THE ADOPTION OF RISK BASED INTERNAL AUDITING IN DEVELOPING COUNTRIES: THE CASE OF GHANAIAN COMPANIES.

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ABSTRACT: The study investigated the adoption of Risk Based Internal Audit in Ghana, the factors that influence the adoption or non adoption of Risk Based Internal Audit amongst Ghanaian Companies. The involvement of internal auditors in risk assessment was also assessed in the context of Enterprise Risk Management. The study employed Pearson’s chi-square test of independence model at a p-value of 0.05. It was observed that risk based approach to internal auditing is widely used amongst Ghana’s Club 100 companies, especially amongst financial, Telecommunications, and Manufacturing companies. The study again found out that, there is high involvement of IA in risk management which translated to the use of risk based approaches in planning annual audits. Regulation the study observed is not a driver of adoption of RBIA in Ghana. The main factor that motivated the adoption of RBIA was, RBIA helped these organizations to focus on high risks priority areas.

KEYWORDS: Internal Auditing, Risk Based Internal Audit, Risk Based Approaches, Risk Management, Enterprise Risk Management, Developing Countries.

INTRODUCTION

There has been a dramatic shift in the focus of internal audit over the years, from systems based auditing to process based auditing and the current emphasis is on Risk Based Internal Auditing (IIA UK & IRELAND., 2003). As companies grow and evolve in today’s rapidly changing business environment, along with this are changing stakeholder expectations and a new view of risk management which prompts this important shift in the role of internal audit (IA) in many organisations around the world (KPMG, 2007). Internal audit units around the globe are faced with a variety and enormous number of business risks and related controls that need to be assessed, monitored, and reported. Risks related to the supply chain, treasury and financial instruments, fraud, systems, privacy, strained economic conditions, corporate responsibility, regulation, are just some of the new, niche risks which have emerged and can require highly specialized auditing skills (Nolan, 2008) however, many audit units find themselves exposed, lacking the skills required to deal with contemporary business risks (Griffiths P., 1999) (Nolan, 2008). The recent financial crisis and corporate collapses have heightened the need for a strong system of internal control and a highly skilled internal audit function to ensure the going concern concept business organizations. The advanced world have responded to the crisis by enacting regulatory frameworks (Sarbanes-Oxley Act, 2002 ) possibly to forestall future occurrence, but not much has been done in this direction in developing countries. This paper seeks to ascertain whether internal audit units in developing countries are keeping pace with global IA developments by investigating the adoption of Risk Based Internal Audit in Ghana, the factors that influence the adoption or non adoption of Risk Based Internal Audit amongst Ghana’s Companies. The involvement of internal auditors in risk assessment is also assessed in the context of Enterprise Risk Management (ERM).
LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

Historical Developments of Internal Auditing

McNamee and McNamee (1995) characterized the history of internal auditing since the second world war as one of a transformation from validation of transactions to one of systems auditing (Laura & Micheal, 2003). History has it that internal audit dates back to 3500 B.C, however it was not until 1941 that internal audit gained prominence when the Institute of Internal Auditors (IIA) was established in the United State of America (Swinkels, 2012). The IIA over the decades has been at the forefront of enhancing the professional status of the internal audit function through the following: approving and issuing statement of responsibilities, researching and developing a common body of knowledge, setting up continuing education and professional certification programmes, making and adopting standards for the professional practice of internal auditing along with a code of ethics (Chun, 1997). In Ghana, the Institute was formally registered in April 2001 under the Professional Bodies Registration Decree, 1973 (NRCD 143) as a professional association dedicated to the promotion and development of the practice of Internal Auditing. The role of internal audit traditionally involved monitoring, reviewing activities and providing assurance to management about effectiveness of internal controls. Internal audit has therefore been considered as a monitoring function, the “organizational policeman and watchdog” (Morgan, 1979), tolerated as a necessary component of organizational control but deemed subservient to the achievement of major corporate objectives (Theofanis, Evaggelos, & Ioannis, 2010). The following early definitions of internal audit will further authenticate the case that internal audit historically has been viewed as monitoring or policing units of organizations:

- an appraisal function within an organization, for the review of activities as a service to all levels of management (Chartered Institute of Public Finance and Accountancy 1979).

