

STRATEGIC MANAGEMENT OF OPERATIONAL RISKS IN FINANCIAL INSTITUTIONS

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ABSTRACT

Risks abound in all spheres of life and mitigating same and its effects has become an uphill task especially for profit making organisations and financial institutions all over the world. The global financial crisis of 2008 has been attributed to depletion of trust in the banking sector and demise of some business organisations. One wonders if the banks and organisations concerned are doing anything to manage the risks of market failures with a view to maintaining good reputations in order to win back customers' trusts and loyalties. The new formidable cyber warfare was also x-rayed with a detailed exploration of its debilitating effects on business continuity. In achieving the objectives of this study, the risk management strategies adopted by banks and other business organisations was explored. And the organisational culture was also explored to ascertain the extent of its effects on the risk management strategies adopted. Among others, this study recommends that in the spirit of contributing to the international convergence of modern supervisory practices, organizations and financial institutions must extend their arms of cooperation to other international bodies.

Keywords: Financial institutions, risks, management, organisational culture.

INTRODUCTION AND BACKGROUND OF THE STUDY

There have been many failures in various organisations and the financial sectors all over the world. In the United Kingdom, the financial crisis such as the Northern Rock's fall in 2007 caused a great panic among investors and depositors who rushed quickly to withdraw their investments (The Economist, 2007), Woolworth, a high street shop also in the United Kingdom, did not fare well just as others. The Icelandic banks also had their fair share of the crisis in 2008. Most of Iceland's banking systems' assets and liabilities were traded in foreign currencies and required large amount of short term maturity foreign currencies to trade. The last resort was foreign currency lender to prevent illiquidity in funding or the market illiquidity from bringing down the entire market (Buiter and Sibert 2008). It had the option of joining the European Union, making the Eurosystem the lender of last resort and keeps its currency and relocates its foreign currency banking activities to another Euro area. The governor of the Central bank of Iceland took ¾ of the equity stake in one of the banks which even went into administration before anything could be done. This was all based on adequate risk management strategies (Buiter and Sibert, 2008). Lehman Brothers also went

into administration in September 2008 was yet another crisis in a financial institution. The year 2012 was also started with some retailers in the United Kingdom going burst while experts warn that many companies will go burst in 2012. Firms who are able to withstand the financial crisis will resort to pay cuts and reduction in benefits of its staff (Mail online, 2011). Blogget (2011), states that in the United States, there has also been series of risk crisis within the financial industries, automobile and other industries. General Motors had to be rescued by the Federal government when its books could not balance and was faced with bankruptcy. The Bank of America (BofA) was near collapse in 2011 when the markets thought BofA was worth less than its management thought. This had the potential of bringing the whole economy down. The author further stressed that Asia and Africa were not left out of the crisis. The Asian market collapsed in August 2011 as a result of speculation that the USA and European markets were headed for a recession (The guardian, 2011); this affected the financial markets all over the world of which the spiral effect were job losses and collapse of various small businesses causing lack of income for many families, (Agwu, 2014).

The imperfection of the financial sector has caused the continuous downgrading of countries by the credit rating agencies such as Standard and Poor's (S&P), Moody's and Fitch (Bloomberg, 2011). Banks all over the world were at risk of being downgraded: Barclays was downgraded from AA to A, while Citigroup and Goldman Sachs were also downgraded to A⁺ by Fitch and S&P in 2011 (Bloomberg, 2011). Countries such as USA, France, Italy and many more have seen their credit rating being downgraded (Bloomberg, 2010; Agwu, (2014). These issues are based on the poor management of risks of these institutions which affects the country as a whole. Based on the above, the following research questions were formulated thus: 1) How effective are the internal control practises adopted in the financial sector and 2) What are the dependencies between corporate governance and risk management? The complexity in researching on risk management is due to the broadness of its nature, however it is hoped that the outcome of this review will be a useful tool of study and will assist financial players such as industries, banks, insurance companies, retail and investment banks, loans and credit scheme operators, foreign exchange bureau operators and all other players in the financial sectors and organisational managers in managing their risks. For the non financial players, this research will also be a guide to making financial decisions even for their day-to-day financial activities and potential investment decisions.

Review of related literatures

As the global financial crisis seems unending, financial regulators and institutions seek every avenue to manage their risk to avoid or reduce losses as a result of risk. With the future unpredictable; interest and inflation rates fluctuating continually while stock market performance and exchange rates become uncertain, risks need to be managed efficiently. According to Crouch et al. (2006), financial risk (risk of losing money) that arises from uncertainties can be managed. Agwu, (2014) also stressed that this is what distinguishes modern risk management from ancient risk management. Due to increasing competition in the emerging market and the need to maximize shareholders wealth, effort to increase profits and risk management has become very important to financial institutions. Regulatory bodies of the banking sector and the insurance sector have constantly updated their regulatory tools; such as: a) Basel and b) Solvency (this is to enable their institutions to be able to manage their operations efficiently to reduce risks). The Nigerian and indeed other financial sector all over the world have undergone significant changes since independence the 2008 turbulence. From the promotion of the rural banks by the central bank in Nigeria to the extensive regulatory reforms recently formulated by the Nigerian Investment Promotion Council.

