



Leveraging enterprise risk management (ERM) for boosting competitive business advantages in Bahrain

Leveraging ERM

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Abstract

Purpose – Recently, the energetic and enormously competitive business environment has seen a stage of failure, from natural disasters to business crisis. Global competition and economic instability leads to errors, to unsuccessful business decisions, to defective performance and, finally, to failure. Conversely, effective anticipation of emerging risks can yield competitive advantage. The aim of this paper is to measure a proposed conceptual research model, based on various existing ERM frameworks.

Design/methodology/approach – The current study measures a proposed conceptual research model, based on various existing ERM frameworks, which provides a wide range of consulting services that assist companies in boosting competitive business advantage using enhanced risk response capabilities. Due to the nature of the current study and its hypothesis, the primary research purpose is, thus, explanatory. This model was empirically tested to measure the five proposed variables: identifying risks, estimating risks, treating risks, monitoring and communication, which are considered as independent variables that affect boosting competitive business advantage, which is considered as dependent variable.

Findings – The analytical results show that there is a highly significant relationship between all identified factors of the independent variables and the boosting competitive business advantage. It also indicates that, overall, the model applied is significantly good enough in predicting the successful preparedness for any potential risk.

Originality/value – Enterprise risk management (ERM) is a new management notion for rapidly enhancing the business plan globally. Its relevancy and popularity as a management technique are abetted by the changing business practices and burgeoning regulatory requirements of risk management. The aim of this paper is to evaluate the extent to which public listed companies (PLCs) in Bahrain have adopted ERM programmes and, then, to evaluate the significance of these programmes in adding distinctive competitiveness for these firms.

Keywords Enterprise risk management, Competitive business advantages, Risk management, Bahrain

Paper type Research paper

1. Introduction

1.1 Overview

Our minds continually assess risks in even the most mundane activities, from driving cars to paying bills. On each of these occasions, the mind itemizes the risks, quantifies them, and then induces us to make decisions based on this assessment. However, failure to successfully accomplish risk assessments followed by making decisions can lead to disastrous results.

Currently, most imperative businesses and industries face various types of risks, such as operational, strategic, competitiveness, financial, reputational, and compliance risks,



which have become increasingly visible, especially during and after the financial crisis of 1997.

Risk is present in any situation; thus, it must be managed: firms have to be more practical about converting the response from defensive to offensive, and decisions must be made under uncertainty with imperfect information. Thus, managing these risks can be a real source of opportunity and challenge, as well as a powerful way of sustaining a competitive edge. Enterprise risk management (ERM) is described as the route of recognizing and analyzing risks from an incorporated, company-wide perspective.

Hundreds of organizations have spent large amounts of money on the revitalization and enhancing of business processes and the augmentation of information systems' abilities to achieve competitive advantage effectively (Akram, 2011).

Understanding the risks in public companies in Bahrain and attempting to manage them appropriately will increase the competitiveness at all levels, from producer to market, enhancing their ability to make better decisions, deliver companies' objectives and, subsequently, improve performance.

ERM helps create a comprehensive approach to anticipating, identifying, prioritizing, and managing material risks of the company. It is designed to enhance top management's ability to control the whole portfolio of risks facing an enterprise (Beasley *et al.*, 2006), and offers an important source of competitive advantage, demonstrating a strong risk management capability and strength (Stoh, 2005).

1.2 Research objectives

Away from the instantaneous pressures of global markets, increasingly demanding customers and volatile business change are increasing opportunities for businesses to create competitive advantage from their risk management competences, allowing enduring growth and future achievement.

Various business executives consider that a wide-ranging program for managing business risks grants a necessary establishment for boosting competitive advantage (Economist Intelligence Unit Limited and MMC Enterprise Risk Inc., 2001).

Given that ERM, to some extent, is a modern notion and has yet to be fully applied by the majority of companies in Bahrain, it must be emphasized that there has been little research about its activities and about the barriers to the impact of adopting ERM on enhancing the competitive advantages. Though the importance of ERM is increasingly acknowledged, very few firms are adopting it. Certainly, there has been scant research about why some businesses adopt ERM while others do not. This paper aims to fill this research gap by evaluating the impact of ERM on boosting competitive business advantages among selected Bahrain major corporations, through the introduction of an ERM conceptual framework. This paper also aims to measure whether the selected firms in Bahrain have adopted ERM, the level of adoption within their business units, and the effect of this adoption on the level of competitive business advantage.

1.3 Research methodology

A questionnaire will be constructed and distributed – in the form of hard and soft documents – to respondents, targeting only the Bahraini public sector. Statistical package for social sciences (SPSS) application will be utilized to analyze results by measuring the hypothesis of the proposed conceptual framework. In addition, the questionnaire will measure the importance of ERM for boosting competitive business advantages.

