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The Relationship of Internal Audit and Risk Management: The Impact of Turbull Factors

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ABSTRACT

This research aims to find the relationship between internal audit and factors as specified by Turbull, namely, organizational changes, internal control failings, unexplained/unacceptable events, scale, diversity and complexity of activities and risk exposure. In addition, this research also looks at any relationship between internal audit and being public-listed. The results from this research indicates that there is a relationship between having an internal audit function and being public-listed as well as the scale, diversity and complexity of activities. However, this research finds no relationship between internal audit and organizational changes, internal control failings, unexplained/unacceptable events and risk exposure. The reasons why these deviates from corporate governance best practices are then explained. This research used convenience sampling, Chi-Square analysis and nominal data.

Keywords: internal audit, corporate governance, internal controls, Chi-Square

1. INTERNAL AUDIT AND RESEARCH QUESTIONS

It is said that internal auditing, just like external auditing originates in ancient times from countries like Egypt, Greece and Rome. The internal auditing process in China might be traced back to the Zhou dynasty (1066-221 BC) when the government set up two kinds of special officers, i.e. Zai Fu (equivalent of controller) and Sikuai (equivalent of treasurer); the former was in charge of external auditing, the latter for internal auditing (Chun, 1997, p. 247).

According to the Institute of Internal Auditors (IIA):

"Internal auditing is an independent, objective assurance and consulting activity designed to add value and improve an organization's operations. It helps an organization accomplish its objectives by bringing a systematic, disciplined approach to evaluate and improve the effectiveness of risk management, control, and governance processes" (global.theiia.org, 2019).

For internal audit to be effective, it should conform to certain core principles. The internal auditor must be of high integrity and demonstrates competency and undertakes due care. Moreover, the internal auditor must be independent and objective and is free from undue influence. In addition, the work of an internal auditor is aligned with organizational strategies, objectives and is aligned to the risks facing an organization. The internal audit function should be appropriately positioned and adequately resourced. The work of an internal auditor demonstrates quality and the incumbent seeks continuous improvement. The internal auditor is able to communicate effectively and has the competency, among others, to provide risk-based assurance. Finally, the internal auditor is insightful, proactive and is future-focused and also promotes organizational learning (global.theiia.org, 2019)

According to the UK Governance Code (2018, p.10), "the board should establish formal and transparent policies and procedures to ensure the independence and effectiveness of internal and external audit functions…". The functions of internal audit, among others are as follows.

Internal auditors will have to evaluate and improve risk management (Sarrens and De Beelde, 2006, p. 65). Hence, they have to conduct risk assessment and also evaluate (review and appraise the adequacy, effectiveness, and efficiency of the internal control system in order to provide and independent opinion of it) and improve internal controls (Sarrens and De Beelde, 2006, p. 72).

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Internal auditors will also have to examine financial and operating information to assess its suitability, reliability and integrity. They will also have to review the economy, efficiency and effectiveness of operations. In addition, internal auditors will have to review the safeguarding of assets and the implementation of corporate objectives. Internal auditors will also be expected to carry out special investigations, e.g. suspected fraud and review of the compliance of a firm with legislation, regulations and codes of practices. Internal auditors will also take follow-up action taken to remedy weaknesses identified by internal audit reviews and ensuring that good practice is identified and communicated widely. Furthermore, internal auditors will also test to ensure robustness – stress-, compliance-, load testing and security issues. Internal auditors can also carry out social and sustainability audits and provide advice to the board on corporate takeovers and mergers as well as on project management, if they have the necessary expertise (Singh, 2019, pp.3-4).

Turnbull (n.d. cited in Professional Accountant, 2007, p. 153) states that the need for internal audit will depend on several factors such as the scale, diversity and complexity of the company's activities, the number of employees, cost-benefit considerations, changes in organizational structures, reporting processes or underlying information systems, changes in key risks, problems with internal control systems and an increased number of unexplained or unacceptable events. Using the work of Turnbull, this research aims to identify whether some of the above factors determine the existence of an internal audit function (either in-house or outsourced) for the sample selected by the author.

Research questions:

RQ1. Is there a relationship between internal audit function and being public-listed?

RQ2. Is there a relationship between internal audit function and organizational changes?

