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Enterprise Risk Management and Performance of Financial Institutions in Iraq: The Mediating Effect of Information Technology Quality

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Abstract

Enterprise risk management represents a process of assessing exposure to risks in an institution. It is a systematic mechanism and a comprehensive tool for predicting events, including unexpected events, and their impacts. This paper is a conceptual study. It aims at designing a model for testing the mediation effect of information technology (IT) quality on the relationship between the enterprise risk management (henceforth, ERM) practice and the financial performance of financial institutions in Iraq. Based on reviewing the literature on ERM, it is found that ERM (leadership roles, risk culture and compliance) has a positive and important effect on the financial performance of financial institution in Iraq. In addition, this paper shows that the IT quality is a good medium for increasing the interaction between practices of ERM and financial performance positively. It provides a practical and theoretical contribution to practices

of ERM in listed companies in Iraq. It also has major implications for professional practitioners, regulators and academics in Iraq. Finally, this paper contributes to building relevant knowledge in the field of leadership role, risk culture, compliance and IT quality.

Keywords: Enterprise Risk Management (ERM); IT quality; Leadership role; Risk culture; Compliance; Financial performance.

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1. Introduction

Many challenges have been faced over decades by financial institutions for various reasons. The main reason for problems of financial institutions remains directly associated with poor ERM and the comfortable credit standards of debtors and counterparties among others (Mahmoud & Ahmed, 2014; Motiti, 2014). It is very clear that all banks are currently in a highly unstable environment and face some forms of risks, such as liquidity, credit, market, foreign exchange, interest rate and others. These risks may encourage the bank to continue to achieve success in the market (Othman, 2016; Tarawneh & Al-Shafei, 2018).

This has led to various ways of managing enterprise risk that have led to a factor affecting the performance of financial institutions. By developing policies and strategies, organizations need to abandon other clients whose policies are not favorable to them. Regardless of previous studies conducted on ERM, it still revolves around how to achieve effective compliance, risk culture, the role of leadership and the quality of IT. In the same vein, the emergence of the financial crisis intensifies the need for a strong performance of risk management in financial institutions. This is because the financial crisis is a wake-up call to the bank that any financial transactions exposed to them can cause risks to them. This may exceed normal capital fees, unimportant transaction values and other measures that are believed to be appropriate to prevent unexpected losses (Grody, Hughes & Toms, 2010). In addition, weak risk management can be associated with poor performance that leads to financial crises and an unexpected collapse of banks and major companies around the world. Consequently, failure to follow the appropriate risk-based process of separation of duties was the main cause of bank failure (Edwards, 2004; Tarawneh & Shafei, 2018). The issue also revolves around risk management, and the performance of institutions for financial institutions has always been a critical component of the Iraqi banking sector and the stable economy of a country. This means that good economic conditions result from good management and strategies in controlling any problems that occur throughout the country. Also, the business environment has become more complex because of global competition, technological advancement, deregulation and downsizing ERM, which has become the main function of business (Zala, Rouhana & Ismail, 2014).

ERM is regarded as a critical and important element of the control system. Most studies on risk management in financial institutions have found that risk is a regular practice of the modern bank (Mahmoud & Ahmed, 2014; Othman, 2016; Shafiq & Nasr, 2010; Tarawneh & Shafi'i 2018). Studies have also found that risk is the usual practice of modern banks today (Shafiq and Nasr, 2010). It is found that the risk is one of the factors affecting the bank's stock returns (Cooper, Speh & Downey, 2011). However, the current increase in the global trend of bank collapse and financial crises raises questions on the effectiveness of ERM, specifically in Iraq (Abu Hussein & Al-Ajmi, 2012). In addition, risk management of IT is also a crucial area of study in financial institutions (Facial, 2015). Banks and other financial institutions are service-oriented companies that handle many citizens' information daily. This information is subject to uncertainty, risk and threat. Therefore, quality of IT becomes a necessity. This study mainly aims at determining the intermediate impact of IT quality on the correlation between the ERM practice and the financial institution performance in Iraq. In particular, research objectives are presented as follows:

a) Examining the effect of a leadership role on the financial institutions performance in Iraq.
b) Establishing the impact of risk culture on the financial institutions performance in Iraq.
c) Determining the effect of compliance of ERM on the financial institutions performance in Iraq.