- an independent appraisal function established within an organization to examine and evaluate its activities as a service to the organization. (Institute of Internal Auditors 1979).

In their paper, Nuno et al. asserts that for many years internal auditing in Portugal was limited to safeguarding of company assets and checking control procedures. The emphasis was on again monitoring and control, not value addition (Nuno, Lucia, & Russel, 2009). The internal audit function is a vital and yet a controversial problem in auditing theory and practice worldwide (Chun, 1997). There were increasingly doubts about the ability of the function to add value, and this led to the outsourcing of the function in the 1980’s. Outsourcing of the internal audit function became popular during the 1980s as the costs of internal audit were being closely scrutinized in many companies (Laura & Micheal, 2003). Griffiths in his survey research involving FTSE 200 finance directors found out that, finance directors remain indifferent about the internal audit function. Amongst the finance directors, the function is often seen as “too low key and basic” and lacking in skills (Griffiths P., 1999).

In 1999, the Guidance Task Force of the institute of internal auditors developed a new definition of internal audit as:

an independent, objective assurance and consulting activity designed to add value and improve an organisation's operations. It helps an organisation accomplish its
objectives by bringing a systematic, disciplined approach to evaluate and improve the effectiveness of risk management, control, and governance processes (Institute of Internal Auditors, 2000).

The new definition came with new responsibilities and a new identity for the internal auditor. The focus of the internal audit function shifted from that of assurance to value added, and new demands from the board and regulators require internal auditors to refocus their efforts beyond compliance issues to get actively involved in Enterprise Risk Management (ERM) (Bou-Raad, 2000) (KPMG, 2007). Nagy and Cenker in a structured interview with the directors of internal audit of 11 large publicly traded companies in USA against the backdrop of the new definition, to ascertain the overall orientation of the internal audit department and any surrounding issues arising from this shift in orientation. They observed that, the orientation of the internal audit function has shifted toward consulting and value added services away from the traditional assurance services (Nagy & Cenker, 2002).

The need for internal audit
The agency theory has traditionally been used by researchers to explain the need for internal auditing in organizations. Jensen and Meckling in 1976 explored the potential conflict between the principal (Owners/Shareholders) and the agent (Managers) of large organization which came to be known as the agency theory. Where there is separation of ownership from management which is the case for larger companies, conflict of interest arises because managers who are employed by the owners (shareholders) to manage the day to day activities of the organization may be seeking their own interest at the expense of shareholders (Pike & Neale, 1999). Information asymmetry may result from the principal–agent arrangement of the firm and consequently loss of control by the Board. To reduce asymmetry of information and ensure goal congruence, it is imperative that the Audit Committee will require a strong system of internal control and an internal audit function as a review and monitoring mechanism (Goodwin-Stewart & Kent, 2006). Different attitude towards risks may also exist between the principal and the agent (Swinkels, 2012), this again strengthens the need for an internal audit function to ensure that risk levels are acceptable to the organization. Peursem, and Pumprey (2005) however, considers internal auditors as agents themselves and may not necessarily be a solution to the agency problem, but rather may create another agency problem. They contend as cited by (Khaled & Mustafa, 2013) that internal auditors as agents and monitors for its users including the board, audit committee and senior management, and that agency problems could occur when the board or its audit committee is inefficient.