1.4 Research structure

The remainder of this paper is organized as follows: Section 2 presents a literature review, and Section 3 discusses the conceptual research model and hypothesis. In Section 4, the analytical results and discussion is presented and justified. Finally, the conclusion is presented in Section 5.

2. Literature review

Over recent years, the need for managing risk has increased rapidly, especially in the financial sector, due to the current financial crisis. Many activities within the financial sector face a variety of risks.

A high number of periodicals present and discuss various terms, such as corporate-wide risk management, organization risk management, strategic risk management, integrated risk management, and enterprise-wide risk management (EWRM) (D'Arcy, 2001). Such diversity of topics can lead to a lack of focus in this field; however, these notions can be gathered under the banner of ERM as they all underline a broad view of risk management.

According to Anderson and Terp (2006), risk management is “a process that should seek to eliminate, reduce and control risks, enhance benefits, and avoid detriments from speculative exposures. The objective of risk management is to maximize the potential of success and minimize the probability of future losses. Risk that becomes problematic can negatively affect cost, time, quality, and system performance.” On the other hand, Chapman (2003) defined ERM as the process of identifying and analyzing risk from an integrated, company-wide perspective. Meagher and O'Neil (2000) illustrated EWRM as an ordered and regimented approach in organizing strategy, processes, people, technology, and knowledge with a clear aim of assessing and managing the suspicions the firms may face as it produces value.

As Nocco and Stulz (2006) stated, “ERM adds value by ensuring that all material risks are owned and risk return tradeoffs carefully evaluated, by operating managers and employees throughout the firm”; it is strongly believed that implementing ERM adds value to the firm if it is effective and the action points are implemented correctly.

Also, the Committee of Sponsoring Organizations (COSO) of the Treadway Commission (COSO, 2004) posits that “Enterprise risk management is a process, effected by an entity's board of directors, management and other personnel, applied in strategy setting and across the enterprise, designed to identify potential events that may affect the entity, and manage risk to be within its risk appetite, to provide reasonable assurance regarding the achievement of entity objectives.”

Al-Tamimi and Al-Mazrooei (2007) classified risks into systematic and unsystematic risks. Systematic risk denotes risk that affects the entire system or market. Interest rates, recession, and wars are sources of such risks as they affect the entire market and cannot be avoided through diversification. While this type of risk affects a broad range of securities, unsystematic risk affects a very specific group of securities, and hence can be anticipated and avoided or mitigated through diversification.

Meagher and O'Neil (2000) indicated that the existing risk management methods are fragmented and treat risks as disparate and clearly compartmentalized. Bierc (2003) maintained this insight by declaring that risks are normally observed as something to be evaded or alleviated, then splintered, categorized, and addressed separately.

However, the senior managers in a high number of organizations acknowledged that such a “silo” approach is not an efficient method for managing the countless types of risks they may face (Walker and Shenkir, 2008).

Thus, Meagher and O'Neil (2000) diverged from the fragmented approach, opting instead for an integrated and systematic framework that provides trustworthiness to the risk management role within the business. ERM implementation can utilize such a conceptual framework to initiate some substantial (and some relatively superficial) advantages to the enterprise. These advantages include effects such as optimizing the risk/return profile of the company, reducing earning volatility (Lam, 2003), increasing management's confidence in business operations and risk monitoring, inspiring business reputation, enhancing enterprise-wide decision-making processes, promoting organization entrepreneurship, and boosting business competitive advantages (Crouhy *et al.*, 2006; Bailey *et al.*, 2004; Belmont, 2004). These advantages are anchored in ERM development and sequentially lead to boosting the business' competitive advantages.

Bowen *et al.* (2006) and Nocco and Stulz (2006) emphasized that ERM could boost shareholders' value. Additionally, Stoh (2005) confirmed that ERM offers a noteworthy basis of competitive advantage if capability of ERM has been demonstrated strongly and accurately.

The supporters of ERM claim that an integrated approach to risk management boosts enterprise significance by dropping all the inefficiencies inherent in the conventional approach, enhancing capital efficiency, stabilizing earnings, and reducing the expected costs of external capital and regulatory scrutiny (Liebenberg and Hoyt, 2003).

To upgrade the quality of business and lead it to better competitive advantages, Meagher and O'Neil (2000) promoted that the risk management process should be one that enhances the connection of risk and opportunity and manages it as a starting point of competitive advantage.

ERM is a concept, which is globally accepted and quickly expanding. Consequently, several risk management frameworks have been issued by worldwide professional organizations, which have been summarized as follows.

