

The Relationship between Respondents' Characteristics and Their Perceptions of Enterprise Risk Management. Results of a Survey

Michele Borgia¹, Adalberto Rangone², Mario Georgiev Georgiev³ & Maura La Torre¹

¹ Department of Management and Business Administration, University "G. D'Annunzio" of Chieti-Pescara, Viale Pindaro 42, Pescara, Italy

² Department of Law, University of Perugia, Via A. Pascoli 33, Perugia, Italy

³ Department of Economics and Management, University of Ferrara, Via Voltapaletto, 11, Ferrara, Italy

Correspondence: Maura La Torre, Department of Management and Business Administration, University "G. D'Annunzio" of Chieti-Pescara, Viale Pindaro 42, Pescara, Italy. E-mail: mauralatorre@yahoo.it, maura.latorre@unich.it

Received: January 1, 2024

Accepted: March 6, 2024

Online Published: May 7, 2024

doi:10.5539/ibr.v17n3p1

URL: <https://doi.org/10.5539/ibr.v17n3p1>

Abstract

The present study investigated whether respondents' socio-demographic characteristics influenced their personal views on the adoption and implementation of enterprise risk management. An online questionnaire was administered to employees of Italian artisan firms to collect data on the adoption and implementation of enterprise risk management, its determinants, and its relationship with organisational performance. Respondents' responses were compared to their demographic characteristics to determine whether gender, age, education, position, and role may have influenced their opinions on enterprise risk management. The presence of a well-established risk culture in an organisation and the support of senior management were considered essential in the effective implementation of enterprise risk management in an organization and in positively influencing organisational performance. Select participant's demographic characteristics had an influence on their views on the implementation of enterprise risk management. The results of this study add to the body of knowledge on enterprise risk management and can support risk managers to effectively and efficiently implement enterprise risk management.

Keywords: Enterprise Risk Management (ERM), ERM implementation, socio-demographic characteristics, artisan firms

1. Introduction

Enterprise Risk Management (ERM), which remains on the daily agenda of companies, especially in Italy (Cineas, 2023), has its roots in a continuous and careful transformation process lasting more than ten years. Risk management has made multiple steps forward over time, proving to be a fundamental tool not only for the protection of the company (Bailey, 2019), but also for the creation of value (Abdullah, et al., 2015; Achmad, Faisal, & Oktarina, 2017; Faisal, Abidin, & Haryanto, 2021; Pavan, 2019). Rochette (2009) explained the progression of organizations' self-protection from self-insurance to risk management, and subsequently to Enterprise Risk Management. Following the introduction of ERM, many organizations have implemented ERM programs, consultancy firms have created specialized units, and universities have developed ERM-related courses and research centers (Hoyt & Lieberberg, 2011).

Despite the widespread diffusion of business risk management programs, some authors (Lundqvist, 2014; Jean-Jules & Vicente, 2021) have expressed their doubts about various ERM approaches highlighting a need for further ERM research to define new analytical perspectives in a constantly evolving economic and managerial system. ERM is essential in Italy given the need to satisfy the ever-emerging context of "stakeholder capitalism" (Freeman, Martin, & Parmar, 2007; Mhlanga, 2022), to face the growing complexity of organizational environments and the plethora of new knowledge risks (Durst & Zieba, 2019), and to involve various corporate stakeholders in the decision-making processes (Ayuso, Rodríguez, & García-Castro Rariño, 2014; Schwizer, 2020).

Therefore, we conducted an exploratory study to investigate whether the socio-demographic characteristics of a

sample of employees of Italian artisan firms influence their ERM specific knowledge (as distinct from risk management), their awareness of ERM implementation in their respective organisations, their opinion on the link between ERM and firm performance, and what they considered determinants of ERM (Anton & Nucu, 2020; Borgia & La Torre, 2023; Bromiley et al., 2015). Thus, the current study set out to answer the following research question:

RQ: *Do employees' socio-demographic characteristics influence their perceptions regarding ERM?*

The conceptual framework in Figure 1 shows the relationship between variable hypothesised in this study.

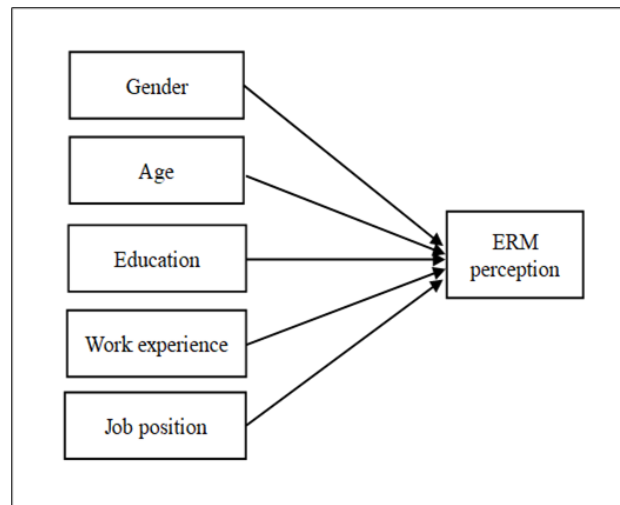


Figure 1. The research study's conceptual framework

Source: Authors' elaboration.

