

Objectives of Risk Management in the Financial Services Sector - The Perspective of Polish Enterprises Listed on the Warsaw Stock Exchange

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Abstract

Risk management is now an important domain of management, often determining the probability of survival and development of enterprises. The main purpose of this article is to identify and categorize the risk management objectives adopted in the Polish enterprises representing the financial services sector, that were studied. Empirical research was carried out on a sample of 33 companies listed on the Warsaw Stock Exchange, adopting the mixed methods research approach, using the inductive logic inherent in the empirical approach. The aim of the empirical research was realized through the use of triangulation of research methods and techniques. The main method used in the research procedure was analyzing the content of source documents of the group of enterprises studied, mainly: annual reports (financial statements, chairman's reports), capital adequacy reports and other information subject to disclosure by entities listed on the WSE. The logic classification method, and the comparative analysis method along with quantitative tools were also used. The main research findings indicate that: 1) the primary objective of shaping risk management processes in the enterprises studied is, in most cases, ensuring compliance with the applicable external and internal requirements, 2) specific objectives (components of the primary objective) are determined mainly by the specificity of the financial services sector. The research results obtained refer to both the theory and the practice of risk management among enterprises in the financial services sector, and may serve as a source of knowledge for stakeholders of stock exchange entities (eg investors, contractors, business partners), which adds value to this work.

Keywords: objectives, risk, risk management, financial services sector, enterprise.

JEL classification: G2, D81.

1. Introduction

Risk management (RM), like other management disciplines, has undergone significant transformations, adapting its conceptual, semantic and instrumental dimensions to the changing conditions of business operations and stakeholder expectations. The basic directions of changes include: the achievement of strategic importance by RM in relation to its undisputed influence on gaining competitive advantage, creating value for stakeholders, or potential effectiveness in conditions of increasing complexity (Calandro, 2015; DeLoach, 2004; Elahi, 2013). The development of RM takes place on the one hand in the so-called basic trend expressed by relatively formalized concepts and management standards, in particular Enterprise Risk Management (ERM) (Jankensgard, 2019), and on the other hand within numerous other management domains, such as project management (Kutsch, 2008), innovations (Bowers, Khorakian, 2014), contract management (Schuhmann, Eichhorn, 2017). As a consequence, RM is developing dynamically and multidimensionally, which makes it difficult to "inventorize" various approaches. The objectives of RM are particularly noteworthy - these reflect the role that management assigns to this enterprise, as well as internal and external conditions that influence these goals. The purpose of the literature review carried out was to identify the goals

that can be attributed to RM in light of the research. On the other hand, empirical studies conducted on a sample of 33 Polish enterprises listed on the Warsaw Stock Exchange (WSE), representing the financial services sector, reveal the image of RM objectives set by the management of these enterprises. The research results, through the identification and categorization of the aforementioned objectives, thus show the dominant orientation of RM in the enterprises studied. A comparison of the results of the empirical research with those of the literature review reveals the tendencies that dominate in determining the objectives of RM in the enterprises studied.

2. Literature review

Deliberation on the objectives that can be realized with the help of RM in enterprises, should start from the analysis of some selected definitions of this discipline, the scope of which, often allows us to identify such goals. Following this lead, the following goals of RM can be identified: to mitigate developing ambiguous threats before they manifest themselves and to help leaders identify and track their weak signals (Calandro, 2015), to assure corporate governance compliance and the success of projects within organizations including key sources of future shareholder value (Kendrick, 2004), to increase the adaptive capacity of organizational complex systems and to give methods and tools for managing various types of risk (Beauchamp-Akatova, Curran, 2013), to identify the specific attributes of organization generated specific risks (Rubino, Vitolla, 2014), to support making strategic decisions that contribute to the achievement of an organization's overall corporate objectives (Sanchez et al., 2009). As can be seen, the default RM objectives included in its definitions have limited independence and are subjugated to various tendencies in management, mostly performing a protective function while also carrying out other management dimensions.