2. Literature Review

2.1 Financial Institutions and Financial Performance in Iraq: The financial institution in Iraq is one of the major contributors to the national economy and sustainable development. The report of the National Investment Commission (2009) revealed the existence of 43 licensed banks operating in Iraq including six public sector banks and the remaining 36 banks belong to the private sector. Therefore, this research comes at an appropriate time and it is important to be conducted in Iraq due to insufficient studies on risk management in Iraq and a large amount of dollars in risk management (Mahmoud & Ahmed, 2014). Only the state bank is permitted to lend public bank institutions. This loan increases the risk of government in their accounts. Under the previous regime of Iraq, banks were subject to strict government control and were isolated from international advances in technology and business practices. For example, in 1992, private banks began operating in Iraq, but were prevented from participating in international transactions. The largest banks in Iraq are: ar-Rasheed Bank, which includes 170 branches; ar-Rafidain Bank with 153 branches; Agricultural Bank and Industrial Bank. Most of these banks control about 85 percent of financial assets in Iraq (Afsin, 2010; Mahmoud & Ahmed, 2014). Foreign investment in banking industries was confined to (7) banks. Hence, no new investments have been done since 2005.

2.2 Enterprise Risk Management (ERM) Practices: ERM refers to the process of crisis management performed by an organization's management within an agreed standard requiring more attention from its prevention/ mitigation management (Erick, 2003; Othman, 2016). ERM is a formal and structured process whereby business organizations monitor and evaluate all sources for the benefit of stakeholders. ERM represents a new era in the development of risk management and has continuously evolved over the decades. It is also a platform for the facility to prevent the possible risks in terms of defining, analyzing and reporting these risks and solving their trade gaps with plans of risk alleviation action (Gupta, 2011). It is a key plan, especially for financial institutions as operations of business are largely intertwined with the state of potentially unknown business. According to Priscilla (2008), the ERM process includes identification of risk, risk control procedures, risk communication and continuous monitoring of a risk management program. COSO (2004) defines ERM as: "a process implemented by the entity's board of directors, management and other employees, applied in strategy development and across the organization, designed to identify potential events that may affect the entity and manage risks to be within its risk appetite, provides reasonable assurance regarding the achievement of the entity's goals" (p. 2).

Good practice of risk management must be independent of the level of risk, adequately defined in its scope, and be dynamic and integrated while ensuring the effective corporate management system, reporting, monitoring and improving the interview to change the organization's management. Therefore, the main objective is to reduce the negative effects of events or possible losses; while simultaneously helping to maximize the possible success and reduce the likelihood of losses in future. Osman (2016), Priscilla and Susan (2008) revealed that as the business environment evolved in the 21st century, governments and other organizations began to adopt a more holistic structure widely known as enterprise-wide risk management. Given the importance of ERM in enterprise development and performance, each organization must have an appropriate planning and control mechanism. In this study, ERM was classified into the leadership role, operating framework, governance mechanism, compliance and risk culture, aiming at examining the issue of leadership role, compliance and risk culture in relation to organizational performance.

2.2.1 Leadership Role and Financial Performance: As mentioned by Longenecher and Neubert (2003), any firm would strongly desire effective and competent leadership to produce sustainable long-term business development. Also, it is essential that all managers be provided with knowledge, competencies, support, skills, talents and focus. Leadership in the affairs of leadership consists of a board of directors, senior management personnel and senior risk officials. These groups of people are the main drivers and play a key role in ERM practices. Moreover, Debowski (2006) outlines the role and responsibility of good leaders in this paragraph:

"Leadership has a fundamental role and responsibility in shaping and controlling an organization by securing a sense of direction, mission, vision, work strategy and tactics for all associates. Although there is strong recognition of the need to encourage effective leadership at the highest level in any organization, the changing nature of work requires a focus on capacity building leadership across a comprehensive organizational approach. The advantages of good leaders tend to articulate four main dimensions: (a) developing organizational culture within operational needs and setting parameters; (b) ability to lead alignment of organizational goals, business strategy and priorities; (c) encouraging High DONC global standard in the implementation of the action; and (d) maintaining good practices to accommodate a favorable working environment".