The present study focused on the opinion of the members of Italian organisations and their profile, defined by gender, age, education, professional position, and experience based on their irreplaceable human resources role and the fundamental role of artisan firms in Italy. Study findings showed that the demographic profile of employees influenced their views on ERM issues. There are several implications of this paper. From a theoretical point of view, this study proposes new insights into the relationship between characteristics of participants involved in risk management processes and their perception of the adoption and implementation of ERM in Italian artisan firms. Furthermore, findings from this study provide risk managers with additional information on ERM that could potentially assist them in effectively and efficiently implement ERM in their organisations.

Subsequent sections in this paper are organised as follows: section 2 presents the results of a literature review on specific topics that are relevant to the study question, section 3 illustrates the research methodology used, section 4 and 5 detail the analysis results and discussion, respectively, and section 6 suggests avenues for future research.

2. Literature Review

ERM emerged as a crucial strategy for businesses facing inevitable challenges resulting from business expansion. As companies expand, the complexity surrounding the business environment introduces various risks that demand effective monitoring and control. The concept of risk management is not a recent development; risk management has been recognized as a valid decision-making process since the late 1940s and early 1950s.

The field of risk management is a complex and multifaceted landscape that is heavily influenced by the nuanced perceptions of risk held by managers and company owners. Asgary et al. (2020) state that understanding individuals's subjective perspectives on risk is crucial for effective risk management strategies within organizations. Socio-economic determinants further complicate the risk management landscape; Sobeková Majková (2016) note that managers' and owners' risk outlook are shaped by broader economic factors. Young entrepreneurs may exhibit a positive disposition toward business risk, adding another layer to the intricate tapestry of risk perception.

Previously, traditional risk management operated under a "silo" approach, where risks were managed in isolation. However, with the evolution of time and technology, organizations began to recognize the importance of a more holistic approach to risk management. By the mid-1990s, ERM had evolved into a conceptual framework and a managerial function within corporations illustrating a comprehensive and interconnected approach to risk

management (Hernández-Madrigal et al., 2020; Bromiley et al., 2015).

The adoption and implementation of ERM practices has attracted considerable research attention with scholars seeking to unravel the complexities of why some organizations embrace ERM while others do not. Previous studies show that successful ERM adoption and implementation depends on several factors, such as the presence or absence of a strong risk culture in the company (Ching et al., 2020; Ingram, Underwood & Thompson, 2014; Kanu, 2020), the support and cooperation of top management (Miloš Sprčić, Kožul & Pecina, 2017; Sax & Torp, 2015), as well as technical factors, and a limited understanding of ERM frameworks which is often related to the voluntary and unregulated nature of risk management practices in context small and medium-sized enterprises, (Belas et al., 2023; Ferreira de Araújo Lima, Crema & Verbano, 2020; Henschel, 2010). Although effective ERM implementation has several prerequisites, ERM positively influences firm performance. Florio and Leoni (2017), for instance, found that ERM implementation had a positive effect not only on financial performance but also on the market value of firms. Another research paper found that the relationship between ERM implementation and firm performance depends on an appropriate match between ERM and several firm-related variables, namely environmental turbulence, competitive pressure, size and board monitoring activity (Gordon, Loeb & Tseng, 2009). Several scholars that investigated the implications of ERM implementation in oil and gas companies observed a direct relationship between the two variables (Annamalah et al., 2018; Jonek-Kowalska, 2019; Muralidhar, 2010). Nugraha, Rizal and Ganika (2022) demonstrated that ERM enhances the relationship between financial performance and the market performance. Fakir and Jusoh (2020) showed that ERM mediates the relationship between board gender diversity and firm sustainability performance. In another study that analysed the role of ERM in the relationship between corporate social responsibility (CSR) and firm performance, a connection CSR and ERM was demonstrated (Naseem et al., 2020). In addition, Mahama and colleagues (2022) looked at the potential positive effects of ERM on the performance of public sector organisations, while other researchers verified the positive effects of ERM in organisations working in the educational sector (Perera et al., 2020; Rauf, Jabarand & Mansor, 2020; Yudianto et al., 2021). The impact of ERM on firm performance has also been investigated in small and medium-sized firms that are known to have suboptimal ERM implementation practices (undercapitalisation, specific risk management function often absent, etc.). Study results illustrate that ERM implementation in such firms would also improve their performance (Fauzi et al., 2022; Lukianchuk, 2015; Rehman & Anwar, 2019).

The comprehensive insights provided by these studies collectively contribute to a richer understanding of the factors influencing risk management and ERM practices across diverse organizational contexts. Such nuanced knowledge is crucial for practitioners, policymakers, and researchers alike, as they navigate the evolving landscape of risk management in today's dynamic business environment. Despite extensive research conducted within this domain, few studies address the determinants of ERM implementation (Belas et al., 2023; Henschel & Durst, 2016; Falkner & Hiebl, 2015; Beasley et al., 2005).