Enterprise Risk Management (ERM)
Risk is inherent in every decision we make, therefore risk should be embraced and seen as an opportunity rather the occurrence of an adverse event. Dynamic market relations has increase the uncertainty of the business environment where business organizations operate, thereby making risk an inherent part of business and public life (Lubka, 2002). Risk in itself is not bad, what is bad is risk that is mismanaged, misunderstood, mispriced, or unintended (Suzanne, 2001). Most businesses invest in risk management but often in an uncoordinated manner and without clear results or returns (silo mentality of risk). This traditional, functional approach to risk management does not fully identify and quantify corporation’s risk profiles which form the basis of risk management. The traditional approach to risk management is like the proverbial saying “everyone for themselves and God for us all” which at best can be described as “fire fighting”. ERM is a holistic, integrated, future-focused, and process-oriented approach that helps an organisation manage all key business risks and opportunities with the intent of
maximising shareholder value for the enterprise as a whole (KPMG, 2001). An effective ERM system is an ongoing entity-wide process that seeks to identify, evaluate, analyse, respond to, monitor, and communicate on risk, the process must be fashioned in a structured and disciplined manner that takes in to consideration the correct size, complexity, and geographic reach of the enterprise (Patchin & Mark, 2012). Mritunjay Kapur (Protiviti Consulting) in an interview with the Business Standard, enumerated the following as the benefits of an ERM system: ERM systems can help companies by providing an enterprise wide view of risk, improving information for decision making, reducing unwanted and costly surprises, rationalising the cost of risk management and contributing to long term value creation and protection (Mritunjay, 2012). ERM creates value for the organization and shareholders as a whole at both macro level and the micro level. At the macro level (company-wide level), ERM enables management measure risk and manage the risk-return trade off that the entire organization face, while at the micro level (individual business unit level), an ERM system creates a consciousness of risks amongst manager and employees at all levels (Brian & René, 2006). A KPMG survey report in 2006 on Enterprise Risk Management in the United States observed that over 50% of respondents currently perform an enterprise wide risk assessment at least annually (KPMG, 2006). Same survey identified desire to reduce their financial losses and improve their business performance as the main drivers of investment in ERM implementation programs. Regulatory compliance requirements and the desire to increase risk accountability were also cited as important (KPMG, 2006). Alzuela, (2003), Fuente and Vega (2003), observed a contrast in risk management between non-finance companies and finance companies. They argued as cited in (Nuno, Lucia, & Russel, 2009) that risk management in non-finance companies is characterized by the absence of techniques that allow inherent risks to be managed while risk management in finance companies has developed strongly over recent years, mainly because existing regulation encourages banks to strengthen control and risk management systems. Since risk management is highly developed in finance companies than non-finance companies according to their observation, it is expected that risk based internal audit approaches will be widely used in finance companies than in non-finance companies. Therefore, the association between the type of industry and the adoption of risk based internal audit is tested in this paper.