According to Saunders and Cornett (2011) and Agwu, (2014), financial institutions are exposed to credit risk due to the potential risk of default on some assets held. They are also exposed to interest rate risk as a result of fluctuations in interest rates which is '*the exposure of accounting or opportunity loss as a result of a relative or absolute change in interest rates*'. Gastineau, (1992) defined liquidity risk as '*the cost or penalty associated with the withdrawals or failure to attract expected deposits*'. Agwu, (2014) views it as having enough assets to sell off to settle immediate cash liabilities. Financial institutions all over the world are exposed to systematic risk, strategies are established and implemented to reduce, adapt or maintain the levels of risk. Financial institutions also face both systematic and non-systematic risk (Ikpefan, Okorie, Agwu, & Achugamonu, 2014). Gastineau (1992) stressed that systematic risk is associated with movements in part or a whole market as opposed to specific elements if risk associated with specific underlying security. This cannot be controlled by the firm. Furthermore, Ikpefan, et al., 2014) stressed that unsystematic risk is associated with a particular entity or company rather than a whole market or asset class. It is also known as specific risk and can be controlled by the company; while Agwu, (2014) viewed unwinding risk as that risk that can be difficult if costly to reverse or close out of a management position.

An overview of risks

Pickford (2001) states that capital, which is a key business resource has become relative with time. Capital is said to be more complicated as the firm and economies also become sophisticated with time. The main factor to this sophistication is risk (Smullen, 2000). Accordingly Gastineau (1992) viewed risk as an '*exposure to change*'. Furthermore, Collin (1999) stated that risk is '*a possible harm or chance of danger*'. Agwu, (2014) also described risk as a quantitative measure of an expected outcome, the process that involves the likelihood of an adverse event occurring. Based on the review of the comments of other writers on risk, there has not been a definite and/or concise definition, however, most has classified risk on the bases of the area it affects, such as; the health, security, economic, traffic, and many more. Risk can be divided into two areas: natural and artificial or man-made. Risk identification and its management has received tremendous attention from writers who have identified the need for attention to be given to risk management as it forms part of the core of the activities and the existence of any economy (Agwu, 2014).

Jeynes (2002) identified risk as certain factors that cause discomfort for individuals, firms (both large and small) and a nation as a whole. These include employee risks of skills required by the firm in its current location, relocation of staff as part of an employment package; legislative factors including equal opportunities, provision of safety equipments and a safe environment for their work. There are health risks; which included heating and provision of lighting and ventilation as part of the safe working environment (Jeynes, 2002). The environmental and security risk factors include access to certain areas or into the country, violence against staff and members of the public. The final factors of risks are competition and finance risks, which deals with taxes, cost of operation, growth and decline in business activities, profitability ratios and revenue as a whole (Jeynes, 2002; Agwu, 2014; Ikpefan, et al., 2014)

Bischoff (2008) also discusses risks associated to the modern society; this deals with environmental risk such as earthquake, droughts, storms (hurricane and typhoon in America and parts of Asia), flood and volcanic eruptions in Iceland. Societal risk is associated with rebellion as well as terrorism all around the world and civil wars in Africa and some developing economies. Technological risk was viewed in this context as traffic (road, water,

rail and air), toxic gas and chemicals from industries, communication and radio activities. The most recent and formidable risk according to Agwu, Atuma, Aigbiremolen & Iyoha (2014) is that of cyber warfare. This war brought untold hardship to individuals, organisations (big and small) as well as governments. The various hackings currently pervading the world is a pointer to this. These risks have been researched and strategies identified for their management, however this study deals with financial risk associated with banks in Nigeria and other developing economies and the strategies adopted to manage them.

Types of risks

Gastineau, (1992) views risk as an '*exposure to change*', While Pickford, (2001) stressed that it is a quantitative measure of an expected outcome. Agwu, et al., (2014) asserts that risk management is the process of dealing with uncertainties and to a non-financial person; risk management is a process of controlling uncertainties. For people with little or no knowledge in finance or risk management, it will be assumed that risks that an organisation is exposed to are the same everywhere. This is not far from right since organisations are exposed risk just by being in business. Vyas and Singh (2010) states that banks in India are exposed credit risk based on the way they conduct business: their primary activity is to act as a middleman for customers as agents of payment and also lending and borrowing to customers. The way a bank contacts business is the same all over the worlds that is why banks can be regulated by a body due to the unification of their operations. Banks also tend to trade with each other. This has increased the harmonisation which has had tremendous benefits (Vyas and Singh 2010). According to Hull (2010), financial institutions are highly regulated all over the world due to the dependence of the world economy on the financial sector. It outlines the main risks to banks as credit risk, market risk and operational risk whiles insurance companies are faced with liquidity risks.

