ENTERPRISE-WIDE RISK MANAGEMENT BEST PRACTICES: THE CRITICAL SUCCESS FACTORS

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Abstract: This paper examines the critical success factors of effective Enterprise-Wide Risk Management (EWRM) practices that have an effect on shareholder value. Financial and non-financial companies of Public Listed Companies (PLCs) of service sector had been chosen as a population to determine the crucial factors that should be considered for a success implementation of EWRM. A triangulation approach was adopted to get an enriched data collection and analysis for the study. From a survey on 14 financial companies and 41 non-financial companies and 4 companies of a case study, it is found that organisational culture is a most critical factor which contributes more to a success implementation of EWRM and has an effect on shareholder value. Significantly, the function and the effectiveness of other critical success factors were depended on strong organisational culture. The other EWRM critical success factors identified were risk management base, compliance, resource, cross-functional staff, knowledge management, and authority or power.

Keywords: Enterprise Risk management, Critical Success Factors, Shareholder Value

INTRODUCTION

Risk, as a form of uncertainty, usually causes serious financial implications to businesses and industries worldwide. Managing risk and uncertainty has always been a challenge to any type of organisation as they continuously attempt to strive for corporate excellence, whilst at the same time mitigate risks and minimise potential losses that could result in financial ruin. In this regard, businesses and industries have realised the importance and necessity of managing risks on an enterprise-wide basis.

The growing concern over risk management is not only regarding organisations, but also individuals and society at large (Wharton, 1992). Risk management is viewed as an important tool that enables an organisation to develop toward its goals and objectives, to strengthen its corporate governance, and at the same time to fulfill its obligation toward stakeholders. Failure to improve the risk management process can cause severe financial loss and damage to reputation. This will be reflected in stakeholders' confidence and trust.

Thus, it is important to conduct a comprehensive study on risk management by examining the critical factors towards the effectiveness of risk management practices. This paper presents and discusses the major factors that affect the successful implementation of EWRM. The main concern of this study is to examine the most significant factors of effective EWRM practice that have an effect on shareholder value in Public Listed Companies (PLCs).

The next section reviews the relevant literature in this area of study. The third section explains the data and methodologies used to examine and investigate the critical success factors of EWRM implementation. The fourth section presents the discussion of empirical findings from both quantitative and qualitative analyses. The final section ends the paper with the conclusion of the study.

LITERATURE REVIEW

In past, a number of researches and authors highlighted various factors which are considered as success factors in implementing EWRM. The theory of critical success factors has been introduced by John F. Rockart in 1979 which was published in Harvard Business Review. Rockart (1979, p.85) defined critical success factors as: (a) *"The limited number of areas in which results, if they are satisfactory, will ensure successful competitive performance for the organisation. There are the few key areas where 'things must go right' for the business to flourish. If results in these areas are not adequate, the organisation's efforts for the period will be less than desired*. (b) *Areas of activity that should receive constant and careful attention from management. The current status of performance in each area should be continually measured*."

Critical success factors have also been identified as "*one of the firm's activities that have a strong influence on the ability of the firm to meet its objective"* (Mcleod & Scheel, 2004).

Based on literature reviewed, cross functional staff, corporate governance and compliance, resources, organisational culture, and risk management base are factors that have been found and suggested as EWRM critical success factors. These factors are crucial to be considered in EWRM in order to create values and their functions that rely on the support of leadership.

Basically, a cross functional team is a group of people from various disciplines who have high skills, knowledge and experience, and are formed together for a specific and temporary task within a time frame under significant pressure or conflict (Holland et al., 2000). Whilst, EWRM is an ongoing process or task, and managing risk is *everyone's responsibility* in an organisation. This is supported by the case study from Dalgleish and Cooper (2005) where they found that the establishment of a strategy, communication, and training programme are crucial for managing risks in the EWRM approach, which required participation from all staff throughout the organisation.