More detailed approaches to setting RM targets can be seen in three perspectives: with regard to strategic management, with regard to risks and with regard to the sectors in which enterprises operate.

In the context of strategic management, the RM objectives may concern, *inter alia*, decision-making and providing decision makers with a systematic approach to coping risk and uncertainty (Williams et. al, 2006), giving useful information through risk aggregation and optimizing risk-return profile (Jankensgard, 2019). The strategic goal of RM is also to implement approaches which can create long term competitive advantage (Elahi, 2013). Objectives may also relate to the formulation of a management approach and the creation of systems or mechanisms within the organization so that adverse risks can be anticipated and managed for the purpose of increasing firm value and continuously creating added value in every organizational activity (Iswajuni et al, 2018) or to build a risk-based approach to executing strategies by focusing on the opportunities outlined in the firm's strategic plans and at the same time minimizing the potential impact of threats (Sheehan, 2010). An extension of the above are the objectives that are instrumental in character, relating to testing and improving different methods of strategic analysis like TOWS (Dandage et al, 2018). Other RM objectives, discussed in the literature, concern, for example: appropriating personnel so that everyone understands his or her respective role from the highest level of the organization down (DeLoach, 2004), adopting RM as a compliance issue and the same time developing approaches which reflect their own business culture and stakeholders base (Loosemore, 2010), knowing business risk exposures and assuring growth potentials (Stan-Maduka, 2010), protecting organizational resources exposed to risk (Tchankova, 2002), examining the main codes of corporate governance in several different countries and analyzing the main regulatory provisions (Rubino, Vitolla, 2014). The above objectives, although very diverse, are focused around the role supporting the differently interpreted development of enterprises.

The RM objectives are defined in a slightly different way when it concerns its specific types. For example, Kendrick (2004) lists key business risks of strategic importance: business risk, financial risk, project and operational risk, reputation risk, compliance risk. Kendrick treats reputation risk as a particularly important type of risk, and perceives specific management goals in creating non-probabilistic methods of its analysis. De Moura Maciel et al. (2019) analyze RM's social goals. As it has a highly aggregated form, including many factors from the external and internal environment, the key goal of managing this risk can be indicated by the formal establishment of communication mechanisms and relationships with stakeholders and simultaneously to define the role and responsibilities of employees in joint RM activities with stakeholders. Schuhmann and Eichhorn (2017), reviewed the views of other authors on the management of legal risk and contract risk. It was noticed that although these risks have a high number of referrals (eg changes in law, product liability, intellectual property, changes in tax code, fines, approval risk, etc.), the RM targets apply either to the whole company, in which case, one can speak about the impact of obtaining positive business outcomes or they apply to individual transactions, in which case one should minimize particular losses and maximize particular benefits. Bowers and Khorakian (2014) analyze RM in innovative projects. In this case, the primary purpose of RM is to identify unacceptable risk as early as possible. Andersen (2009) notes that, as far as innovation is concerned, traditionally proven management tools fail, and therefore, RM must be focused on developing company-specific dynamic capabilities. Jurisch et al. (2016) conduct their reflections in relation to projects of different kinds, but all with features of variation. In such projects, the risk is of an emergent nature, and the objectives of RM focus on overcoming problems concerning, firstly, ensuring organizational support for the project, and secondly introducing mechanisms of flexible response to permanent variability. Besner and Hobbs (2012) set a goal that would have a clear impact on success as well as obtain the status of a key success factor before RM in projects. Sanchez et al. (2009) believe that the RM objectives in projects cannot be autonomous, but are subjugated to the objectives of the project. Kutsch (2008) adds that the objectives of RM in projects are derived from intervening conditions related to the perception of uncertainty on the part of managers. In turn, Wong (2014) deals with non-financial RM. In his opinion, the primary objective of managing this risk may be perceived as providing enterprises with the mechanism to achieve corporate sustainability and their business goal. It is therefore a perspective that does not avoid the business aspect of the activity but, at the same time, raises awareness of social issues. The RM objectives for records management are more operational in nature pertaining to, inter alia, adjusting the approach to the development of technologies and standards (Lemieux, 2010).