In Saunders and Cornett (2011) it is stated that life insurance companies are exposed to liquidity risk based on the fact that the assets of these companies are illiquid when liquid claims are suddenly withdrawn or not renewed. This is similar to what Gregory (2010) stated in relation to liquidity risk, but he divided liquidity risk into asset liquidity risk as transactions not being able to be executed at market price and funds liquidity risk as the inability to fund payments. Collier and Agyei-Ampomah (2009) however state that risk can be classified into business or operational risk, financial risk, environmental risk and reputational risk. Hull (2010) also states that banks are exposed to credit risk due to the possibility that instruments a bank trades is likely to lose its value over time and may give raise to losses to a bank. Regardless of how each writer classifies risk, they all have identified that there is the existence of risk to the entity, to individuals and to the world as a whole. These risks are based on the kind of industry the entity identifies with.

Figure 1: Types of risks



Source: Author adapted from the Nigerian Investment Promotion Council (2009)

Risk management cycle

The risk management cycle was developed from the management control systems and the loop feedback system (Agwu, et al., 2014). The risk management cycle is a series of processes that needs to be followed to manage risk in an organisation (Payne, 2010).

Figure 2: Risk Management Cycle



Source: Chartered Institute of Management Accountants (2010)

Elements of the cycle

Identification and measurement of risk exposure is the first stage in the risk management cycle, the uncertainty or risk is identified and its level of exposure is identified (Collier, 2009).

After identification and measurement of the level of exposure, standards needs to be set by establishing policies and the tolerance level the entity is comfortable with (Collier, 2009; Agwu, 2014), this also complies with COSO (2004). The third stage is for the entity to develop a strategy; an action plan of how they intend to manage the risk they are exposed to (Hull, 2010), whiles Payne (2009) states that a risk management response strategy should be established. Hull, (2010) identifies the establishment of controls and procedures as the next stage of the cycle. The entity then implements and monitor control systems (Payne, 2010), Agwu, (2014) also states that firms needs to execute the hedging and trading strategy established in stage 3. The final stage of the cycle is to monitor management reporting and re-assess the risk (Linsley and Shrivs, 2005). In Payne (2010) the final stage of the cycle is to review and refine processes. The cycle continues after a risk has been well managed since risk arises in the day to day activities of an entity (Linsley and Shrivs, 2005).

CONCEPTUAL FRAMEWORK

Enterprise risk management

This is where risk management is aligned with the business strategy and the risk management culture in the business operations. Enterprise risk management (ERP) encompasses the whole organisation and identifies risks in the organisational which may cause problems for the organisation.

Figure 3: Enterprise Risk Management Frameworks



Source: Committee of Sponsoring Organisations of the Treadway Commission (2004)

The Committee of Sponsoring Organisations of the Treadway Commission (COSO) (2004) cited in Linsley and Shrives, (2005) defines ERP as a process that is implemented by an entity's board of directors in agreement with management and the other personnel of the organisation to apply a set strategy that will be used for the entire administration of the entity. The strategies includes the design and identification of potential events which are likely to affect the company negatively, another strategy was for the entity to manage its risk and only accept risk that are within the risk appetite of the entity, the final strategy was for the entity to provide reasonable assurance in regards to the achievement of its corporate objectives. According to Molak (1997) there four categories of objectives that needs to be implemented with an ERP:

- Strategic objectives, which are high level goals that are associated with the organisation's mission.
- There is the operational objective which deals with the effective and efficient use of the entity's resources.
- All reports of the entity in relation to its risk and other operational issues should be reliable to reflect the true and honest opinion on the operation of the entity.
- The entity should comply with all laws and regulation to support the maintenance and the establishment of the ERP system.

The objectives set out by the ERP system is distinct and focuses on different aspects of the ERP. They however overlap and can fall into more than one category. According to COSO (2004) the components of the ERP are;

1. Internal environment
2. Objective setting
3. Event identification
4. Risk management
5. Risk response
6. Control activities
7. Information and communication
8. Supervision or monitoring

Benefits of enterprise risk management

The benefits of an entity adopting enterprise risk management are as follows:

1. The adoption of ERP enables the entity to align their risk appetite and strategies to the strategies of the organisation (COSO, 2004)
2. As risk is part of value creation in an organisation, the adoption of ERP allows the entity to link risk, returns and growth to the entity's strategy COSO (2004) the same point has been stated in Payne (2010)
3. COSO (2004) believe that by identifying the potential risk with the use of ERP systems, the entity will reduce surprises and losses in the organisation.
4. The entity is also able to identify and manage its risks across the entire organisation by adopting ERP by choosing the best response (COSO, 2004).
5. Enterprise risk management according to Payne (2010) allows for a better allocation of capital and assessment of the capital needs of the organisation and individual departments this was also expressed in COSO (2004).