An additional strand of literature has concentrated on examining the effects of socio-demographic characteristics on ERM. The study by Belas et al. (2023) delved into specific contextual factors influencing risk management practices in SMEs within Visegrad countries and found that gender dynamics play a significant role in ERM implementation. Women were more likely to implement moderately effective risk management practices when compared to men. Additionally, a business's country of operation, industry, and the age of its managers have an impact on its risk management practices. A study on Kenyan State-Owned Corporations further extends the discourse by examining the moderating influence of senior management's demographic characteristics on the relationship between ERM and organizational performance (Otieno, Ogutu & Pokhariyal, 2019). Study results indicate that demographics characteristics of the senior management influence the relationship between ERM and performance, underlining the need to not only consider structural and governance-related factors but also the demographic composition of senior management teams. Trisnawati, Mustikawati and Sasongko (2023) analysed the relationship between CEO characteristics and ERM disclosure based on the ISO 31000:2018 framework and found a link between CEO overconfidence and CEO tenure and ERM disclosure, but no link between CEO financial competence and a CEO's gender. Another study demonstrated the moderating effect of top managers' financial education on the relationship between enterprise risk management practices and a firm's competitive advantage; this study illustrated that education is crucial for efficient enterprise risk management practices (Yang, Ishtiaq & Anwar, 2018). Yahaya and Yakubu (2022) analysed the impact of certain characteristics of a risk committee that had been identified by other authors (Erin, Bamigboye & Arumona, 2020; Lamidi et al., 2022; Odubuasi, Ofor & Ilechukwu, 2022), including gender diversity, on ERM and found that these characteristics influenced ERM. Furthermore, in the paper by Maharana and colleagues (2023), financial literacy had a positive impact on the risk management capacity of women entrepreneurs; as the financial literacy level of these women

entrepreneurs increased, they put more effort into risk management practices ranging from monitoring to diversification.

The present study investigated the influence of various socio-demographic factors of different individuals involved in risk management processes in Italian artisan companies on their perception of the adoption and implementation of ERM in their respective organisations to propose new insights on the relationship between demographics and ERM. Building on the results of previous studies on the relationship between socio-demographic characteristics and ERM, the following hypothesis is drawn in the present paper:

H1: Employees' socio-demographic characteristics influence the perception of ERM

In particular,

- a. Employees' gender influences ERM perception
- b. Employees' age influences ERM perception.
- c. Employees' education influences ERM perception.
- d. Employees' work experience influences ERM perception.
- e. Employees' job position influences ERM perception.

3. Method

A questionnaire was developed to investigate the relationship between individuals' demographic characteristics and their perception about ERM in their organization. The questionnaire delved into some of the most studied topics in the ERM literature including: 1) ERM implementation, 2) determinants of ERM implementation, and 3) effects of ERM implementation on organizational performance (Anton & Nucu, 2020; Borgia & La Torre, 2023; Bromiley et al., 2015). The study questionnaire included questions on the respondents' demographics that would be compared with their responses to specific ERM-related issues.

Data was collected between May and June 2023, in combination with a separate survey on knowledge risks and business sustainability (Borgia, Rangone & La Torre, 2023). The online questionnaire was administered using the Microsoft Forms application to a sample of 100 workers from artisan firms in two provinces of a region of Central Italy. This decision was motivated by the fact that in this part of the country there is a high concentration of artisanal enterprises, which may have more critical issues with ERM due to their lack of experience with risk management. The respondents to complete the questionnaire were 81 out of 100: a response rate of approximately 80%.

Chi-square statistics were used to describe the relationship between participants' demographic characteristics and their responses regarding ERM implementation.

The null hypothesis of the test is that there is no association between the given variables, so the association can only be concluded as statistically significant if the Pearson's correlation coefficient is $p < 0.05$ (Schober, Boer & Schwarte, 2018).

In addition, Cramer's V was used (Akoglu, 2018) to assess the strength of the association between variables that were significantly related. Cramer's V was interpreted as follows:

- If V had a value between 0 and 0.33, the association was weak.
- If V had a value between 0.33 and 0.66, the association was of medium strength.
- If V was between 0.66 and 1, the association was strong.

IBM SPSS v28 Statistics was used to perform all analyses.

4. Results

Participant characteristics

This section details the results of the analysis by first describing participants' profiles (Table 1). More than 50% of the sample were men, and about half (49 %) were more than 50 years old. As regards participants' education level, 46.9% of respondents had a university degree, 35.8% had a diploma, and 8.6% had a postgraduate degree (Master's) and 8.6% a PhD. Most of the respondents were employees (60.5%) and more than 50% had been working in their respective organizations for more than 15 years.

Table 1. Respondents' profile

	Frequency N=81 (n)	Percent 100% (%)
Gender		
Man	46	56,8
Woman	35	43,2
Age-group		
22-30	4	4,9
31-40	19	23,5
41-50	18	22,2
>50	40	49,4
Education		
Diploma	29	35,8
Degree	38	46,9
Master	7	8,6
Doctorate	7	8,6
Job position		
Ordinary employee	49	60,5
Managers	32	39,5
Work experience (years)		
< 1	3	3,7
1 - 5	7	8,6
6 - 10	14	17,3
11 - 15	9	11,1
> 15	48	59,3

Source: Authors' elaboration.