As previous studies have revealed, leadership is an essential factor for success in terms of ERM effectiveness and financial performance. Therefore, the core risk management activities include the entire process of institution and decision-making. This, in turn, is related to the quality of the board of directors and another level of senior management commitment to a culture of risk management. Significant commitment, capacity and accountability by the board and senior management influence the design of the ERM framework, the development of its policies and procedures to communicate with risks, the strengthening of the risk reporting structure and the provision of adequate resources to manage enterprise risk. The Chief Risk Officer (CRO) is also responsible for activities of risk management, and the internal auditor has the oversight responsibility. Consequently, it is imperative for business organizations to ensure that the leadership team fits the business settings that the organization has set up, particularly in financial institutions. Finally, from the above discussion, it is clear that a potential relation exists between the leadership role of ERM and the financial institution performance.

2.2.2 Risk Culture and Financial Performance: Lima and Castrol (2005) define the culture of risk as a system of behavior and values throughout the company that helps shape the risk decision. Also, it refers to individuals' recognition that compliance rules and risks extend to stakeholders as they pursue the goal of the working group (i.e., their goals and objectives). It will be a platform to overcome global regulatory capacity and thus be applied to day-to-day operations and executive decision-making. However, a culture of risk requires robust and standardized mechanisms that enable employees to identify work problems and take action to mitigate risks. A culture of risk in organizations is a crucial component, ensuring that the right things are achieved by doing whatever it takes. According to KPMG (2010) in their international survey, among the 500 executives from the banks that were disclosed, 48 percent of respondents mentioned the risk culture as one of the major contributors to the credit crunch. So, the culture of risk must be integrated into the organizational culture and translated into strategies, ensuring that tactical and operational objectives are achieved with commitment, mandate and leadership of the Board of Directors.

Nadine and Joan (2015) investigate the organization's risk management elements that can support a company's strategic success. Elements of a risk culture include assessment, management and strategy of risk. The results revealed that there is a need for the company to integrate important elements of risk management into the framework of ERM. Accordingly, risk culture must be dynamic to ensure that risks are regularly and irregularly managed. Accordingly, this study aims at determining whether the risk culture among elements in ERM is associated with the financial institutions performance in Iraq.

2.2.3 Compliance and Financial Performance: In the daily business environment of companies, employees comply with business and organizational rules, codes of practice and other applicable laws. This is evident in companies that are subject to high control, such as finance, utilities, gambling and banking industries. It can also be linked to the organizations' code of practice on corporate governance (CG). The costs incurred on the compliance system can become a large part of the business operating costs (Osman, 2016). Hence, relevant data are included in empirical studies to ensure rules and regulations. Codes of practice are linked to institutional risk management for compliance measurement.

The rules of CG are established through investor bodies (institutional investors) and CG bodies. Risk management is unambiguously associated with standards of CG and is the primary responsibility of the board of directors. Ultimately, this specific regulation is adopted. Some requirements have been legislated, others are recommended. The major effect of CG on Plc. is illustrated in a study conducted by Kleffner et al. (2003), where the result revealed that the CG initiative indicates interest in conducting risk management among financial institutions and has become a critical component of ERM. Good CG directly affects business operations by providing adequate resources in terms of solid and soft infrastructure to reduce the likelihood and severity of exposure to companies and prevent their business risks optimally (Osman, 2016). It is clear from the above discussion that a potential relation exists between compliance with ERM and financial performance. This compliance with ERM consists of elements of rules, regulations and rules of practice. Therefore, it is included in the framework of this conceptual study.