**Internal audit’s role in ERM**
The internal audit profession is governed the Institute of Internal Auditors (IIA). The institute provide guidance through its standards, practice advisories, and position papers on the conduct of internal auditors. The role of (IA) in ERM is clearly defined by practice Advisory 2100-3, which details Internal Audit’s role in the Risk Management Process in an organisation (IIA, 2001). Such guidance is very critical, in order that the internal audit function do not impair its independence and objectivity. The IIA agree that the key responsibility for risk management lies with management but internal auditors should assist management and the audit committee by examining, evaluating, reporting, and recommending improvements on the adequacy and effectiveness of management’s risk processes. Again the IIA advise that, the internal auditor acting in a consulting role can assist the organization in identifying, evaluating, and implementing risk management methodologies and controls to address those risks. However the consulting role of internal audit in risk management is varied from time to time and at each stage of the organisations growth. The practice advisory places the ultimate responsibility on executive management in determining the role and the extent of involvement of internal audit in risk management (IIA, 2001). In a research -The Value Agenda by (IIA (UK and Ireland) and Deloitte & Touche, 2003), internal auditors and audit committees agreed that providing objective assurance that the major business risks are being managed appropriately and
providing assurance that the risk management and internal control framework is operating effectively are the two most important ways that internal auditing provides value to the organization. Internal audit through its expertise and knowledge of the organisation is well positioned to facilitate ERM workshops and champion the implementation of ERM programmes at the early stages of its introduction (IIA, 2009). In a study by (Fraser & Henry, 2007), they observed that in companies where internal audit was involved in risk management, IA played a key role in the embedding of risk and that there was a collaborative effort between the head of internal audit and the operating groups in risks identification and definition. The study also confirmed the IIA position that the role of internal audit in risk management is to facilitate risk management rather than to take responsibility for its operation (IIA, 2009). There is a perception that increased internal audit involvement in ERM poses an additional risk of impairment of internal audit objectivity. This assertion has motivated Laura de Zwaan et al to investigate the extent of involvement of internal auditors in Australia. Their survey study involving 117 Certified Internal Auditors revealed that, there is a willingness of internal auditors to report a breakdown of risk management procedures to the audit committee when there is a high involvement of internal auditors in ERM (Laura de, Stewart, & Nava, 2011) thus refuting the idea that high involvement of IA impairs objectivity of IA in an organisation. In a comparative study between US and Belgian companies, (Gerrit & Ignace de, 2006) concluded that, in general the role of internal auditors in risk management for all cases is time specific and changes quickly, especially as a consequence of the implementation of new corporate governance regulations and that the frequent changes in the business environment is an important driver for the role of internal audit in risk management. In their study it is revealed that in the case of Belgium, internal auditors are highly involved in the creation of a higher level of risk awareness and risk management system are more formalised. While in the case of US, internal auditors’ play a key role in providing objective evaluations and opinions for Sarbanes Oxley Act (2002) disclosure requirements. Beasley et al in a world wide survey research to ascertain the impact of ERM on the internal audit function, made the following conclusion amongst others, that ERM has a significant impact on the IA function and that the impact is greatest when the organization is further down the line in its ERM framework, the CFO and the audit committee support and call for greater IA involvement in ERM, the chief audit executive tenure is longer, the organization is in the banking industry or is an educational institution, and the internal audit function has provided more ERM leadership (Beasley, Clune, & Hermanson, 2006)