Responses to ERM questions

Respondents indicated that they were familiar with ERM and that their organisation had an ERM framework in place to manage risk (64%). Participants identified the support of senior management (35%), the existence of a deep-rooted risk culture (29%) and the balance between social factors (human behaviour, organizational climate) and technical factors (policies, rules, and procedures) (36%) as key factors for effective and efficient implementation of ERM in their organisation. Moreover, 65% of respondents believed that implementing ERM in their company could positively influence its performance.

Relationships between participants' demographic characteristics and responses to ERM questions

The questions posed to employees regarding ERM implementation involved familiarity with the ERM concept (ERM1); awareness of the implementation of an ERM framework in the organization (ERM2); leadership (ERM3a) support, risk culture (ERM3b) and balance between social and technical factors (ERM3c) as ERM implementation determinants; ERM implementation as a driver for firm performance (ERM4) were related to the respondents' demographics (age, gender, education, work experience, job position) (Anton & Nucu, 2020; Borgia & La Torre, 2023; Bromiley et al., 2015).

Results show that age was only associated with the responses to the question on the role of the balance between social and technical factors in ERM implementation (moderate association with Cramer V equal to 0.43, see Table 2). Specifically, younger respondents were more likely to respond in the affirmative than older respondents (Table 3). Gender was not linked to any of the responses to the questions on ERM implementation (Table 2). Respondents' educational level was associated with three of four of the answers to ERM questions (moderate correlation with Cramer V between 0.3 and 0.4) but was not associated with responses to the question regarding the risk culture as a determinant of ERM (Table 2). In particular, the more qualified respondents indicated that they are familiar with the concept of ERM and are aware that it is applied in their organisation, they consider the support of the management as a determinant for the implementation of ERM, while they do not think the same about the balance between technical and social factors in the organisation. The respondents with the highest level of education also believe that ERM has a positive impact on organisational performance (Table 4, Table 5). Work experience was only associated with responses on the optimal balance between social and technical factors for ERM implementation (moderate correlation with Cramer V equal to 0.39, see Table 2). Specifically, respondents with less work experience were more likely to consider a mix of social and technical resources as a determinant of ERM implementation (Table 6). Finally, job position was related with all the answers to ERM queries (moderate association with Cramer V between 0.2 and 0.5), with the exception of the response on risk culture as a determinant of ERM (Table 2). More precisely, both managers and employees respond positively to

their knowledge of ERM, with managers being the most aware of whether ERM is used in the organisation. Employees, in contrast to managers, do not recognise leadership support as a determinant of ERM. The two job positions also disagree on the mix of social and technical factors, which is a determinant of ERM for employees, but not for most managers. The positive relationship between ERM and organisational performance is recognised by the majority of managers, while a higher percentage of employees said they could not answer about this relationship (Table 7, Table 8).

Table 2. The relationship between participant characteristics and familiarity with the ERM concept*

	Gender	Age	Education	Work experience	Job position
Familiarity with the ERM concept	p=.826 <i>non-sig.</i>	p=.361 <i>non-sig.</i>	p=.001 V=.438	p=.275 <i>non-sig.</i>	p=.010 V=.287
Awareness of the implementation of an ERM framework in the organisation	p=.303 <i>non-sig.</i>	p=.111 <i>non-sig.</i>	p<.001 V=.394	p=.514 <i>non-sig.</i>	p<.001 V=.504
Leadership support as ERM implementation determinant	p=.133 <i>non-sig.</i>	p=.154 <i>non-sig.</i>	p<.001 V=.472	p=.230 <i>non-sig.</i>	p=.001 V=.438
Risk culture as ERM implementation determinant	p=.113 <i>non-sig.</i>	p=.265 <i>non-sig.</i>	p=.635 <i>non-sig.</i>	p=.508 <i>non-sig.</i>	p=.077 <i>non-sig.</i>
Balance between social and technical factors as ERM implementation determinant	p=.221 <i>non-sig.</i>	p=.002 V=.430	p=.031 V=.331	p=.013 V=.395	p=.012 V=.278
ERM implementation as a driver for firm performance	p=.579 <i>non-sig.</i>	p=.775 <i>non-sig.</i>	p=.004 V=.341	p=.999 <i>non-sig.</i>	p<.001 V=.481

*chi-squared statistics and Cramer's V values

Source: Authors' elaboration.

Table 3. Crosstabulation (Age/ERM3c)

Age class		ERM3c	
		No	Yes
22-30	Count	0	4
	% within Age class	0,0%	100,0%
31-40	Count	6	13
	% within Age class	31,6%	68,4%
41-50	Count	12	6
	% within Age class	66,7%	33,3%
>50	Count	29	11
	% within Age class	72,5%	27,5%

Source: Authors' elaboration.

