THE EFFECT OF ENTERPRISE RISK MANAGEMENT MATURITY LEVEL ON FINANCIAL PERFORMANCE: THE TURKISH CASE

YASEMIN ERTAN

Uludağ University, Faculty of Economic and Administrative Science, Department of Business Administration
E-mail: yasertan@uludag.edu.tr

Abstract - After some corporate failure in 1990s perspective on risk management has changed from silo based risk management to integrated risk management. This study aims to reveal the effect of Enterprise Risk Management Maturity Level on financial performance. The results show that there is a significant positive relationship between Enterprise Risk Management Maturity Level and return on assets. In addition there is a significant positive relationship between Enterprise Risk Management Maturity Level and return on equity.

Index Terms - Enterprise Risk Management, financial performance, return on assets

I. INTRODUCTION

Although risk management is not a new term, the importance given to risk has increased and the scope of risk management has changed after some big corporate failures in the USA in 1990s. Today, risks encountered by people and organizations are increasing and decision making periods are becoming shorter. As attention to risk, a number of frameworks emerged to help firms managing risks. One of the most cited and applied framework is the Committee of Sponsoring Organizations of Treadway Commission (COSO) ERM Integrated Framework [1]. In this framework, ERM is defined as a process affected by an entity's board of directors, managerial and other staff, applied in a strategy setting and across the enterprise, designed to identify potential events that may affect the entity and manage risk so as to be within the risk appetite, to provide reasonable assurance regarding the achievement of entity objectives [2]. ERM moves away silo based risk management to holistic risk management. In other words, ERM uses a coordinated method to manage risk throughout the entire organization [3].

II. LITERATURE REVİEW

The implementation of ERM absorbs some financial and human resources. Naturally firms are in expectation some benefits from ERM. In literature, performance increase, volatility and cost of capital decease [4], improving internal decision making [5], more efficient capital allocation [6] are expressed as hypothetic benefits of ERM. Despite the hypothesized benefits of ERM, there are limited empirical evidence indicating the relationship between ERM and firm performance. Hoyt and Liebenberg (2011) found a positive relation between the firm value and the use of ERM [7]. Similarly, Florio and Leoni (2017) found that the advanced level ERM implementation presented higher financial performance [8]. Likewise, Farrel and Gallagher (2015) showed that firms having reached maturity ERM levels exhibited higher firm values [9]. Moreover, Soltanizadeh et al. (2015) found that the ERM implementation had a significant positive effect on the operational performance [10].

III. METHODOLOGY

This study focuses on the association between ERM maturity levels and firms' financial performance levels. With this aim both primary and secondary data were used. In order to determine firms' ERM maturity levels, in other words, in order to find the extent to which the COSO ERM components are applied in firms, a questionnaire form was prepared. In the questionnaire, there are a total of 30 questions, 2 of which are open-ended and 28 of which are 5-point Likert type questions. The questionnaire form was sent to a total of 182 companies publicly traded in BIST and operating in the manufacturing sector and 58 companies returned the questionnaires. The ERM maturity level of each company was calculated by evaluating the answers given to the questionnaire form. As the indicators of the companies' financial performance levels, their return on assets (ROA) and return on equity (ROE) were evaluated. In the calculation of the companies' ROA and ROE, the data present in their annual financial statements belonging to the year of 2016 are used. The relationship between the companies' ERM maturity levels and their operational performance levels was measured via the multiple linear regression analysis method and by using the Stata 13 package program.

In this study, the following hypotheses is explored:
H_1 = There is a positive association between firms' ERM maturity level and their return on assets.
H_2 = There is a positive association between firms' ERM maturity level and their return on equity.

The models of the study are as follows:

$ROA_i = \beta_0 + \beta_1 ERM_i + SIZE_i + LEV_i + \varepsilon_i$

$ROE_i = \beta_0 + \beta_1 ERM_i + SIZE_i + LEV_i + \varepsilon_i$

ROE= Return on Equity

ROA= Return on Assets

ERM= Maturuity Level of Enterprise Risk Management System

Control variables:

SIZE= Log of Total Assets

LEV= Leverage Ratio, calculated by dividing total liabilities by equity.

IV. RESULTS

According to multiple linear regression analysis results, there is a statistically significant positive relationship between ERM and ROA. Also results of multiple linear regression analysis results regarding H2, it has been seen that there is statistically significant positive relationship between ERM and ROE.

CONCLUSION

Firms allocate some resources to establish, implement and maintain ERM systems. Therefor firms expect some benefits from ERM. Hypothetic benefits of ERM are expressed in literature. But there are limited empirical research regarding the effects of ERM system on financial performance.

This study reveal that ERM Maturity level effects firms' financial performance. In other words, firms' return on assets and return on equity increase as enterprise risk management maturity level increase. This study contributes empirical literature regarding the effects of ERM maturity level on financial performance. In addition, this study is the first that investigates ERM maturity level and its effects on financial performance in Turkey.

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