Thus, the term *cross functional staff*' is fit to reflect the EWRM concept. The word *staffs* are used to replace the word *team*, which means that EWRM involves all staff at all levels of the organisation. The cross functional staff is responsible for responding to risks encountered by the organisation and they clearly understand on how to manage these risks. Thus, to ensure a successful EWRM implementation, the organisation must have the right people at the right position with diverse backgrounds and from different functions (Stroh, 2005). However, it is a challenge for organisations to promote risk awareness among their staff (Archer, 2002). Hence, for the purpose of this study, cross functional staff is defined as,

"a commitment among staff from different functional or units who faced different sources of risks and has different skills, knowledge, capabilities and experience to handle the risks that are integrated in enterprise-wide risk management in order to create, protect and enhance shareholder value."

In addition to cross functional staff, compliance is considered as one of the critical factors. The primary stage of EWRM is more about corporate governance and compliance (Shimpi, 2005). Berenbeim (2004) noted that compliance is considered as an essential complement to EWRM hence an effective value based enterprise requires a strong reinforcement of compliance systems. The compliance function checks that all relevant laws are being properly complied with (Lipworth, 1997). Corporate governance is vital for effective EWRM and none of the EWRM components can be achieved without corporate governance compliance (Rosen & Zenios 2001). It normalises the relations between shareholders, board of directors, top management, and stakeholders. The integration between corporate governance, risk management, and compliance are required in order to achieve objectives and maximise shareholder value (PriceWaterHouseCoopers, 2004b). Organisations have to comply with a rule, regulation, and a standard of listing requirement regarding the corporate governance and risk management (Ballou, 2005).

The impact of corporate governance on PLCs is shown in the study by Kleffner et al. (2003b) where the findings indicated that the corporate governance initiative through the Authorities of Toronto Stock Exchange guidelines has created more interest and focus on risk management among listed companies, and it becomes an important consideration for companies to adopt EWRM. Good corporate governance means "*putting the right internal infrastructure to manage the risk that the company faces"* (Javier, 2002).

Besides compliances, the next critical factor is organisational culture. The organisational culture refers to risk management culture, which is another important critical success factor to support an effective EWRM programme. Risk management culture defines risks that everyone in the organisation is accountable for and a positive risk culture promotes individual responsibility (Clarke, 2006). Culture refers to the attitude of staff to accept the new changes made by an organisation where employees *"shared assumption, behaviours and habits of those employed by the organisation"* (Holmes, 2004, p.151).

Culture influences people on how they perceive risks, attitudes and the way they handle the risks (Theil & Ferguson, 2003), and shapes and coordinates employees behaviour in order to achieve the objectives (Berenbeim, 2004). Importantly, risk culture is the way management and every staff in the organisation feel about risks by recognising that feelings, attitudes, and perceptions toward risks which will influence on how it is managed in order to pursue their business objectives (Rossiter, 2001). Lenckus (2004) reported that most of the respondents (83 percent) viewed organisational culture as a success factor in risk management.

Organisational culture has also been found as a barrier for managing and exploiting risk (Tillinghast-TowersPerrin, 2002) and a challenge toward EWRM implementation (Ernst & Young, 2003). Kleffner et al. (2003b) found that the organisational structure and overall resistance to change were among the reasons why EWRM cannot be successfully implemented. The EWRM programme has a need for introducing openness in the organisational culture where managers and employees have to report their department of risks, but some of them are reluctant to reveal their weaknesses (Levine, 2004).

Effective risk management also requires appropriate resources such as people, tools and technologies. Limited resource has been cited as one of the reasons many organisations fail to develop an effective EWRM programme (Meier, 2000). Eick (2003) recognised quality personnel in terms of knowledge, skill, and dedication as being the most important resources in managing risks. Adequate people with the right attitude are also important for managing the risks (Javier, 2002). Booker (2003) highlighted that besides people, tools are also critical factors to enable leaders to conduct their obligations effectively within the risk management framework. By having the right people who understand the company's strategic direction, customer needs, and tools, such as technology to manage the risks exposures, the EWRM implementation can be improved (Ramsaran, 2005). As mentioned by Deloach (2000, p.41),

"*the more mature a firm's capabilities in terms of the skilled people, the process and the supporting methodologies and technology committed to business risk management, the more steps the firm can realistically expect to take along the pathway to EWRM"*.