Table 4. Crosstabulation (Education/ERM1, ERM2)

Education	Diploma	Count	ERM1		I don't know	ERM2	
			No	Yes		No	Yes
			18	11	17	6	6
		% within Education	62,1%	37,9%	58,6%	20,7%	20,7%
	Degree	Count	10	28	8	14	16
		% within Education	26,3%	73,7%	21,1%	36,8%	42,1%
	Master	Count	1	6	1	1	5
		% within Education	14,3%	85,7%	14,3%	14,3%	71,4%
	Doctorate	Count	0	7	0	0	7
		% within Education	0,0%	100,0%	0,0%	0,0%	100,0%

Source: Authors' elaboration.

Table 5. Crosstabulation (Education/ERM3a, ERM3c, ERM4)

Education	Diploma	Count	ERM3a		ERM3c		I don't know	ERM4	
			No	Yes	No	Yes		No	Yes
			24	5	14	15	17	1	11
		% within Education	82,8%	17,2%	48,3%	51,7%	58,6%	3,4%	37,9%
	Degree	Count	20	18	20	18	10	0	28
		% within Education	52,6%	47,4%	52,6%	47,4%	26,3%	0,0%	73,7%
	Master	Count	3	4	6	1	0	0	7
		% within Education	42,9%	57,1%	85,7%	14,3%	0,0%	0,0%	100,0%
	Doctorate	Count	0	7	7	0	0	0	7
		% within Education	0,0%	100,0%	100,0%	0,0%	0,0%	0,0%	100,0%

Source: Authors' elaboration.

Table 6. Crosstabulation (Work experience/ERM3c)

Work experience	< 1 years	Count	ERM3c	
			No	Yes
			14	15
		% within Work experience	48,3%	51,7%
	1 - 5 years	Count	20	18
		% within Work experience	52,6%	47,4%
	6 - 10 years	Count	6	1
		% within Work experience	85,7%	14,3%
	11 - 15 years	Count	7	0
		% within Work experience	100,0%	0,0%

Source: Authors' elaboration.

Table 7. Crosstabulation (Job position/ERM1, ERM2)

Job position	Employee	Count	ERM1		I don't know	ERM2	
			No	Yes		No	Yes
			23	26	25	10	14
		% within Job position	46,9%	53,1%	51,0%	20,4%	28,6%
	Managers	Count	6	26	1	11	20
		% within Job position	18,8%	81,3%	3,1%	34,4%	62,5%

Source: Authors' elaboration.

Table 8. Crosstabulation (Job position/ERM3a, ERM3c, ERM4)

Job position	Employee	Count	ERM3a		ERM3c		I don't know	ERM4	
			No	Yes	No	Yes		No	Yes
			37	12	23	26	25	1	23
		% within Education	75,5%	24,5%	46,9%	53,1%	51,0%	2,0%	46,9%
	Managers	Count	10	22	24	8	2	0	30
		% within Education	31,3%	68,8%	75,0%	25,0%	6,3%	0,0%	93,8%

Source: Authors' elaboration.

5. Discussion

ERM offers organisations an opportunity to manage risk in a holistic and integrated way by encompassing all processes and organizational functions and involving all members of an organisation. Although ERM has been the subject of academic and professional debate for several decades, ERM implementation has been hampered by limited to human and technical resources. Getting to know how members think about ERM, its implementation, its determinants, and its link to business performance, is essential in supporting the adoption of ERM in organizations. To that end, the present study collected the opinions of the workforce of Italian artisan firms on ERM. Findings align with those of previous studies that highlighted the importance of ERM and its implementation, given its holistic and integrated view of business risk (Anton e Nucu, 2020; Bromiley et al., 2015; Hernandez-Madrigal et al., 2020). The current study's analysis also demonstrated that respondents identified top management support and organisational climate as ERM implementation determinants, akin to existing literature (Otieno et al., 2019; Trisnawati, Mustikawati & Sasongko, 2023; Yahaya & Yakubu, 2022). Furthermore, most respondents linked ERM implementation to improved business performance; such results are in line with previous studies as well (Annamalah et al., 2018; Fakir & Jusoh, 2020; Fauzi et al., 2022; Florio & Leoni, 2017; Gordon, Loeb & Tseng, 2009; Jonek-Kowalska, 2019; Mahama et al., 2022; Lukianchuk, 2015; Rehman & Anwar, 2019; Muralidhar, 2010; Naseem et al., 2020; Nugraha, Rizal & Ganika, 2022; Perera et al., 2020; Rauf, Jabarand & Mansor, 2020; Yudianto et al., 2021).

In terms of the relationship between respondents' demographic characteristics and their responses to commonly discussed ERM issues, the results of the present study are consistent with the findings of previous research. ERM issues were highly linked to respondents' educational level and job position; a finding confirmed by previous studies (Belas et al., 2023; Erin, Bamigboye & Arumona, 2020; Lamidi et al., 2022; Maharana et al., 2023; Odubuasi, Ofor & Ilechukwu, 2022; Otieno, Ogutu & Pokhariyal, 2019; Trisnawati, Mustikawati and Sasongko, 2023; Yahaya & Yakubu, 2022; Yang, Ishtiaq & Anwar, 2018).

