

PERCEPTION OF MANAGERS ON THE EFFECTIVENESS OF THE INTERNAL AUDIT FUNCTIONS: A CASE STUDY IN TNB

Amanuddin Shamsuddin¹
Accounting Department, College of Business Management & Accounting, Universiti Tenaga Nasional, 26700 Bandar Muadzam Shah, Pahang, Malaysia
Email: ¹Amanuddin@uniten.edu.my

Nur Azihan Bt Ab Mubin²;
Final Year Students, Bach. of Accounting (Honours), Universiti Tenaga Nasional, Sultan Haji Ahmad Shah Campus, 26700 Bandar Muadzam Shah, Pahang, Malaysia
Email: ²azihan_mubin@yahoo.com

Nur Athirah Bt Mohd Zain³;
Final Year Students, Bach. of Accounting (Honours), Universiti Tenaga Nasional, Sultan Haji Ahmad Shah Campus, 26700 Bandar Muadzam Shah, Pahang, Malaysia
Email: ³athirah_zain@yahoo.com

Nur Amalina Bt Mohd Akil⁴;
Final Year Students, Bach. of Accounting (Honours), Universiti Tenaga Nasional, Sultan Haji Ahmad Shah Campus, 26700 Bandar Muadzam Shah, Pahang, Malaysia
Email: ⁴nuramalin.akil@yahoo.com

Nur Amaniena Bt Abdul Aziz⁵
Final Year Students, Bach. of Accounting (Honours), Universiti Tenaga Nasional, Sultan Haji Ahmad Shah Campus, 26700 Bandar Muadzam Shah, Pahang, Malaysia
Email: ⁵niena.aziz@gamil.com

ABSTRACT

The main objective of this study is to examine the perception of managers on the effectiveness of the internal audit functions in an electric utility company, Tenaga Nasional Berhad (TNB). In addition, it also investigates the factors affecting the internal audit effectiveness in TNB. TNB is chosen as the object since it is largest electricity utility company in Malaysia. Moreover, its internal audit department is considered as one of the excellent internal audit departments among the Government-linked companies in Malaysia. This study used survey questionnaire in collecting the data. Samples are the managers in selected TNB offices across divisions in Selangor and Wilayah Persekutuan. Based on the 114 sample size, the study found that TNB managers have positive perception on the internal audit effectiveness. Furthermore, all three factors (competence, independence, management supports) showed positive correlations with the effectiveness. The findings can be used by TNB management in order to better enhance its internal audit functions. They may come up with relevant policies or procedures to ensure the effectiveness of the internal audit department.

Key words: Internal audit, Internal audit functions, Tenaga Nasional Berhad, Malaysia

Introduction

Internal audit plays an important role for companies that strive to achieve their objectives. They are responsible to help management to demonstrate that they are managing organization effectively and reliably on behalf of the stakeholders. Normally, internal auditor will have a discussion with management and advise them on their business operations and risks associated with them. Subsequently, management would be able to reduce the company's risks and continue their operations with the advice of the internal auditors. Thus, it is viewed that management and internal auditors have a close relationship eventually. However, the independence of internal auditor must also be considered in order to ensure their effectiveness and avoid any potential frauds from happening (Institute of Internal Auditors (IIA), 2013). Not only that, internal auditors should observe and practice internal audit principles at all time. The internal audit principles are integrity, objectivity, competence and confidentiality.

This research aims to examine the perception of managers towards factors that affecting internal audit effectiveness based on the case study in Tenaga Nasional Berhad (TNB). This study was conducted in TNB since TNB is considered as one of the largest Government Linked Companies (GLCs) in Malaysia. Besides that, TNB is the largest electricity utility company in Malaysia

with RM60 billion worth of assets. In addition, the company has won the Energy Company of the Year Award in Singapore in 2014, which indicates its excellence achievement (Tenaga Nasional Berhad, 2014).

Research Background

Nowadays, to be a global high performing company, there were a lot of challenges. They need to upgrade their strategies to compete with others and be successful. Tenaga Nasional Berhad (TNB) is one of a monopoly company in Malaysia. Furthermore, TNB contributed in Government-linked Companies (GLCs) towards development of the Malaysian economy (Tenaga Nasional Berhad, 2011). However, an established company also has a risk on transparency and accuracy on internal audit. Thus, the internal audits act as an important component of the management in a private company such as TNB. The objective of this study is to measure the effectiveness of internal audit functions based on competence of internal audit, management support for internal audit and independence of internal audit (Alzeban, 2012).

In Malaysia, there was a lack of exposure to effectiveness in internal auditing based on a journal article of "Perception of managers and internal auditors as to factors affecting the effectiveness of internal audit in the public sector context" (Alzeban & David Gwilliam, 2012). The researchers were able to use only a few journal articles from Malaysia as their reference.

In Malaysia, significant fraud in an organization may cause losses and affect the reputation of the organization. A survey conducted by KPMG Malaysia shows that internal audit is the most important mechanism (24 percent) to detect fraud in an organization. The finding proves that effectiveness of internal audit would reduce any discrepancies in an organization in Malaysia (KPMG Malaysia, 2013). Another example of the significant role played by the internal audit was in the case of Sime Darby. In 2010, Sime Darby Engineering Sdn Bhd management was found committing frauds in the organization. The financial fiasco was found by the internal audit team of the Sime Darby. Malaysian Anti-Corruption Commission (MACC) initiated investigation towards the company and finally found elements of corruption, misappropriation and abuse of power. Sime Darby asked Datuk Seri Ahmad Zubir Murshid, their group chief executive to take leave of absence. But not only that, he also allegedly found accepting RM100,000 from a contractor in Johor and from another contractor in Klang Valley for almost RM200,000. The money is used for the purpose of paying down payment for the purchase of a luxury car. Based on this case, it can be proved that the effectiveness of the internal audit management shall reduce misappropriation in the organization (Sanusi, 2011).

