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Enterprise Risk Management and Institutional Performance of Life Insurance Companies in Nepal

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Abstract

The paper aims at determining the performance of insurance companies in Nepal from the perspectives of enterprise risk management. Risk identification, risk evaluation, risk mitigation, risk implementation and management are predictors of performance of insurance firms. A full fledge structured questionnaire survey was conducted among conveniently selected 100 respondents representing key employees from different branches of insurance firms within the Kathmandu valley. Analysis was made using correlation and step-wise regression. The major finding of the study implies that risk identification, risk assessments and risk mitigation affect positively to insurance firms' performance whereas, risk management and implementation have negative impact on company's performance. However, only effect of risk mitigation was found statistically significant. Thus, the insurance companies are suggested to focus on risk mitigation to enhance their performance. Finally, the study also recommends that the firms need to pursue enterprise risk management in line with international best practices to ensure productivity and competitiveness at par with global benchmark.

Keywords: insurance, risk management, enterprise risk management, institutional performance

Introduction

Good risk management strategy is critical for all categories of businesses regardless of their size and scope. The performance of insurance company in Nepal is impeded by a number of variables. The premium collected by such companies is mobilized in the local economy with the ultimate objectives of providing social security and protection by averting unexpected losses, producing financial resources, and generating cash to encourage growth and sustainable development (Rai, 2012).

Institutional performance of insurance may be assessed by examining a company's profitability, solvency, and liquidity (Mesquita & Lara, 2003). Risk includes being

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exposed to uncertainty, which may result in financial losses. Strong risk management practices help insurance companies to reduce the exposure to risk and improve a company's ability to perform. According to Nocco and Stulz (2006), effective enterprise risk management (ERM) provides businesses with a long-term competitive advantage. An insurance company might choose to transmit risk through reinsurance or absorb risk through appropriate enterprise risk management strategies.

The general conversation with the risk managers or risk management officials of insurance company implies that they have very minimal or even no experience in the field of risk management. The academic certification/accreditation on risk management is a distant reality for them. None the less, the notion of ERM is gaining attraction among industry participants. Insurance company have begun to forsake the traditional silo style of risk management in favor of the enterprise risk management model in anticipation of theexpected large role of ERM in successful risk management (Lienberge & Hoyt 2003).

Despite such growing heed towards risk management, there is still dearth for the availability of relevant data for theoretical research. The task becomes even cumbersome due to limited research related to ERM practices in Nepalese corporate sector. With the objective of filling such void in the field, this research has been conducted to examine the impact of ERM practice on performance of Nepalese life insurance companies.

Literature Review

Risk may be taken as a consequence of change and so risk management can be characterized as a method of managing with change effects (Crockford, 2005). Risk management includes making informed decisions about the acceptance or treatment of risks, and the elimination of the consequences of major events or the occurrence of dangerous events, in addition, risk management refers to the policies, procedures, procedures, and tools used to manage and accept risks (Berg, 2010).

The most important risk that is being faced by the insurance industry is a financial risk, which can be divided into five categories. The first is market risk; it focuses on asset deterioration due to changes in major market factors. Second, credit risk is the inability of a companyto pay its debts. Third, operational risk is defined as "the risk of loss due to improper ordefective internal operations, personnel, systems or events". Fourth, liquidity risk is caused by a lack of cash flow, which prevents companies from complying with their short-term debt. Fifth, improper application of existing laws or changes in laws such astax laws will create legal and regulatory risks (Basel Committee, 2001).

However, in recent years, non-financial risks have increased due to problems and

increased losses caused by operating and technical systems. Like other sectors of the economy, the insurance industry is threatened by the entry of new competitors, especially global competitors, because globalization makes competition very difficult. In addition to these aspects, the value of insurance company cash flow is also affected by volatility factors (Grinsven, 2010). Poor management of risk, by insurance companies, leads to accumulation of claims from the clients hence leading to increased losses and hence poor financial performance (Magezi, 2003). A robust risk management framework can help company to reduce their exposure to risks, and enhance their financial performance (Iqbal, 2007).