Limitations of enterprise risk management

Although ERP provides a framework which benefits the organisation in its risk management, it involves human judgement in making the decisions regarding strategies and there can be error in decisions relating to response to risk and establishing controls needed to consider the expected costs and benefits (Molak, 1997) As ERP is human implemented, there is the risk of ERP being overridden by the management of the organisation. These limit the board and the management of an organisation from having an assurance that will allow the entity to achieve its objective.

Regulatory framework for banks: Basel

New regulations from the regulatory body for banks: Basel II is driving banks all over the world to take more comprehensive approach to risk management. While compliance remains the focus of risk management while many firms are transforming risk management into a full-fledged partner that provides value for the business (Pilbeam, 2010). Pilbeam (2010) indicates that the banking industry has always been closely monitored and regulated tightly than any other institution in the financial sector based on the history of the financial crisis which has been associated to the banking sector and the history of the banking sector in relation to its operations and the regulatory framework for banks is Basel. The Basel Committee was established at the end of 1974 by the governors of ten (10) European Central Banks (G10), it does not possess formal supranational supervisory authority but by consensus formulates broad supervisory standards and also promotes best practices so that most countries can implement the Basel accord in a way that is most appropriate to them. Its members include Australia, Brazil, Canada, China, France, Germany, Hong Kong SAR, India, Indonesia, Italy, Japan, Korea, Luxembourg, Mexico, The Netherlands, Russia, Saudi Arabia, Singapore, South Africa, Spain, Sweden, Switzerland, Turkey, The United Kingdom, The United States. The Bank for International Settlements (BIS), which was established in 1930, is the world's oldest International financial organisation according to Bank for International Settlements. The BIS introduced the Basel framework which was eventually recognised and adopted by over 120 countries with time and made the global standard in banking. Sovereign states who adopt Basel adapt it to suit their need, (Andrew, 2010). According to Bonde (2005) Basel I accord was introduced in 1988 with the aim of increasing the capital level in the International banking system (IBS) and to create a level playing field internationally for banks from different countries. The Basel Committee on Banking supervision (BCBS) in 1996 adopted a portfolio approach to measure risk; all assets were intentionally assigned to one of four buckets/categories according to BCBS (1996) which were 0%, 20%, 50% and 100%. This was done so that banks holding government assets such as Treasury Bills have no capital requirement while banks have 20% of their capital on claims on the non-banking sector receive the standard capital requirement. Although the Basel I framework helped in levelling the playing field for banks and also stabilized the declining trend of solvency ratio in banks, it had several problems which became evident with time. According to Stephanou and Mendoza, (2005), the Basel I accord failed because:

- Lack of sufficient risk differentiation for individual loans
- No recognition of diversification benefits
- Inappropriate treatment of sovereignty risk
- Less incentive for better overall risk measurement and management, (Andrew 2010).

These lead to the introduction of Basel II, which had the aim of improving risk management and setting broad supervisory standards.

Basel II accord

Like the Basel I Accord, the Basel II requires capital to be at least 8% of risk weighted assets. The Basel II Accord allows for some modifications to the Basel I, but also introduces greater flexibility by allowing approved banks to utilize their own risk management models to ensure sufficient capital adequacy subject to certain minimum requirements. The Basel II Accord is based upon the so-called three pillars, (Pilbeam, 2010; Andrew, 2010).

- **Pillar 1: minimum capital requirements** -The Accord breaks regulatory capital into three parts to match credit risk, market risk and operational risk. The risk deals with trading losses and is essentially the same as Basel I. The operational risk element is new and represents the risk of loss resulting from inadequate or failed internal processes, people and systems, or from inadequate or failed internal processes, people and systems, or from external events. Essentially the bank's capital needs to reflect the risk of mistakes and wrong doing. The main purpose of the new Accord however, is to improve banks stability by tying their capital more closely to the riskiness of their assets. Banks are given the possibility of two approaches to ensure that they meet capital adequacy requirements, (Blunden and Thirwell, 2010; Pilbeam, 2010).
- **The Standardized Approach**- The standardized approach is conceptually the same as the present Accord, but is more risk sensitive. The bank allocates a risk-weight to each of its assets and off balance sheet positions and produces a sum of risk-weighted asset value (Blunden and Thirwell, 2010). A risk weight of 100% means that an exposure is included in the calculation of risk weighted assets at its full value which translates into a capital charge equal to 8% of that value. Similarly, a risk weight of 20% results in a capital of 1.6%. Individual risk weights currently depend on the broad category of borrower. Under the new accord, the risk weights are to be refined by reference to a rating provided by an external credit assessment institution. For example, for corporate lending, the existing accord provides only one risk weight category of 100% but the new accord will provide four categories (20%, 50%, 100%, and 150%), (Cade, 1999)
- **The Internal Rating Based Approach (IRB)** - Under the IRB approach, banks will be allowed to use their internal estimates of borrower creditworthiness to assess credit risk in their portfolios, subject to strict methodological and disclosure standards. Blunden and Thirwell, (2010) asserts that distinct analytical frameworks will be provided for different types of loan exposures, for example corporate and retail lending, whose loss characteristics are different.