Therefore, this study aims to achieve the following objectives. Firstly, it is to examine the perception of TNB's managers towards the factors that affect the effectiveness of the internal audit functions in TNB; Secondly, to investigate the factors that determine the effectiveness of the internal audit functions in TNB.

The results of the study are expected to provide some information to appropriate regulators such as TNB's management. They can provide high quality products and services to their customers with the effectiveness of the internal audit in the organization. This can allow TNB to protect its good name and reputation. Besides that, as one of the GLCs, it will be able to show the good example to other GLCs or government departments by operating the internal audit functions effectively.

Findings from the current study also would contribute to the literature by discovering the factors that influence the effectiveness of the internal audit in an organization such as TNB. Understanding the factors that determine internal audit effectiveness is important because it can improve accountability and transparency of internal auditing.

Literature Reviews

Functions of Internal audit

The internal auditors are trained professionals that have the expertise to assess risks and their potential impact on the business and evaluate controls that a company might have implemented to mitigate those risks (Ravi, 2014). Internal audit are very important in an organization, where it is conducted to improve internal controls and audit. Internal audit department provides management with information, appraisals, recommendations and counsel regarding activities or issues in organizations. It helps a company to do their work properly with guidance from internal auditors. Internal auditor is able to listen actively to others in order to understand the idea.

Based on the definition of internal auditing that has been defined by IIA (2013), internal audit is involved in internal control of the company. Functions of internal control are to provide reasonable assurance that financial information is accurate and reliable. Internal auditor should participate in the design of the data processing system to ensure that the system provides a proper audit trail and included adequate controls (Nnenna, 2012). It means internal auditing is focus on evaluation of the system of internal control. Despite, it minimizes employees' frauds that has intentionally to theft the assets or does the manipulation in the financial statement to meet their own interest. Auditor can use audit test to make sure the system are working properly.

Another benefit of internal audit is accuracy of financial statement. Internal auditor will review the financial statement to ensure reasonable assurance of information. Besides that, it also ensure that information is complying with law and regulation that stated in the standards. Existence of internal audit will make investors are assured that their interest are being properly protected and managed without any manipulation by another party.

Issues and Challenges

In era of globalisation, all industries would have experienced and face some degree of stress situation such as financial pressure or turmoil caused by the global economic recession which government had imposed in financial crisis. In global environment internal auditor should realize on the challenges on resourcing and multiple regulatory regimes that would not take that as easy (ViewPoints, 2013). Tenaga Nasional Berhad itself had been in issue during 1997 which suffered foreign exchange losses of RM1.29 billion and the losses keep increasing to RM2.47 billion for the first six months after the crisis began (Financial Times, 1997).

Nowadays, internal auditing important in playing their role to assists management and the board of directors or audit committee by examining, evaluating, reporting and recommending improvement with relevant strategies and ensuring the effectiveness of the entities towards Enterprise Risk Management (ERM) process (Beasley et al., 2006). It is in line with the functions of internal audit in the organization if internal auditor can conduct an annual audit universe risk assessment by identifying auditable entities and transparency and also internal audit can perform ERM. Rather than that, internal auditor should against the grain, give great opinion and alert of imbalances between risks and control. They need to suggest the management on improvements to increase efficiency in the company or about lowering the operating costs.

Moreover, it is important for internal audit to focus on to ensure the effectiveness of internal audit which is they should be worked out on risk-based not only on transaction-based. That means internal audit need to look on true risks that the organization facing on for examples risks of IT and compliance (ViewPoints, 2013). Internal auditors need to analyses the situation deeply and find out the solution that can overcome or control the situation which suitable and adequate. ERM can be used to minimize level of risk and it also as a tool, which seeks to intensive strategy in handling risks in management. Risk-based internal auditing is has emerged as important contributor to effective risk management because it will help on the effectiveness on internal audit in an organization (Allot, 1996). Furthermore, internal auditor should great on use all the information and data to plan the strategies to structure audits that can add real value but still policies or procedures should be applied. In auditing planning there are two levels which are planning the annual schedule of audit known as macro risk assessment and planning each audit engagement known as micro risk assessment (Allergrini & D'Onza, 2003). Internal auditor should shows the competence and due care in their audit assessments.

In addition, internal audit move to continuous auditing on evaluating key performance indicator and recognize issues as earlier in critical processes. Risk assessment means by method of identifying, measuring and prioritizing risk. It is about prerequisite of risk management and steps to lowering the risk with identifying how risk acceptable, second formation the actions should be taken to avoid and lastly evaluate whether risk need to be share or control. Approaches in methodical way were different procedures that should be taken in order to protect and add value to the organization. Enable internal audit on identifying any fraud or manipulation of records in financial reporting. Not only that, internal auditor should expert and upgrading their knowledge on technologies to ensure the effectiveness on their task.