Enterprise Risk Management

ERM is frequently defined as a developing phenomenon that might take many years before it is consistently formalized and applied (Stanton et al., 2015). In this regard, there is a continuous quest for best practices that will eventually become a collection of ERM principles and practices. Some authors argue that ERM ought to be strategic in its outlook and mesh with the firm's strategic decision-making (Ballou & Heitger, 2005). Some use a more quantitative approach, defining the ERM as regards statistics summary risk metrics relating to 'bottom lines' financial. Others, though, continue to be a risk control tool, driven by 'the logic of accounting and auditing''' (Power, 2009). Bogodistov and Wohlgemut (2017) aim to incorporate ERM into the resource-based vision as well as the dynamic capacity context, which enables a company to manage its risk resources to safeguard and strengthen its key competences.

Institutional Performance

Performance is a strategy associated with each activity in an organization, and its implementation depends on the organization, industry, and environment (Samsonowa, 2011). Corporate performance is the achievement of different departments in the organization, and the overall goals at different phases are achieved on specified timetables. It is also an organization's capacity to achieve its goals efficiently and effectively with resources. Productivity, quality and general coherence are priorities for organizations. Employee performance ultimately affects the success or failure of an organization.

Organizational performance can be measured by internal and external factors. Cunningham (1977) established seven parameters to gauge a given organization's performance; theory of the rational mode, theory of system resource model, theory of the functional model, theory of organizationalmodel development, negotiations models, structural models, and management process model. It covers organizational processes and management know-how and is most important aspect of this study.

ERM and Institutional Performance

Regardless of the differences over the argument, effective risk management minimizes theprobability of bankruptcy and reduces the cost of acquiring capital. Altuntas et al. (2011) examined the implementation of the ERM components by insurers. They showed considerable increase in the extent to which ERM is being applied by German property-liability insurers. They concluded that ERM is evolving into a vital business process and successful firms will be those that manage the challenges and reap the benefits of effective ERM implementation.

Kokobe and Gemechu (2016) revealed from the study that risk if not well managed could lead to collapse for most organizations especially those whose core business deals with day-to-day handling of risk. With the use of Enterprise Risk Management Model and integrated Enterprise Risk Management Index measurement model, Solomon and Adam (2017) found a favorable link between business risk management execution and performance in Nigerian banking sector. Similarly, Muslih (2018) studied the benefits of ERM in terms of performance of Indonesian stock exchange listed firms. Along with the analysis of secondary data, regression was conducted to analyze the data of 108 surveys. The result indicated a substantial impact of ERM of company performance whereas company governance had minimal effect on it.

Likewise, Altanashat et al. (2019) examined the impact of ERM on institutional performance of public shareholding companies in Jordan based on Ballou and Heitger, (2005) ERM Integrated Framework. Researchers found that the risk management framework has a role to play in enhancing extraction firms' performance in Jordan. The research also showed that increased application of the corporate risk management framework enhances extraction firms' performance.

With the use of moderating role of intellectual capital (IC) and its dimensions on the relationship between ERM and firm performance, Saeidi et al. (2020) conducted a research study to explore the effect of ERM on the performance of both financial and non-financial firms. To test the study hypotheses, a questionnaire survey was distributed to 84 Iranian financial institutions. In order to statistically evaluate the data, structural equation modeling (PLS software) was employed. The found a good connection of ERM with company success. The data also revealed that the overall impact of the IC on the financial performance of ERM companies was reducing. The components of IC, knowledge and information technology (IT) had a favorable and important moderating influence while there was not any impact of training, corporate culture and trust.

Otekunrin et al. (2021) examined the significance of ERM on listed manufacturing firms' financial performance in Nigeria using both the book-based approach and the market-based approach. Relevant ERM relation to financial performance such as Agency Theory, Stakeholders Theory, and Enterprise Risk Management Theory were examined. With a panel data of 30 companies for the period 2010 to 2018, they found a significance relation of ERM on profitability ratio, liquidity ratio and market-based ratio of listed manufacturing firms in Nigeria. Mishra and Mallik (2017) also found a significant impact of risk management practice on success of housing projects in Kathmandu valley.

Conceptual Model

Based on the study of the aforementioned literatures, the study applies the study framework that structured along the lines of the risk management process. The first step in the risk management process is risk identification, the second step is risk evaluation, the third step is the risk mitigation and fourth step is selection and implementation of appropriate risk management tools. Prior to the introduction of the ERM integrated framework, COSO had successfully introduced the Internal Control Integrated Framework in 1992. Following their work, this study develops conceptual model shown in Figure 1 that is applied in the context of life insurance companies of Nepal.

