

## **CHALLENGES IN IMPLEMENTING RISK MANAGEMENT: A REVIEW OF THE LITERATURE**

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### **ABSTRACT**

*Considering the highlighted importance of risk management in the past ten years, it is essential to know the current state of the literature regarding the challenges that characterize the process of risk management implementation. To address these elements, a literature review was conducted. After defining search criteria, the search was performed on Web of Science Core Collection and Scopus database. The final database included 5 articles from the two databases examined, plus 3 other non-indexed studies in databases that were found after searching on Google and 1 article from hard copy, most of them published in 2015. Results indicated that there is a growing interest in this concept, not only from a managerial, but also from an academic perspective. The results of this study provide to Romanian organizations an insight into the sensitive elements of the successful implementation of risk management.*

**KEYWORDS:** *challenges, enterprise, factors, implementing, risk management.*

**JEL CLASSIFICATION:** *G32, L20*

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### **1. INTRODUCTION**

In recent years, concerns about risk management have become more and more intense, both in business and academia, as a result of ever more unpredictable changes in the economic environment, but also of awareness of the contribution that risk management has in achieving the goals of organizations.

Risk management is considered to be a systematic process of identification, analysis and risk response, it can be adopted and approached according to the unit of analysis (project, organization) and field of activity (Ciocoiu, 2015).

International Organization of Standardization had a significant contribution to the proliferation of risk management by issuing ISO Guide 31000:2009 Risk Management - Principles and Guidelines and ISO Guide 73:2009 Risk Management - Vocabulary. Their definition has been adopted by most guidelines and risk management methodologies (Ciocoiu, 2015).

The predominant definition of enterprise risk management (ERM) adopted by most experts is that proposed by the Committee of Sponsoring Organizations of the Treadway Commission - COSO (Dornberger, Oberlehner, & Zadrazil, 2014; Mazlina & Amirah, 2015; Renault, Agumbaa, & Balogun, 2016).

Other organizations have important contributions to the development of the field and, in particular, the transition to a new concept of risk management, called Integrated Risk Management (IRM) or Enterprise Risk Management (ERM).

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The transition from "in silo approach" of risk management to an integrated risk management started after the financial crisis in 2008, as result of many disadvantages of the first option (Dornberger, Oberlehner & Zadrazil, 2014; Fraser & Simkins, 2016; Renault, Agumbaa & Balogun, 2016).

Within this framework, ERM is "...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" (Committee of Sponsoring Organizations, 2004).

ERM should apply basic risk management activities across the entire range of risks such as strategic risks, operational risks, financial risks and regulatory compliance risks (Smit and Watkins, 2012).

The results of the Economist Intelligence Unit (2012) study indicated that risk management has a significant role in the international business environment by the fact that 65% of respondents reported an increase in risk management investments as a percentage of total revenue over the past three years (Economist Intelligence Unit, 2012). In addition, 66% of respondents expect the proportion invested in risk management to rise over the next three years, suggesting a continuing concern for risk management (Economist Intelligence Unit, 2012).

The implementation of an integrated risk management system is a complex process subject to certain conditions and conditioned by various factors. One of the main issues is the difficulty of demonstrating how effective is for the organization, as a result of the still unclear delimitation of the effects of risk management over other actions undertaken by the organization.

The purpose of this article is to examine literature on the challenges of risk management implementation in order to achieve a broad evaluation of the subject.

The research will be structured as follows: after introduction, is presented the research methodology, the main results and discussion, conclusions.

## 2. RESEARCH METHODOLOGY

A literature review was conducted to identify the challenges that characterize the risk management implementation in firms.

The reason for applying a literature review instead of mapping all the literature on risk management is due to the specificity of the research purpose that aims to identify relevant challenges in risk management implementation.

According to specific selection criteria, a number of 9 articles have been selected and analyzed. The following steps have been performed in detail:

A. Identification of keywords: "risk management", "implementing", "challenges", "factors".

B. Selection of databases. In order to identify the collection of papers for review, we conducted a search in the following databases: Web of Science Core Collection and Scopus. These databases were chosen considering the quality of information provided. Since the number of studies returned by the two databases was too small, a search on Google was carried out.

C. The initial search was conducted simultaneously based on the keywords previously established, and between these was used the connector "AND". This search indicated the following findings:

C1. The fields for the keywords are different in the two databases. Therefore:

- ✓ when a keyword is set in TITLE in Web of Science Core Collection, in Scopus is set in ARTICLE TITLE.
- ✓ when a keyword is set in TOPIC in Web of Science Core Collection, in Scopus is set in ARTICLE TITLE, ABSTRACT, KEYWORDS.