2.2.4 Information Technology Quality and Financial Performance: Information technology is the process that allows IT managers to weigh the economic and operational cost of preventive measures and achieve gains in task capacity by protecting data that support the goals and tasks of the company (Osman, 2016). This includes applying the measure of risk management to alleviate the risks of an information system related to ownership, operation, use and implementation. The financial institution processes a vast amount of customer data and other stakeholder information daily for both financial and non-financial statements. This information may be subject to the following risk factors: cybercrime, theft, vandalism, insufficient information and disturbances that may pose a threat to organizational survival (Vasylat, 2015). This calls for a better implementation of information systems risk management because it requires the process of identifying weaknesses and measuring, monitoring and controlling risks in an organization, specifically in the financial institution. This, in turn, would ensure the clear understanding of risk management procedures by individuals to achieve corporate goals. Consequently, this study examines the intermediate impact of the IT quality on the relationship between ERM and the financial institutions performance in Iraq.

2.3 Theoretical Review and Research Framework: Agency theory is defined as the contractual agreement between the two parties/ groups, namely, the agent and the customer. The manager who happens to be the employer shares with another party, while some other appointed parties act as agents for specific services for the principal. Agency theory provides insight into organizational processes and design (Subramanian, 2006). Consistent with Kaiser's (1999) opinion, agency theory focuses on mitigating risks by choosing certain forms of agents and ways of observing their behavior through the use of various types of positive and negative penalties. Mike (2005) reveals that risk management drives enterprise performance with a focus on increasing shareholder's value.

The agency theory is associated with this study because ERM practices can enhance an organization to achieve its specific goal and maximize shareholder's value. In general, risk management enhances corporate value and supports growth of economy by reducing the capital cost and uncertainty in business activities (Bowen et al., 2006). This means that the organization that plans to take advantage of the risk-based methodology work plan to create the institution will strengthen the internal control system and increase the shareholders' value. Hence, this is clarified by the inclusion of compliance structures, leadership and risk culture.

Financial performance of financial institutions is among the variables of this study. It is assumed that all independent variables of the ERM practices like leadership, compliance and risk culture have a strong relationship to financial performance. The research framework was developed on the basis of studies conducted by Bajah Warr (2007); Hoyt and Lipperberg (2006); Mahmoud and Ahmed (2014); Motiti (2014); Othman (2016); Vasilat (2015); Yazid, Raseed and Dawood (2011; 2010); Yusuwan et al. (2008) among others. Thus, this work presents an insight for academics to comprehend the IT role as a mediating effect for ERM and the financial institutions performance in Iraq.

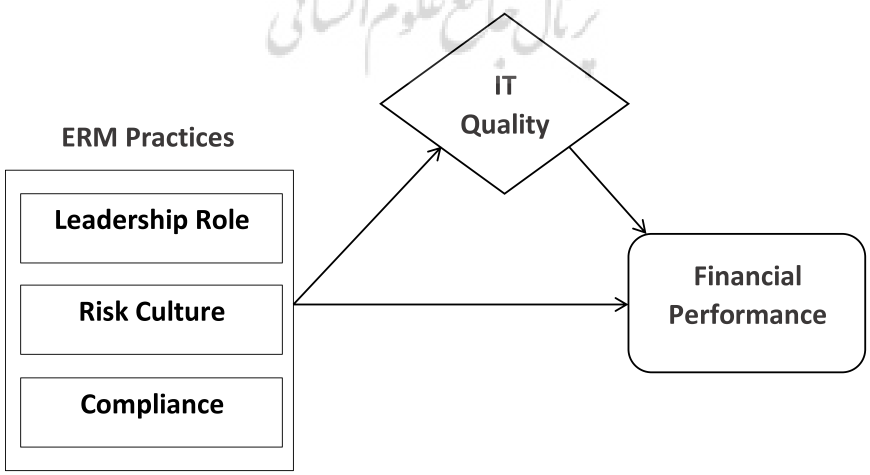

Figure 1. Research Framework for the mediating effect of IT Quality on ERM Practices and Financial Performance

3. Research Hypotheses

The hypotheses are derived on the basis of research questions. In accordance with the research framework, the following subsections discuss research hypotheses.