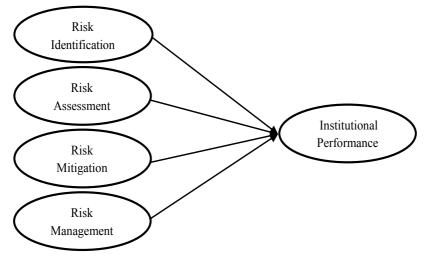


Figure 1. Conceptual Model *Source:* Altuntas, et al., 2011; Omasete, 2014 and Altanashat, et al., 2019 Based on conceptual model, following hypotheses have been developed and tested: H_1 : There is a positive significant effect of risk identification on performance of

Nepalese insurance companies

- H_2 : There is a positive significant effect of risk assessment on performance of Nepalese insurance companies.
- H_3 : There is a positive significant effect of risk mitigation on performance of Nepalese insurance companies.
- H_4 : There is a positive significant effect of risk management implementation on performance of Nepalese insurance companies.

Methodology

The study population is composed of staff at the level of manager, deputy director, and head of department of life insurance companies in Nepal. A total of 100 employees (89 male and 11 female) of insurance companies were surveyed. Sample employees were selected based on the criteria of positions they hold in the institutions. All employees are taken from officer and above position in their respective company. Majority of the respondents had experience of more than 3 years. A structured questionnaire was prepared to measure four dimensions of enterprise risk management and institutional performance using 5-point Likert scale. Before final survey, pilot study was conducted among the 10 potential respondents and necessary improvement was made in the instrument for making it more reliable and valid. Items in Dependent and Independent variables used in the questionnaire were adopted from prior authors' works (Altuntas, et al., 2011; Omasete, 2014; Altanashat, et al., 2019) based on Ballou and Heitger (2005). Cronbach's alpha of each of the construct was found more than 0.7 confirming the reliability of the study. Correlations and step wise regression analysis were made. Regression equation showing the effect of four dimensions of ERM (independent variables) on Institutional Performance (dependent variable) has been expressed in equation 1.

 $IP = \beta_0 + \beta_1 RI + \beta_2 RA + \beta_3 RM + \beta_4 RMIM + e_i \dots (1)$

Where,

IP=Institutional Performance RI=Risk Identification RA= Risk Assessment RM=Risk Mitigation RMIM= Risk Management and Implementation e_i = Random error term

Results and the Analysis

Each of the variables under study was measured with five items and summary of the overall descriptive statistics of each of the variables has been presented in Table 1. The table showed that mean of all variables is greater than 3 meaning that all respondents agreed in the importance of enterprise risk management in insurance companies of Nepal. However, risk management and implementation dimension was found most important among the four dimensions of ERM.

Table 1

Summary of Descriptive Statistics

Variables	Ν	Minimum	Maximum	Mean	SD
Risk Identification	100	1.2	5	3.228	0.94965
Risk Assessment	100	1.2	5	3.302	0.97504
Risk Mitigation	100	1.2	5	3.238	0.97967
Risk Management and Implementation	100	1.2	5	4.046	0.9302
Institutional Performance	100	1.4	4.6	3.212	0.70371

Table 2 shows the correlation relationship between performance with different otherrisk management variables i.e., risk identification, risk assessment, risk mitigation andrisk management and implementation. The correlation between performance and risk identification was positively correlated (0.495). Positive correlation coefficients indicate a direct relationship, indicating that increasing risk enhances the performance level of life insurance companies. Similarly, the correlation between performance and risk assessments is also positively correlated i.e. (0.461) which indicates that the increase of risk assessment implementation will also increase the performance of life insurance companies in Nepal. Correlation between performance and risk mitigation is also positively correlate i.e. (0.503) which indicates that the risk mitigation and performance are in same direction. Performance and risk management and implementation is also positively correlated (0.368). Further, *p* value shows that there is significant relation between performance of life insurance relation and risk management and implementation.