The dissimilarities in RM objectives may also result from the conditions of the sector in which the enterprise operates. For instance, Chockalingam et al. (2018), examining the example of banks, note that these organizations are related to numerous types of risk, which are in part typical (market risk, strategic or business risk), and in part specific (credit risk). The slightly different objectives of RM in banks result, among other things, from the fact that the components of seemingly typical types of risks mentioned above, are different than in other organizations and are related to even high susceptibility to financial crises. Rafi-Ul-Shan et al. (2018) analyze the risk in fashion supply chain. In case of this and other supply chains, the specificity of RM objectives refers to the need to integrate the applied practices in all parts of the chain. This is confirmed by the studies of Prakash et al. (2017) pertaining to the food supply chain.

3. Methodology

Mixed methods research (Flick, 2008, 2018) was applied to carry out the empirical research using inductive logic, inherent in the empirical approach. The aim of the research was

to identify and categorize the objectives of the RM adopted in Polish enterprises listed on the WSE, representing the financial services sector. During the study, research questions (Q1, Q2, Q3, Q4) were formulated, thus creating a conceptual research model (Figure 1).

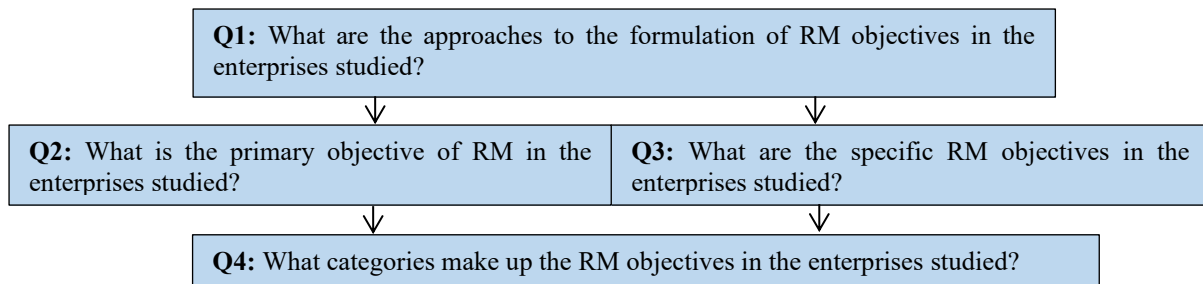


Figure 1. Conceptual model of the research

Source: own study.

The aim of the empirical research was accomplished through the use of triangulation (Flick, 2018) as a framework for combining a qualitative and quantitative approach, based on mutual control of results (Hammersley, 1996). The empirical research was divided into four main stages.

Stage 1. Selection of companies for research and obtaining source documents

Enterprises for the research were qualified in two phases through targeted selection. In the first phase, all Polish enterprises representing the financial services sector that are listed on the Stock Exchange were classified for research (as at 25/06/2019) - 36 enterprises listed on the main WSE market. This included: the main market - 29 and the parallel market - 7. In the second phase, due to the need for a representative and objective selection, the number of enterprises was reduced, excluding those in a state of bankruptcy or winding up, restructuring or featuring on the WSE Alert List. As a result of this reduction, 3 companies were eliminated (RM objectives in these enterprises should be analyzed separately, but this action was not taken due to their low number in the sector), and 33 were qualified for the basic research. The companies that qualified for the research were designated anonymized names by the key: abbreviation of the FSS sector (Financial Services Sector) and serial number from 1 to 33. The subsectors shown in Table 1 are included in the financial services sector.

Table 1. Breakdown of the enterprises studied according into subsectors of the financial services sector

Subsector	Number of enterprises	Designated names of enterprises
Banks	13	FSS 1, FSS 2, FSS 3, FSS 4, FSS 5, FSS 6, FSS 7, FSS 8, FSS 9, FSS 10, FSS 11, FSS 12, FSS 13.
Leasing and factoring	3	FSS 14, FSS 15, FSS 16.
Financial intermediaries	2	FSS 17, FSS 18.
Capital market	7	FSS 19, FSS 20, FSS 21, FSS 22, FSS 23, FSS 24, FSS 25.
Insurance	3	FSS 26, FSS 27, FSS 28.
Liabilities	5	FSS 29, FSS 30, FSS 31, FSS 32, FSS 33.