Under the IRB approach, (Buiters and Sibert, 2008) a bank estimates each borrower's creditworthiness, and the results are translated into estimates of a potential future loss amount, which form the basis of minimum capital requirements. The framework allows for both a foundation method and more advanced methodologies for corporate, sovereign and bank exposures. In the foundation methodology, banks estimate the probability of default associated with each borrower, and the supervisors will supply the other inputs. In the advanced methodology, a bank with a sufficiently developed internal capital allocation process will be permitted to supply other necessary inputs as well. Under both the foundation and advanced IRB approaches, the range of risk weights will be far more diverse than those

in the standardized approach, resulting in greater risk sensitivity (Blunden and Thirwell, 2010).

- **Pillar 2: Supervisory Review Process** - According to Crockett (2005), pillar two is in many ways the most important innovation of the new Basel accord. It seeks to develop common approaches among supervisors in their appraisal of risk measurement and risk management practices. In so doing, it aims to establish standards beyond simply the precautionary holding of capital. Pilbeam (2005) also states that for those banks opting for the IRB approach to credit risk they will be required to test their models to prove the robustness of their capital adequacy and satisfy their supervisory bodies that they are sufficiently well-protected against adverse economic and market conditions.

In effect, the main objectives of the Pillar 2 include, increase harmonization of supervisory methods tools and processes, ensure consistency between financial sectors and encourage risk management and governance, (Campbell, 2006).

- **Pillar 3: Market Discipline** - This requires a comprehensive range of information on capital and risk levels to be produced covering all relevant portfolios within the bank as well as a guide to the bank's risk management procedures and practices; the focus of such reports being the capital adequacy of the Bank in relation to its assets and risks. The hope is that such disclosure by banks and the market reaction will act as a means of discipline on banks, encouraging them to better manage themselves with respect to dealing with credit risk, market risk and operational risk, (Blunden and Thirwell, 2010).

Pillar three of the new Accord therefore has provisions to encourage the timely and comprehensive publication of data needed by market participants to play this disciplining role, (BPP, 2010). A number of techniques have been proposed that could lead give market forces a more direct role. Perhaps some of these techniques will form part of Basel III if and when the time comes to update the new accord (Crockett, 2005).

THE BUSINESS AND RISK MANAGEMENT

This section deals with issues of internal audit and control system, business continuity management in relation to risk, the relationship between risk management and corporate governance and risk management strategies.

Internal audit and control

The Institute of Auditors (2004) define an auditor as an independent consulting and object assurance activity that is designed to improve an organisation's operation and add value to its activities. Internal control is the total system of financial and other control systems which have been established to give reasonable assurance of effective efficient control in the operations of an organisation (BPP, 2010). Internal audit is obligatory in financial institutions; this could either be outsourced or in-house (Blunden and Thirlwell, 2010). Both internal and external audit indicates a common agenda of providing assurance to the board that risk in the organisation and control processes are appropriate and effective. The internal auditor and the external auditor functions differently but both report to the board of director issues. The internal auditors are employed by the organisation and have a permanent office in the organisation but maintain a neutrality and independence on issues in the organisation (Carrel, 2010). The objectives of the internal auditors are defined by the audit committee or

