CAUSES AND EFFECTS OF ENTERPRISE RISK MANAGEMENT IMPLEMENTATION

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Introduction/background: This paper presents a detailed review of causes and effects of the Enterprise risk management (ERM) implementation, including results of the author's own survey research.
Aim of the paper: The purpose of the paper is to analyse the benefits of ERM implementation while taking into account the importance of the incentives that motivate the decision to implement ERM within enterprises.
Materials and methods: On the basis of a detailed literature review and taking the results of author's own survey research into account, an analysis of the causes and effects of ERM implementation is presented. Particular attention is paid to cases where enterprises implement ERM mainly due to stakeholder expectations.
Results and conclusions: The described benefits related to the use of ERM are an important reason for the implementation of these systems in enterprises; the benefits exceed the financial costs related to the implementation and use of a risk management system. However, in many cases, the decision to implement ERM is also influenced by external factors. The influence of the organisation's environment on the decision to implement ERM is a positive phenomenon, but the willingness to meet stakeholder requirements should not be the only motivation for implementing ERM. In order to implement an effective risk management system, enterprises should implement such systems deliberately with the primary aim of achieving actual benefits, not just meeting the expectations of those within its environment.

Keywords: Enterprise Risk Management, corporate governance, risk management, causes and effects of ERM.

1. Introduction

Enterprise risk management (ERM) is a relatively new approach to risk management and is gaining popularity all over the world. Unlike traditional risk management, ERM emphasises the need for the consistent and comprehensive management of all risks and takes into account dependencies that may exist between different risks (Bromiley et al., 2015). According to ERM, risk management should be integrated with all processes in an organisation, including strategic and business planning (Fraser and Simkins, 2016; Sprčić, Kožul and Pecina, 2015). It is a continuous and repeatable process that is implemented throughout the enterprise (Cormican, 2014). It requires a well-developed infrastructure, an appropriate risk culture, and a proper division of duties and responsibilities (Boultwood and Dominus, 2014; ISO 2018).

The implementation of enterprise risk management requires taking additional measures aimed at changing the presented approach to risk, creating an appropriate risk management infrastructure, employing additional employees, and/or adapting the organisational structure and culture. Knowledge and experience regarding the implementation and application of risk management are also necessary. This implies the need to invest additional time and resources in order to successfully implement ERM in an organisation. What is more, it is not possible to create one universal ERM system suitable for every enterprise. This means that it is necessary to always adapt existing standards, frameworks, and concepts to the given organisation and situation, which additionally hinders the process of implementing risk management. So, it begs the question of why organisations decide to implement such systems and what the benefits of implementing them are.

It is worth emphasising that, despite the fact that implementing a risk management system necessarily involves incurring additional financial costs as well as devoting a certain amount of time and resources, the use of ERM brings many benefits to enterprises, positively influencing their bottom line. Potential measurable benefits undoubtedly encourage the implementation of ERM, but, in many cases, organisations also implement ERM for other reasons.

In the remainder of this paper, the author will attempt to analyse the benefits of ERM implementation, taking into account the incentives that motivate the decision to implement ERM within enterprises.

2. Impact of ERM on company performance

According to ISO 31000:2018, an objective of risk management is to create and protect the value of a company. Risk management is aimed at improving results, strengthening innovation, and making a company better able to accomplish its goals (ISO, 2018). Among economists, opinions regarding the impact of ERM on the results and value of an enterprise are divided. Many believe that, from an investor's point of view, a cheaper way to eliminate a specific risk is portfolio diversification. What is more, the expenses associated with reducing risk in an enterprise are a negative cash flow for an investor (Mikes, Oyon and Jeitziner, 2016). Additionally, some researchers involved in the analysis of the impact of ERM on a company's results were not able to confirm a positive correlation between the implementation of a risk management system and the results of the enterprise (Pagach and Warr, 2010; Quon, Zeghal and Maingot, 2012). Despite this, the vast majority of key research and publications demonstrate that the benefits of using ERM systems outweigh the costs associated with their implementation and maintenance, and that they have a positive impact on organisations (Choi et al., 2016).

A well-designed risk management system increases risk awareness in the organisation, enables better anticipation and assessment of opportunities and threats, and allows for more rational managerial decisions. This provides the opportunity to better control the impact of potential risks on business by reducing the likelihood of occurrence, by decreasing the consequences of negative risks that may occur, and by strengthening the impact of positive risks. Such an action limits the volatility of financial results and has a positive effect on their growth. Moreover, reducing business risk and increasing financial results should have a positive impact on the value of the organisation.