Source: own study.

The data was obtained from source documents made public on official websites of the enterprises studied.

Stage 2. Identification of RM objectives and approaches to their formulation in the enterprises studied

The main method used at this stage was the analysis of source documents (document analysis method) (Bowen, 2009) of the group of the companies studied. This included: annual

reports (financial statements, chairman's reports), capital adequacy reports and other information subject to disclosure by entities listed on the WSE.

Stage 3. Categorization of RM objectives identified in the enterprises studied

At this stage, the logic classification method was used in order to categorize the RM objectives identified. It was one-dimensional, based on a two-stage division, satisfying the exhaustive and mutually exclusive criteria in the selection of categories (Bailey, 1994; Saran, 2014).

Stage 4. Demonstrating general sectoral trends and drawing conclusions

At this stage, the comparative analysis method was used (Esser and Vliegthart, 2017), in the form of closed comparison, where the units selected for comparison are selected *a priori* before the study (Konecki, 2000), to illustrate sectoral trends. Quantitative tools were also used as the number of enterprises included in the sector analyzed made it necessary to have quantitative confirmation of the results which were based on qualitative research.

4. Findings

4.1. Approaches to formulating RM objectives in the enterprises studied

The research revealed three types of approaches to formulating RM objectives in the enterprises studied (Table 2): specifying only one RM objective, defining several equivalent RM objectives, defining several RM objectives in a hierarchical system, where one objective is treated as primary and the others as specific objectives being components of the primary objective.

Table 2. Approaches to formulating RM objectives in the enterprises studied

Only one objective	Several equivalent objectives	Several objectives in a hierarchical system
FSS 14, FSS 19, FSS 22, FSS 29.	FSS 15, FSS 21, FSS 24, FSS 26, FSS 27, FSS 31, FSS 32, FSS 33.	FSS 1, FSS 2, FSS 3, FSS 4, FSS 5, FSS 6, FSS 7, FSS 8, FSS 9, FSS 10, FSS 11, FSS 12, FSS 13, FSS 16, FSS 17, FSS 18, FSS 20, FSS 23, FSS 25, FSS 28, FSS 30.

Source: own study.

As is clear from the data presented in Table 2, the most commonly used approach to formulating RM objectives in the enterprises studied is to construct in a hierarchical system (which means that it adopts one primary objective and several specific objectives coherent with the primary objective, which are its components). However, this is not the only approach. The other two approaches have also been used in some enterprises, which indicates the relative diversity in the practices of the enterprises studied.

4.2. The RM objectives in the enterprises studied and their categories

The categorization of identified RM objectives was made in the manner described below, based on a two-step classification.

The **objectives of compliance** are those that ensure compliance with legal requirements (external regulations) and internal procedures and policies (internal regulations) in the scope of RM. These objectives were divided into three sub-categories: 1) **process**, under which objectives related to meeting the requirements of the individual stages of the RM process, as well as implementation of the RM strategy were grouped, 2) **safety**, which enlisted objectives related to meeting the safety requirements for conducting business and ensuring business continuity, 3) **organizational**, to which objectives related to meeting the requirements related to incorporation of RM into the overall enterprise strategy, employee responsibility and supporting other functional areas were assigned.

Sectoral objectives were objectives related to sectoral risk, characteristic of the specific nature of enterprises in the financial services sector. These objectives were divided into three subcategories: 1) **profitability**, which includes objectives related to the possibility of

generating profits, maintaining financial stability, protection of shareholder value, 2) **credibility**, which includes the objectives related to creditworthiness, protection of clients' deposits, shaping clients' trust, 3) **business**, which includes objectives related to achieving business goals and their integration with RM.