There are both theoretical and practical implications of the present study. It contributes to the body of knowledge regarding ERM based on the personal perceptions of members of organisations implementing ERM. The study also contributes additional elements that can be used to identify the strengths and weaknesses of the ERM framework adopted in a company. Information on the relationship between demographic profile and ERM could be used to more accurately select human resources to manage the ERM implementation. The results of the present study suggest that junior staff with a medium to high educational profile have a more holistic view of risk management, believing that the effectiveness of ERM is based on a mix of social and technical components of the organisation, and that the support of senior management is needed to ensure this effectiveness and the positive effects of ERM on organisational performance.

6. Conclusions

The current study investigated the contemporary landscape of ERM implementation in artisan Italian companies by soliciting employees' insights and discerning potential links between their socio-demographic characteristics and ERM-specific issues. The research contextualized the evolution of risk management practices, tracing its trajectory from self-insurance to the establishment of ERM frameworks. Key determinants of successful ERM implementation resulting from the current study were the cultivation of a robust risk culture within organizations and the crucial support extended by senior management which when present, positively contribute to organizational performance.

The research employed a quantitative approach by administering a questionnaire to employees across two different Italian artisan companies to explore their perspectives on ERM, their opinions on ERM implementation, its determinants, its barriers, and its anticipated impact on organizational performance. Participants' demographic data was also collected to investigate for potential links between their socio-demographic characteristics and their views on ERM.

Study findings revealed a nuanced association between employees' demographic profiles and their attitudes towards ERM, highlighting varying educational backgrounds and extensive tenures among participants, and offering a multifaceted understanding of the employee characteristics linked to ERM.

In essence, this research study significantly contributes to the ongoing dialogue on ERM by shedding light on the nuanced interplay between socio-demographic factors and organizational perspectives on risk management. These findings that emphasize the pivotal role of a supportive risk culture and senior management in fostering effective ERM implementation could be applied in the day-to-day practice of risk managers. Study findings also heighten the understanding of employees' perspectives, which when considered alongside their socio-demographic characteristics, can inform tailored strategies for successful ERM integration into the

evolving dynamics of contemporary businesses.

This study was not without its limitations. First, the sample population was only limited to a region in the centre of southern Italy and only collected information about a few socio-demographic characteristics limiting the generalisation of study findings. Second, the study only delved into select ERM issues addressed in the ERM literature limiting the scope of the research. Nonetheless, future research should enroll a larger sample population from different geographical areas and analyse other aspects of the participants' profile related to workplace behaviour, such as those related to knowledge management and related risks.

Acknowledgments

Not applicable

Authors contributions

The authors have all contributed in equal measure to all stages of the realisation of the manuscript.

Funding

Not applicable

Competing interests

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Informed consent

Obtained.

Ethics approval

The Publication Ethics Committee of the Canadian Center of Science and Education.

The journal's policies adhere to the Core Practices established by the Committee on Publication Ethics (COPE).

Provenance and peer review

Not commissioned; externally double-blind peer reviewed.

Data availability statement

The data that support the findings of this study are available on request from the corresponding author. The data are not publicly available due to privacy or ethical restrictions.

Data sharing statement

No additional data are available.

Open access

This is an open-access article distributed under the terms and conditions of the Creative Commons Attribution license (<http://creativecommons.org/licenses/by/4.0/>).

Copyrights

Copyright for this article is retained by the author(s), with first publication rights granted to the journal.

References

- Abdullah, M., Abdul Shukor, Z., Mohamed, Z. M., & Ahmad, A. (2015). Risk management disclosure: A study on the effect of voluntary risk management disclosure toward firm value. *Journal of Applied Accounting Research*, 16(3), 400-15. <https://doi.org/10.1108/JAAR-10-2014-0106>
- Achmad, T., Faisal, F., & Oktarina, M. (2017). Factors influencing voluntary corporate risk disclosure practices by Indonesian companies. *Corporate Ownership & Control*, 14(3), 286-292. <https://doi.org/10.22495/cocv14i3c2art2>
- Akoglu, H. (2018). User's guide to correlation coefficients. *Turkish journal of emergency medicine*, 18(3), 91-93. <https://doi.org/10.1016/j.tjem.2018.08.001>
- Annamalah, S., Raman, M., Marthandan, G., & Logeswaran, A. K. (2018). Implementation of enterprise risk management (ERM) framework in enhancing business performances in oil and gas sector. *Economies*, 6(1), 4. <https://doi.org/10.3390/economies6010004>
- Anton, S. G., & Nucu, A. E. A. (2020). Enterprise Risk Management: A Literature Review and Agenda for