Tenaga Nasional Berhad (TNB)

Tenaga Nasional Berhad (TNB) is the largest electricity utility company in Malaysia and a leading utility company in Asia. Previously, TNB was former known as Central Electricity Board (CEB). It was listed on the main board of Bursa Malaysia with almost RM 87 billion in assets in 1991. TNB's core business is generation, transmission and distribution of electricity. Other than that TNB had diverse into the manufacture of transformers, high voltage switchgears and cables, the provision of professional consultancy services, and architectural, civil, electrical engineering works and services, repair and maintenance. The company also took part in research and development, property development and management services. As a leading government-linked company, TNB also emphasis on its social responsibilities through its foundation, Yayasan Tenaga Nasional that outreach programed on educations through scholarships and loans. TNB was presented with Energy Company of the Year Award during the inaugural 5th Annual Power & Electricity Awards 2014. The Award honors and recognizes a corporate leader for his or her exemplary skills in growing, expanding and transforming the organization towards a profitable, responsible and sustainable power company in the region.

In order to improve the internal audit effectiveness of TNB, internal auditor need to monitoring TNB's risk profile and identifying the areas to improve risk management. It is important for TNB to enhance organisational efficiency and effectiveness through constructive criticism because internal auditing is link in business and financial reporting processes of corporations and not-for-profit providers (Reynolds 2000).

TNB would avoid the bad experience in 1997 and it was nightmare for them losing profit in their organization because as a national power utility they should impressed their investor and to put their name on world-class enterprise. Restructuring their management, which is needed but still complies with the rules and regulations, is one of their strategies and from here measuring the performance and effectiveness of internal audit is necessary. Quickly adapt to new regulatory environments is important for internal auditor and organization. Internal audit must be functioning and focusing more on monitoring and controlling. Internal auditor is about tolerated and it is not about deemed essential in control the organization (Spira & Page, 2003). Most important is make sure ethics budgets are protected in difficult times because internal audit need to be ready on all difficulties and need to be more strategic part of business.

Agency theory

Theory that can relate for explaining the existence and scope of internal audit function is agency theory. Agency theory means the relationship between agent and principal, where agent is management or TNB and principal is the shareholder. The

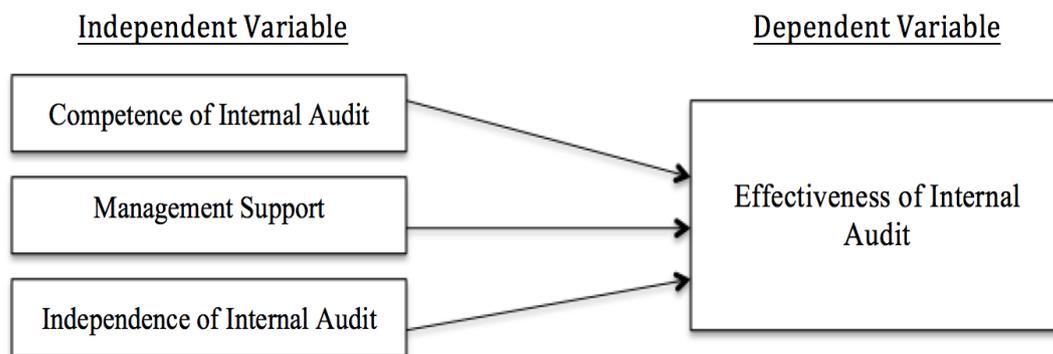
assumptions behind agency theory is relate to the separation of power between management and ownership (F.Fama & C.Jensen, 1983). Principal and agents each may be seen as utility maximizers where each party has their own interest. Different people have their own needs in life. Managers work in the organization as agents to perform service on behalf of shareholders who delegated some decision-making authorities to managers (Jensen & Meckling, 1976). The authorities perhaps lead manager misused to fulfil their personal interest. Existence of internal audit helps to fulfil both interest between managers and shareholders. Agency problem may occur when board or audit committee is inefficient.

There were ways to mitigate the agency problem. It is by monitoring cost, where it bears by shareholders. Higher monitoring cost reflects to lower manager salary. It means managers will do the best in their work. Example of monitoring cost is hire internal auditor. Internal auditor act as watchdog on behalf principal to monitor and assess the reliability of information provided and to make sure manager do their works and in line with shareholders interest. Internal auditors must perform audit processes at the professional level that requiring independence, objectivity and professional due care to perform their responsibilities excellently (IPPF, 2015).

Theoretical Framework

Based on the preceding discussions of the previous research and related theory, this study postulates the following theoretical framework as shown in Figure 1 below:

Figure 1: Theoretical Framework



Effectiveness of internal audit helps for achieving performance, profitability and prevents any lack or loss of revenues particularly. Audit effectiveness is an outcome of auditors’ activity, duties, policies and procedure (Ussahawanitchakit & Intakhan 2011). Besides, Shoormuangpak & Ussahawanitchakit (2009) stated that the audit effectiveness refers to ‘achieving audit’ objectives by gathering of sufficient and appropriate audit evidence in order to reasonable opinion regarding the financial statement compliance with generally accepted accounting principle.

Furthermore, Institute of Internal Audit (2013) defined internal audit effectiveness as the degree including quality to which established objectives are achieved. In addition, because of internal audit plays an important role in organizations, many organizations is given more concerned to their effectiveness internal audit in order to give guidance and advice at different levels of management. In the same reason effectiveness internal audit function could be a major asset for improving public confidence in financial reporting and corporate governance if it contains organisational independence, competence staff and support from management (Belay, 2007; De Smet& Mention, 2011).