Therefore, two main categories of RM objectives were identified among the enterprises studied: compliance objectives and sectoral objectives. The following objectives were formulated as part of the compliance objectives in the enterprises examined: 1) process (including: ensuring early recognition and adequate management of all significant risks related to business operations, effective risk control and its maintenance as part of the adopted risk appetite, proper identification, risk measurement and aggregation as well as setting limits, ensuring that all risks are managed, monitored and inspected in accordance with the risk profile adopted (risk tolerance), 2) safety (including: ensuring the company's operational security, compliance with procedures specifying principles of determining acceptable levels of particular types of risk, not disturbing the safety of the entity, securing potential losses through appropriate control mechanisms, a system of limits and an adequate level of reserves) and 3) organizational (including: supporting the implementation of the strategy and, taking a balanced risk while maintaining the principles of shared responsibility, increasing awareness and responsibility among employees for appropriate RM at each level of the organizational structure, supporting the implementation of strategic objectives).

On the other hand, within the framework of the sectoral objectives, the following objectives were formulated in the enterprises studied: 1) profitability (including: ensuring an adequate level of profitability, optimizing the risk and profitability ratios, optimizing the balance sheet structure and off-balance sheet items to maintain the established income to risk ratio, stabilizing long-term results and maintaining the pre-determined parameters of asset quality in order to achieve the assumed income to risk ratio), 2) credibility (including: maintaining a high level of security of entrusted deposits, protection and ensuring the safety of customer deposits, implementing a policy for securing claims) and 3) business (including: making business decisions in such a way so as to take into account (offset) risk, achieve set business goals, support business in implementing the RM framework, including risk and capital aspects when making all business decisions within the limits of the risk appetite).

A detailed breakdown of the RM objectives of all enterprises, selected for testing according to the adopted classification criteria, is presented in Table 3.

Table 3. Categorization of RM objectives identified in the enterprises studied

OBJECTIVES ENTERPRISES	COMPLIANCE OBJECTIVES			SECTORAL OBJECTIVES		
	PROCESS	SAFETY	ORGANIZATIONAL	PROFITABILITY	CREDIBILITY	BUSINESS
FSS 1	x (P)	x	x	x		
FSS 2	x		x (P)	x		x
FSS 3	x (P)	x		x		x
FSS 4	x	x (P)	x			
FSS 5	x	x	x	x		x (P)
FSS 6	x		x (P)			x
FSS 7	x		x	x (P)		
FSS 8			x (P)	x	x	
FSS 9	x (P)		x	x		x
FSS 10	x (P)	x	x	x		
FSS 11	x (P)			x		x
FSS 12	x (P)			x	x	
FSS 13	x (P)			x	x	
FSS 14	x					
FSS 15		x		x		
FSS 16	x (P)			x	x	
FSS 17	x	x (P)				x

FSS 18	x			x		x (P)
FSS 19						x
FSS 20	x	x	x (P)	x		
FSS 21	x					x
FSS 22				x		
FSS 23				x		x (P)
FSS 24	x			x		x
FSS 25	x (P)	x	x	x		x
FSS 26	x					x
FSS 27	x	x				x
FSS 28	x (P)			x		x
FSS 29	x					
FSS 30		x (P)		x		
FSS 31	x					x
FSS 32	x		x			
FSS 33		x		x		

Explanation:

(P) - primary objectives (for enterprises formulating objectives in a hierarchical order)

Source: own study.

In order to establish the trends in the determination of RM objectives taking place in the enterprises studied, based on the data included in Table 3, a quantitative analysis of the distribution of these objectives was made, taking into account the selected categories (Figure 2).