EWRM is an enhancement of the existing of risk management practice (Miccolis et al., 2001). The implementation and success of EWRM depend on risk management base such as existing organisational infrastructure and managing processes, and existing practices of risk management in an organisation (Sharman, 2002). The finding from the survey by PriceWaterHouseCoopers (2004a) showed that the development of new tools and practices are not required in EWRM, but it is important to integrate the existing capabilities and ensure that it is consistent with organisational practices. In addition, Eick (2003) identified that high visibility of risk management supports and promotes effective risk management in the education industry, where it "*enabled risk managers to have access to decision makers and become a part of strategic decision making process"* (p. 83). Beasley et al. (2006) discussed on how the balanced scorecard and the existing infrastructure can be leveraged to support EWRM programme. The balanced scorecard is a strategic performance measurement system that provides an integrated and comprehensive performance measurement tool for measuring the critical success of a company's strategy.

Maximising shareholder wealth is a primary objective of any profit organisation. It is widely accepted that maximising shareholder value is one of the EWRM motivation and a main objective of EWRM implementation (Miccolis & Shah, 2000; KPMG, 2001; Tillinghast-TowersPerrin, 2002; Kleffner et al., 2003b; Tillinghast-TowersPerrin, 2004). This value based management enables the company to align its critical function toward a common management process within the company (Ping, 2005). Shareholder value protection is a key EWRM benefit and its implementation is believed to contribute to the shareholder value improvement (PriceWaterHouseCoopers, 2004b).

Shareholder value is a financial indicator that has been used as a measurement of reference to the successful implementation of EWRM practices. Deloach (2000, p.38) noted that *EWRM "must be 'measurable' and the value proposition will assist companies to create competitive advantage, improve business performance and reduce cost"*. Tillinghast-TowersPerrin (2002) found that EWRM helps companies to manage the bottom line and increases shareholder value by increasing earnings growth, revenue growth, return on capital, earning consistency, and reducing expenses. Earnings growth and revenue growth are the top business issues (Miccolis et al., 2001). In business, growth means getting more profit and also increasing in risks

(Hovey, 2000). In terms of reducing expenses, decrease in an insurance cost has been found as having the most significant impact from the application of EWRM programme (Souter, 2000; PriceWaterHouseCoopers, 2004b).

It is important to highlight that most of the studies on EWRM thoroughly reviewed in the literature revealed significant findings in terms of the important relationship between EWRM and value creation, which is primarily based on the respondents' perception and belief, which is based on their knowledge and experience in real practices (see Miccolis et al., 2001; Barton et al., 2002; Tillinghast-TowersPerrin, 2002; PriceWaterHouseCoopers, 2004a; 2004b).

METHOD

The study adopted a triangulation approach, which was a combination of a survey and a case study, as the research methodology. The researcher used the triangulation approach to get an enriched data collection and analysis for the study. For example, Kleffner et al. (2003a & 2003b) and Eick (2003) used mixed methods in their study. Quantitative and qualitative methods were adopted in this study in order to provide both descriptive and interpretive forms of empirical evidence. The survey offered empirical evidence on EWRM practices from the companies' perspectives, which were derived from their knowledge and experience in the area. Therefore, the case study provided in-depth investigation of EWRM implementation in a real-practice context.

The public listed companies (PLCs) were selected as the population of the study because normally, EWRM is adopted by the larger organisations, such as the PLCs and multinational companies (Miccolis et al., 2001). Furthermore, the PLCs would have to exercise the best practice of corporate governance under the Malaysian Code of Corporate Governance and Bursa Malaysia Listing Requirements where risk management is part of it.

Service companies which comprise all companies in finance (F), and trading and service (TS) sectors had been chosen as the population. This was due to the role of service sector as an important aspect for economic development (Francois & Kenneth, 1996) and a sector that is considered to be a contributing factor for the growth of other sectors (Kanapathy, 2003).