**Risk Based internal auditing (RBIA)**

Risk Based Internal auditing basically involves execution of an audit plan which is developed with inputs from strategic analysis and risk assessment. Risk Based Internal Auditing is a kind of auditing approach based on determining and evaluating, companies risk characteristics, through strategic analysis and risk assessment and designing the auditing process in line with risk matrix or risk map (Ayvaz a & Pehlivanli, 2010). In risk driven audits, internal audit energies are directed towards high risk areas, audit engagements performed are both effective and efficient (Colbert & Alderman, 1995). Colbert et al apparently saw in to the future of internal audit before the new definition of internal audit by the IIA in 1999. The IIA defines RBIA as; a methodology that links internal auditing to an organisation's overall risk management framework. RBIA allows internal audit to provide assurance to the board that risk management processes are managing risks effectively, in relation to the risk appetite. There is a shift from the traditional assurance role of the internal audit to risk assurance. Risk based internal audit provides assurance that risks are being managed to within the organisation’s risk appetite (Griffiths D., 2006). The foundation for RBIA methodology is
the risk analysis performed at the outset before starting the audit work which aids in the resource allocation of IA with the aim of covering heightened risk areas (VADIM, 2009). RBIA should not only highlight risks that are not properly controlled, but it should also highlight risks that are overly controlled so that internal audit resources are directed towards risks that pose serious threats to organizations (Griffiths D., 2006). RBIA therefore has the potential to make the internal audit function more focus, effective and efficient in its operations and resource usage, thereby creating value for the organization. The development of internal auditing in Ireland, a study by IIA (UK & Ireland) and KPMG (2005) cited in (Nuno, Lucia, & Russel, 2009) reported that 89 percent of Chief Audit Executives (CAE) use risk–based methods when preparing annual audit plans; 93 percent use a risk-based method in their internal audit assignments; 81 percent liaise with divisional or business heads when compiling their internal auditing plans; 72 percent perform their work in accordance with international standards; and 32 percent are responsible for compliance or risk management. In a related survey study of the use of risk based methods by large Italian companies, (Allegrini & D’Onza, 2003) reported that 25 percent of companies carry out mainly traditional compliance activities and they generally follow an audit-cycle approach for the annual audit planning; 67 percent of large Italian companies internal auditors adopt the COSO model and perform mainly operational auditing, risk-based approach is applied mainly at strategic level. And a very few large companies 8 percent, apply risk-based approach both at strategic level and process level. In March 2004, the Government of Kenya formally adopted a Risk Based Internal Audit approach following a forum for the Controller and Auditor General and Permanent Secretaries. This was in response to a joint IMF/World Bank report that highlighted the weaknesses of Kenya’s internal audit function (Financial Management Anchor, 2008). Same source outlined the following as some examples of the Kenyan success story; a risk based approach in payroll audit has helped Internal Audit identify and resolve significant weaknesses in the civil service payroll system, eliminating ghost staff and streamlining payments, has resulted in cost savings. Again in the Ministry of Education (Free primary education), an efficient allocation of limited internal audit resources as a result of adopting a risk based audit approach has also ensured a wider coverage of 18,000 primary schools and introduction of innovative community-based accountability arrangements have been achieved. At the high level risk based internal auditing begins with the normal audit management/planning process which ensures that audit work is completed within schedule and budget. Enterprise wide risk assessment is at the base of Risk Based Internal auditing, forming the cornerstone of RBIA annual plan. Process risk assessments are conducted at the individual internal audit engagements to identify process level risks and assessing the adequacy and effectiveness of internal control system to mitigate those risks (audit execution) (Nuno, Lucia, & Russel, 2009). A report based on audit findings is submitted to management and/or the audit committee depending on the policy of the organization and appropriate periodic follow ups completes the process. RBIA is a dynamic process and hence always evolving making it difficult to implement as compared to the traditional approach. Monitoring therefore becomes a major challenge given that the audit plan is constantly changing (IIA, 2013) Upon the review of related literature, the following hypotheses were developed and tested using STATA 12, a statistical software.

**Research hypotheses**

H1: The nature of the industry does not influence the adoption of RBIA.
H2: The involvement of IA in ERM is not dependent on the nature/type of industry.

H3: Involvement of IA in ERM is not as a result of a company’s adoption of RBIA.

H4: Regulation is not a driver of adoption of RBIA amongst Ghanaian companies.

H5: Internal audit plans are not developed with inputs from the risk assessment process.

METHODOLOGY

Questionnaire was sent to 80 internal auditors sampled from both public and private companies in Ghana across various sectors. Of the 80 that was distributed, 47 were received representing a response rate of 59 percent. Close ended questions were asked to encourage more respondents to respond to the questionnaire and for easy coding. The researcher identified likely factors which influence adoption of RBIA such as regulatory compliance, nature of business, value addition consideration etc and respondents were asked to select the main driver(s) of RBIA in their organization. However, organizations which are not practicing RBIA were asked to state the reason for their non adoption of RBIA. Companies for this study were drawn from Ghana’s Club 100 Companies. The Ghana Club 100 is an annual compilation of the top 100 companies in Ghana to give due recognition to successful enterprise building, launched in 1998 by the Ghana Investment Promotion Centre (GIPC). One key variable for a company making it to the list is excellent corporate governance, hence the researcher deemed it imperative to use the Ghana Club 100 companies given that effective internal controls and risk management forms a major component of corporate governance. The questionnaire however sought to address three areas.

- Whether the companies sampled are practicing Risk Based Internal Auditing or not and if they do practice or do not, what factors influence the adoption or non adoption of RBIA.
- Whether the internal audit unit is involved in risk assessment of their organizations.
- And whether the audit plan is based on the risk identified during the risk assessment process.