- Future Research. *Journal of Risk and Financial Management*, 13(11), 281.
<https://doi.org/10.3390/jrfm13110281>
- Asgary, A., Ozdemir, A. I., & Özyürek, H. (2020). Small and medium enterprises and global risks: Evidence from manufacturing SMEs in Turkey. *International Journal of Disaster Risk Science*, 11, 59-73.
<https://doi.org/10.1007/s13753-020-00247-0>
- Ayuso, S., Rodríguez, M. A., & García-Castro Rariño, M. A. (2014). Maximizing stakeholders' interests: An empirical analysis of the stakeholder approach to corporate governance. *Business & Society*, 53, 414-439.
<https://doi.org/10.1177/0007650311433122>
- Bailey, C. (2019). The relationship between chief risk officer expertise, ERM quality, and firm performance. *Journal of Accounting, Auditing & Finance*, 1-25. <https://doi.org/10.1177/0148558x19850424>.
- 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. <https://doi.org/10.1016/j.jaccpubpol.2005.10.001>
- Belas, J., Gavurova, B., Kubak, M., & Novotna, A. (2023). Risk Management Level Determinants In Visegrad Countries – Sectoral Analysis. *Technological and Economic Development of Economy*, 29(1), 307-325.
<https://doi.org/10.3846/tede.2023.18415>
- Borgia, M., & La Torre, M. (2023). *Enterprise Risk Management. Una review della letteratura*. In De Luca, F., *La funzione informativa del bilancio di esercizio delle imprese: limiti e modi di superamento*, Giappichelli Editore.
- Borgia, M., Rangone, A., & La Torre, M. (2023). The influence of knowledge risks on firm sustainability mediated by knowledge management capabilities. *Economia Aziendale Online*, 14(4).
<https://doi.org/10.3390/su14095416>
- Bromiley, P., McShane, M., Nair, A., & Rustambekov, E. (2015). Enterprise Risk Management: Review, Critique, and Research Directions. *Long Range Planning*, 48(4), 265-276. <https://doi.org/10.1016/j.lrp.2014.07.005>
- Ching, W. C., Mohd-Rahim, F., Chung, L. S., Zainon, N., & Aziz, N. (2020). Conceptualising risk culture on Enterprise Risk Management (ERM) implementation in construction companies. *Built Environment Journal*, 17(1), 58-69. <https://doi.org/10.24191/bej.v17i1.5988>
- Cineas (2023). Observatory on the diffusion of risk management in medium-sized Italian companies. Edition of the 20th of April 2023, Ipsos. Retrieved from:
https://www.cineas.it/wp-content/uploads/2023/04/CINEAS-Osservatorio-Risk-Management-imprese_2023.pdf
- Durst, S., & Zieba, M. (2019). Mapping knowledge risks: towards a better understanding of knowledge management. *Knowledge Management Research & Practice*, 17(1), 1-13.
<https://doi.org/10.1080/14778238.2018.1538603>
- Erin, O., Bamigboye, O., & Arumona, J. (2020). Risk governance and financial performance: an empirical analysis. *Business: Theory and Practice*, 21(2), 758-768. <https://doi.org/10.3846/btp.2020.10850>
- Faisal, F., Abidin, Z., & Haryanto, H. (2021). Enterprise risk management (ERM) and firm value: The mediating role of investment decisions. *Cogent Economics & Finance*, 9(1).
<https://doi.org/10.1080/23322039.2021.2009090>
- Fakir, A. N. M., & Jusoh, R. (2020). Board gender diversity and corporate sustainability performance: Mediating role of enterprise risk management. *The Journal of Asian Finance, Economics and Business*, 7(6), 351-363.
<https://doi.org/10.13106/jafeb.2020.vol7.no6.351>
- Falkner, E. M., & Hiebl, M. R. W. (2015). Risk management in SMEs: a systematic review of available evidence. *The Journal of Risk Finance*, 16(2), 122-144. <https://doi.org/10.1108/JRF-06-2014-0079>
- Fauzi, S. N. M., Ghazali, P. L., Foziah, N. H. M., Mahmud, M. S., Muhammad, N., & Rohim, R. A. A. (2022). The Role of Enterprise Risk Management on SMEs Performance: A Review Paper. *The Journal of Management Theory and Practice (JMTP)*, 3(1), 73-77. <https://doi.org/10.37231/jmtp.2022.3.1.214>
- Ferreira de Araújo Lima, P., Crema, M., & Verbano, C. (2020). Risk management in SMEs: A systematic literature review and future directions. *European Management Journal*, 38(1), 78-94.
<https://doi.org/10.1016/j.emj.2019.06.005>