Hypotheses Development

Competence of Internal Audit

In Malaysia, internal audit are impossible to function well because among of staff are lack of competence (Ali et al., 2007). Staff expertise is also considered important in the organization of company because it’s a main reason some organization achieved their goals and target successfully. Internal audit team must have a competence to enable them to provide the high quality services. Besides that, they should have qualified internal audit from certificated agencies. Based on Mihret et.al (2010), both technical competence and continuous training are considered essential for internal audit effectiveness. Audit communication is the factors that can influence competence of internal audit departmental (A.Bailey, 2010). Thus, this study hypothesizes that:

H1: There is significant relationship between competence of staff and effectiveness of internal audit

Management Support

Management support plays a crucial role in organizational renewal (Fernandez and Rainey, 2006). Management support also needs some improvement in order to achieve quality management practice (Dale & Duncalf 1985). Quality can be achieve by improve the attitudes and behaviors’ of top managers (Flynn, Schroeder & Sakakibara, 1994). Indeed, previously studies that stated about management support on internal audit that have been taken into reference are by Leung, Cooper and Robertson, 2004 which they believe that management bring positive performance towards internal audit because it can influence decision, maintain level of objectivity, integrity and competence in their job. Alzeban & Gwilliam (2014) and George et al. (2015) argue

that there is positive association between management supports and internal audit effectiveness. Thus, this study posits the second hypothesis as;

H2: There is significant relationship between management support and internal audit effectiveness.

Independence of Internal Audit

Internal auditors need to have a good relationship with management (Sarens, 2003). It is the most challenging task for internal audit to be in line between independence and partnership because internal audit need to gain confidence of external auditor in order to strengthen the relationship and encourage external auditor to rely on the work of internal auditor (Abubakar, 2007). Apart from that, audit department need to be strong to achieve the effectiveness of internal audit in organization (Ernst & Young, 2013). The independence of internal audit department is to ensure there are free from interference (Emmanuel, 2013). This to avoid conflict of interest due to no independence of internal department thus fraud or legal action might be occur (Council, 2014). Cohen & Sayag (2010) and Alzeban & Gwilliam (2014) also argued that independence of internal audit affect internal audit effectiveness. Thus, this third hypothesis for this study is:

H3: There is significant relationship between independence of internal audit and effectiveness of internal audit

Research Methods

Data Collection Procedures

Population in this research is managers of Tenaga Nasional Bhd (TNB). The number of managers in TNB is around 2,500 throughout the company (Human Resource Department, TNB, 2014). Samples selected for this study were TNB managers stationed in Jalan Timur (Selangor), Dua Sentral and Bangsar (Wilayah Persekutuan). The number of samples selected was 400 managers who were from distribution, transmission and generation divisions in TNB. These TNB stations were selected based on TNB Human Resource's recommendation since these offices have the most numbers of managers that represents all the three divisions in TNB.

This research used questionnaires in collecting the data. The questionnaires were adapted from the journal article titled "Perception of managers and internal auditors as to factors affecting the effectiveness of internal audit in the public sector context" from Alzeban & David Gwilliam (2012). Researcher gets the questionnaires by emailing to Alzeban as the questionnaires are not compiled together in their journal article. Moreover, the researchers asked their permission to use their questionnaires as a reference for this study. Questionnaires are divided into five sections. Section A is demographic profile of respondents. Section B is pertaining to management support. Section C covers independence of internal audit question. Next, Section D is related to competence of internal audit function. Lastly, Section E contains questions regarding internal audit effectiveness. The respondents were required to answer the questionnaires using interval scale. This study utilized a five point Likert scale in which 1 indicates "strongly disagree" and 5 indicate "strongly agree". The Likert scale is most commonly used scale survey in research (Sekaran & Bougie, 2013). According to Sekaran & Bougie (2013), data collection using questionnaires helped researchers to obtain data fairly and quickly. It is also an alternative to collect data easily because the information from questionnaires is easy to be coded.

Data collection administration applied was personally administrated to TNB managers. It is to ensure that researchers were able to collect all completed responses within a short period of time. In addition, any doubts on the question can be clarified on the spot and also researchers can explain the purpose of study. Target respondents for this study are 400 managers. A total of one hundred and fourteen questionnaires were used in this study. The questionnaires were distributed to TNB employees who are positioned as managers, senior managers and general managers. Prior to the distribution of questionnaires, the researchers had obtained the permission from the Head of Department of the TNB's Business Units. The researchers personally administered the questionnaires. Out of 400 questionnaires distributed, 114 (28.5%) of questionnaires were collected.

Statistical Analysis

This research used Cronbach's alpha to test the reliability of the questionnaire. Cronbach's alpha is the most common measure of internal consistency, reliability. It is considered to be a measure of scale reliability where it can be correlation efficient when the range is between 0 to 1. In terms of reliability, if the alpha value is less than 0.6, it is considered not acceptable, while the alpha value is over 0.6, the result (questionnaire) is acceptable (Hair et al, 2003). Hair et al, (2003) provide a rule of thumb pertaining to the Cronbach alpha value as shown in Table 1.