RQ3. Is there a relationship between internal audit function and a firm's activities?

RQ4. Is there a relationship between internal audit function and unexplained/unaccepted events?

RQ5. Is there a relationship between internal audit function and internal control failures?

RQ6. Is there a relationship between internal audit function and changes in risk exposure?

Research hypotheses:

H01: there is a relationship between internal audit and being public listed.

H02: there is a relationship between internal audit and organizational changes (organizational structure, reporting relationship or Information systems).

H03: there is a relationship between internal audit and scale, diversity and complexity of a firm's activities.

H04: there is a relationship between internal audit and unexplained or unacceptable events.

H05: there is a relationship between internal audit and internal control failures.

H06: there is a relationship between internal audit and risk exposure.

2. RESEARCH METHODOLOGY

Cavana, Delahaye and Sekaran (2001, p. 107) have given a set of steps to undertake in a research design process. These are as follows:

- Decide on purpose of study
- Determine the type of investigation
- Decide on extent of researcher interference
- Decide on study setting
- Decide on unit of analysis
- Decide on time horizon
- Decide on measurement and measures
- Select data collection method(s)
- Decide on sampling design

Since the purpose of this research is to find out the relationship between internal audit and the above research questions, hypothesis testing was deemed to be the most appropriate. In hypothesis testing, studies are done to explain the nature of certain relationships or establish the differences among groups or the independence of two or more factors in a situation. Hypothesis testing is also done to explain the variance in the dependent variable or to predict organizational outcomes (Cavana, Delahaye and Sekaran, 2001, pp. 108-112).

Field studies have been chosen, as it occurs in a non-contrived setting, i.e. it occurs in the natural environment where work proceeds normally, and it is believed that this method can provide more valuable

insights that may not be obtained via laboratory experiments (Pelled, Eisenhardt and Xin, 1999, p. 11). In addition, the researcher has no control over the independent variables and therefore, field studies were deemed to be highly appropriate (Boudreau, Gefen and Straub, 2001, p.3). Moreover, field studies are often used in business research that involves hypothesis testing (Robinson Jr., Marshall and Stamps, 2004, pp. 1626-1627; Tuten and Neidermeyer, 2004, p. 29; Snipes, Oswald, LaTour and Armenakis, 2005, p. 1333; Babin and Boles, 1998, p. 81).

Being a field study, researcher interference was kept to a minimum. Study-settings as mentioned earlier were non-contrived. The unit of analysis refers to the levels of aggregation of the data collected during the subsequent data analysis stage. This unit of analysis in a research can either be individuals, dyads, groups, or organizations (Cavana, Delahaye and Sekaran, 2001, pp. 119-121). Since this research focuses on individuals in the sample, the unit of analysis chosen were individuals.

The time horizon in the research can be cross-sectional or longitudinal (Cavana, Delahaye and Sekaran, 2001, pp. 119-122; Baker, 2001, p. 393; Voelpel, Dous and Davenport, 2005, p. 10). A cross sectional study is a study in where data are gathered or collected just once, perhaps over a period of days, weeks or months in order to meet the research objectives. Such studies can therefore also be called as a one-shot study (Cavana, Delahaye and Sekaran, 2001, p. 121; Baker, 2001, p. 393). In some cases, however, the researcher might want to study people or phenomenon at more than one point in time in order to meet the research objective. Such a study is called longitudinal study (Cavana, Delahaye and Sekaran, 2001, p. 122; Baker, 2001, p. 393). Longitudinal studies take more time and effort and cost more than cross-sectional study.

This research, as in most field studies deployed a cross-sectional study due to the time, effort and cost constraint involved in collecting data over several time periods. In addition, cross-sectional studies are well accepted in most research (Robinson Jr., Marshall and Stamps, 2004, p. 1626; Tuten and Neidermeyer, 2004, p. 29; Babin and Boles, 1998, p. 81).