Besides financial sector, trade and service sector (TS) which includes electricity, water, transport, storage and communication was chosen to represent the non-financial companies due to the fact that EWRM implementation was more dominant in this sector compared to other sectors in service industry. Most of the services in this sector are considered as public necessity, where risks and its management, and the performance of the company have a significant impact on the public compared to other service sectors.

The sampling frame was obtained from Bursa Malaysia Listed Companies, which includes the main and second boards of listed companies of all types of sectors. There were 55 companies in the financial sector and 185 companies in the trade and service sector, so the total of the population was 240 companies.

One hundred and thirty two (132) listed companies in the service sector were successfully contacted and 85 companies had agreed to participate. The questionnaires were sent to 85 public listed companies (PLCs) in the service sector which comprise of financial and non-financial companies. Out of 85 questionnaires sent, 55 responded, although several follow-up procedures had been made. The number of responses is considered high compared with other studies in EWRM, such as in Tillinghast-TowerPerrins (2001), Kleffner et al. (2003a), Eick (2003), and Beasley et al. (2004).

As for qualitative approach, four (4) companies were selected and interviewed as case studies. The identifying and selecting of PLCs in service sector as case studies were based on the survey responses. The selection of the case study was based on the uniqueness of the companies in terms of the status of EWRM implementation; the types of company; and the department in charge. One of them was a financial company with its risk management programme being handled by the risk management department. Another three were non-financial companies with the risk management programme was supervised by the risk management department (one company), and the internal audit department (two companies). There was no agreement in the literature on how many interviews or case study candidates should be selected for the research (Al Qura'an, 2005). It depends on the purpose of the study, time, and resources (Lincoln & Cuba, 1985).

The participants were contacted and an agreed date, time, and venue were set for the interviews sessions. The date and time were confirmed a couple days prior to the interview date. Two in-depth interviews were conducted concurrently with the survey (companies A and D) and another two interviews were conducted after the survey (companies B and C).

Table 1: Percentages of critical success factors in PLCs

Critical Success Factors	Agree (percent)
Cross-functional staff	52.8
Organisational culture	77.8
EWRM effort	34.0
Risk management base	65.5
Resource	52.8

Table 2: Mean analysis on critical success factors between type of company

Critical Success factors	Type of Company		'P' Value
	Financial	Non-financial	
Cross-functional staff	4.0000	3.6750	0.111
Organisational culture	4.1286	4.0250	0.499
Risk management base	4.1786	4.0549	0.376
Resource	4.0408	3.9707	0.679
Compliance	4.2679	3.9207	0.026**

Note: **significant at 5 percent, *significant at 10 percent

Table 3: Stepwise multiple regression model on critical success factors and shareholder value

Model	Variable	Unstandardised Coefficients		T	Sig.	R^2
		B	Std. Error			
1	(Constant)	1.391	.745	1.867	0.068*	
	RMB	.606	.182	3.331	0.002***	0.185
2	(Constant)	.555	.829	.670	0.506	
	RMB	.462	.189	2.441	0.018**	
	Culture	.350	.170	2.055	0.045**	0.251

Note: a. Predictors: (Constant), RMB
b. Predictors: (Constant), RMB, Culture
c. Dependent Variable: Shareholder value
**p<0.05, *p<0.10

Table 4: Critical success factors

Company	Critical Success Factors
A	Culture, resource, knowledge management, cross-functional staff and risk management base
B	Resource and culture
C	Culture and authority
D	Culture and power

RESULTS OF THE STUDY

The study employed a mixed methodology or triangulation approach through a combination of quantitative and qualitative methods. The presentation of the findings started with the quantitative analysis from a survey and followed by in-depth interviews of a qualitative approach.

Quantitative analysis

The PLCs were in agreement that organisational risk management culture (77.8 percent) was the most critical factor for the successful implementation of EWRM programme. This was followed by risk management base (65.5 percent), compliance (60.0 percent), cross-functional staff (52.8 percent) and resources (52.8 percent). Table 1 displays the percentages of PLCs and the critical success factors.