Table 1: Rule of Thumb on Cronbach Alpha

Alpha Coefficient Range	Strength of Association
<0.6	Poor
0.6 to < 0.7	Moderate
0.7 to < 0.8	Good
0.8 to < 0.9	Very Good
0.9	Excellent

Sources: Hair et.al (2003); Essential of Business Research Method.

Table 2: Results of Reliability Test

Variables	Cronbach's Alpha	N of Items
Management Support	.870	5
Competence	.878	5
Independence	.879	7
Effectiveness	.929	10

Table 2 shows that Cronbach’s alpha for this study. All variables have Cronbach’s alpha of more than 0.8. This indicates that all questions are acceptable and can be used for future analyses.

A normality test is a statistical process used to determine if a sample is normally distributed or not normally distributed. There are two methods under the normality test, which are graphical assessment and statistical assessment. Graphical assessment was examined by using the histogram, stem and leaf plot, normal probability plot and for statistical assessment use the Kolmogorov-Smirnov (KS) statistic, Shapiro-Wilk (SW), Skewness and Kurtosis. In this study, both Kolmogorov-Smirnov (KS) and Shapiro-Wilk (SW) statistic were used to test the normality of data.

In order to test normality of the data, Kolmogorov - Smirnov (KS) or Shapiro –Wilk (SW) was used. According to Field (2009), if the sample is more than 50, it is appropriate to used KS and if the sample size is less than 50, SW would be preferred. Based on the results of normality test, it shows that all variables have $p < 0.05$. This indicates that all data are not normally distributed. Hence, the non – parametric tests would be more appropriate to use for further analysis.

Correlation analysis measures the relationship between two variables that is dependent and independent variables. The objective is to see whether a change in the independent variables will result in a change of the dependent variable. If the data is normal, the technique used is Pearson Correlation whereby if the data is not normal, Spearman Rho Correlation will be used. This resulted in a positive or negative correlation as well determines the level of the relationship whether strong, moderate or weak. This study employed Spearman Correlation in analyzing the correlation of the dependent and independent variables since the data was not normally distributed.

Results and Discussion of the Findings

Descriptive Analysis - Perception of Managers

Descriptive analysis was used in order to measure central tendency of the investigated variables by examining the mean of data. The higher the mean score indicates most respondents’ gives positive feedback. While, standard deviation is used to measure the variability or dispersion. The higher the standard deviation indicates that more scores spread out. Table 3 below illustrates the perception of managers toward internal audit effectiveness. There were 10 items relating to internal audit effectiveness. These results are related to the main objective of this study, which is to examine the perception level of TNB’s managers. Based on the mean scores of more than 4.0 for all items, it shows that most managers in TNB agree with all the 10 questions. It implies that TNB managers perceived internal audit functions are effectively carried out.

Table 3: Results of Descriptive Test for Internal Audit Effectiveness

No		N	SD	D	N	A	SA	Median	Mean	Std. Deviation
1	Internal audit improves organisational performance	114	0	0.9	11.4	57.0	30.7	4.00	4.18	0.655
2	Internal audit reviews operations and programs to ascertain whether results are consistent with established organisational objectives and goals	114	0	0.9	14.0	57.9	27.2	4.00	4.11	0.662
3	Internal audit determines the adequacy and effectiveness of the organisation’s systems of internal accounting and operating controls	114	0.9	0	15.8	57.0	26.3	4.00	4.08	0.706
4	Internal audit reviews the compliance with policies, plans, procedures and regulations	114	0	0	14.9	57.0	28.1	4.00	4.13	0.645
5	Internal audit reviews the compliance with applicable external laws, and regulations	114	0	0.9	16.7	57.0	25.4	4.00	4.07	0.675

6	Internal audit evaluates and improves the effectiveness of risk management	114	0	0.9	16.7	50.9	31.6	4.00	4.13	0.71
7	Internal audit reviews the economical, effective and efficient use of resources	114	0.9	0.9	19.3	49.1	29.8	4.00	4.06	0.779
8	Internal audit makes recommendations for improvements to the internal control system where appropriate	114	0.9	0	19.3	57.9	21.9	4.00	4.00	0.704
9	Internal audit develops appropriate annual audit plans	114	0	0.9	21.9	50.0	27.2	4.00	4.04	0.728
10	Internal audit provides adequate follow-up to make sure that appropriate corrective action is taken and that it is effective	114	0	0.9	21.9	47.4	29.8	4.00	4.06	0.744
Valid N (listwise)		114								

Closer scrutiny of the questions shows that the highest ranking of mean was for statement number 1, ‘Internal audit improves organisational performance’, which is 4.18. Standard deviation for statement number 1 is 0.655. There are 57% and 30.7% of managers agreed and strongly agreed that internal audit improves organisational performance respectively. The lowest mean (4.00) for the questions is for statement number 8, ‘Internal audit makes recommendations for improvements to the internal control system where appropriate’. The standard deviation for statement number 8 is 0.704. Even though the statement records the lowest mean but it still falls under ‘agree’ scale. The result indicates that most of TNB managers agree with this statement.

Correlation

Since the result from Test of Normality shows that the data is not normally distributed, Spearman’s rho correlations are used to determine the correlation between two continuous variables.