The instrument used to gather data in this research was a self-developed questionnaire. A questionnaire is a predetermined set of questions designed to capture data from respondents. It is a scientifically developed instrument for measurement of key characteristics of individuals, companies, events and other phenomena. A questionnaire consists of a standard set of questions with answers to the questions often limited to a few pre-determined mutually exclusive and exhaustive outcomes (Hair, Babin, Money and Samouel, 2003, pp. 130-131). The questionnaire approach has been used in many research involving quantitative methodologies (Snipes et al., 2005, pp. 1333-1334; Babin and Boles, 1998, p. 89; Robinson Jr., Marshall and Stamps, 2004, p.1627; Mummalaneni, 2005, pp. 528-529; Tuten and Neidermeyer, 2004, pp. 29-30; Brashear, Lepkowska-White and Chelariu, 2003, p. 974; Lassk et al., 2001, p. 294; Johnston et al., 1988, p. 70; Sharma and Levy, 2003, p. 525; Jaramillo, Mulki and Marshall, 2005, p. 707; Baker, 2003, p. 343).

A questionnaire will also involve a proper measurement scale to measure the variables identified. Four measurement scales normally used are nominal, ordinal, interval and ratio (Cavana, Delahaye and Sekaran, 2001, p. 195; Davis and Cosenza, 1993, pp. 167-170; Black, 2001, pp.5-7; Shi and Bennet, 2001, p. 368; Zikmund, 2003, pp. 296-298).

A nominal scale is one that allows the researcher to assign subjects to certain categories or groups. The information that can be generated from nominal scaling is to calculate the percentage or frequency in a sample. It is often used to obtain personal data such as gender, or the department in which one works, among others. Nominal scales are the lowest level of measurement and therefore provide data that is relatively low in precision. As a result, statistical analysis of the data is correspondingly low in sophistication. This research will use nominal scale as the data to be elicited are categorical in nature.

An ordinal scale is used to rank orders in some meaningful way. It provides more information than a nominal scale by rank ordering them. This scale enables the researcher to determine if an object has more or less of a characteristic than some other object. But it does not enable the researcher to determine how much more or less of the characteristic an object has. In addition, the points in an ordinal scale do not indicate equal distance between the rankings.

An interval scale uses numbers to rate objects or events and thus allows researchers to measure the distance between any two points on the scale. Therefore, with an interval scale, differences between points on the scale can be interpreted and compared

meaningfully. An interval scale has all the qualities of nominal and ordinal scales, plus the differences between the scale points is considered to be equal. However, with an interval scale, the location of the zero point is not fixed. Both the zero point and the units of measurement are arbitrary. It also allows certain arithmetical operations to be performed such as arithmetic mean, standard deviation, variance and even Pearson's product-moment coefficient of correlation.

A ratio scale, on the other hand has a unique zero origin and subsumes all the properties of the other three scales (Cavana, Delahaye and Sekaran, 2001, pp. 195-198).

This research will involve a questionnaire administered by CamEd's Learning Support Centre via email. The participants will have to read the instructions before filling the questionnaire. It is estimated that it will not take more than five minutes to fill up the questionnaire items.

Having discussed the research instrument and the data gathering method, it is also important to decide on the sampling process. This sampling process consists of defining the target population, choosing the sampling frame, sampling design, sample size and implementing the sampling plan (Hair et al., 2003, p. 209). There are two major types of sampling design, namely, probability and non-probability sampling. Probability sampling consists of simple random, systematic, stratified, cluster and multi-stage, among others while non-probability sampling consists of convenience, judgment, snowball and quota sampling (Cavana, Delahaye and Sekaran, 2001, pp. 266-267; Cooper and Schindler, 2003, p. 183; Bryman and Bell, 2003, p. 93; Zikmund, 2003, pp. 379-380; Hair et al., 2003, p. 211).

A non-probability sampling was chosen as it was not possible to access the population. As such, issues on population, sampling frame and sampling size does not arise since non-probability sampling was chosen (Cooper and Schindler, 2003, p. 184). Non-probability sampling can be chosen due to time and costs constraints. In addition, carefully controlled non-probability sampling often seems to give acceptable results (Cooper and Schindler, 2003, p. 200).

This study will use non-probability convenience sampling with ACCA students of CamEd, who are working and have reached the professional level stage of their course. Although convenience sampling represents a potential bias, this is a common problem and is shared by a large number of organizational researches (Koberg and Chusmir, 1987, p. 400). Convenience sampling is very common and indeed is more prominent than samples based on probability sampling (Bryman and Bell, 2003, p. 105). In addition, it is the best way of collecting information quickly and efficiently (Cavana, Delahaye and Sekaran, 2001, p. 263).