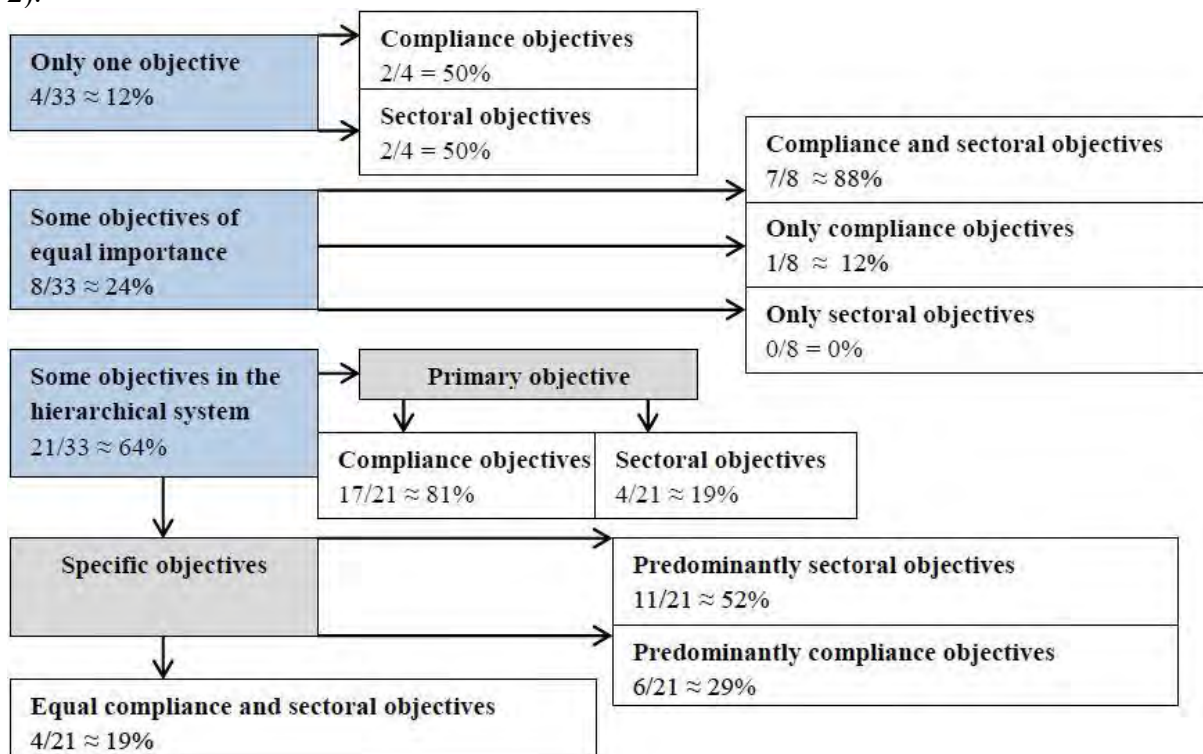


Figure 2. Trends in the financial services sector with regard to RM objectives - quantitative analysis

Source: own study.

The research results shown in Figure 2 confirm that the RM objectives in the enterprises studied are most often formulated in the hierarchical system (64%), and among enterprises that represent this approach, the primary objectives are generally the objectives of compliance (81%), while among specific objectives, those from the sectoral category are slightly higher (52%).

5. Discussion and conclusions

Defining objectives is one of the key elements of RM in enterprises, as important as the formulation of strategies in this area. Literature studies showed a variety of possibilities to formulate RM objectives, taking into account a number of conditions (eg the relationship with strategic management, dependence on the type of risk or the sector of activity). Empirical studies have made it possible to establish that in Polish enterprises in the financial services sector listed on the WSE, RM objectives are most often formulated in a hierarchical system. This way of building RM objectives makes it possible to take into account a wide range of problems as well as to adjust the structure of objectives to the organizational structure and levels of business management. The hierarchical approach to setting RM targets is most often followed by banks, which may be a result of legislative restrictions (Allen, Gu, 2018) and sensitivity to the occurrence of financial crises (Apăvăchioae, 2014), forcing specific actions against risk.