The impact of implementing a risk management system on a company's performance has been analysed by many researchers. A company's performance is understood as a set of financial and non-financial indicators that offer information regarding the level of objective and result accomplishment (Lebans and Euske, 2006). Therefore, the impact of risk management on a company's performance can be measured by its impact on the value of the company, the company's financial results, the return on shares, etc. The most important studies on this subject include the following:

- R.E. Hoyt, D.L. Moore, and A.P. Liebenberg (2008), by analysing American companies in the insurance industry, proved a positive, statistically and economically significant relation (ERM premium of around 17% of the company value) between the use of ERM and the value of the surveyed companies.
- L.A. Gordon, M.P. Loeb, and C. Tseng (2009), by examining a sample of 112 American companies that included information on ERM implementation in their financial statements, proved the thesis that the relationship between ERM and results depends on how well a risk management system is matched to five selected factors affecting the organisation.
- R.E. Hoyt and A.P. Liebenberg (2011), by analysing American companies in the insurance industry, proved a positive relation between the implementation of ERM and the value of the company (they used the Tobin Q index). They considered the calculated bonus related to the ERM implementation of around 20% to be statistically and economically significant.
- R. Baxter, J.C. Bedard, R. Hoitash, and A. Yezegel (2013) showed that both the results of enterprises measured with the return on investment and the market value of the surveyed enterprises are higher for companies that have invested in higher quality ERM systems. The authors conclude that higher quality risk management improves results by reducing losses and by making more effective use of opportunities. The research was conducted on a group of enterprises from the financial sector.

- The impact of ERM implementation on the value of European companies was studied by G.S. Bertinetti, E. Cavezzali, and G. Gardenal (2013). Based on research on a group of 200 companies from financial and non-financial industries, they proved a positive, statistically significant relation between the implementation of ERM and the value of the surveyed enterprises.
- N. Waweru and E. Kisaka (2013), analysing 22 companies listed on the Nairobi Stock Exchange, showed a positive relationship between the level of ERM implementation and the value of the companies.
- AON (2013), based on the research conducted on a group of over 100 companies listed under the S&P 500 stock index, proved a positive correlation between the return on shares and an increase in the quality of risk management. At the same time, a negative relationship between the volatility of share prices and an increase in the quality of risk management was demonstrated. Furthermore, it was proved that enterprises with a high ERM maturity were more resistant to market declines.
- A. Nair, E. Rustambekov, M. McShane, and S. Fainshmidt (2014), examining the impact of the 2008 crisis on enterprises, showed that organisations with well-functioning ERM systems were characterised by a smaller fall in share prices during the crisis (during declines) and above average gains during increases.
- D.L. Eckles, R.E. Hoyt, and S.M. Miller (2014), based on data obtained from the insurance industry, proved that organisations that implemented ERM experienced a decrease in the variability of the return on shares, which deepened over time following ERM implementation. Moreover, an increase in the value of operating profit per risk unit was observed (ROA/rate of return variability). On this basis, the authors concluded that enterprises generate greater risk reduction as calculated by dollars spent on managing said risk thanks to the ERM approach, according to which risks are analysed and managed jointly in the form of a risk portfolio.
- M. Farrell and R. Gallagher (2014) showed that enterprises exhibiting mature ERM are characterised by higher values (measured with Tobin Q). On the basis of the conducted research, the authors also identified the most important elements of ERM from the perspective of enterprise value, which are the commitment of managers and a general embrace of risk culture throughout the organisation.
- S. Soltanizadeh, S.Z.A. Rasid, N.M. Golshan, and W.K.W. Ismail (2016), by analysing data from 174 companies listed on the Malaysian Stock Exchange, proved that implementing ERM has a positive, significant impact on operating profit.
- C. Florio and G. Leoni (2017), researching Italian listed companies, showed that organisations that implemented ERM at an advanced level presented better financial results and were characterised by higher market valuation.

- T.R. Berry-Stölzle and J. Xu (2018), based on research conducted on American companies from the insurance industry, proved that the implementation of ERM has a significant impact on the decrease in the cost of equity in enterprises.
- E.M. Kerraous (2018), based on a sample of 37 Moroccan companies, proved that ERM integration generates an increase in turnover of 36.54%, an increase in operating profits of 72.16%, an increase in net income of 97.99%, and an increase in return on assets of 37.86%.
- A. Bohnert, N. Gatzert, R.E. Hoyt, and P. Lechner (2018) demonstrated a significantly positive impact of ERM on firm value in the case of European insurers. They found that insurers with a high-quality risk management system exhibit on average about 6.5% higher Tobin's *Q* than insurers with lower quality risk management.
- G. Girangwa Kakiya, J. Mose, and L. Rono (2019), researching Kenyan state corporations, found that ERM governance practices influence organisational performance in a significantly positive manner. They also stated that intellectual capital had an enhancing and significant moderation effect on the relationship between ERM governance practices and organisational performance.
- J.R. Silva, A.F. da Silva, and B.L. Chan (2019) investigated the association between ERM and firm value based on Brazilian listed companies in 2004-2013. The results indicated a positive association between firm value and the use of an ERM approach.
- X. Zou, C.R. Isa, and M. Rahman (2019) found that an effective ERM programme adds value to manufacturing firms by mitigating firm cost and enhancing firm efficiency. Their results showed significant evidence of a value premium attached to effective ERM programmes.

