases as staff competence, task rotation or management support increases and vice versa. The results of this study are identical to the study conducted by Kabuye, Nkundabanyanga, and Opiso (2017).

Table 15. Results of Pearson Correlation Coefficients

Variable		**Staff Competence**	**Task Rotation**	**Management Support**
Effectiveness of Internal Auditing	Correlation Coefficient	**0.638****	**0.534****	**0.679****
	Sig. (2-tailed)	0.000	0.000	0.000
Strength of the relationship		Positive & Moderate	Positive & Moderate	Positive & Moderate

Note. ** Correlation is significant at the 0.01 level (2-tailed).

4.5 Multiple Regression

A multiple regression analysis was conducted to determine how employee competence, task rotation and management support are related to the effectiveness of internal audit in a listed company. A model summary of the regression analysis between the three independent variables (employee competence, task rotation and management support) and the dependent variable (internal audit effectiveness) is presented in Table 16. Table 16 shows that the R-value is 0.763, the R-squared value is 0.582 and the value of the adjusted R-squared is 0.547. These results indicate that 58.2% of the variation in internal audit effectiveness can be explained by the three independent variables, namely staff competence, task rotation and management support. Another 41.8% of the variation in internal audit effectiveness is explained by other factors that are not addressed in this study.

Table 16. Model Summary

Model	**R**	**R Square**	**Adjusted R Square**	**Std. Error of the Estimate**
1	.763[a]	.582	.547	.35737

Note. a. Predictors: (Constant), Management Support, task rotation, staff competency; b. Dependent Variable: Effectiveness of Internal Auditing.

Table 17 shows the statistics of the analysis of variance (ANOVA), which illustrate the general fit of the regression model. The F-statistic illustrates the ratio of improvement in a prediction resulting from the fit of the model, i.e. whether the linear regression model is a better fit to the data than a model that does not include independent variables. The F-statistic of 16.688 at a p-value of less than 0.001 indicates that the model would significantly improve the ability of this study to predict the outcome/dependent variable than if only the mean of the responses were used. For a good model fit, the F-statistic should be at least greater than 1 (Field, 2009).

Table 17. ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	6.394	3	2.131	16.688	.000[b]
	Residual	4.598	36	.128		
	Total	10.991	39			

a. Dependent Variable: Effectiveness of Internal Auditing

b. Predictors: (Constant), Management Support, Task Rotation, Staff Competence

Table 18 shows the results for the relationships between the independent variables and the dependent variable. According to the results in the table, all independent variables have positive b-values, indicating a positive relationship with the effectiveness of internal audit. The results of the regression analysis show that the effectiveness of internal audit would be 0.911 if the independent variables were held constant. An increase in the competence of internal auditors would lead to an increase in the effectiveness of internal auditing by 0.235. Increasing the rotation of internal auditors would increase the effectiveness of internal auditing by 0.225. Increased management support for internal auditors would lead to a 0.397 increase in internal audit effectiveness. Table 18 also shows the p-values of the independent variables. The p-value for staff competence is 0.016, for service rotation 0.287 and the p-value for management support 0.003. This means that only task rotation is not statistically significant, as its p-value is more than 0.05. The other two independent variables (staff competence and management support) are statistically significant with p-values of less than 0.05.

Table 18. Results of Multiple Regression Analysis

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		b	Std. Error	Beta		
1	(Constant)	.911	.425		2.142	.039
	Staff Competence	.235	.094	.339	2.515	.016
	Task Rotation	.110	.102	.143	1.080	.287
	Management Support	.397	.126	.426	3.153	.003

Note. a. Dependent Variable: Effectiveness of internal audit

Based on these results, the established regression equation for this study is:

$$Y = 0.911 + 0.235X1 + 0.397X3 + \varepsilon \tag{1}$$

Where;

Y= Effectiveness of Internal Auditing,

X1=Staff Competency,

X3= Management Support; and

ε = Error Term.

4.6 Discussion of Findings

The hypothesis of this study is tested with the help of correlation and regression analyses. The analysis should test a relationship between the competence of internal audit staff, rotation of tasks, management support and the effectiveness of internal audit. The hypotheses should also test the significant influence between the predictor variable and the outcome (internal audit effectiveness). According to the results of the regression analysis, only task rotation was not statistically significant as its p-value was above 0.05. Staff competence and management support were statistically significant at p-values less than 0.05. Nevertheless, the results of the correlation analysis showed a moderately positive correlation between internal audit staff competence and internal audit effectiveness. The relationships between task rotation and internal audit effectiveness and between management support and internal audit effectiveness are also moderately positive. All relationships are significant at p-values of less than 0.01.