Table 2
Correlation Analysis

		IP	RI	RA	RM	RMI
IP	Pearson Correlation	1				
RI	Sig. (2-tailed) N Pearson Correlation	100 .495 ^{**}	1			
RA	Sig. (2-tailed) N Pearson Correlation	0 100 .461 ^{**}	100 .935**	1		
RM	Sig. (2-tailed) N Pearson Correlation	0 100 .503 ^{**}	0 100 .923 ^{**}	100 .914 ^{**}	1	
RMI	Sig. (2-tailed) N Pearson Correlation	0 100 .368 ^{**}	0 100 .866 ^{**}	0 100 .891 ^{**}	100 .877 ^{**}	1
	Sig. (2-tailed) N	0 100	0 100	0 100	0 100	100

Effect of ERM on Performance

Stepwise regression analysis was made to establish the causality between factors of enterprise risk management and firm performance. Four simultaneous regression equations were run and model summary is presented in Table 3. The regression result revealed that 29.4 percent of the performance variations of life insurance companies are based on these independent variables, i.e. risk identification, risk assessment, risk mitigation and risk and risk management and implementation.

Table 3

1	0	2	2	
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.495 ^a	0.245	0.238	0.61445
2	.495 ^b	0.245	0.23	0.6176
3	.513 ^c	0.263	0.24	0.61363
4	.542 ^d	0.294	0.264	0.60353

Stepwise Regression AnalysisModel Summary

a. Predictors: (Constant), RI

b. Predictors: (Constant), RI, RA

c. Predictors: (Constant), RI, RA, RM

d. Predictors: (Constant), RI, RA, RM, RMI

Similarly, result of ANOVA is presented in Table 4. F-statistic is found to be significant at 1%, which implies the independent variables may explain the dependent variable. Therefore, the general model, which is specified by F-statistical probability zero which results in null rejection, shows that the model is significant at 1 percent level of significance.

Table 4
ANOVA Table

Model	Sum of Squares	df	Mean Square	F-Value	P-value
1 Regression	12.025	1	12.025	31.85	.000 ^b
Residual	37	98	0.378		
Total	49.026	99			
2 Regression	12.027	2	6.013	15.765	.000 ^c
Residual	36.999	97	0.381		
Total	49.026	99			
3 Regression	12.878	3	4.293	11.4	.000 ^d
Residual	36.148	96	0.377		
Total	49.026	99			
4 Regression	14.422	4	3.605	9.898	.000 ^e
Residual	34.604	95	0.364		
Total	49.026	99			

a. Dependent Variable: II

b. Predictors: (Constant), RI

c. Predictors: (Constant), RI, RA

d. Predictors: (Constant), RI, RA, RM

e. Predictors: (Constant), RI, RA, RM, RMI

Table 5 shows the coefficients of regression analysis. Beta coefficient shows that risk management and implementation have negative relation with performance of Nepalese life insurance companies. It is also found statistically significant for risk mitigation and also significant for risk management and implementation (p = 0.05). This indicates that the performance level increase as a result of risk mitigation implementation and risk management and implementation practice of the insurance companies in Nepal. In the same way risk identification and risk assessment has the positive relation with the

performance of life insurance companies in Nepal. However, this relation is statistically insignificant. Value of VIF test is less than 10 meaning that there no problem of multicolinearity among independent variables.

Model		Unstandardized Coefficients B	Standardized Coefficients F	t	Sig.	VIF
1	(Constant)	2.027	Coefficients r	9.269	0	
-	RI	0.367	0.495	5.644	0	
2	(Constant)	2.029		9.106	0	
	RI	0.377	0.509	2.052	0.043	7.905
	RA	-0.01	-0.015	-0.059	0.953	7.905
3	(Constant)	2.008		9.05	0	
	RI	0.229	0.308	1.101	0.274	9.219
	RA	-0.119	-0.165	-0.621	0.536	9.211
	RM	0.266	0.37	1.504	0.136	7.871
4	(Constant)	2.057		9.37	0	
	RI	0.25	0.338	1.225	0.224	9.247
	RA	0.033	0.045	0.161	0.873	9.616
	RM	0.37	0.515	2.044	0.044	8.541
	RMI	-0.315	-0.416	-2.059	0.042	5.495

Table 5

Regression coefficients and VIF

Summary of the results of hypotheses test using regression analysis is presented in Table 6.

Table 6

Result of Hypothesis Testing

Hypothesis	P Value	Remarks
H1: There is a positive significant effect of risk	0.224	Rejected
identification on performance of Nepalese insurance		
companies.		
H2: There is a positive significant effect of risk assessment on performance of Nepalese insurance companies.	0.873	Rejected
H3: There is a positive significant effect of risk mitigation on performance of Nepalese insurance companies.	0.044	Accepted
H4: There is a positive significant effect of risk management and implementation on performance of Nepalese insurance companies.	0.042	Rejected

As per the result of the study, only third hypothesis of the study was accepted while

other three hypotheses were rejected, meaning that there is positive and significant effect of risk mitigation on performance of Nepalese insurance companies.