The above studies confirm the opinion expressed by the majority of researchers dealing with risk management regarding the impact of ERM systems on the results of enterprises. They indicate a positive correlation between the use of ERM systems and the amount and stability of financial results, the market value of the analysed companies, and the effectiveness of their functioning. ERM implementation also helps lower the cost of equity in the enterprise.

The author's own research also confirms the positive impact of using risk management systems on company results. The author conducted individual, anonymous surveys on 27 specialists dealing with risk management (managers, risk specialists, etc.) in organisations operating in Poland that have implemented mature risk management systems (presenting a proactive approach towards risk). The respondents were asked to assess the overall impact of implementing a risk management system on the performance of their company (impact on financial results, company's value, etc.) by selecting one of the following answers: (1) *largely positive*, (2) *somewhat positive*, (3) *slightly positive*, (4) *no impact*, (5) *negative impact*. The assessment determined by the respondents was subjective and was not parameterised, but it was based on their knowledge regarding the company's performance and the professional experience of the respondents. In most cases, the respondents assessed the overall impact of implementing a risk management system on the enterprise where they work as *somewhat positive* (12 responses) or *largely positive* (ten responses). Only two people assessed the impact as *slightly positive*, and two people replied that the ERM implementation *did not affect their organisation* in any way.

3. Other benefits of enterprise risk management

As regards publications on the benefits of ERM, it is also worth mentioning the survey conducted by AON (2013) on a group of 230 Polish enterprises. Among the basic benefits of investing in risk management, the respondents mentioned: more informed decisions regarding risk retention/acceptance (61%), improved internal control (54%), improved management standards (54%), increased shareholder value (38%), improved business continuity planning/crisis management (29%), lower total costs of insurable risks (16%), higher return on investment (13%), reduced compliance costs (12%), and improved strategy (10 %) (AON, 2013). In turn, research conducted by A. Korombel, M. Nowicka-Skowron, and S. Brzezinski (2016) shows that some of the most significant benefits of risk management in small- and medium-sized enterprises in Poland are: increasing the likelihood of achieving business goals; improving decision-making processes and setting strategies; increasing company results; improving the company's image among stakeholders; allocating resources more efficiently; and increasing awareness and cultivating risk culture.

As follows from the above-mentioned research, in addition to the positive impact on financial results, the use of ERM systems can also provide other benefits to enterprises. Among the most important described in the literature, it is worth mentioning:

- Being able to take better advantage of opportunities, reducing unnecessary losses and the number of unexpected events, and increasing the stability of the organisation (COSO, 2017).
- Easier adaptation of the enterprise to the changing business environment – Increasingly rapid changes in the environment force organisations to better identify, evaluate, and plan responses to new emerging risks. ERM pushes managers to attempt to anticipate possible future scenarios and prepare organisations to improve their ability to deal with new risks to which they may be exposed (Protiviti, 2006).
- The ability to identify and manage entity-wide risks that can impact many parts of the entity, including those risks which originate in one part of the entity but affect a different part (COSO, 2017).
- A more optimal structure and a better allocation of capital within an enterprise (Marchetti, 2012).

- Improving corporate governance principles – Risk management and corporate governance are inextricably linked (Protiviti, 2006).
- Better compliance with legal and regulatory requirements and international standards (Polski Komitet Normalizacyjny, 2012).
- Reducing the number and cost of complaints, reducing the number of lawsuits, lowering insurance costs, and avoiding financial penalties (Decker, Galler, 2013, p. 41).
- Increasing risk awareness and cultivating risk culture (Korombel, Nowicka-Skowron, Brzeziński, 2016).
- The possibility of coordinating various functions in the enterprise more proficiently, allowing the company to better manage not only individual risks, but also interdependencies between different risks, which results in the improved efficiency of an organisation (Lam, 2014).
- Improving the organisation's learning process and increasing its resistance to external factors (Polski Komitet Normalizacyjny, 2012).