C2. The search containing both keywords "challenges" and "factors" did not offer any results, it was decided to examine them in parallel.

C3. The search containing "risk management" in Topic returned 1850 studies from Web of Science Core Collection. The search containing "risk management" in Article title, Abstract, Keywords

returned 1204 studies from Scopus. The sources of the study titles came from journals dealing with topics such as: drug safety, public health, ecology, natural hazards.

The large number of results returned and the variety of field of study necessitated the introduction of a new selection criterion.

D. Two searches was conducted on previously identified databases:

D1. First search focused in Web of Science Core Collection database on keywords "risk management" – Title, "implementing" - Topic, "challenges" – Topic.

The Web of Science Core Collection returned 136 results that were published between 2004 and 2015, most of them published in 2015 (22 studies).

In Scopus, the search focused on keywords "risk management" – Article title, "implementing" - Article title, Abstract, Keywords, "challenges" – Article title, Abstract, Keywords.

The Scopus database provided 61 results, published between 1986 and 2017, most in 2015 (8 studies).

The results from both databases belonged to different research areas; it was decided to introduce the keyword "enterprise" in Title/ Article title. After that, only 4 articles resulted from the Web of Science Core Collection, and 8 articles from Scopus.

The search refinement was performed by selecting only the article type, and 2 studies, respectively 3 were obtained. After analyzing duplicates, it was found that two of the articles coincided in both databases.

D2. In parallel, another review was carried out, for which the keyword "challenges" was removed and "factors" added along with the other keywords, the search was done on the two recognized databases.

In identifying the challenges that characterize the process of risk management implementation in firms, we discover that the word "challenges" is approached in studies as having a negative meaning, like impediment, for which it is necessary to take corrective action to mitigate undesirable effects. That is why the word "factors" will be analyzed only in terms of its negative meaning.

In Web of Science Core Collection database the search focused on keywords "risk management" – Title, "implementing" - Topic, "factors" – Topic.

In Scopus, the search focused on keywords "risk management" – Article title, "implementing" - Article title, Abstract, Keywords, "factors" – Article title, Abstract, Keywords.

The Web of Science Core Collection returned 242 results published between 1999 and 2017, most of them published in 2014 (26 studies) and 2015 (26 studies).

The Scopus database provided 89 results, published between 1983 and 2017, most in 2014 (14 studies).

Because the results from both databases belonged to different research areas, it was decided to introduce the keyword "enterprise" in Title/ Article Title.

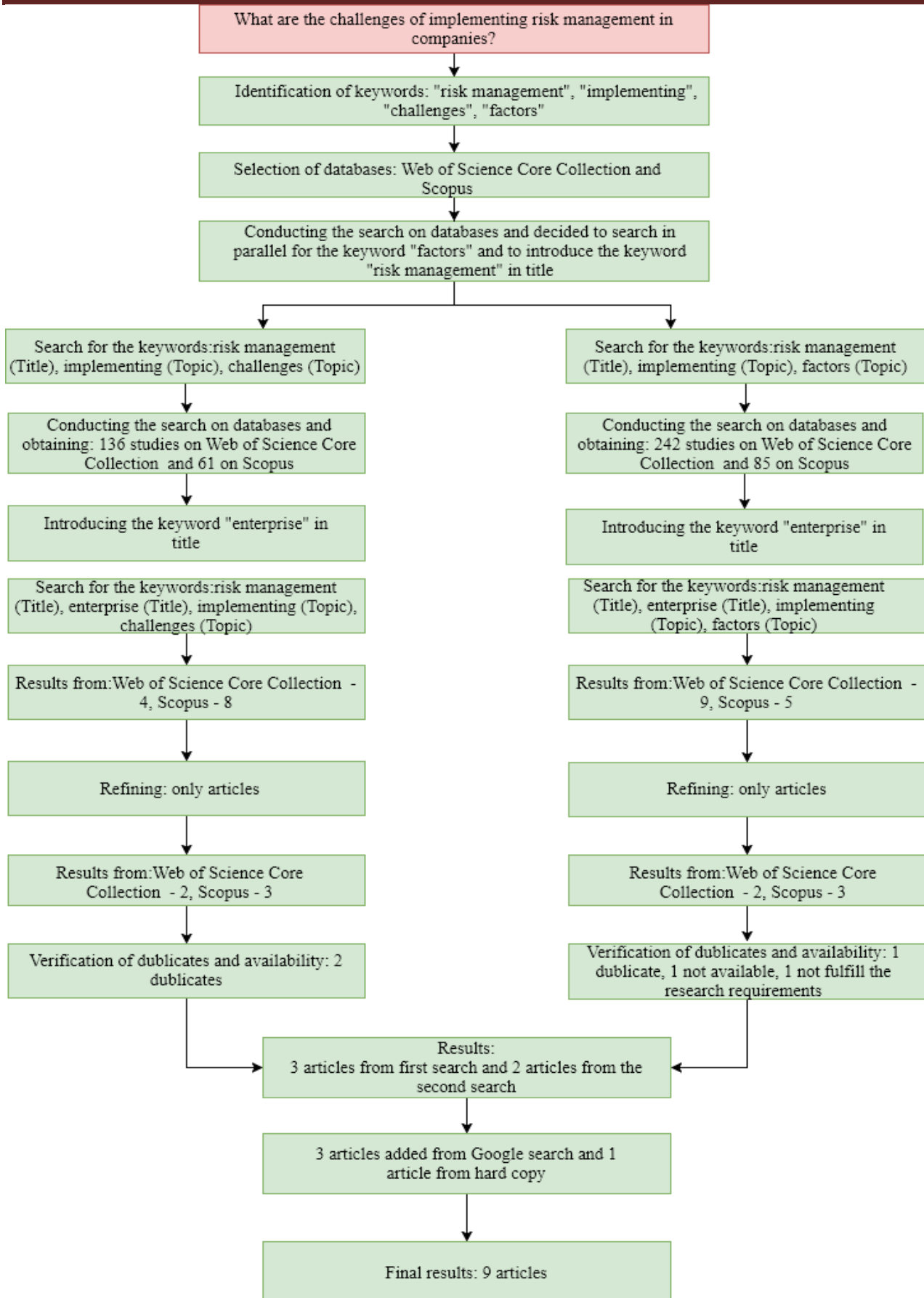
The search provided 9 studies from Web of Science Core Collection and 5 studies from Scopus. Refined search with the inclusion of Article only, led to 2 articles, respectively 3. By checking the articles has been found that one was returned by both databases.