The study employed Pearson’s chi-square test of independence model, considering that the variables were binary and categorical in nature. The p-value was set at 0.05. The study acknowledge that Pearson’s chi-square results only gives indication of dependence or independence of distribution of data but does explain the degree of association or relationship between variables. Therefore, the study tested the independence of the observed data and the null hypotheses accepted or rejected given the p-value for each test results.

FINDINGS AND DISCUSSIONS

Nature of industry and adoption of RBIA

The study rejects the hypotheses that the nature of the industry does not influence the adoption of RBIA (Table 1). From the analysis of data, the study revealed that, financial, telecoms and manufacturing industries are more prone to adopting RBIA than the other sectors even as it is admitted that the data is skewed towards financial, manufacturing and telecoms. The study partially confirms Zarate’s (2001) assertion as cited by (Nuno, Lucia, & Russel, 2009) that the
financial industry has a higher propensity to apply risk-based approach in developing internal auditing than non financial industries, alluding that fact to the implementation of Basel II. As that may appear to be true in the Ghanaian case, this study also saw 100 percent of companies (manufacturing and telecoms) involved in this study applying risk based approaches in their audits.

Nature of industry and involvement of IA in ERM
Consistent with the first hypotheses, the study rejected the hypotheses that the involvement of IA in ERM is not depended on the type of industry (Table 2). Again it is expected that IA of financial industry will be more involved in risk management than the non financial industries due to the very risky nature transactions in the financial industry and again possibly because of the implementation of Basel II. The results agrees with this general assertion but as noted earlier in hypotheses 1, the IA of telecom and manufacturing companies are also more involved in risk management as the financial industry. The competitive environment is fierce in Ghana for the telecoms companies and lately the regulatory spotlight has been on telecoms thereby exposing the industry to greater risk. There is always the motivation to buy and sell instead of manufacture in developing countries including Ghana, the reason been cheap alternative flooding the market from developed countries. This coupled with other risk factors like unstable source of raw materials, ready market for locally manufactured goods makes the manufacturing industry just as risky as the financial and telecoms hence the need for IA to involved in risk management and adoption of risk based internal auditing.

Involvement of IA in ERM and adoption of RBIA
Involvement of IA in ERM is not as a result of a company’s adoption of RBIA (H3, Table 3). The IA in its consulting role may be involved in ERM and not necessarily because the company is adopting RBIA. The internal auditor acting in a consulting role can assist the organization in identifying, evaluating, and implementing risk management methodologies and controls to address those risks, as advised by the IIA independent of executing its annual audit plan. The results rejects this hypothese and accepts the alternative hypotheses that involvement of IA in ERM is dependent on the company adopting RBIA.

Regulation as a driver of adoption of RBIA
Regulation is not a driver of RBIA amongst Ghanaian companies (H4, Table 4). The study supports this hypotheses at a p-value of 0.547. Respondents did not identify regulation as the driver of RBIA in Ghana. Many respondents cited the following as the reason for adopting RBIA (1) the nature of their business (2) that RBIA helps them to focus on high risk priority areas. The few that chose regulation as the reasons for adopting RBIA are multinationals who report under group guidelines. That is to say, there is no regulation in Ghana that require companies to report risk profile and risk management activities. The Bank of Ghana set 2012 as the deadline for implementation of Basel II accord and data for this study was collected in 2012 therefore Basel II as the study suggest was not the reason for the adoption of RBIA among the financial services industry in Ghana.

ERM and Internal audit plans
The results accept the alternative hypotheses that internal audit plans are developed with input from the risk assessment process (Table 5) or reject the null hypotheses that internal audit plans are not developed with input from risk assessment process. All 38 companies involved in the study which adopt RBIA also affirm that their annual audit plans are developed with input from the risk assessment process. That is the output of the risk assessment process (risk register/risk
matrix) developed from the risk assessment stage, forms the basis for the annual audit plan of these organizations. This finding confirms the results of a study in Portugal (Nuno, Lucia, & Russel, 2009) where it was observed that firms (Listed and non listed) make extensive use risk based approaches in their annual audit plans.