Typically, the ERM framework comprises the following essential elements: identifying, measuring, assessing, treating, and monitoring and controlling risks. The COSO of the Treadway Commission's ERM model comprises eight factors: objective setting, internal environment, event identification, risk assessment, control activities, risk response, information and communication, and monitoring (COSO, 2004; Chapman, 2003).

The Combined Code and Turnbull Guidance (2003) states that the "role of the board is to provide a framework of effective control so that risk is assessed and managed. The board is also required to review the effectiveness of controls, including all controls over financial, operational, and compliance areas as well as risk management systems." The report proposes that to assess an enterprise's risk and control processes, the following elements must be reviewed: risk assessment; control environment and control activities; information and communication; and monitoring.

King II Report (2005) published a report, in which it illustrates how the board is responsible for the risk management process and its effectiveness through the following elements: setting risk strategy policies; assessing the risk process; assessing the risk exposures, such as physical and operational risks, human resource risks, technology risks, business continuity and disaster recovery, credit and market risks, and compliance risks; reviewing the risk management process and significant risks facing the company; and being responsible for risk management disclosures.

A risk management standard by the Federation of European Risk Management (FERMA, 2004) does provide a risk management process, which includes: linkage to the organization's strategic objectives; risk assessment, which the RMS breaks

down into risk analysis, risk identification, risk description, risk estimation, and risk evaluation; risk reporting; decision; risk treatment; residual risk reporting; and monitoring.

Australia/New Zealand Standard 4360 – Risk Management (2004) (Standards Australia, 2004) aims to provide guidance in several areas, some of which are: a basis for decision making, better risk identification, gaining value, resource allocation, improved compliance, and corporate governance. The standard's risk management process includes establishing the context, identifying risks, analyzing risks, evaluating risks, and treating risks.

In comparison, the Arthur Andersen business risk management process (BRMP) (Deloach, 2000, p. 116) develops a risk management framework that comprises seven elements: establish the BRMP, assess business risks, develop business risk management strategies, design/implement risk management capabilities, monitor risk management performance, continuously improve risk management capabilities, and information for decision making (Meagher and O'Neil, 2000).

The Institute of Management Accountants' (IMA, 2006) *A Global Perspective on Assessing Internal Control over Financial Reporting* (ICoFR) includes self-assessments by CFOs and business process owners.

The Basel Committee on Banking Supervision (2003) framework is designed to improve the international banking system and make it stronger. A key idea behind the framework is that banks should match capital to the actual level of risks and set minimum capital levels.

The endurance of any business in the marketplace depends on how well the business invents strategy in assigning and organizing their valuable resources to continue competitively; accordingly, risks are established if the purpose of managing such competitive advantage from the valuable resources cannot be accomplished.

Thus, from the above literature discussion, it is postulated that different names, industries, and regions initiate different risk frameworks for different fields, such as financial reporting, internal control, management corporate governance, and accountability. They are all aimed at common topics, such as recognition, prioritization quantification, and solution of risks, to assist organizations in managing their business professionally. However, still, ERM frameworks are expansive and thus need to be more specialized for providing a specific framework to solve a specific risk. This paper aims to select and adopt ERM framework components from the above approaches to form a specialized ERM framework to provide an opportunity for businesses to boost their competitive advantages.

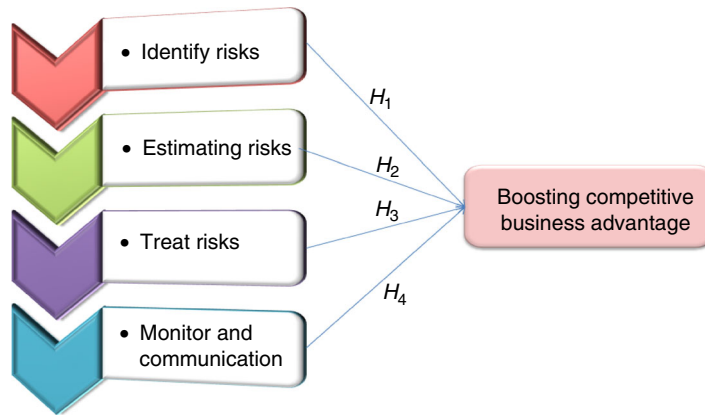
3. Conceptual research model and hypothesis

Based on a review of the extensive literature relating to the ERM components that affect boosting competitive business advantage, the current study developed a conceptual research model (Figure 1).

The proposed framework provides a wide range of consulting services that assist companies in boosting competitive business advantage using enhanced risk response capabilities.