The analysis of the results revealed that the articles returned by Web of Science Core Collection belonged to the 2013-2015 period, the one in 2013 following a thorough evaluation was not in line with the requirements of this research.

The articles in the Scopus database ranged from 2009 to 2015, only the 2015 study were selected for research because 2009 study was not available.

Finally 5 articles from the two databases was examined, plus 3 other non-indexed studies in databases that were found after searching on Google and 1 hard - copy article.

Figure 1 is a schematic diagram of the research process.



**Figure 1. Literature review: design of the research protocol**

### 3. RESULTS AND DISCUSSION

The data collected through the literature review was deeply analyzed to obtain insight into the field, to identify important concepts and draw conclusions about what the literature covers this specific subject. In Table 1 is presented the list of articles used in literature review.

**Table 1. List of articles used in literature review**

<b>Authors, Year, Title, Journal</b>	<b>Methodology used</b>	<b>Challenges / Factors</b>
Fraser, R. S., & Simkins, B. J. (2016). The challenges of and solutions for implementing enterprise risk management. <i>Business Horizons</i> , 59 (6), 689-698.	Case study	Challenges: (1) corporate culture, (2) boards of directors' knowledge, (3) not applying a KISS mindset, (4) training without having risk workshops, (5) identifying too many risks, (6) no timeframes, (7) not making ERM enjoyable and meaningful, (8) not recognizing ERM as change management.
Renault, B. Y., Agumbaa, J. N., & Balogun, O. A. (2016). <i>Drivers for and obstacles to enterprise risk management in construction firms: a literature review</i> . Creative Construction Conference 2016, 25-28 June 2016, Budapest: Procedia Engineering, pp. 402-408	Literature review	Drivers: (1) legal and regulatory compliance requirements, (2) non-mandatory reports, (3) credits rating agencies' requirements, (4) reduced earnings volatility, (5) reduced cost and losses, (6) increased profitability and earnings. Obstacles: (1) lack of support from top management, (2) management priorities, (3) reluctance to discuss sensitive information, (4) difficulties in quantifying the risks, (5) lack of common risk language, (6) lack of quality data and limited access to data.
Rostami, A., Sommerville, J., Wong, I. L., & Lee, C. (2015). Risk management implementation in small and medium enterprises in the UK construction industry. <i>Engineering, Construction and Architectural Management</i> , 22 (1), 91-107	Literature review, questionnaire	Challenges: (1) risk management process , (2) adopt appropriate tools and techniques, (3) creation of an appropriate culture for risk management, (4) lack of managerial awareness, (5) lack of experienced personnel, (6) cost effectiveness, (7) time effectiveness, (8) high turnover of employees, (9) personal ownership, (10) lack of investment, (11) intangible benefits, (12) low degree of mandatory for risk management.
Ciociu, C. N. (2015). Implementation of an integrated risk management framework: a multicriteria approach for Romanian SMEs. <i>The Best Romanian Management Studies 2013-2014</i> (pp. 85-102). Lap Lambert Academic Publishing.	Literature review Interviews Analytic Hierarchy Process method	Drivers: (1) culture and risk awareness within organization, (2) increased regulation, (3) stakeholders pressure, (4) organization external environment, (5) business type. Barriers: (1) availability of time and resources, (2) lack of support and commitment from executive management, (3) lack of competence and education about risk management.