**Reasons for non adoption of RBIA**

Analysis of data revealed that out of the 46 companies, 6 companies did not adopt RBIA which represents about 13 percent of organizations involved in the study. The main reasons for non adoption of RBIA were (1) lack of skills and (2) resource constraints.

**IMPLICATION TO RESEARCH AND PRACTICE**

The study admits that close ended questions were asked and therefore the extent of use of risk based approaches in these companies cannot be ascertained, however the study can establish that on the whole the direction of IA amongst the top 100 companies in Ghana is towards the use of risk based approaches in their audits and in line with global IA trend. This therefore implies that further research should be conducted in to company specific factors for the adoption of RBIA and the extent of use of risk based approaches at macro and micro levels in developing countries. Drawing inspiration from the Kenyan experience, the study recommends to other governments in developing countries to consider adopting RBIA in all public service organizations. As RBIA is gaining popularity in developing countries, it is important that management invest in developing the skills set in the use of RBIA approaches in order to derive maximum benefits of RBIA.

**CONCLUSION**

The study investigated the adoption of Risk Based Internal Audit in developing countries, using Ghana’s Club 100 group of companies as a case study. It was observed that risk based approach to internal auditing is widely used amongst Ghana’s Club 100 companies, especially amongst financial services, Telecoms, and Manufacturing companies. This trend is expected to continue as Basel II accord kicked off in 2012 for the financial industry and also other local companies are waking up to the realities of globalization. In 2009, KPMG Ghana started a series of trainings on RBIA which it is expected also to build capacity in IA. The study again found out that, there is high involvement of IA in risk management which also translated to the use of risk based approaches in planning annual audits. However, the involvement of IA in ERM was mainly as a result of the company’s adoption of RBIA and not IA playing its consulting role in these organizations. This is because IA in Ghana is still at its infancy and the skills set is lacking for IA to properly perform its consulting role. For instance the IIA which was established in 1941, had no representation in Ghana until 2001 and pursuing internal audit as a profession was virtually non-existent. Again, the study found out that regulation is not the driver of adoption of RBIA in Ghana as there are no local codes of internal auditing practice and Basel II was only adopted in 2012. Respondents intimated that the factors that led to their adoption of RBIA were because RBIA helped them focus on priority areas and also because of the nature of their businesses. For the non adoption of RBIA, lack of skills set and resource constraints were the main reasons identified as militating against the adoption of RBIA.

**REFERENCES**


IIA. (2001). Practice advisories for internal audit. IIA.


KPMG. (2007). The Evolving Role of the Internal Auditor: Value Creation and Preservation from an Internal Audit Perspective. KPMG USA.


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**Appendix**

Table one
Table two

<table>
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<th>which sector or industry are you involved in?</th>
<th>Do you perform risk assessment or are you involved in risk assessment of your</th>
<th></th>
<th></th>
<th>Total</th>
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<td>47</td>
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Pearson chi2(16) = 27.0297  Pr = 0.041
### Table three

| Do you perform risk assessment or are you involved in risk assessment of your firm | if "yes", is your company practicing Risk Based Internal Auditing? |
|---|---|---|---|
| 0 | 1 | 0 | 0 | 1 |
| yes | 1 | 37 | 2 | 40 |
| no | 0 | 1 | 4 | 5 |
| Total | 2 | 38 | 6 | 46 |

**Pearson chi2(4) = 44.5474  Pr = 0.000**

### Table four

| if "yes", is your company practicing Risk Based Internal Auditing? |
|---|---|---|---|
| 0 | yes | no | Total |
| yes | 0 | 9 | 0 | 9 |
| no | 1 | 29 | 3 | 33 |
| Total | 1 | 38 | 3 | 42 |

**Pearson chi2(2) = 1.2057  Pr = 0.547**

Table five
Do you perform risk assessment or are you involved in risk assessment identified during the risk assessment process of your yes no Total

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</table>

Total 41 5 46

Pearson chi2(2) = 14.0020 Pr = 0.001

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