3.1 Leadership Role: According to Noko Stolls (2006) and Othman (2016), strong leadership is needed that leads to a significant commitment to risk management. This would ensure the continuous support for the application and practices of incorporated risk management in the organization. This can be accomplished in several ways when the enterprise's integrated risk management practices are mature. A review conducted by the Joint Inspection Unit in 2010 about the standard measurement framework for ERM revealed that non-compliance and the level of assurance from senior management represent a common reason for not employing ERM. Senior management commitment to ERM is demonstrated by training senior officials and setting direction to certify the implementation of ERM (Fraser, 2007). In short, leadership can be said to have a fundamental role in implementing commitment, accountability and senior management ownership of ERM practices that will ultimately improve the financial performance of organization. In accordance with the aforementioned evidence, the first hypothesis is explained as follows:

H1: There is an important relationship between the leadership role of ERM and the financial performance of the financial institution in Iraq.

3.2 Risk Culture: A culture of risk is described as a behavioral method that visualizes the underlying behaviors and values in the organization and helps shape risk-related decision-making processes (Lima & Castro, 2005). The organization benefits from intentional exposure to risks in response to improving corporate culture and corporate risk management values (i.e., human capital, strategic, financial, operational, reputation and legal compliance). Lima and Castro (2005) also argue that risk culture is necessary for the positive modification in the integrated system of businesses and families. It has been mentioned that an excessive focus on automated risk assessment will reduce the tendency to optimally identify and prevent the risk factor. This depends on how well the risks are already managed in strategic design and procedures. Also, it relies on the availability of risk identification, financial and operational information, employee's awareness of the ability to mitigate risks and the presence of protocols and systems to react to risks and opportunities in the organization. Based on the discussion above, it is obvious that the risk culture is associated with the financial performance of the financial institution. Therefore, the second hypothesis is formed as follows:

H2: There is a significant relationship between the ERM culture and the financial performance of the financial institution in Iraq.

3.3 Compliance: A major success factor in ERM is the assurance level of compliance with the organization's Code of Practice, Roles and Regulations (Priscilla & Susan, 2008). Berenbeim (2004) proposes that compliance is an essential component of ERM. Thus, an effective value-based organization requires strengthening the compliance system. Compliance feature ensures full compliance with all applicable laws, rules, regulations and rules of practice. Therefore, the third hypothesis is suggested below:

H3: There is a significant relationship between compliance with ERM and the financial performance of the financial institution in Iraq.

3.4 Mediating effect of IT quality on the relationship between ERM and financial performance: The emergence of e-commerce as an innovative business model has led organizations to successfully integrate IT into their business strategies, products and services. The quality of IT must be accurate and up-to-date to enable the organization to make good business decisions and it needs to be available when work requires access. Failure to manage risk in meeting the needs of different transactions in a secure and orderly environment can create reputation and sales losses. The commitment and support of senior management in the quality of IT have a significant influence on success in every initiative and development within the organization. Senior management has a wide range of activities, such as making effective decisions in information and technology risk management, developing training programs, supporting quality management, formulating and defining goals and strategies for implementing information systems risk management and establishing a project management office (Fasal, 2015). This is reflected not only in the leadership role but also in the areas of risk culture and compliance with the code of practice and rules of the organization. Thus, the fourth hypothesis assumes that:

H4: IT mediates the relationship between ERM and the financial performance of a financial institution in Iraq

4. Conclusions and Recommendations

This paper is a conceptual study. The previous sections review studies conducted on corporate risk management and the financial institutions performance in terms of leadership roles, risk culture and compliance with the organization's rules and regulations. The independent variables include leadership roles, culture of risks and compliance (code of practice, rules and regulations). IT is an intermediate effect on which the relationship between ERM and the financial organizations performance was imposed.

Based on this review, the inclusion of the interaction between senior management's commitment and high-risk IT officials is done to considerably increase the impact on financial performance. This study reveals that IT is a good mediator in the relationship between ERM and the financial institutions performance in Iraq (The Water Coopers, 2004; Eric (2003) and others). If more improvements are required, these variables are absolutely important for ERM and the financial performance of financial institutions. The model designed in this study (see Figure 1) would contribute to building a body of knowledge in the field of leadership role, risk culture, compliance and the quality of IT that faces organizational performance.

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