<b>Authors, Year, Title, Journal</b>	<b>Methodology used</b>	<b>Challenges / Factors</b>
Lundqvist, S. A. (2015). Why firms implement risk governance – Stepping beyond traditional risk management to enterprise risk management. <i>Journal of Accounting and Public Policy</i> , 34 (5), 441-466.	Survey	Determinants of risk governance (ERM): Agency costs of managerial incentives, Public pressure, Financial industry
Mazlina, M., & Amirah, A. (2015). A Case Study of Enterprise Risk Management Implementation in Malaysian Construction Companies. <i>International Journal of Economics and Financial Issues</i> , 5 (1S), 70-76.	Case study, Interview	Challenges: (1) educating and communicating information about ERM to employees, (2) increasing employees' awareness and understanding, (3) ERM activities are not meant for risk owner only.
Dornberger, K., Oberlehner, S., & Zadrazil, N. (2014). Challenges in Implementing Enterprise Risk Management. <i>ACRN Journal of Finance and Risk Perspectives</i> , 3 (3), 1-14.	Empirical analysis	Challenges: (1) finding proper ERM framework, (2) human resources challenges, (3) complex environment challenges, (4) challenges related to the risk management process.
Yaraghi, N. (2011). Critical success factors for risk management systems. <i>Journal of Risk Research</i> , 14 (5), 551-581.	Literature review Interviews	Factors: (1) human resources, (2) organizational structure, (3) top management, (4) organizational culture, (5) strategy.
Muralidhar, K. (2010). Enterprise risk management in the Middle East oil industry: An empirical investigation across GCC countries. <i>International Journal of Energy Sector Management</i> , 4 (1), 59-86.	Literature review Case study	Challenges: (1) structural challenges, (2) operational challenges, (3) technical challenges.

Selected papers treat a variety of factors underlying the implementation of an integrated risk management, many of whom appear with different names although they have the same meaning. *The lack of competence and education about risk management* seems to be a significant barrier in ERM implementation. For a successful implementation of ERM is necessary to engage staff by organizing well-structured workshops and training sessions. These may include: risk management specific steps, risk assessment methods and techniques, best practice in the field, specific legislative requirements, safety rules, risk management objectives (Ciocoiu, 2015; Fraser & Simkins, 2016). Dornberger, Oberlehner and Zadrazil (2014) consider that an organization is prepared to implement risk management when is able to educate their staff. A year later, Mazlina and Amirah (2015) highlight the importance of educating and communicating information about ERM to employees. The employees must perceive ERM's activities not only as belonging to the risk owner but as an element affecting their daily activity. Closely related to lack of education and knowledge about risk

is *the lack of risk awareness at board levels and lower levels* (Mazlina & Amirah, 2015; Muralidhar, 2010; Rostami, Sommerville, Wong & Lee, 2015).

In order to increase the awareness is essential to develop a *risk culture* (Fraser & Simkins, 2016).

Corporate culture was found a significant challenge in many studies about risk management implementation. According to Dornberger, Oberlehner and Zadrazil (2014) is necessary to create a risk – aware culture where the risk process becomes institutionalized. The reason for creating a culture is that employees know and take on the company's goals, engage in risk management, be aware of the importance of their action, take responsibility for the risks specific to their field of competence. The chances of success with ERM of an organization are directly proportional to its cultural capacity for openness, transparency and teamwork (Fraser and Simkins, 2016; Muralidhar, 2010).

Dornberger, Oberlehner and Zadrazil (2014) note that organizations may encounter difficulties in *finding a proper ERM framework*. The authors argue that, despite the multitude of frameworks, the decision to choose a suitable one is very challenging because it must shape with the characteristics of the organization. In order to do that, Fraser and Simkins (2016) suggest to follow KISS (Keep it simple, silly) principle and implement fewer features, also the authors argue that more successful implementations seem to come from those organizations that do pilots first and then later add additional features.