Statistical techniques for quantitative research can consist of non-parametric and parametric. The major difference lies in the underlying assumptions about the data. In general, when the data are measured using an interval or ratio scale and the sample size is large as well as sample data is collected from populations with normal distributions, then parametric statistics are appropriate.

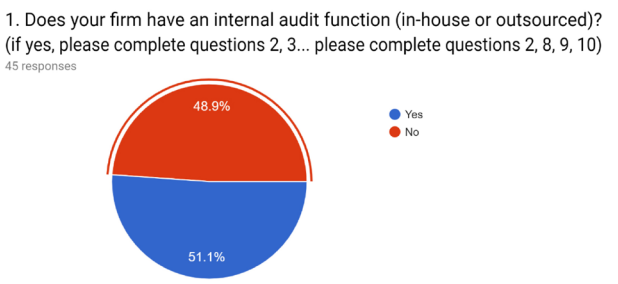
When data are measured using an ordinal or nominal scale, it is not appropriate to make the assumption that the distribution is normal and therefore a non-parametric or distribution free statistic should be used (Hair et al., 2003, p. 259).

Parametric statistic consists of uni-variate and multi-variate techniques (Galliers, 1992, p. 224; Diamantopoulos, 2000, p. 83). Univariate analysis can make use of t- or z-test while multivariate can use regression, analysis of variance (ANOVA), correlation and factor analysis. An example of non-parametric method is the Chi-Square analysis;

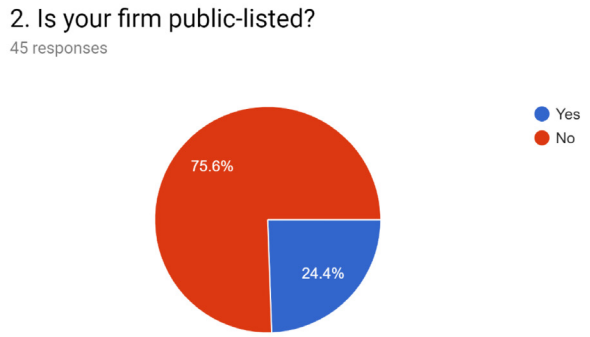
This research will make use of descriptive statistics and Chi-Square analysis as the data used in this research is nominal in nature. As mentioned, this research will use non-probability sampling, more specifically, convenience sampling. As such, sample size will not be critical.

3. ANALYSIS

The sample used for this analysis consists of 45 respondents. Some of the items are for respondents who already have an internal audit function while others are for those who do not. For the first item in the questionnaire, 23 respondents answered yes while the remaining 22 answered no. This is shown below:



For the second item, the chart below depicts the result:



There were 11 respondents whose firm have an internal audit and the remaining 34 respondents' firms have no internal audit function.

The following tabulation shows the breakdown:

Table 1: cross-tabulation between internal audit and being public-listed			
	Internal audit		
Public-listed	Y	N	Total
Y	9	2	11
N	14	20	34
Total	23	22	45

To test the first hypothesis,

H_0: There is no relationship between internal audit and being public-listed

H_1: There is a relationship

The dependent variable is internal audit and the independent variable is firm status, in this case, being public-listed or otherwise.

Using Chi-Square analysis:

$$x_c^2 = \sum \frac{(O^i - E^i)^2}{E_i}$$

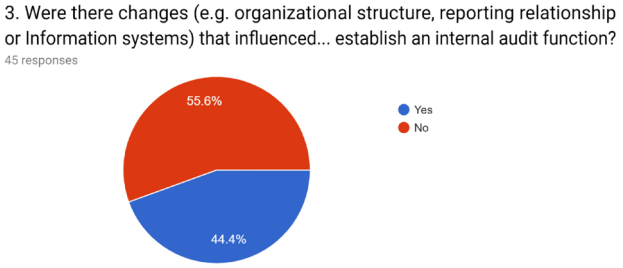
Where O_i = observed value, E_i stands for value. The expected value, E_i is calculated by the following:

(row total ÷ grand total × column total) (Beri, 2010, p. 378). Table 2 below shows the worksheet for deriving the Chi-Square value of 5.42.