Table 4: Spearman Correlation Matrix

Variable	Competence	Independence	Management Support	Effectiveness
Competence Correlation Coefficient Sig. (2-tailed) N	1.000 . 114			
Independence Correlation Coefficient Sig. (2-tailed) N	.683** .000 114	1.000 . 114		
Management Support Correlation Coefficient Sig. (2-tailed) N	.583** .000 114	.620** .000 114	1.000 . 114	
Effectiveness Correlation Coefficient Sig. (2-tailed) N	.599** .000 114	.584** .000 114	.677** .000 114	1.000 . 114

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

Table 4 shows the results of the correlation analysis. Overall, the findings show that all dependent variables under study have significant positive correlation between independent variables (competence, independence, management support) and dependent variable (effectiveness). Meanwhile, the coefficient correlations for all the relationships record the values of more than 0.5 in which Competence (r=.584), Independence (r=.677) and Management Support (r=.599). The results imply that there are ‘strong relationships’ between the variables (Davies & Whittred, 1980). As for the directions of the relationships, the positive signs indicate that the independent variables and dependent variables move in the same direction. It means that as Competence, Independence, or Management Support increases, the Effectiveness of the internal auditors also increases and vice versa.

The findings from this research were supported by the earlier studies such as Zulkifli Baharuddin (2014); Sayag (2010); George et al. (2015); Alzeban & Gwilliam (2014); Angus Okechukwa Unegbu and Mohamad Isa Kida (2011) as far as the Competency of internal auditors is concern. These researchers found that internal auditors can effectively carry out their duties if there are

enough internal auditors possessed the required competencies. In terms of management support to internal auditors, again Zulkifli Baharuddin (2014) and Sayag (2010) share the similar findings with this study. Both researchers found that management support is most crucial to the operation and success of internal audit. George et al. (2015) and Alzeban & Gwilliam (2014) also argued that there is positive associated between management supports and internal audit effectiveness. As for the Independence of the internal auditors, previous studies such as Sayag (2010); George et al. (2015); Alzeban & Gwilliam (2014) and Zulkifli Baharuddin (2014) support this study's findings. For example, Sayag (2010) found that 'Greater organizational independence will be related to auditing effectiveness'. Meanwhile, Zulkifli Baharuddin (2014) supports the statement that independence and objectivity are closely related to internal audit effectiveness.

Conclusion, Limitations and Recommendations

The main research objective of this study is "to examine the perception of TNB's managers towards the factors that affect the effectiveness of the internal audit functions in TNB". 114 questionnaires are successfully collected out of 400 questionnaires distributed. Based on descriptive analysis for the managers' perception as provided in Table 3, the findings show that the mean for all 10 questions surveyed was above 4.00. This indicates that TNB managers have positive or high level of perception on the internal auditors' effectiveness.

The second objective of this research is "to investigate the factors that determine the effectiveness of the internal audit functions in TNB". There are three hypotheses that had been examined in this study which are competence, management support, and independence. Table 4 shows the findings of this study which conclude that all three hypotheses are accepted since there is significant relationship of all variables under study. The findings imply that the internal auditors must have the relevant factors or characteristics such as competency, independent and management support, in order to be effective.

There are several limitations encountered in carrying out this study. To illustrate, during the data collection process, there were lack of cooperation among the business units within TNB. As a result, there were not very encouraging responses received (28.5%). Furthermore, some of the respondents did not well cooperated with the researchers in completing the survey. Besides, in term of timing, there were problems when collecting the data. Almost all the managers were not in their office at that time. The reasons given were either attending meetings or attending training outside their offices. Nevertheless, the sample gathered (114 out of 400 questionnaires distributed) is large enough to proceed with further statistical analyses.

The second limitation is that the sample chosen for this study was limited to managers of TNB only and confined to certain TNB offices located in Wilayah Persekutuan and Selangor only. With these constraints, the findings for this study could not generalize to the whole of TNB and what more for other companies. In the course of conducting this study also, researchers encountered difficulties in finding the relevant journals or articles pertaining to internal audit functions particularly in the electric utility company such as TNB. Most of the previous studies focus on other industries.

In response to the limitations highlighted in the previous section, future researchers may properly plan and organize in their data collection processes. They may be able to get a better cooperation from the target respondents should they carry out a proper procedure or set the time and date when most of the managers is available. Furthermore, this kind of research should not only be carried out in a specific company or industry such as TNB but also future researchers can broaden their ideas to other industries or perhaps the same industry but with more companies. This would allow a comparison be made across industries or with the same industry. Another recommendation is perhaps the sample selection should not be limited to only managers but also to include other positions. This would give a more comprehensive findings and more reliable generalization could also be made. Finally, the survey can be conducted in specific intervals such as every two years, so that a comparison of data for research improvement can be made. For future research, this study can help another researcher to gather any information or new ideas to develop a new research based on the same purpose. Researchers may highlight company that has issues regarding to internal audit for future.