Table 2 presents the mean scores on critical success factors and type of company. While comparing all items in the critical success factors, the result found that the overall mean scores in financial companies were higher than in non-financial companies. The critical success factors were namely, cross-functional staff, organisational culture, EWRM effort, risk management base, resource, and compliance.
The compliance factor had been found as the highest factor among the critical success factors in financial companies and its mean score of 4.2679 were also higher than in non-financial companies (3.9207). The p value of 0.026 also showed that there was a significant difference between company types at the 5 percent significance level. Moreover, compliance had been reported as the reason why 85.7 percent of financial companies adopted and effectively implemented the EWRM programme as compared to only 75.6 percent of the non-financial companies.

Also, this section offers the multiple regression analysis on the affect of critical success factors such as cross functional staff, compliance, organisational culture, risk management base and resources on shareholder value. The research objective is t*o determine how the critical success factors affect the shareholder value.* From the results of Table 3, the regression model was stated as follows:
$SHV = b_0 + b_1 RMB + b_2 Culture$

Based on the results, the stepwise regression equation was as follows:
$SHV = 0.555 + 0.462 RMB + 0.350 Culture$

The findings showed that risk management base (RMB) was the most important factor in explaining the shareholder value, and this is followed by organisational culture. Findings of the study suggested that risk management base and organisational culture were found to be statistical significant and positively related to the shareholder value. The value of $R^2 = 0.251$ indicated that these two EWRM critical success factors included in regression equation explained 25.1 percent of the variation of the shareholder value.

The result indicated that the companies with a risk management base increase their shareholder value. The risk management base includes a basic knowledge of staff in risk management, and an existing risk management process, procedures, policies, and infrastructures (such as the balanced scorecard). Also, the findings showed that the companies with organisational risk management culture increase their shareholder value. The organisational risk management culture means that communication and reporting within the organisation, communication with wider stakeholders, risk management awareness, and more involvement of staff in decision making have been developed and improved upon.

Qualitative analysis

The data collection instruments were used in this case study was interviews and documentations. The aim was to get rich data and to analyse in detail all the important aspects related to the study. Interviews give opportunities for a researcher to learn facts and beliefs from individuals' particular experience in managing risks.

The interview protocol was developed and the researcher expanded the questions as to explore and probe the issue in greater detail. Data were analysed based on cross-case analysis according to the identified issues.

Table 3 shows the critical success factors on EWRM implementation of the four case studies. The critical success factors are the image of EWRM barriers. Most of the barriers are the critical factors towards the success of EWRM implementation.

From the interviews, all case study companies cited culture as the critical factor for a successful implementation of the EWRM programme. Organisational culture also had been cited as the barrier of EWRM implementation in Company A, C, and D. Company D referred to the organisational culture as risk awareness, where all the staff provided high commitment and cooperation on EWRM efforts.

Besides culture, Company A and B, where their EWRM programme was under the supervision of the risk management department, reported that resource was a critical success factor. For Company A, risk management was a means to inform the staff before they accelerated to meet the result. They were always alerted to achieve the objectives. Company A viewed skill as a hazard or a risk of not meeting the objectives. The importance of resource in meeting a company's objectives had been stressed by the Head of Risk Management that, "*if you have the infrastructure, but you do not have the right people, you still do not meet the business objective*". On the other hand, company B was more concerned about resource than risk management culture.

Another critical success factor that was highlighted by Company A was the balance scorecard. The function of the balance scorecard was to make sure that everybody in the organisation understood the objective of the company and were synchronised with it, so that everybody can contribute towards the objectives. The balance scorecard was a business strategic tool where everybody in the organisation prepared and used the same language in order to achieve the objectives.

Authority or power was a critical factor for Company C and D to successful implement the EWRM programme. It was also cited as the main barrier in Company C and D in implementing the programme. Even though EWRM was under the supervision of the internal audit department, the roles were more towards an internal consultant. They should have the authority or power to ensure that the business units or subsidiaries undertook risk management activities and reported it regularly as requested by the company.