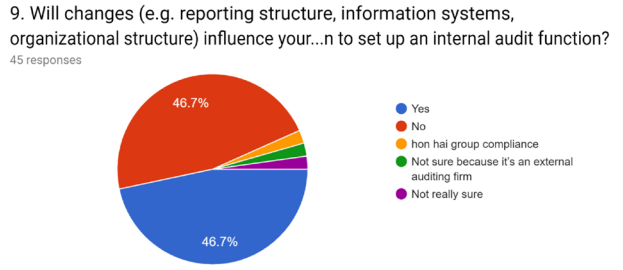
Table 2 : Worksheet for calculating Chi-Square					
	O	**E**	**O-E**	**$(O-E)^2$**	**$(O-E)^2/E$**
	9	5.62	3.38	11.41	2.03
	14	17.38	-3.38	11.41	0.66
	2	5.62	-3.62	13.12	2.33
	20	17.38	2.62	6.88	0.40
Total					5.42

At α = 0.05 and degrees of freedom (df) = (row-1) × (columns-1) = 1, critical value of Chi-Square is 3.841. Since the calculated value of 5.42 is more than the critical value of 3.841, the null hypothesis is rejected. From this analysis, the information derived is that there is a relationship between internal audit function and being public-listed. This is generally accepted as the listing requirements of many stock exchange boards necessitate an internal audit function, for example, the NYSE (Goodwin-Stewart and Kent, 2006, p.82).

For the third item, the chart represents the findings:



This item solicited whether changes (e.g. organizational structure, reporting relationship or Information systems) that have occurred influenced the firm to establish an internal audit function. A total of 25 respondents answered the question as no while the balance of 20 respondents answered yes. Related to the third item is the ninth item, shown below:



This item asked whether organizational changes in firm (organizational structure, reporting relationship or Information systems) will influence the decision to set up an internal audit function. Here, 21 respondents answered yes while another 21 respondents answered no. Three respondents answered differently. One was not really sure, while the other respondent was not sure as well as the firm where the respondent is working is an external audit firm. Another respondent stated that they followed the compliance required by its parent company, and hence there was no need for internal audit function. Focusing on those 42 respondents (21 respondents

agreeing and 21 respondents disagreeing) as well as the related third item, the following cross-tabulation is given in Table 3.

Table 3: Cross-tabulation between internal audit and organizational changes

	Internal audit		
Organizational changes	Y	N	Total
Y	13	8	21
N	10	11	21
Total	23	19	42

To test the second hypothesis,

H_0: There is no relationship between internal audit and organizational changes (organizational structure, reporting relationship or Information systems) that has taken place or may take place.

H_1: There is a relationship

The dependent variable is internal audit and the independent variable is organizational changes. Table 4 shows the worksheet to calculate Chi-Square.

Table 4: Chi-Square worksheet

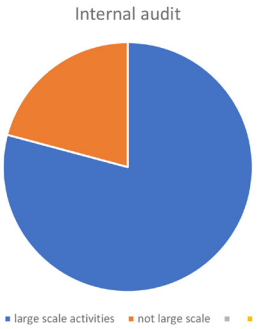
	O	E	O-E	$(O-E)^2$	$(O-E)^2/E$
	13	11.50	1.50	2.25	0.20
	10	11.50	-1.50	2.25	0.20
	8	9.50	-1.50	2.25	0.24
	11	9.50	1.50	2.25	0.24
Total					0.86

At $\alpha = 0.05$ and degrees of freedom (df) = (row-1) × (columns-1) = 1, critical value of Chi-Square is 3.841. Since the calculated value of Chi-Square is 0.86, the null hypothesis is not rejected. One reason to explain this phenomenon is that organizations do not wait for changes to happen before instituting internal audit function. These organizations may have become proactive, gleaning from lessons learnt in other organizations. Another reason may be that it is already a requirement in the firm as best practice.