the board. According to Blunden and Thirlwell (2010) the role of an internal audit is very important to the management of risk in an organisation. They should have a clear guideline or policy which should be approved by the board of the organisation, with a well defined scope of its functions. The policy should also include competences, responsibilities and the tasks of the internal auditor. Internal auditing adds value and improve the organisational value through objective assurance and consulting. Woods et al. (2008) also believes that for internal control to be effective for risk management; risk reporting regulations should be in place. Directors should voluntarily disclose risk information, attempt to enforce this regulation was unsuccessful in the early 2000s. This was however not agreed on by directors as the cost outweighed the benefits. Botosan (1997) and Hail (2002) both cited in Woods et al. (2008) state there are empirical evidence to disprove that it is expensive to implement a regulatory framework in an organisation to manage risk. The establishment of an audit committee; comprising of an independent non-executive director to perform a key role of being the link between the board and the internal and external auditors is essential. In response to the financial crisis, Sir David Walker in his report in 2009 cited in Blunden and Thirlwell (2010) states the there should be a separate risk committee to the audit committee. Smullen (2000) has also stated that based on the increase to the risk a business is exposed to, a risk-based committee should be established as well as a risk management committee. The committee should report to the board as stated by Blunden and Thirlwell (2010), the difference between these suggestions are that Smullen (2000) indicates that membership to the risk management committee should vary but with a member of the board preferably a non executive director as the chairman. The committee should also have the chief finance officer (CFO) who should also sit on the board of the organisation. An internal audit committee should be established as stated by the early writers. Agwu (2014) however indicates that, the head of the internal audit committee should be a member of the board and should report to the audit committee. This committee should be set up by the board in accordance with corporate governance. There should be independent of the CFO although both will work closely, (Carrel, 2010; Ikpefan, et al., 2014). One of the objectives of this research is to identify the effectiveness of internal control systems among financial institutions.

The link between risk management and corporate governance

Every organisation should have a clear objective for managing risk before deciding on managing risk. The board should accepted by the board indicating a clear objectives of the risk and returns. Corporate governance is defined in Collier (2009) as '*the system by which companies are directed and controlled. Board of directors are responsible to their shareholders and have a stewardship function for the governance of the company*'. The Turnbull (2005) has provided a guideline with the combined code of how organisations adopt and implement a risk-based approach with designing, operating and maintaining a sound system of internal. This offers a framework rather than a rule so that each company can adapt to ways which is specific to their circumstance (Pickford, 2001). The board is also accountable to shareholders, (Ikpefan, et al., 2014). Risk management cannot be the sole responsibility of the risk manager and his team, all the executive directors need to be trained and prepared to act in times of any liquidity issues because they have a greater influence on the volumes and concentration of both assets and liabilities of the firm (Carrel, 2010). In Torshe et al. (2011), they take a closer look at corporate governance and bank's risk management. The main aim was to determine if corporate governance has an impact on the risk management of banks. The risk associated to banks in Nigeria and all over the world was established: credit risk, operational risk, liquidity risk, business risk and financial risk. Corporate governance requires the establishment a board of directors: who are responsible for

the governance of the company, the role of the shareholders is to appoint the directors and the auditors and to satisfy themselves of the required structure is in place for the effective administration of the organisation. According to Torshe et al. (2011), the financial sector is the central point of any market sector of an economy and it's the most important threat to the financial sector is the improper management to risk. This cause the investigation into the risk management activities of banks and the role the governance systems put in place by various banking institutions affect the management of risk. With the board of directors being the governing body of banks in Nigeria and indeed all over the world, strategies of the banks are set and implemented by the board of directors, they also oversee the risk management process and strategies adopted by the institutions. This gives an impression of the influence corporate governance may have on risk management. However result of the research by Torshe et al. (2011), gave a contrary view to the much expected. They sampled the 23 banks at that time, the variables used were: board size, composition of audit committee and board independence. The result of the analysis showed no influence of corporate governance on the risk management.

Torshe et al. (2011) researched on the dependence of corporate governance on risk management of banks. In Crouhy et al. (2006), the relationship and interdependencies of corporate governance and risk management has also been analysed due to the recent increase in high profile corporate scandals as in the case of Enron in Dembinski (2006) where ethics and corporate governance was ignored giving rise to an increase in risk which caused the collapse of Enron in December 2001. The increase in risk related to corporate governance is caused either through the provision of misleading information or a breakdown in the process of providing information to the board and shareholders. These disclosures normally involved fraud, no disclosure of financial and economic risks and financial engineering. These have lead to tighter controls and well managed risk management being established. Crouhy et al. (2006) indicates that the Security and Exchange Commission (SEC) in the United States of American tightened it standards to cover a number of areas that are critical to corporate governance and risk management. This included the composition of the board, the establishment of a corporate governance committee, review of the activities of the audit committee and review of the duties of the compensation committee. Torshe et al. (2011) did not include a compensation committee and a corporate governance committee because these committees are not applicable in the countries sampled; the other variables were the same.

Risk management strategies

The strategy an entity adopt to manage its risk is as essential as the going concern itself. Meulbroek (2001) cited in Pickford (2001) suggests that managers must put measures in place to control risk within their organisations. Jeynes (2002) and Ikpefan, et al., (2014) thinks that it is the sole responsibility of management regardless of the size of the firm to take actions to reduce or minimize risk and potential loss to its business and all stakeholders. These assertions seem to be on the same cause, that risk management is the responsibility of corporate directors. This is further discussed in the combined code of Financial Reporting Council (2003). Risk when managed well can reduce the occurrence of financial and reputational losses to the organisation, (Agwu, 2014).