Conclusion and Implications

Result shows that the correlation between performance and risk identification was positively correlated with a moderate degree of correlation. It indicates that as increasing risk identification by life insurance companies the performance level of companies also increases. The correlation between performance and risk assessments is also positively correlated which indicates that the increase the implementation of risk assessments willincrease the performance of life insurance companies in Nepal. Correlation between performance and risk mitigation is found positively correlated which indicates that the implementation of risk mitigation service enhances the performance of life insurance companies. Similarly, performance and risk management and implementation is positively correlated. The result is consistent with the findings of empirical studies by Ibrahim and Esa (2017), Solimon and Adam (2017) and Alawattegama (2018).

Risk mitigation has higher and significant influence in the institutional performance of the company. One-unit increase in risk mitigation tools leads to increase in the performance of the company by 0.370. Risk mitigation is also statistically significant at 5% level of significance. However, risk management and implementation have negative relation with the performance of life insurance companies operating in Nepal and indicates statistically significant for risk management and implementation. This indicates 1-unit increase in risk management and implementation of the company then the performance of the company will decrease. The result is contradictory to prior hypothesis. Similarly, risk identification and risk assessment has the positive relation with the performance of life insurance companies in Nepal but statistically insignificant.

This study finds two of the key ERM functions; suggested by the COSO's ERM integrated framework has a significant impact on firm performance but one is significant with negative relation. Risk identification, risk assessment and risk mitigation has a positive impact on firm performance. However, it is significant only in case of risk mitigation and performance. Surprisingly, this research reveals that risk management and implementation have a significant negative impact on the firm performance. Based on the empirical evidence, this study concludes that the adoption of ERM has not a greater impact on the firm performance. The findings is contradictory with the theoretical expectations made by the study based on the findings of Beasley et al. (2008) and Hoyt et al. (2011).

The study concludes that risk mitigation plays the most significant role in influencing performance of life insurance companies. Hence, risk mitigation can essentially be said to be the crucial step in any risk management program. Once identified, risks must be mitigated so that the impact on the firm is reduced. Overall, the results show that the use of risk management practices has a positive impact on the performance of Nepalese insurance companies. This means that enterprises can improve performance by better management of risk. Risk identification and risk assessment also positively affect the financial performance of insurance companies but this effect is not statistically significant. Surprisingly, in contrast to prior hypothesis, risk management and implementation was found negatively related to performance of insurance companies. This needs to be further investigated.

Finally, the study recommends the insurance companies to continually assess risk management practices toensure that they are still viable in a changing business environment. Insurer need to adjust their risk management models such as ERM and institutionalize the risk management process and integrate it into their organization's daily life. This will ensure that Nepalese insurers meet international standards and are globally competitive. Similarly, Nepal Insurance Authority is recommended to formulate the policy/regulations to govern the life insurance companies. The authority should focus on the risk identification, risk assessment management and implementation practice for the best performance of life insurance companies in Nepal.

References

- Alawattegama, K. K. (2018). The impact of enterprise risk management on firm performance: Evidence from Sri Lankan banking and finance industry. *International Journal of Business and Management*, 13(1), 225-237.
- Altanashat, M. Dubai, M. A. & Alhety, S. (2019). The impact of enterprise risk management on institutional performance in Jordanian public shareholding companies. *Journal of Business & Retail Management Research*, 13(3), 256-268.
- Altuntas, M., Berry, T. R. & Hoyt, R. E. (2011). Implementation of enterprise risk management: Evidence from the German property-liability insurance industry. *The Geneva Papers*, *3*(1), 414-439.
- Ballou, B., & Heitger, D. L. (2005). A building-block approach for implementing COSO's enterprise risk management-integrated framework. *Management Accounting Quarterly*, 6(2),1.
- Beasley, M. S., Clune, R., & Hermanson, D. R. (2005). Enterprise risk management: An empirical analysis of factors associated with the extent of implementation. *Journal of accounting and public policy*, 24(6), 521-531.

