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Enterprise risk management and firm performance: The Italian case

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ABSTRACT

This paper investigates whether a relationship exists between the extent of implementation of enterprise risk management (ERM) systems and the performance of Italian listed companies. While many contributions in the literature focus on the determinants of ERM adoption and use one-dimensional feature to proxy for ERM implementation, we detect the consequences of ERM implementation and capture a variety of features to measure the sophistication of the ERM system. The results show that firms with advanced levels of ERM implementation present higher performance, both as financial performance and market evaluation. Additional tests also corroborate the expectation that effective ERM systems lead to higher performance by reducing risk exposure and that reverse causality between ERM and performance is not present in the short term. The study provides a twofold contribution to the ERM literature. First, it introduces new and more complete measures for ERM implementation, concerning not only corporate governance bodies dedicated to risk management, but also the characteristics of the risk assessment process. Moreover, it provides evidence of a positive relationship between ERM implementation and firm performance in an under-investigated context such as Italy.

1. Introduction

International literature on enterprise risk management (ERM) argues that organisations may improve their performance by adopting a holistic approach to risk management (RM). The introduction and development of ERM systems is deemed to reduce direct and indirect costs of financial distress and earnings variability, as well as negative surprises in financial markets. Moreover, it may improve the decision-making processes to select the best investment opportunities. As a consequence, ERM may favour the increase of firm value (a.o., Beasley, Pagach, & Warr, 2008; Beasley, Clune, & Hermanson, 2005; Ellul & Yerramilli, 2013; Hoyt & Liebenberg, 2011; Nocco & Stulz, 2006; Paape & Speklé, 2012).

Notwithstanding such considerations, empirical evidence on the relationship between ERM and performance is still limited (Farrell & Gallagher, 2014; McShane, Nair, & Rustambekov, 2011). Most ERM studies investigate the relationship between the determinants and quality of ERM systems, while only a few concentrate on the consequences of ERM on firm

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financial and market performance (Baxter, Bedard, Hoitash, & Yezegel, 2013; Hoyt & Liebenberg, 2011; McShane et al., 2011). One reason behind this lack of empirical evidence is the difficulty in explaining the relationship between ERM and firm performance, as a direct relation or simply a consequence of risk reduction (Ellul & Yerramilli, 2013; Nocco & Stulz, 2006).

Although initial studies signal a positive relationship between ERM adoption and firm performance, so far the context of investigation has been mainly confined to the US. Little is known about ERM in European countries, such as Italy, where the attention on RM practices by corporate governance (CG) codes has increased considerably in recent years, especially following big financial scandals like Parmalat and Cirio (Enriques & Volpin, 2007; Melis, 2005). As Italian firms have significantly different characteristics compared to US firms, the results could advance the knowledge of the international community on ERM in new contexts. First of all, Italian public companies are a minority in respect to the large majority of small and medium private firms, usually family owned and characterized by close ownership (Viganò & Mattessich, 2007; Zattoni, 1999). As owners exert stringent control over the company they tend to avoid formal ERM practices. Secondly, the Italian capital market is under-developed compared to the US one and failed in becoming the main source of capital for Italian companies (Zambon, 2002).[1] Therefore, it is doubtful whether Italian investors are capable of pricing the ERM adoption, thus determining a change in firms' market value. Thirdly, Italy constitutes a good context to study the implications of RM enforcement, as only in 2011 the CG code stressed the importance of RM practices. Finally, despite such differences, Italy was hit by similar financial scandals as the US and since early 2000 it was subject to the tightening of CG regulation. Recently, initial qualitative studies focused on the Italian context have brought to attention the importance of experts' ability for the ERM functioning and for its change (Arena, Arnaboldi, & Azzone, 2010, 2011; Giovannoni, Quarchioni, & Riccaboni, 2016), the integration of risk management in CG (Florio & Leoni, 2013), and the way ERM allows credit cooperative banks to achieve both economic and social performance (Caldarelli, Fiondella, Maffei, & Zagaria, 2016).

In consideration of the above premise, this study tests whether a relationship between the extent of implementation of ERM systems and the performance of Italian listed companies exists, controlling for CG and firm characteristics. On the one hand, while previous empirical studies on ERM mainly adopted one-dimensional proxies, we investigate in detail ERM integration in CG by considering the appointment of a chief risk officer (CRO), the presence of an internal control and risk committee (ICR committee), and the reporting frequency of the ICR committee to the board of directors (BoD). We also investigate ERM operating mechanisms by focusing on risk assessment frequency, depth, and methodology. Finally, we create an overall measure of ERM sophistication, which encompasses all the ERM components mentioned. On the other hand, two measures of performance are used to capture different perspectives: the historical accounting performance of the company, measured by the return on assets ratio (ROA), and performance on the capital market, measured by Tobin's Q.

The results shed light on whether and how the ERM components, both separately and jointly, have a positive effect on firm performance. We find that the adoption of quantitative methods for risk assessment in addition to qualitative methods positively affects ROA, while presence of an ICR committee positively affects Tobin's Q, as well as the frequency of reporting between the ICR committee and the BoD and the level at which risk is assessed. Finally, advanced ERM systems positively affect both ROA and firm value. Therefore, we argue that the sophistication of ERM systems as a whole, rather than just single elements, contributes to the improvement of firm performance.

With its results, this paper responds to the call for more research in the ERM field (Beasley et al., 2005) and contributes to the limited, and sometime contradicting, insights on the relationship between ERM sophistication and firms' performance in several ways. Firstly, the paper provides new evidence to support the positive effect of ERM on improving both financial and market performance of listed companies. Secondly, with insights from an alternative and under-investigated context, the study offers support to standard setters and market regulators to address RM issues in European countries with smaller firms and financial markets as compared to the US. Thirdly, it contributes to the ERM research by widening the set of measures and determinants of ERM sophistication, adding more detailed characteristics of the risk assessment process to the traditional ERM proxies.

The rest of the paper is organized as follows. Section 2 reviews the literature on the relationship between RM and firm performance, describes the Italian institutional background, and develops the hypotheses. Section 3 explains the research design, while Section 4 reports descriptive and empirical results. Sections 5 and 6 offer some additional analyses and sensitivity tests, respectively. Section 7 concludes the paper and suggests further research development.

2. Prior research, regulatory context, and hypotheses development

2.1. Prior research on risk management and performance

The relationship between risk and performance has drawn the attention of practitioners and academics for a long time, especially because the association between risk and value is not verified in imperfect markets (Modigliani & Miller, 1958). In the meanwhile, internal control and RM systems diffused among firms to reduce risks and improve performance (Woods, 2009).

Initially, RM maintained a silo-based approach on financial risks only, but suffered the limitation of managing one risk at a time whilst risks are interrelated (Grace, Leverty, Phillips, & Shimpi, 2015; Power, 2009) especially in complex and globalised

[1] The number of companies listed on the main stock market was slightly lower than 250 in late 2000, and has surpassed the threshold of 300 only recently (www.borsaitaliana.it).