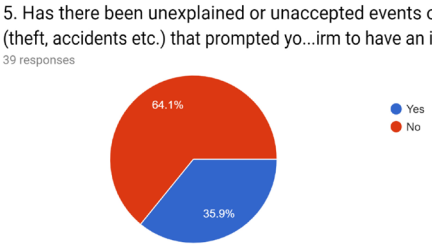
The fourth item required respondents to state whether they consider their firm's activities as being large-scaled, diverse and complex. The findings are given below:

There were 39 responses and 16 mentioned that their firms' activities are not large scale while the remainder of 23 respondents agreed. However, the author realized that some respondents have not read the questions properly, as this item is only to be answered for firms that have an internal audit function. As such, there were cases of respondents whose firms did not have an internal audit function but yet answering this question as shown in the pie chart above. Consequently, the author had to literally check each respondent's questionnaire to solicit the outcome. Only those respondents whose firm have an internal audit function was checked further to identify whether their firms' activities were considered large scale, diverse and complex. The pie chart below shows that for 19 respondents, they had an internal audit function and their firms' activities were considered by them as large scale, diverse and complex. The remaining five had internal audit function but their activities were not large scale. Hence, this implies, that while all firms are encouraged to have an internal audit function, it is more relevant for firms whose activities are large scale, diverse and complex.

Hence, it can be inferred that the third hypothesis is supported.



The fifth item is explained from the chart below.



A total of 39 responses were obtained for the question on whether will unexplained or unaccepted events influence a firm to have an internal audit function. The intention of this question was also to obtain a response on whether unexplained or unacceptable events have resulted in the firm having an internal audit function. Although the question, admittedly

lacked some degree of clarity, but this was briefed to the person in charge, prior to administering the questionnaire. As such, this question looks at the internal audit function and its relationship to past or future unexplained/unacceptable events. 25 respondents replied negatively while 14 responded positively. Table 5 shows the cross-tabulation for this information.

Table 5: Cross-tabulation between internal audit and unacceptable/ unexplained events

	Internal audit		
Unexplained/unacceptable events	Y	N	Total
Y	9	5	14
N	13	12	25
Total	22	17	39

To test the fourth hypothesis,

H_0: There is no relationship between internal audit and unacceptable/unexplained events.

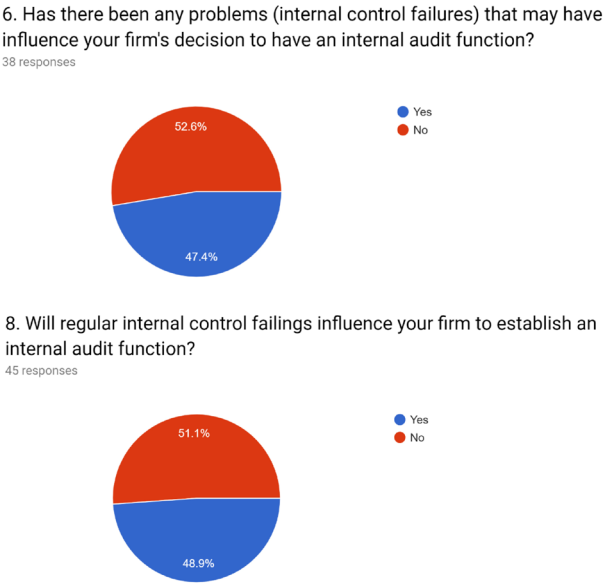
H_1: There is a relationship

The dependent variable is internal audit and the independent variable is unacceptable/unexplained events. Table 6 shows the worksheet to calculate Chi-Square.

Table 6: Chi-Square worksheet calculation

	O	E	O-E	$(O-E)^2$	$(O-E)^2/E$
	9	7.90	1.10	1.22	0.15
	13	14.10	-1.10	1.22	0.09
	5	6.10	-1.10	1.22	0.20
	12	10.90	1.10	1.22	0.11
Total					0.55

At $\alpha = 0.05$ and degrees of freedom (df) = (row-1) × (columns-1) = 1, critical value of Chi-Square is 3.841. Since the calculated value of Chi-Square is 0.55, the null hypothesis is not rejected. It is rather surprising that this research finds no relationship between internal audit and unacceptable/unexplained events. One reason could be that there have been no major adverse unacceptable/unexplained events that have happened and as such respondents may not be able to imagine the full devastation that may occur without the presence of internal audit. There were 12 respondents (around 31%) whose firms did not have internal audit and also did not feel the need that unacceptable/unexplained events would have altered their minds to have an internal audit function. They were the ones that swayed the results to being the null hypothesis not being rejected. Also, another reason why this result was obtained was the sample size. With a larger sample size, this result might have been different.