In addition to the benefits of risk management for the organisation managing it, the use of ERM systems brings considerable benefits to an individual entity's stakeholders, which improves the image of the enterprise in their eyes:

- It leads to an increase in share value, a decrease in investment risk, and an increase in and greater stabilisation of earnings for shareholders (Segal, 2011). The research conducted by J. Górnik showed that the way investors perceive the quality of risk management in an enterprise has, in most cases, a significant impact on their investment decisions (when investors believe that the company does not manage risk well, 61% of them do not get involved in further investments, 48% withdraw from the company, 35% attempt to change risk management procedures in this company, and 30% attempt to change the management). In addition, most investors believe that companies that manage risk effectively can expect higher share prices (Górnik, 2006).
- Thanks to risk management, a company becomes a more stable and timely supplier and a more reliable recipient in the eyes of contractors (Przetacznik, 2016).
- Managers are able to make better, more conscious decisions, allocate capital more efficiently, and achieve better results with less risk associated with decision making.
- From the employees' point of view, ERM improves health and safety at the workplace. In addition, the company becomes a more stable employer.
- For banks, enterprises using ERM are more reliable and stable customers, and, for insurance companies, they are safer entities that are less exposed to risk.
- From the point of view of the region where a company is located and its residents, ERM leads to improvements in occupational health and safety as well as environmental protection. The company is seen to be becoming a more stable economic entity.

4. Causes for ERM implementation

Undoubtedly, the implementation of ERM brings many benefits to enterprises, has a positive effect on financial results, and improves the quality of management. However, one may ask the question of whether the potential positive impact of ERM implementation on organisations constitutes the main motivation for implementing such systems. One may also wonder what factors have the greatest influence on the decision to implement ERM, as well as what the main goals of implementing risk management systems in organisations are.

According to research conducted by the FERMA organisation (FERMA, 2012) on a group of 809 enterprises, the main factors influencing the decision to develop ERM in enterprises include: legal requirements, regulations, and compliance (61%), shareholder requirements (33%), corporate social responsibility (31%), catastrophic events (26 %), major insurance issues (19%), market pressure (17%), and pressure from analysts/rating agencies (14%).

On the other hand, in the research conducted by AON (AON, 2016), the most important premises for strengthening risk management in Polish and global enterprises include: economic instability (Poland: 60%, world: 37%), investors' requirements for greater transparency and responsibility (Poland: 24%, world: 20%), pressure from customers (Poland: 35%, world: 26%), increased interest from regulators (Poland: 33%, world: 38%), extreme natural events (Poland: 3% , world: 17%), political instability (Poland: 9%, world: 15%), competitive pressure (Poland: 28%, world: 21%), exposure from suppliers or contractors (Poland: 8%, world: 15%), employee issues (Poland: 10%, world: 15%), cyber threats (Poland: 12%, world: 22%), civil liability losses (Poland: 8%, world: 18%), unforeseeable events (Poland: 13%, world: 18%), and globalisation (Poland: 6%, world: 11%).

Research on factors influencing the decision to implement ERM in organisations was also carried out by M.J. Khan, D. Hussain, and W. Mehmood (Khan, Hussain, and Mehmood, 2016). Based on information on 315 French companies, the authors showed that the most important factors are: pressure from local and international regulators; the likelihood of financial difficulties and their potential costs; poor financial performance of the company; the presence of development opportunities; and applied corporate governance practices.

The author's own research also showed a large variety of implementation goals and, hence, motivations to implement ERM. The survey conducted with 27 risk management specialists dealing with organisations operating in Poland that have implemented mature risk management systems (the survey described in Chapter 2) asked about the goals of ERM implementation in the respondents' organisations. The respondents could select any number of answers from a list of 12 responses. Based on a survey, it can be concluded that the two main reasons for implementing risk management in the group under examination were the improvement of management quality (this was the goal for 20 out of 27 surveyed enterprises) and meeting the requirements of stakeholders (owners, contractors, etc.) (selected by 18 respondents).

Third place was shared by: better adaptation to the changing environment and the improvement and stabilisation of financial results (each marked by 14 respondents), and the fifth was the protection of the company's resources and reputation (12 respondents). Other important factors included: wishing to meet legal requirements (nine respondents), limiting the number of complaints and financial penalties (six respondents), and lowering the impact of crises and catastrophic events on the organisation (six respondents), as well as improving the company's image (five respondents) and increasing the value of the company (five respondents). The least frequently selected goal was the reduction of insurance costs (selected by only two respondents) and 'other' (selected by three respondents).