- Berg, A. T. (2010). Revised terminology & concepts for organization of seizures & epilepsies. *Report of the ILAE Commission on Classification & Terminology*, 2005–2009. Epilepsia, 51, 676-685.
- Bogodistov, E. & Wohlgemuth, V. (2017). Enterprise risk management: a capabilitybased perspective. *Journal of Risk Finance, Emerald Group Publishing*, 18(3), 234-251.
- Crockford, G. N. (2005). The changing face of risk management (first published in 1976 in The Geneva Papers). *The Geneva Papers on Risk and Insurance-Issues and Practice*, *30*(1), 5-10.
- Cunningham, M. R. (1977). Personality and the structure of the nonverbal communication of emotion. *Journal of Personality*. 45(4), 564–584.
- Grinsven, J. H. M. (2010). *Risk management in financial institutions: Formulating value propositions*. IOS Press.
- Hoyt, R. E., & Liebenberg, A. P. (2011). The value of enterprise risk management. *Journal of risk and insurance*, 78(4), 795-822.
- Ibrahim, F. S., & Esa, M. (2017). A study on enterprise risk management and organizational performance: Developer's perspective. *International Journal of Civil Engineering and Technology*, 8(10), 184-196.
- Iqbal, Z. (2007). Challenges facing Islamic financial industry. *Journal of Islamic Economics, Banking and Finance*, *3*(1), 1-14.
- Kokobe, S. A., & Gemechu, D. (2016). Risk management techniques and financial performance of insurance companies. *International Journal of Accounting Research*, 4(1), 1-5. Magezi, J.K. (2003). A new framework for measuring the credit risk of a portfolio. *Institute for Monetary & Economic Studies*, 1-45.
- Liebenberg, A. P. & Hoyt, R. E. (2003). The determinants of enterprise risk management: Evidence from the appointment of chief risk officers. Risk Management & Insurance Review, *6*(1), 37–52.
- Mesquita, J. M. C. & Lara, J. E. (2003). Capital structure & profitability: The Brazilian case. Academy of Business & Administration Sciences Conference, Vancouver, July 11-13.
- Mishra, A. K. & Mallik, K. (2017). Factors and Impact of Risk Management Practice on Success of Construction Projects of Housing Developers, Kathamandu, Nepal. *International Journal of Sciences: Basic and Applied Research*, 36 (7), 206-232.
- Muslih, M. (2019). The benefit of enterprise risk management (ERM) on firm performance. *Indonesian Management and Accounting Research*, *17*(2), 168-185.
- Nocco, B. W., & Stulz, R. M. (2006). Enterprise risk management: Theory and practice. *Journal of applied corporate finance*, *18*(4), 8-20.
- Omasete, C. A. (2014). The effect of risk management on financial performance of

insurance companies in Kenya (Doctoral dissertation, University of Nairobi).
Otekunrin, A. O., Eluyela, D. F., Nwanji, T. I., Faye, S., Howell, K. E., & Tolu-Bolaji, J. (2021). Enterprise Risk Management (ERM) and Firm's Performance: A Study of Listed Manufacturing Firms in Nigeria. *Research in World Economy*, *12*(1), 31.

- Power, M. (2009). The risk management of nothing. *Accounting, Organizations & Society, 34*(1). 849-855.
- Rai, A. K. (2012). Customer relationship management: Concepts & cases. PHI Learning Pvt. Ltd.
- Roslan, A., & Dahan, H. M. (2013). Mediating effect of enterprise risk management practices on risk culture & organizational performance. *In the International Conference on Social Science Research (ICSSR 2013), Penang, Malaysia.*
- Saeidi, P., Saeidi, S. P., Gutierrez, L., Streimikiene, D., Alrasheedi, M., Saeidi, S. P., & Mardani, A. (2021). The influence of enterprise risk management on firm performance with the moderating effect of intellectual capital dimensions. *Economic Research-Ekonomska Istraživanja*, 34(1), 122-151.
- Samsonowa, T. (2011). *Industrial research performance management: Key performance indicators in the ICT industry*. Springer Science & Business Media.
- Soliman, A., & Mukhtar, A. (2017). Enterprise Risk Management and firm performance: an integrated model for the banking sector. *Banks and Bank Systems*.
- Stanton, T. H., Fraser, J. R. S., Simkins, B. J., & Narvaez, K. (2015). Constructive dialogue and ERM: Lessons from the financial crisis. *Implementing enterprise risk management: Case studies and best practices*.