The framework assumes that by having a solid approach to identifying risks, estimating risks, treating risks, and monitoring and communication, the firms may have a positive impact on boosting competitive business advantage.

Figure 1.
Conceptual
research design



The independent variables of the proposed conceptual framework are summarized as follows:

- Identifying risks – this component implies recording all the situations and events that characterize material threats to the firm's achievement of its goals or represent areas to utilize for competitive business advantage.
- Estimating risks – this component covers prioritization and classification of risk aspects for subsequent steps.
- Treating risks – this step includes analysis, development, and execution of plans to exploit certain risks for competitive advantage.
- Monitoring and communication – this component is to guarantee that the risk management plan continues to be significant, while communication is to enhance the level of understanding and treating of risks. Monitoring and communication involves all of the above components.

The dependent variable is boosting competitive business advantage using risk management capabilities.

Due to the nature of the current study and its hypothesis, the primary research purpose is, thus, explanatory. This model was empirically tested to measure the five selected factors (considered as independent variables) that affect the boosting of competitive business advantage (considered as the dependent variable).

3.1 Research question and hypothesis

To achieve the purpose of the current study, the research questions are presented to be consistent with the objectives of this research, in which we are revealing the apparent need for awareness concerning ERM. The following research questions have been formulated:

RQ1. To what extent are the selected organizations prepared and ready for any potential risks?

RQ2. To what extent are the selected organizations identifying and adopting the essential elements of ERM, which consequently boosts competitive business advantage?

To respond to the above questions, this research carries out four hypotheses that were developed from our conceptual research model, which is actually based on previous literatures and studies.

The following hypothesis assumes that there is no statistically significant impact on the carrying out of ERM to boost the organizational competitive advantage for any potential threats:

- H1.* There is no statistically significant impact of identifying risks on boosting competitive business advantage.
- H2.* There is no statistically significant impact of estimating risks on boosting competitive business advantage.
- H3.* There is no statistically significant impact of treating risks on boosting competitive business advantage.
- H4.* There is no statistically significant impact of monitoring and communication on boosting competitive business advantage.

By developing the above hypotheses, the study thus should adapt a quantitative research design to better test these hypotheses. Quantitative research uses a survey as the main instrument to collect data.

3.2 Survey instrument

This research was conducted by analyzing the results of distributed questionnaires about ERM in public-listed companies in Bahrain. The questionnaire we prepared was sent to risk management and internal audit departments of these organizations. It was divided into two sections. The first section concentrates on the general profile of the respondent, including his/her age group, education level and profession, and income group. In the second section we were interested in measuring the components of the proposed ERM framework which are affecting the organizational successful preparedness for any potential risks.

The respondents were provided with a list of ten questions: two questions for each variable. The participants were asked to indicate their perception on a Likert scale (1-5), with responses ranging from “strongly disagree” to “strongly agree.” The collected data were analyzed based on correlation and regression analyses using the SPSS version 17 computer program.

3.3 Sample and data collection

The survey was conducted using a primary data collection method through which it was designed and distributed to different people of different age groups and of different educational levels working at different organizations in Bahrain. However, the common denominator of these is the desire to improve organizational successful preparedness for any potential risk. All chosen respondents should have worked and practiced on ERM. A total of 130 questionnaires were distributed but we had only 104 usable answers. The greater part of the respondents were female (59.2 percent), and the majority (63.4 percent) were aged between 25 and 45 years old.

3.4 Pilot study
With the purpose of confirming that the survey was valid and reliable, a pilot study was conducted before the final distribution process. This was to find out whether the questionnaire was reliable or not; we therefore measured the internal consistency, which is the most popular method of estimating reliability.
Cronbach's α test was used for this purpose (Nunnally and Bernstein, 1994). She suggested that a minimum α of 0.6 is sufficient for the early stage of research.
As shown in Table I, the Cronbach's α in this study were all higher than 0.6: the constructs were therefore deemed to have adequate reliability.

4. Analytical results and discussion

4.1 Correlation test
The Pearson correlation coefficient is used to evaluate the strength and direction of relationship that may exist between two variables measured on at least an interval scale. It illustrates the strength and direction of the linear relationship between seven variables. Studies stressed that, prior to the regression testing; the correlations between variables (Coakes and Steed, 2007) should be achieved.
The result of this research, as illustrated in Table II, showed that four independent variables were found to be strongly correlated to boosting competitive advantage.
The results are presented in Table II which illustrates the Pearson correlation coefficient, the significance value and the sample size that the calculation is based on. The data showed no violation of normality, linearity, or homoscedasticity.
There were strong correlation results which showed that identifying risk ($r = 0.388$, $n = 104$, $p < 0.005$), estimating risk ($r = 0.645$, $n = 104$, $p < 0.005$), treating risks ($r = 0.622$, $n = 104$, $p < 0.005$), and monitoring and communications ($r = 0.567$, $n = 104$, $p < 0.005$) are clearly correlated to boosting competitive advantage.