References

- Abubakar, S. (2007, April). The Internal Auditor: Definition, Duties And Responsibilities, Relationships, Ethics, And Independence.
- A.Bailey, J. (2010). *The IIA's Global Internal Audit Survey: A component of the CBOOK Study*. Institute of Internal Auditors Research Foundation (IIARF), Florida.
- Ahmad, H., Othman, R., Othman, R., & Kamaruzaman, J. (2009). The Effectiveness of Internal Audit in Malaysian Public Sector. *Journal of Modern Accounting and Auditing, Vol.5, No.9* (ISSN 1548-6583), USA 62.
- Ali, A., Gloeck, J., Ali, A., Ahmi, A., & Sahdan, M. (2007). Internal audit in the state and local government of Malaysia. *Southern African Journal of Accountability and auditing research, 7*, 25-57.
- Allergrini, M., & D'Onza, G. (2003). Internal Auditing and Risk Assessment in Large Italian companies : an Empirical Study. *International Journal of Auditing, 7*, 119-208.
- Allot, A. (1996), "The emerging role of internal audit", *Management Accounting*, January, pp. 60-1.
- Alzeban, A., & Gwillian, D. (2012). Perception of managers and internal auditors as to factors affecting the effectiveness of internal audit in the public sector context. Retrieved November 19, 2014
- Alzeban, A., & Sawan, N. (2013). The role of internal audit function in the public sector context in Saudi Arabia. *African Journal of Business Management Vol. 7(6)*, pp. 443-454, 14 February, 2013, 12.

- Alzeban A, Gwilliam D. (2014). Factors affecting the internal audit effectiveness: A survey of the Saudi public sector, *Journal International Accounting Auditing Taxation*. 23:74-86.
- Beasley, M. S., Clune R., Hermanson D.R., (2006). The impact of Enterprise Risk Management on the Internal Audit Function. *Strategic Finance*, 1-26
- Belay, Z. (2007). A Study on effective implementation of internal audit function to promote good. *Conference Ethiopian Civil Service College Research, Publication & Consultancy Coordination Office*.
- Council, A. C. (2014). Corporate Governance Principles And Recommendations.
- C. William, T. (2002). The Rise and Fall of Enron. *Journal of Accountancy*.
- Cole, D. A., & Maxwell, S. E. . (2003). Testing meditational models with longitudinal data: Questions and tips in the use of structural equation modeling. *Journal of Abnormal Psychology*.
- Dale, B.G. and Duncalf, A.J. 1985, 'Quality-related Decision Making: A Study in Six British Companies', *International Journal of Operations and Production Management*, 5:15-25.
- Davies, M. (2001). The changing face of internal audit in local government. *Journal of Finance and Management in Public Services*.
- De Smet, D., & Mention , A.-L. (2011). Improving auditor effectiveness in assessing KYC/AML practices Case study in a Luxembourgish context. *Managerial Auditing Journal*, Vol. 26 (2), pp. 182 - 203.
- D'Onza, M. A. (2003). Internal Auditing and Risk Assessment in Large Italian Companies: an Empirical survey.
- Dr A.O.Enofe, D. C.-E. (2013). The role of internal audit in effective management in public sector
- DR, B. C. (2005). Enterprise Risk management: An Empirical Analysis of Factors Associated with the Extent of Implementation. *Journal of Accounting and Public Policy*.
- Emmanuel, O. E. (2013, October). An Assessment Of Internal Control Audit On The Efficency Of Public Sector In Kogi State Nigeria . *Mediterranean Journal Of Social Sciences* , 717-726.
- Ernst & Young. (2013, May 2). Ernst & Young. Retrieved From Www.Ey.Com: [http://www.ey.com/Publication/Vwluassets/Future_Ia/\\$File/1204-1354105_Future%20ia%20whitepaper_Final.Pdf](http://www.ey.com/Publication/Vwluassets/Future_Ia/$File/1204-1354105_Future%20ia%20whitepaper_Final.Pdf)
- F.Fama , E., & C.Jensen, M. (1983). Seperation of ownership and control. *Journal of Law and Economics*, Vol. 26, pp. 301-325.
- Ferdinand A.Gul, M. N. (2013). *Auditing: Theory and Practice in Malaysia*. CCH.
- Fernandez, S. and Rainey, H.G. 2006, 'Managing Successful Organizational Change in the Public Sector', *Public Administration Review*, 66: 168-76.
- Flynn, B.B., Schroeder, R.G. and Sakakibara, S. 1994, 'A Framework for Quality Management Research and an Associated Measurement Instrument', *Journal of Operations Management*, 11: 339-66.
- Field, A. (2009). *Discovering Statistics Using SPSS*. 3rd ed. London: SAGE Publications Ltd.
- Gheorghe Suci, L. P. (2008). Similarities And Differences Between Internal Auditing, Internal Public Auditing And Other Services. Dimitrie Cantemir" University Of Braşov .
- Goodwin, J. (2004). A comparison of internal audit in the private and public sectors. *Managerial Auditing*, Vol 19, No 5.
- George, D., Theofanis, K., & Konstantinos, A. (2015, July). Factors associated with Internal Audit Effectiveness: Evidence from Greece. *Journal of Accounting and Taxation*, Vol. 7(7), pp. 113-122, (ISSN 2141-6664).
- Hair, J. F. Jr., Babin, B., Money, A. H., & Samouel, P. (2003). *Essential of business research methods*. John Wiley & Sons: United States of America.
- Hardwick, S. R. (2015). Agricultural and Forest Methodology. *The Relationship Between Leaf Area Index And Microclimate in Tropical Forest and Oil Palm Plantation: Forest Disturbacne drives changes in microclimate*.
- IPPF. (2015). *The Institute of Internal Auditors*. Retrieved from International Standards for the Professional Practice of Internal Auditing: <http://www.theiia.org/guidance/standards-and-guidance/ippf/standards/full-standards/?search=risk>
- Jensen, M., & Meckling, W. (1976). Theory of the firm: Managerial behavior, agency. *Journal of Financial Economics*, 305-360.
- John Wiley & Sons. (2010). *Evaluating The Internal And External Audit Function*. The Audit Committee Guide Series .
- KPMG. (2013). *KPMG Malaysia Fraud, Bribery and Corruption Survey 2013*.
- Leung, P., Cooper, B.J. and Robertson, P. 2004, *The Role of Internal Audit in Corporate Governance and Management* , RMIT Publishing, Melbourne.
- Locatelli, M. (2002, October). Good Internal Controls and Auditor Independence. *The CPA Journal*.
- Martin G. Larson, S. (2006). Statistical Primer for Cardiovascular Research. *Descriptive Statistics and Graphical Displays* .
- Mihret, D.G., A. W. (2007). Internal audit effectiveness: an Ethiopian public sector case study.
- Mihret, D. G., James, K., & M.Mula, J. (2010). Antecedents and organisational performance implications of internal audit effectiveness: Some propositions and research agenda. *Pacific Accounting Review*, 22(3), pp.224 - 252.
- Mu'azu Saidu BADARA, S. Z. (2013). The Relationship Between Audit Experience And Internal Audit Effectiveness In The Public. *International Journal of Academic Research in Accounting*, 11.
- Nagy, A. a. (2002). An assessment of the newly defined internal. *Managerial Auditing Journal*, Vol. 17, No 3.
- Nnenna, D. (. (2012). The role of internal audit in financial institutions (A study of Nigerian Agriculture and Corporative Bank, First Bank of Nigeria and United Bank for Africa PLC). *British Journal of Science*.
- Nuna Castanheira, L. L. (2009). Factors associated with the adoption of risk-based internal auditing .
- Pallant, J. (2011). *SPSS Survival Manual A step by step guide to data analysis using SPSS* (4th ed., Vol. ISBN 978 1 74237 392 8). Australia: Allen & Unwin.
- Ravi, J. (2014, February 25). Retrieved December 27, 2014, from Internal Audit - A tool for business value: <http://www.eisneramper.com/internal-audit-benefits-controls-risks.aspx>
- Reuters, T. (2012). *Thomson Reuters Continues To Lead The Weay With Expert Audit Tools*. Thomson Reuters Inc.
- Reuben, T. (2010, April 21). *Purdue OWL*. Retrieved 2014, from Online Writing Lab Descriptive Statistics: <https://owl.english.purdue.edu/owl/resource/672/03/>.