The research conducted also allowed us to make a synthetic categorization of the RM objectives in the enterprises studied and thus to show the trends characterizing this group of enterprises. It has been shown that the primary objective of RM in the majority of enterprises studied, which formulate objectives in a hierarchical system, is to ensure compliance with applicable external and internal requirements. External requirements should be understood as legal regulations, regulating RM in the sector studied in a dual manner: 1) through national and international normative acts, 2) through the regulations of the WSE. On the other hand, internal requirements are internal policies and procedures related to RM that are adopted in enterprises. The selected compliance objectives based on substantive categorization of the second degree can be divided into the following objectives: process, safety and organizational. Such a clear dominance of compliance objectives can be critically assessed and treated as an expression of limited aspirations of the management in the area of RM and a lack of maturity of applied practices (Elahi, 2013) or it can be explained by the special status of the enterprises studied due to their presence in the WSE and the resulting obligations to numerous stakeholders (Iswajuni et al., 2018).

Analyses carried out also made it possible to determine that specific objectives (being components of primary objectives) identified in the enterprises studied are most often determined by the specificity of the financial services sector and can be divided into the sub-categories of objectives: profitability, credibility and business.

The research findings obtained may be useful both for the theory and the practice of RM among enterprises in the financial services sector and as a compendium of knowledge for various stakeholder groups of listed enterprises (e.g. investors, contractors, business partners) for whom information on risk approaches, including formulating objectives may be important in making business and investment decisions (Satti et al., 2013). These arguments constitute the added value of this study. Comparing the results of empirical research with the results of the literature review indicates that in the enterprises studied, RM objectives are formulated in a relatively narrow and simplified manner in relation to the potential opportunities. This observation may have partly resulted from the research methods adopted by the authors of this study, in particular the method of analyzing the content of documents made public on official websites of the enterprises studied, which has certain limitations. The continuation of this study, taking additional research methods into consideration, including, e.g., interviews with representatives of the enterprises studied or review of internal documents and procedures adopted in these enterprises may increase the value of research findings and broaden knowledge on the determination of RM objectives in the enterprises studied. The inclusion of companies representing other sectors in future studies may be a source of valuable knowledge about the similarities and distinctiveness of RM practices in various sectors.

References

- ALLEN, F., GU, X. 2018. The Interplay between Regulations and Financial Stability. *Journal of Financial Services Research*, 53(2-3), 233-248.
- ANDERSEN, T. J. 2009. Effective risk management outcomes: exploring effects of innovation and capital structure. *Journal of Strategy and Management*, 2(4), 352-379.
- APĂTĂCHIOAE, A. 2014. New Challenges in the Management of Banking Risks. *Procedia Economics and Finance*. 15, 1364-1373.
- BAILEY, K.D. 1994. *Typologies and Taxonomies – An Introduction to Classification Techniques*. Sage.
- BESNER, C., HOBBS, B. 2012. The paradox of risk management: a project management practice perspective. *International Journal of Managing Projects in Business*, 5(2), 230-247.
- BOWEN, G.A. 2009. Document Analysis as a Qualitative Research Method. *Qualitative Research Journal*, 9(2), 27-40.
- BEAUCHAMP-AKATOVA, E., CURRAN, R. 2013. From initial risk assessments to system risk management. *Journal of Modelling in Management*, 8(3), 262-289.
- BOWERS, J., KHORAKIAN, A. 2014. Integrating risk management in the innovation project. *European Journal of Innovation Management*, 17(1), 25-40.
- CALANDRO, J. 2015. A leader's guide to strategic risk management. *Strategy & Leadership*, 43(1), 26-35.
- CHOCKALINGAM, A., DABADGHAO, S., SOETEKOUW, R. 2018. Strategic risk, banks, and Basel III: estimating economic capital requirements. *The Journal of Risk Finance*, 19(3), 225-246.
- DANDAGE, R.V., MANTHA, S., RANE, S. 2018. Strategy development using TOWS matrix for international project risk management based on prioritization of risk categories. *International Journal of Managing Projects in Business*, ahead-of-print.
- DELOACH, J. 2004. The new risk imperative – an enterprise-wide approach. *Handbook of Business Strategy*, 5(1), 29-34.
- DE MOURA MACIEL, A., PARDINI, D., MONTEIRO, P. 2019. Social risk management: structuring, validation, and testing of a study in the mining industry. *Social Responsibility Journal*, ahead-of-print.
- ELAHI, E. 2013. Risk management: the next source of competitive advantage. *Foresight*, 15(2), 117-131.
- ESSER F., VLIEGENTHART R. 2017. *Comparative Research Methods*. [in:] *The International Encyclopedia of Communication Research Methods*, J. Matthe (ed.), John Wiley & Sons, 1-22.
- FLICK, U. 2008. *Designing Qualitative Research*. Sage.
- FLICK, U. 2018. *Doing Triangulation and Mixed Methods*, Sage.
- HAMMERSLEY, M. 1996. *Handbook of Qualitative Research Methods*. Leicester.
- ISWAJUNI, I., MANASIKANA, A., SOETEDJO, S. 2018. The effect of enterprise risk management (ERM) on firm value in manufacturing companies listed on Indonesian Stock Exchange year 2010-2013. *Asian Journal of Accounting Research*, 3(2), 224-235.
- JANKENSGARD, H. 2019. A theory of enterprise risk management. *Corporate Governance*, 19(3), 565-579.
- JURISCH, M., ROSENBERG, Z., KRCCMAR, H. 2016. Emergent risks in business process change projects. *Business Process Management Journal*, 22(4), 791-811.
- KENDRICK, T. 2004. Strategic risk: am I doing ok?. *Corporate Governance*, 4(4), 69-77.
- KONECKI, K. 2000. *Studia z metodologii badań jakościowych. Teoria ugruntowana*. PWN.