The first hypothesis of this study states that the staff competence (measured by their expertise and professional experience) positively influences the effectiveness of internal auditing (both in terms of their behaviour and their perception). Table 18 shows a significant influence of staff competence on internal audit effectiveness (β = 0.235, p = 0.016) with a t-statistic of 2.515. The Pearson correlation coefficients indicate that staff competence has a moderately positive relationship with internal audit effectiveness. Based on the demographic statistics, 75% of internal auditors have been with the company for more than five years. 25% of internal auditors can be considered junior auditors as their total work experience is less than five years. Most of the internal auditors in the public listed company and therefore have a lot of experience and a good overview of the company's various business areas and processes. Therefore, they would be able to fulfil their duties effectively. The findings are consistent with those of Su et al. (2016) who emphasise that audit experience, knowledge acquisition and skills can successfully improve the competent assessment and effectiveness of internal auditors' performance.

The second hypothesis states that the rotation of tasks has a positive influence on the effectiveness of internal auditing. The result of the data indicates that the probability of obtaining a correlation coefficient in a sample of 40 respondents when the null hypothesis is true is very low. Therefore, this study was confident that there is a relationship between task rotation and internal audit effectiveness. The descriptive statistics showed that a proportion of respondents agreed with the statement that appropriate task rotation was not implemented as majority of the respondents agreed with the statement that most of the auditors had been working in the same subdivision for more than three years, either in plantation services, manufacturing or heavy industries. They had also audited the same operations of the same company/subsidiary in subsequent audit cycles. They also agreed that some of them had dealt with the same managers over a longer period of time, which could potentially lead to the threat of familiarity affecting their effectiveness in audit reviews and reporting of audit findings. These findings are consistent with Gul and Subramaniam (1994) who found that auditors are less objective when they are more familiar with the audited companies, which affects their work effectiveness. Similarly, Su et al. (2016) agreed that the length of the relationship with the audited companies can negatively affect the effectiveness of their work. The length of the period leads to a strengthening of the personal relationship with the audited companies, which could cause auditors to disregard some of the things that affect the effectiveness of audit quality and the auditor's independence and integrity. On the other hand, the results of the regression analysis showed that the effect of changes in task rotation on internal audit effectiveness is not statistically significant ($\beta = 0.110$, $p = 0.287$) with a t-statistic of 1.080, which is more than 0.05. This result is consistent with Cameran et al. (2008), who found no empirical support for an improvement in audit quality through mandatory rotation.

The third hypothesis states that management support has a positive influence on the effectiveness of internal auditing. The Pearson correlation coefficients show that management support has a moderate positive correlation with the effectiveness of internal audit. This result indicates that the probability of obtaining a correlation coefficient of this value in a sample of 40 respondents, if the null hypothesis were true, is very low. Therefore, this study was confident that there is a relationship between management support and internal audit effectiveness. The descriptive statistics showed that a proportion of the respondents agreed with the statements that management support from the audit department is adequate (mean = 3.9125). The result of the survey is consistent with Baharuddin et al. (2014) who found that management support and commitment have some influence on the internal audit department being effective. Similarly, Huong (2018) emphasised that management and the board should support internal auditors in fulfilling their duties and responsibilities by providing sufficient resources to make the auditors' work more effective. In addition, the multiple regression model showed that the impact of changes in management support on internal audit effectiveness is statically significant ($\beta = 0.397$, $p = 0.003$) with a t-statistic of 3.153, which is less than 0.05. The results are consistent with agency theory, which predicts a relationship between staff competence, task rotation, management support and internal audit effectiveness. According to the agency theory, internal auditors must be effective as trusted advisors to the audit committee in order to maintain their independence and objectivity. However, due to a lack of experience in internal auditing and in the industry, as well as high staff turnover, it was difficult for the internal auditors to maintain their effectiveness in fulfilling their duties. Therefore, it was difficult for internal auditors to maintain their commitment to independence and objectivity in both their thinking and actions when there is a risk of familiarity due to non-rotation of tasks.

5. Conclusion

This study analyses the determinants of the effectiveness of internal auditing in a listed company. In particular, it examines whether staff competence, task rotation and management support influence the effectiveness of internal auditing in a listed company. The findings of this study indicate that most internal audit staff in the listed company believe that the effectiveness of internal auditing in the organisation is strong. The internal auditors believed that they are able to achieve results that are in line with the organisation's objectives. This finding is further reinforced by the fact that 75% of the internal auditors have more than five (5) years of professional experience. The findings of this study also indicate a positive, moderate relationship between the predictive and effective (dependent) variables. These findings indicate that the effectiveness of internal auditors increases with staff competence, task rotation and management support and vice versa. In addition, the findings of the regression analysis showed that the relationship between task rotation and internal audit effectiveness was not statistically significant.

This study is not without limitations. The main limitation is that the target population was limited to internal auditors working at the public listed company. Another significant drawback is that the responses to the questionnaires are based on the internal auditors' views. This study could not assess whether these views were objective and unbiased. The small target population and sample size might not provide generic results that could shed more light on the specific factors that could influence the effectiveness of internal auditing.

In sum, this study adds to the literature on the effectiveness of internal auditing issues. Thus, it may be used as a reference for future studies. The outcomes of this study contribute to the understanding of new researchers and give them an idea of the determinants that affect the effectiveness of internal auditing in general.

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