A big step in risk management implementation is *to establish a risk function*, which could be headed by a chief risk officer (CRO) or by an existing senior executive. Then, within risk function could develop risk policy, which should contain the risk management objectives, main accountabilities, definitions of common ERM terms (Dornberger, Oberlehner, & Zadrazil, 2014; Fraser & Simkins, 2016).

The risk function must create and ensure documents like Risk Register, which lists all risks and contains pertinent informations about risks, top ten list of risks, heat map, risk reporting documents (Fraser & Simkins, 2016).

A factor that appears in numerous studies is the *technical challenges*; these are related to risk management process. Dornberger, Oberlehner and Zadrazil (2014) note that most problems occur when identifying risks, which happen to be most important step when systematically is collected information about risks.

Muralidhar (2010) consider the accuracy of data used to identify risks as the primary technical challenge. Renault, Agumbaa and Balogun (2016) assert that a major obstacle in seeing risk in a consistent way by all members of an organization is the lack of a common risk language. Also, authors affirm that risk management must be integrated with other organization systems to prevent lack of quality data or limited access to data.

Fraser and Simkins (2016) suggest a short list with 10-20 risks in order to prevent the identification of *too many risks*, that could become an administrative burden.

A common challenge identified by many authors is *to determine an appropriate technique or combination of techniques* so that the various risks can be correctly evaluated (Dornberger, Oberlehner, & Zadrazil, 2014; Rostami, Sommerville, Wong, & Lee, 2015).

When it comes to implementing an integrated risk management system (such as ERM), a number of specific challenges arise. One of them refers to *non-acceptance of ERM as a change management*.

To succeed in the adoption of ERM is important *to link risk to overall corporate strategy* (Muralidhar, 2010; Yaraghi, 2011) and the company's definition of risk must derives from business objectives (Fraser and Simkins, 2016).

The basic argument presented in the study of Lundqvist (2015) is that ERM should be seen as a composition of traditional risk management and risk governance, each with their own determining factors. Based on a survey of 145 firms, the study concludes that the main determinants in implementing ERM are the size of the firm, leverage and dividend payments and the chief executive officer's influence on the board.

Risk management implementation is also related with companies needing to link the system with the *complex environment* that the world faces, for example changes in natural phenomena, changes in the political, economic and social environment (Dornberger, Oberlehner & Zadrazil, 2014).

Aspects such as *lack of financial resources or lack of support and involvement from management* can be strong barriers to integrated risk management implementation (Ciocoiu, 2015; Renault, Agumbaa, & Balogun, 2016). Usually lack of support from management stems from the difficulty of measuring the performance of risk management in relation to the allocated resources, but also the perceived complexity of its specific actions, which creates a *reluctance of employees* (Ciocoiu, 2015; Renault, Agumbaa, & Balogun, 2016).

Regarding the situation in Romania, risk management is not widely deployed in companies, but is found only in the form of isolated elements, directly or indirectly related to risk management. Enterprise risk management systems are generally found in multinational companies that use the experience of parent companies. Also, in Romania, risk management is provided with resources in banking organizations and institutions subordinated to the government (Ciocoiu, 2015).

Florescu, Barabaş and Barabaş (2015) assert that Romanian companies are little aware of the need of a proper approach of risk and the information needed to achieve such an approach is still retained by companies or institutions, although most Romanian companies are SME`s.

#### 4. CONCLUSIONS

Risk management is a recent topic, but interest in the subject is increasing both from an academic point of view, as can be seen through the increased number of published papers on the topic, and from a practitioner's point of view, who are being constantly pressured and motivated to adopt or develop risk management practices.

The study of international literature revealed that the concern for research on the implementation of risk management in organizations is rather broad, but have been identified few papers addressing the situation of Romanian companies or the sample considered is very small.

From the analysis of the years of publication, the increasing trend in the number of studies demonstrates the growing interest in this topic. The majority of the articles are empirical, adopting a case study methodology typical of the explorative investigation, according to the novelty of this research field.

The main challenges resulting from the study was: establishing a risk function and a corporate culture (cultural capacity for openness), finding a proper ERM framework, not applying a KISS (Keep it simple, silly) principle, technical challenges related to risk management process (lack of quality data or limited acces to data, lack of an appropriate technique or combination of techniques for risk identification and analysis), not recognizing ERM as a change management, lack of risk knowledge and risk awareness at board levels and lower levels, not linking risk to overall corporate strategy, and complex environmental challenges.

The list must be completed with: lack of financial resources, lack of support and involvement from management, difficulty of measuring the performance of risk management, reluctance from employees, lack of a common risk language,.

The results of this study provide to Romanian organizations an insight into the sensitive elements of the successful implementation of risk management and a starting point in developing a risk management approach based on the realities and characteristics of the Romanian business environment.



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