- Reynolds, M.A. 2000, 'Professionalism, Ethical Codes and the Internal Auditor: A Moral Argument', *Journal of Business Ethics*, 24: 115–24.
- Sarens, G. (2007). *The Role Of Internal Auditing in Corporate Governance: Qualitative and Quantitative Insights On The Influence Of Organisational Characteristics*.
- Sarens, G. (2003, March). Internal Audit Reporting Relationships: Serving Two Masters. The Institute Of Internal Auditors Research Foundation .
- Sayag, A. C. (2010). The Effectiveness of Internal Auditing: an Empirical Examination of its Determinants of Israeli Organisations.
- Sawyer, L. (1995, August). An internal audit philosophy. In *Internal Auditor*.
- Spira, L.F., Page, M. (2003), "Risk management: the reinvention of internal control and the changing role of internal audit", *Accounting, Auditing & Accountability Journal*, Vol. 16 No.4, pp.640-61.
- Subramanian, D. R. (2012). Effectiveness of Internal Audit in Tanzanian Commercial. *British Journal of Arts and Social Sciences*, Vol.8 No.1 (ISSN: 2046-9578).
- Sumritsakun, C. &. (2009). internal audit innovation and firm stability of Thai listed company: How do implement in an organization? *Journal of Academy of Business and Economics*, 1-23.
- Susan, C. R., & David, J. (2002). *Statistics Made Simple for School Leaders: Data-Driven Decision Making*. United States: The American Association of School Administration.
- Tenaga Nasional. (2011, June 17). Retrieved 2014, from GLC Open Day 2011: <http://www.tnb.com.my/announcement/2011/06/glc-open-day-2011.html>
- Tenaga Nasional Berhad. (2015). Retrieved 2014, from TNB Wins Energy Company of the Year Award; CEO Honoured With Asian CEO of the Year Award: <http://www.tnb.com.my/highlights/2014/04/tnb-wins-energy-company-of-the-year-award-ceo-honoured-with-asian-ceo-of-the-year-award.html>
- The Institute of Internal Auditors. (2013). Retrieved March 21, 2015, from <https://na.theiia.org/standards-guidance/topics/Pages/Independence-and-Objectivity.aspx>
- Sekaran, U., & Bougie, R. (2013). *Research Methods for Business*. United Kingdom: John Wiley & Sons Ltd.
- Ussahawanitchakit, A. &. (2011). Audit professionalism, audit independence and audit effectiveness. *International Journal of Business Research*.
- ViewPoints. (2013). Enhancing audit committee reporting.
- Ziegenfuss, D. (2000). Measuring performance. *Internal Auditor*, 57(1), 36–40.
- Zikmund, W.G. (2003) *Business Research Methods*, (7th edn), Thompson South-Western: Ohio
- Zulkifli Baharud-din, A. S. (2014). *Factors that Contribute to the Effectiveness of Internal Audit in Public sector*.
- Zuraidah Mohd Sanusi, N. O. (2011). Fraud and Financial Performance of Construction and engineering firms.