- KUTSCH, E. 2008. The effect of intervening conditions on the management of project risk. *International Journal of Managing Projects in Business*, 1(4), 602-610.
- LEMIEUX, V.L. 2010. The records-risk nexus: exploring the relationship between records and risk. *Records Management Journal*, 20(2), 199-216.
- LOOSEMORE, M. 2010. Using multimedia to effectively engage stakeholders in risk management. *International Journal of Managing Projects in Business*, 3(2), 307-327.
- PRAKASH, S., SONI, G., RATHORE, A. 2017. A critical analysis of supply chain risk management content: a structured literature review. *Journal of Advanced Management Research*, 14(1), 69-90.
- RAFI-UL-SHAN, P., GRANT, D., PERRY, P., AHMED, S. 2018. Relationship between sustainability and risk management in fashion supply chains. *International Journal of Retail & Distribution Management*, 46(5), 466-486.
- RUBINO, M., VITOLLA, F. 2014. Corporate governance and the information system: how a framework for IT governance supports ERM. *Corporate Governance*, 14(3), 320-338.
- SANCHEZ, H., ROBERT, B., BOURGAULT, M., PELLERIN, R. 2009. Risk management applied to projects, programs, and portfolios. *International Journal of Managing Projects in Business*, 2(1), 14-35.
- SARAN, J. 2014. Classification and typologies as tools for pedagogical empirical research improvement. *Studia i Prace Pedagogiczne*, 1, 13-30.
- SATTI, S. L., UD DIN, S., ALI, N. 2013. Investor knowledge, risk aversion, and investment decision. *Actual Problems of Economics*. 146(8), 380-389.
- SCHUHMANN, R., EICHHORN, B. 2017. Reconsidering contract risk and contractual risk management. *International Journal of Law and Management*, 59(4), 504-521.
- SHEEHAN, N.T. 2010. A risk-based approach to strategy execution. *Journal of Business Strategy*, 31(5), 25-37.
- STAN-MADUKA, E. 2010. The impact of risk management practice in the development of African business. *World Journal of Entrepreneurship, Management and Sustainable Development*, 6(3), 213-219.
- TCHANKOVA, L. 2002. Risk identification—basic stage in risk management. *Environmental Management and Health*, 13(3), 290-297.
- WILLIAMS, R., BERTSCH, B., DALE, B., SMITH, M., VISSER, R. 2006. Quality and risk management: what are the key issues? *The TQM Magazine*, 18(1), 67-86.
- WONG, A. 2014. Corporate sustainability through non-financial risk management. *Corporate Governance*, 14(4), 575-586.