Risk management strategies in organisations

Elliott, et al., (2010), argued that gearing is an indication of an entity's ability to payback its loan. Potential lenders identify the gearing of a company to determine its credit worthiness.

For companies to pass this: one approach is to calculate the debt rating that is consistent with its maximization value. Pickford (2001) believes that some companies have lost lots of business opportunities due the low rating. Companies are better off by eliminating the likelihood of default, this can be done by raising the equity of the organisation and keeping the proceeds of liquidated assets, though, this could be expensive. Companies can also reduce risk by change the nature and scope of their operations. This can be done through diversification to stabilize their cash-flows, which is the movement of cash in and out of an organisation. This could be costly to the company as the company could be less worthy, (Elliott, et al., 2010). The use of financial instruments is believed to be a cheaper way of managing risk (Pickford, 2001). Financial instruments includes: swaps, futures, forwards and options, etc, (Financial Reporting Council, 2003). Deleris, et al., (2004) also stressed that companies exposed to foreign exchange risk can used forward contract which is also not risk free. Torshe, et al., (2011) states that companies such as AngloGold Ashanti formally known as Ashanti gold fields based in Ghana was suffered losses based on the use of financial instruct to manage its risks. Collier (2001) was more specific in dealing with financial risk; it states that financial risk is the sole responsibility of the treasury function of any organisation. This narrows the board down to the treasure function of the board which is headed by a member of the board, whiles Pickford broadly establish risk management as the responsibility of the board. Collier (2001) states that a procedure would have to be followed: this is the risk management cycle. Once the risk has been identified, the company and the person's responsible for the management of risk would have to decide whether to hedge (a financial instrument that uses the value of an underlying instrument) the exposures. Several techniques can be used to identify financial risk that a company is exposed to. These include regression analysis, simulation analysis and value at risk.

Once the risk has been identified, the company can decide to do nothing. This normally depends on the risk appetite of the company, (Weber and Hsee, 1998; Agwu et al., 2014). They can also use internal hedging techniques, as the value offset the value of the underlying instrument. External hedging technique (derivative) can also be used.

- Hedging: this is a strategy used to eliminate or reduce the financial of a transaction or in an organisation by passing it on to another person or company. This is normally used by an organisation's treasury function and it totally depends on the risk appetite of the organisation. An organisation may choose whether to hedge its exposure or not.
- Forwards: these are useful tools for hedging, can be used for a minimum of three months. Forwards are of two types: forward rate agreements and foreign exchange forward contracts.
 - Foreign exchange forward contract enables a company to buy and sell a fixed amount of currency at a predetermined rate at a future date.
 - Forward rate agreement (FRA) is mainly used to hedge interest rate risk. This is done by a company locking its current interest rate for a future transaction. This can lead to either a gain or a loss depending on the interest rate at the time of payment.
- Futures: these are similar to forwards, the difference between them is that futures are institutionalised form of forwards and are trades on recognised exchanges. They have the similarities of all locking interest in for a future payment. This is known as interest rate futures. Foreign exchange futures in the same way is similar to foreign exchange forward contract, they are also traded on an exchange, (Ikpefan, et al., 2014).

Organisational Culture

Culture is described by Handy (2000) as the way we do things around a particular place, the author also goes on to state that culture is a risk factor. This extends to the way an entity handles and control issues relating to its operations. The organisational culture of an organisation has an impact the performance and risk as a whole. According to Hofstede et al. (1981) international culture is viewed from four main dimensions: uncertainty avoidance, power distance, masculinity and femininity and individualism and collectivism had a direct impact on risk. Weber and Hsee (1998) found that majority of the respondents in the four cultures identified in Hofstede (1981) were risk averse. In Beck (1992) cited in Agwu (2014) it is stated that risk resides in the society; meaning risk is socially constructed. Adams (1995) cited in Gregory, (2010) adopted a 'culture theory' and distinguishes risks related to the formal sector from the informal sector of individuals who seek to balance their risks with reward just like the organisation according to COSO (2004). Agwu, (2014) asserts that cultural risks are made of shared attitudes, routines that show how an organisation considers risk on its day to day activities and values. BPP (2010) states that cultural risk comes into play when the same function is fulfilled under different conditions. In dealing with cultural risk, BPP (2010) suggests that organisations consider which market to enter with great consideration. The development of a risk thermostat by Adams (1995) cited in Gregory (2010) discussed the propensity to take risk, accident, perceived damage the rewards of risk management. All these writers believe organisational culture has a direct impact on risk. This influenced COSO (2004) to advice entities to consider the risk appetite of their organisation taking any risks. A guideline to risk management has been provided by COSO (2004) through the ERP system (Ikpefan, et al., 2014).