Item 6 seeks to find out whether there were any problems that have made the respondent's firm to establish an internal audit function while item 9 seeks to question whether will internal control failings result in the respondent's firm deciding to establish an internal audit. For item 6, 20 respondents said that it was not the reason for their firm to set up an internal audit while the remaining 18 agreed. For item 8, 22 respondents agreed while the remaining 23 disagreed. These two items' information will be used to decide whether there will be a relationship between internal audit and past internal control failings or possible internal control failings in the future. Since the results of these two items are roughly split into half, there are differences in views about internal control failings and an internal audit function.

More specifically, the cross tabulation below in Table 7 gives the combined result.

Table 7: Cross-tabulation between internal audit and internal control failings

	Internal audit		
Internal control failings	Y	N	Total
Y	12	7	19
N	11	15	26
Total	23	22	45

From Table 7, for those that have internal audit function, 12 respondents believed that internal control failings have helped the firm to decide on having an internal audit function, while 11 others answered that internal control failings was not the

reason for their firms to establish an internal audit function. What is surprising is that for those whose firms have no internal audit, 15 out of 22 respondents replied that internal control failings will not influence their firms to create an internal audit function.

To test the fifth hypothesis,

H_0: There is no relationship between internal audit and internal control failings.

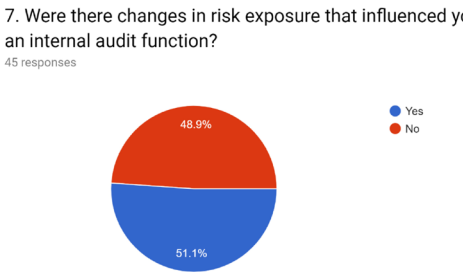
H_1: There is a relationship

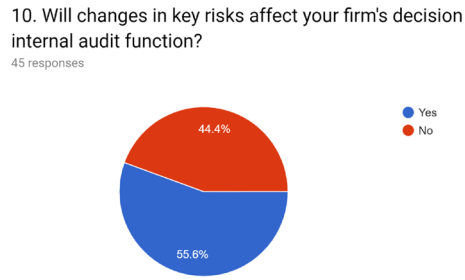
The dependent variable is internal audit and the independent variable is unacceptable/unexplained events. Table 8 shows the worksheet to calculate Chi-Square.

Table 8: Worksheet for calculating Chi-Square

	O	E	O-E	$(O-E)^2$	$(O-E)^2/E$
	12	9.71	2.29	5.24	0.54
	11	13.29	-2.29	5.24	0.39
	7	9.29	-2.29	5.24	0.56
	15	12.71	2.29	5.24	0.41
Total					1.91

At α = 0.05 and degrees of freedom (df) = (row-1) × (columns-1) = 1, critical value of Chi-Square is 3.841. Since the calculated value of Chi-Square is 1.91, the null hypothesis is not rejected. Hence this sample respondents indicated that there is no relationship between internal audit function and internal control failings. This is rather unfortunate as best practices in corporate governance will definitely warrant that internal control failings will create agency conflict and that shareholders will then expect that internal audit function be present to ensure robust risk management and internal controls.





Item 7 of the questionnaire solicited whether changes in risk exposure resulted in the firm having an internal audit. Of these, 23 respondents agreed and 22 respondents said in the negative. For item 10, the question required respondents to give their view on whether their firm will agree to have an internal audit function if there were changes in their firms' risk exposure. A total of 25 respondents agreed and 20 respondents answered "no".

To test the sixth hypothesis,

H_0: There is no relationship between internal audit and experiencing changes in risk exposure or if there were changes in risk exposure.

H_1: There is a relationship

The dependent variable is internal audit and the independent variable is risk exposure. Table 9 shows the cross-tabulation and Table 10 shows the worksheet for Chi-Square.