4.2 Regression test
For further analysis, linear regression was carried out to study the extent to which the independent variables influence the dependent variable. The independent variables were regressed across, creating competitive advantage for the selected organizations. Table III summarizes the results of the linear regression analysis.
The results of the regression in the coefficients table (Table III) demonstrate that identifying risk ($t = 2.177$, significance = 0.032), estimating risk ($t = 3.545$, significance = 0.001), treating risks ($t = 2.155$, significance = 0.034), and monitoring and communications ($t = 2.944$, significance = 0.004), were found to significantly affect the boosting of competitive advantage. It also indicates that the model applied is significantly good enough in predicting the successful preparedness for any potential risk.

5. Conclusion

ERM is essential in today's business environment where it is essential for businesses to reveal risk factors, and the board of directors normally asks top management

Table I.
Cronbach α estimation

Reliability statistics		No. of items
Cronbach's α		
0.801		5

	Correlations				
	Identifying risk	Estimating risk	Treating risks	Monitoring and communications	Boosting competitive advantage
<i>Identifying risk</i>					
Pearson's correlation	1	0.301**	0.372**	0.207*	0.388**
Significance (two-tailed)		0.002	0.000	0.035	0.000
<i>n</i>	104	104	104	104	104
<i>Estimating risk</i>					
Pearson's correlation	0.301**	1	0.657**	0.520**	0.645**
Significance (two-tailed)	0.002		0.000	0.000	0.000
<i>n</i>	104	104	104	104	104
<i>Treating risks</i>					
Pearson's correlation	0.372**	0.657**	1	0.550**	0.622**
Significance (two-tailed)	0.000	0.000		0.000	0.000
<i>n</i>	104	104	104	104	104
<i>Monitoring and communications</i>					
Pearson's correlation	0.207*	0.520**	0.550**	1	0.567**
Significance (two-tailed)	0.035	0.000	0.000		0.000
<i>n</i>	104	104	104	104	104
<i>Boosting competitive advantage</i>					
Pearson's correlation	0.388**	0.645**	0.622**	0.567**	1
Significance (two-tailed)	0.000	0.000	0.000	0.000	
<i>n</i>	104	104	104	104	104

Notes: *,**correlation is significant at the 0.05 and 0.01 levels (two-tailed), respectively

Table II.
Results of correlation analysis

		Coefficients ^a		Standardized coefficients		
		Unstandardized coefficients				
Model		<i>B</i>	SE	β	<i>t</i>	Significance
1	Constant	0.603	0.299		2.018	0.046
	Identifying risk	0.106	0.049	0.159	2.177	0.032
	Estimating risk	0.297	0.084	0.330	3.545	0.001
	Treating risks	0.190	0.088	0.210	2.155	0.034
	Monitoring and communications	0.243	0.082	0.247	2.944	0.004

Note: ^aDependent variable: boosting competitive advantage

Table III.
Regression (coefficients)

regarding the potential firm's risks. An effectively developed ERM program cannot only cut down the cost, but it can also make available beneficial time and resources to concentrate on individual business solutions. Enterprises expected to face substantial types of risks can utilize ERM to create a competitive advantage.

ERM literatures realize that risk management competences are high on the executive agenda and currently seen as a significant business source of continued growth and enduring competitive business advantage. The proposed ERM framework considers risk management function as an additional encouraging partner to the business, serving as a driver of evolution and persistent productivity. Almost all

respondents felt that their risk management capabilities provide at least some source of competitive advantage, a finding consistent across industries.

Researchers from both academic and industry backgrounds indicate that enterprises with even minor improvement in detecting and managing risks can obtain significant competitive opportunities.

The accomplishment of such ERM implementation – and thus the amount of advantages expected consequentially – is influenced by how perfectly the enterprise establishes and manages some major components, which are fundamental to an efficient accomplishment of the ERM program.

Businesses need to determine how far they want to go to address risk and compliance. Using our proposed ERM components (estimating risk, treating risks, and monitoring and communications), businesses can adjust to an extreme strategic method that can leverage ERM to fuel business innovation and boost their competitive advantage.

It is vital to acknowledge that risk management could offer opportunities rather than threats. The firm's risk management process is proposed to guarantee that risks are taken intentionally and purposefully. As such, it influences an integrated risk management framework to identify and estimate, treating and assessing, monitoring, and communicating risks across the firm.

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