5. Impact of the ERM implementation goals on outcomes

The reasons why organisations decide to implement ERM directly influence their determination of risk management implementation goals. The analysis of the objectives of implementing a risk management system is extremely important in the context of achieving the expected effects (benefits) from the implementation of these systems. Both the specific problem and the formulation thereof influence the priorities that are defined and the actions that are taken (Bonnardel and Sumner, 1996; Hodgkinson et al., 1999). Thus, an organisation's reasons for implementing such a system have a direct impact on how the implementation process is carried out and what measures, as a result, will be implemented (Smith et al., 2008). Motivations to implement the system influence the actions taken and not taken in connection with its implementation; this affects the outcome, including the design of the system and the way it will be used (Smith et al., 2008; Markus and Tanis, 2000). Depending on the dominant motivation (internal - related to the desire to achieve benefits from ERM implementation, the source of which is the organisation itself - or external - the organisation's environment and expectations from that environment, as well as specific motivations) leading to ERM implementation, organisations may define different implementation goals, and thus they will (or will not) undertake various actions related to the implementation of the new system and its use. This has a direct impact on the way such a system is organised. It can affect the total impact of the implemented system on the organisation, and thus the benefits of implementing such a system.

Motivation to implement ERM may also affect the level of commitment to the process of ERM implementation and application, which also affects the achieved result. For every change initiative, understanding the meaning and the benefits of a change results in greater participation in and engagement with the change initiative (Sonenshein and Dholakia, 2012; Bartunek et al., 2006). Therefore, greater awareness of the potential benefits of ERM implementation and the willingness to achieve these benefits will certainly result in greater motivation to use such a system, and thus in greater involvement in its implementation and application process. Strong commitment on the part of managers as well as all other employees is crucial for the effective implementation of the ERM system, which will then produce tangible benefits to an even greater extent (ISO, 2018; Sax and Torp, 2015; Althonayan, Keith and Killackey, 2012). In turn, in a situation where the system is implemented mainly due to outside requirements, management and, thus, other employees are unlikely to be fully committed to the process (Williams, 2004; Douglas, et al., 1999), which may negatively affect the outcome of ERM application.

It should be emphasised that the impact of an organisation's stakeholders on the decision to implement ERM is not a negative phenomenon as it motivates a company to take additional, beneficial initiatives. However, it is important that a willingness to meet stakeholder requirements should not be the only motivating factor for implementing a risk management system. Organisations implementing ERM should be fully aware of the benefits that a reliable implementation of an effective risk management system can bring; as such, they will be more likely to be more committed to and educated about ERM implementation, which will have tangible benefits for the organisation.

6. Summary

ERM systems have a positive impact on the functioning of organisations, in particular on: the growth and stabilisation of their financial results, increase in the value of shares, and decrease in the cost of equity. A positive impact of ERM implementation on the organisation was also confirmed by the author's own research. Moreover, risk management helps to protect the company's assets and reputation, reduces insurance costs, and reduces the likelihood of a company taking part in illegal activity. In addition to measurable financial benefits, the implementation of a risk management system also improves the quality of management, enables better adaptation to the changing business environment, and introduces a risk management culture to the organisation. Importantly, the use of ERM provides benefits not only to the enterprise itself, but also to its stakeholders – shareholders, contractors, employees, banks, and insurance companies.

The described benefits related to the use of ERM are an important reason for the implementation of these systems in enterprises, which exceed the financial costs related to the implementation and use of a risk management system. Improving the quality of management, the desire to better adapt to the changing environment, willingness to counteract the negative consequences of unexpected events, limiting the costs associated with the implementation of individual risks, or the wish to take better advantage of potential opportunities are factors that motivate enterprises to implement and develop risk management systems. However, in many cases, the decision to implement ERM is also influenced by external factors, such as compliance with legal regulations or the expectations of investors and contractors.

The influence of the organisation's environment on the decision to implement ERM is a positive phenomenon, but it should be noted that a willingness to meet the stakeholders' requirements should not be the only motivation for implementing ERM. Enterprises should implement such systems deliberately, with the primary aim of achieving actual benefits, not just to meet the expectations of its environment. Therefore, management awareness regarding the purpose of ERM implementation and its benefits is essential. Incorrect or unclear motivations for implementing a risk management system in an organisation affect the actions taken, and thus also the effect of implementing such a system. The implementation of ERM in a situation where the main motivation to do so revolves around external factors may have a negative impact on the ERM outcome. Goals and motivations leading to ERM implementation, especially when analysed in the context of how such a system is implemented and of the effects achieved, are an important and interesting issue and can be the subject of further research.

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