PESTEL analysis using risk

Managing risks using the PESTEL model (Political, Economical, Social, Technological, Ecological and Legal) Deleris et al, (2004) suggests the following:

- Since companies now outsource most of its processes and activities, the risk of the entity is increased for political and legal reasons because of threat of potential law suits, liabilities. Hull, (2010) and BPP (2010) however defines political risk as being based on political actions that affects the value of a company.
- Economic risk affects the commodity prices causing problems for businesses which have commodities as the main source of business. The disruption of operation due to a shortage of the required supplies also reduces the revenue of businesses (Hull, 2010).
- In BPP (2010) and Agwu, et al., (2014) social and environmental risk were discussed together as arising due to a change in the organisational cash-flow due to the business environment. It is caused by human factors such as the depletion of natural resources, noise, pollution and change in the quality of life.
- Technological risk relates to decision making without adequate information. Organisations in the developing countries are prone to these kinds of risks (Deleris et al., 2004).
- Ecological and legal risks relates to living organisms and legislations. Organisations face these risks due to the nature of their activities (Ikpefan, et al., 2014).

Analysing the risk an organisation faces using PESTEL; the researchers are able to identify the core elements that are attributable to the entity.

Business continuity management

Andrew (2010) defines a contingency plan as a formulation of an advance plan to be implemented on the occurrence of a specific future event. This is very important in risk management as entities continue to fail. A good business continuity plan enables an entity to go on with business as usual after the occurrence of the unexpected. Business continuity has to become part of the company, regardless of size or sector if the company wants to be successful. Business continuity management should become part of the company's culture and as part of the core values. This will increase the confidence of shareholders in the board and staff of the entity.

Elliott et al. (2010) also states that embedding a business continuity plan (BCP) into the organisation requires two elements:

- Conditions for the easy implementation of a BCP should be in place, these conditions include a good communication system, rewards systems and training for staff as well as a control system (Andrew, 2010).
- Elliott et al. (2010) also advises organisations to have a clear organisational structure in place for an easy implementation of a BCP to enable the entity to continue with business as usual after the occurrence of an unexpected event.

DISCUSSION AND CONCLUSION

In exploring the topic for this review, many literatures including books, journals and articles as well as the work of other researchers were used to explain risk management strategies. Torshe et al. (2011) conducted a research to establish a relationship between risk management and corporate governance, the conclusion was that there were no dependencies between the two. To further clarify the outcome, this research compared the literature with Andrews (1994) and others which went further to discuss the importance of internal control to risk management, the importance of adopting the enterprise risk management was emphasised in accordance to COSO (2004) which saw the need for this framework to assist organisations and financial institutions to manage their risks. Vyas and Singh (2010) and Hull (2010) talked about the various risks banks do encounter, however, Vyas and Singh (2010) was specific to India while Hull (2010) concentrated on the strategies and other issues related to the financial sectors in the developed economies. Attention was given to risk using PESTEL by Deleris et al. (2004), while Jeynes (2002) and Pickford (2001) were much concerned about the importance of internal control as it affects organisations and financial institutions. Collier (2001) identified strategies that can be used to manage risk. This review tackles an area that is specific to organisations and the financial sector as this vital area has not been explored in detail.

RECOMMENDATIONS

It has become more than a factual reality that over the last two decades the enormous losses sustained by various organisations, especially financial institutions are traceable to poor risk management. And these are largely due to their vulnerability in the operational procedures adopted and implemented by these organisations and financial institutions. The Enron saga, the Northern Rock, the downgrading of ratings of both banks and countries and the ripple effects of the financial meltdown are all pointers to these. Poor or complete lack of control and audit measures and a juxtaposed segregation of duties, resulting in fraudulent

transactions being over looked were all linked and traceable as the sources of risks which were not properly managed. However, the highlights of operational risk management by Basel II framework into the banking industry and its supervisors offers promising innovation perspective for process assessment in the financial sector. Conclusively therefore, organizations and financial institutions may well adopt in parts or in total the following measures:

- Increase budget for risk management research
- Improvement in current information technology and other security infrastructures
- Preparation for good alternative solutions in cases of failures and unforeseen circumstances
- Evaluation of the efficiencies of risk and security countermeasures available
- Complete improve of various security procedures in place
- Increase awareness of organizational risks to staff and customers

Furthermore,

- Risk management policies should be made available to all members of staff to facilitate ease of implementation.
- All members of staff should be informed and educated about risks and its branches.
- Risk management committees should be established with clear guidelines for their operations and a formal reporting system should also be established.
- Management should be able to report the risk their organisation faces to the regulatory bodies as a matter of policy.

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