Table 9: Cross-tabulation between internal audit and risk exposure

	Internal audit		
Risk exposure	Y	N	Total
Y	14	11	25
N	9	11	20
Total	23	22	45

Table 10: Worksheet for Chi-Square

	O	E	O-E	$(O-E)^2$	$(O-E)^2/E$
	14	12.78	1.22	1.49	0.12
	9	10.22	-1.22	1.49	0.15
	11	12.22	-1.22	1.49	0.12
	11	9.78	1.22	1.49	0.15
Total					0.54

At α = 0.05 and degrees of freedom (df) = (row-1) × (columns-1) = 1, critical value of Chi-Square is 3.841. Since the calculated value of Chi-Square is 0.54, the null hypothesis is not rejected. Here respondents do not feel that risk exposure has contributed to the firm having an internal audit function nor will changes in risk exposure necessitate a firm to have an internal audit function. This goes against good corporate governance practices. Perhaps the respondents' firms involved in this research (nine respondents) may not have experienced much changes in risk and that is not the reason why their firms had an internal audit function. In addition, 11 respondents whose firms do not have an internal audit function do not feel that changes in risk exposure would warrant their firms to have an internal audit function. A larger sample size may correct this deviation from best practice.

4. CONCLUSIONS

Turnbull (n.d. cited in Professional Accountant, 2007, p. 153) had stated that the need for internal audit depends on several factors that audit committees of firms must contemplate. They are the scale, diversity and complexity of the company's activities, the number of employees, cost-benefit considerations, changes in organizational structures, reporting processes or underlying information systems, changes in key risks, problems with internal control systems and an increased number of unexplained or unacceptable events. However, this research gave some contrasting results.

The first hypothesis was accepted that there is a relationship between having an internal audit function and being public-listed. This is generally accepted as the listing requirements of many stock exchange boards requires an internal audit function, for example, the NYSE (Goodwin-Stewart and Kent, 2006, p.82).

The second hypothesis was not accepted. One reason to explain this phenomenon is that organizations do not wait for changes to happen before instituting internal audit function. These organizations may have become proactive, learning from lessons from other organizations. Another reason may be that it is already a requirement in the firm as best practice. There were also 11 respondents whose firms did not have an internal audit function and who felt that changes in organization will not result in their firms having an internal audit function. This may have affected the outcome of this second hypothesis not being accepted. A larger sample size may alleviate this unexpected outcome.

The third hypothesis gleaned from the pie chart indicated that the hypothesis was accepted, namely, firms whose activities are large scale, complex and diverse tend to have an internal audit function.

The fourth hypothesis was not accepted. One reason could be that there have been no major adverse unacceptable/unexplained events that have happened and as such respondents may not be able to imagine the full impact that may occur without the presence of internal audit. There were 12 respondents (around 31%) whose firms did not have internal audit and also did not feel the need that unacceptable/unexplained events would have altered their minds to have an internal audit function. They were the ones that swayed the results to being the null hypothesis not being rejected. Another reason why this result was obtained was the sample size. With a larger sample size, this result might have become different.

The fifth hypothesis was also not supported. Once again, a larger sample size may have given results that are in line with best corporate governance practices, namely, the need for internal audit when internal control failings occur to ensure efficient and effective operations.

Finally, the sixth hypothesis was also not supported. Here respondents do not feel that risk exposure has contributed to the firm having an internal audit function nor will changes in risk exposure necessitate a firm to have an internal audit function. This, unfortunately, goes against good corporate governance practices. Perhaps the respondents' firms involved in this research (nine respondents) may not have experienced much changes in risks and that is not the reason why their firms have an internal audit function. In addition, 11 respondents whose firms do not have an internal audit function do not feel that changes in risk exposure would warrant their firms to have an internal audit function. A larger sample size may correct this deviation from best practice.

5. LIMITATIONS AND RECOMMENDATIONS

There are several limitations in this research. This research uses convenience sampling from respondents, mainly ACCA students from CamEd Business School, Cambodia. Hence, it is not generalizable. In addition, a bigger sample size may have alleviated some of the deviations from corporate governance best practices. Another limitation in the research is that non-parametric statistic was used, namely, Chi-Square analysis using nominal data. Parametric statistics may have given more robust results.

Notwithstanding the limitations, this research gives an initial vantage point on internal audit and its possible relationship with nature of firm (being public-listed or otherwise), organizational changes, scale, diversity and complexity of company activities, events occurring, internal control failings, and risk exposure.

It is recommended that if the above limitations are addressed, better insights can be obtained. It is also recommended that a specific industry is chosen and studied more closely in terms internal audit and its relationship with the individual independent variables.

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