Only Company A mentioned that knowledge management was a critical success factor. Since the company was under the telecommunication service sector, it had to respond to the rapid global technology movement. The company required all types of knowledge to support their risk management practices in all aspects of the organisation. The Head of Risk Management highlighted the significant factor of knowledge management for a successful implementation of EWRM:

"If the company does not update the knowledge, its views are still legacy views and it might not be relevant now compared with the new risk that are brought forward. Knowledge is actually both, internal and as well as external. Internal knowledge is actually how we share the information with the community in our company, towards meeting common objectives, so it means that we have one captain and everybody rows the boat. If we do not share, we are no where."

Company A also cited cross-functional staff as one critical success factor. The company observed EWRM as a platform for the people to talk about risks and the way to manage risks. Its implementation was by department or division where the risks remained in an organisation. Under EWRM, the board requests one report from the management. The cross-functional staffs were required to break the gaps between departments and discuss about the company's risk.

The findings of the study have assisted the researcher by obtaining a real picture of EWRM implementation, particularly in PLCs and generally in Malaysia through the triangulation approach. In this study, the qualitative method is used as a confirmatory method that is established in the quantitative method.

DISCUSSION

Organisational risk management culture has been cited both, in the survey and case study analyses, as the most important critical success factor among PLCs. The successes and failures of any businesses, regardless of type and size of the companies, depend on the organisational culture.

This study showed that organisational culture is vital for influencing people in the organisation toward achieving an effective risk management implementation. This is comparable with the reviewed literature (see Ernst & Young, 2001; 2003; Kleffner et al., 2003b; Lenckus, 2004). The findings on the stepwise multiple regression indicated that companies with organisational risk management culture would increase shareholder value. The finding indicated that risk management culture, which promotes everyone in an organisation to be accountable and responsible for the risks in order to achieve the objectives, is consistent with the previous literature (see Theil & Ferguson, 2003; Berenbeim, 2004; Holmes, 2004; Clarke, 2006).

Risk management base is another critical success factor that has an impact on shareholder value where the results of stepwise multiple regressions analyses depicted it's as the most significant factor. The successful implementation of EWRM, which depends on the existing practices of risk management in terms of infrastructure and skill, and knowledge among the staff, is evident in the EWRM literature (for example Sharman, 2002; Eick, 2003; PriceWaterHouseCoopers, 2004a; Beasley et al., 2006). Balanced scorecard is an example of the existing infrastructure that helps to support the EWRM programme, which has been cited by one of the non-financial companies of the case study.

It is important to highlight that the *r square* (R^2) of the stepwise multiple regression showed that the percentages of variation in shareholder value that is explained by variance of culture and risk management base is small. It may also be contributed by other factors that could be considered as EWRM critical success factors.

Knowledge management and authority/power have been highlighted as the critical factors for effective implementation of EWRM in the case study analysis. Knowledge management, which is about the information of risks and its management, is shared among the community of staff in the organisation. It is required to improve the effectiveness and the efficiency of risk management practices.

The authority or power is a critical factor for successful implementation by the internal auditors, who are responsible for risk management implementation in order to improve the risk management reporting. It is not given to the internal auditors, perhaps because of the conflicting role and function between their primary duties in internal auditing and managing risks. This limitation can affect the effective implementation of EWRM programme.

CONCLUSION

The research findings have practical implications for PLCs that are required to disclose their risk management practices in their annual report. Whilst, in financial companies, there are many rules and regulations that have been imposed for effective risk management practices.

This study adopted a triangulation approach to investigate the critical success factors of effective EWRM practice that have an effect on shareholder value. Critical success factors are required to be considered in order to achieve good risk management practices. The findings of the research have assisted the researcher by gaining a better, riches, and more comprehensive understanding of the important role and the impact of the critical success factors for effective implementation of EWRM in order to maximise shareholder value.

Although the risk management based has been cited as the most significant critical factor in stepwise multiple regressions analyses, the organisational culture had been mentioned both, in quantitative and qualitative analyses. Furthermore, the case study findings stress that the function and the effectiveness of other critical success factors are depended on strong organisational culture. Other EWRM critical success factors which contribute to the successful implementation of EWRM or shareholder value are compliance, resources, cross-functional staff, knowledge management, and authority or power.

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