- Florio, C., & Leoni, G. (2017). Enterprise risk management and firm performance: The Italian case. *The British Accounting Review*, 49(1), 56-74. <https://doi.org/10.1016/j.bar.2016.08.003>
- Freeman, R. E., Martin, K., & Parmar, B. (2007). Stakeholder capitalism. *Journal of Business Ethics*, 74(4), 303-314. <https://doi.org/10.1007/s10551-007-9517-y>
- Gordon, L. A., Loeb, M. P., & Tseng, C. Y. (2009). Enterprise risk management and firm performance: A contingency perspective. *Journal of Accounting and Public Policy*, 28(4), 301-327. <https://doi.org/10.1016/j.jaccpubpol.2009.06.006>
- Henschel, T. (2010). Typology of risk management practices: an empirical investigation into German SMEs. *International Journal of Entrepreneurship and Small Business*, 9(3), 264. <https://doi.org/10.1504/IJESB.2010.031922>
- Henschel, T., & Durst, S. (2016). Risk management in Scottish, Chinese and German small and medium-sized enterprises: a country comparison, *International Journal of Entrepreneurship and Small Business*, 29(1), 112-132. <https://doi.org/10.1504/IJESB.2016.078048>
- Hernández-Madrigal, M., Aibar-Guzmán, C., Aibar-Guzmán, B., & Ramírez-Flores, É. (2020). Are external pressures always behind ERM implementation? Evidence from Spanish listed firms. *International Journal of Disclosure and Governance*, 17(2-3), 86-100. <https://doi.org/10.1057/s41310-020-00076-z>
- Hoyt, R. E., & Liebenberg, A. P. (2011). The Value of Enterprise Risk Management. *Journal of Risk and Insurance*, 78(4), 795-822. <https://doi.org/10.1111/j.1539-6975.2011.01413.x>
- Ingram, D., Underwood, A., & Thompson, M. (2014). Risk Culture, Neoclassical Economics, and Enterprise Risk Management. Research Paper, presented at the Enterprise Risk Management Symposium, 29 September-1 October 2014, Chicago, IL, USA.
- Jean-Jules, J., & Vicente, R. (2021). Rethinking the implementation of enterprise risk management (ERM) as a socio-technical challenge. *Journal of Risk Research*, 24(2), 247-266. <https://doi.org/10.1080/13669877.2020.1750462>
- Jonek-Kowalska, I. (2019). Efficiency of Enterprise Risk Management (ERM) systems. Comparative analysis in the fuel sector and energy sector on the basis of Central-European companies listed on the Warsaw Stock Exchange. *Resources policy*, 62, 405-415. <https://doi.org/10.1016/j.resourpol.2019.04.011>
- Kanu, M. (2020). The role of risk culture in enterprise risk management implementation. *International Journal of Business and Management*, 15, 13-31. <https://doi.org/10.5539/ijbm.v15n11p13>
- Lamidi, W. A., Adebayo, A. O., Olorere, T. E., & Oyekanmi, M. O. (2022). Risk Management Committees' Characteristics and the Financial Performance of Deposit Money Banks (Dmbs) in Nigeria. *The Journal of Accounting and Management*, 12(1).
- Lukianchuk, G. (2015). The impact of enterprise risk management on firm performance of small and medium enterprises. *European Scientific Journal*, 11(13), 408-427.
- Lundqvist, S.A. (2014). An Exploratory Study of Enterprise Risk Management: Pillars of ERM. *Journal of Accounting, Auditing & Finance*, 29(3), 393-429. <https://doi.org/10.1177/0148558X14535780>
- Mahama, H., Elbashir, M., Sutton, S., & Arnold, V. (2022). Enabling enterprise risk management maturity in public sector organizations. *Public Money & Management*, 42(6), 403-407. <https://doi.org/10.1080/09540962.2020.1769314>
- Maharana, N., Ganesh, B. U. B., Mohanty, J., Panigrahi, A. K., & Chaudhury, S. K. (2023). Financial Literacy and Risk Management: A Study on Small Independent Women Entrepreneurs. *IUP Journal of Financial Risk Management*, 20(1), 5-24.
- Mhlanga, D. (2022). Stakeholder Capitalism, the Fourth Industrial Revolution (4IR), and Sustainable Development: Issues to Be Resolved. *Sustainability* 2022, 14, 3902. <https://doi.org/10.3390/su14073902>
- Miloš Sprčić, D., Kožul, A., & Pecina, E. (2017). Managers' support—a key driver behind enterprise risk management maturity. *Zagreb international review of economics & business*, 20(SCI), 25-39. <https://doi.org/10.1515/zireb-2017-0003>
- Muralidhar, K. (2010). Enterprise risk management in the Middle East oil industry: an empirical investigation across GCC countries. *International Journal of Energy Sector Management*, 4(1), 59-86. <https://doi.org/10.1108/17506221011033107>

- Naseem, T., Shahzad, F., Asim, G. A., Rehman, I. U., & Nawaz, F. (2020). Corporate social responsibility engagement and firm performance in Asia Pacific: The role of enterprise risk management. *Corporate Social Responsibility and Environmental Management*, 27(2), 501-513. <https://doi.org/10.1002/csr.1815>
- Nugraha, D. P., Rizal, S., & Ganika, G. (2022). Analyze Enterprise Risk Management Implementation: Empirical Study on Financial Performance and Market Reaction in Indonesia. *management*, 12, 19. <https://doi.org/10.2478/9788366675827-015>
- Odubuasi, A. C., Ofor, N. T., & Ilechukwu, F. U. (2022). Enterprise Risk Management, Risk Committee, and Earning Capacity of African Banks: A Comparative Approach. *Modern Economy*, 13(1), 51-68. <https://doi.org/10.4236/me.2022.131004>
- Otieno, E., Ogutu, M., & Pokhariyal, G. (2019). Enterprise Risk Management, Top Management Demographics, Macro Environment and Organizational Performance: Evidence from Kenyan State-Owned Corporations. *International Journal of Business and Social Science*, 10(11), 122-134. <https://doi:10.30845/ijbss.v10n11p15>
- Pavan A. (2019). Internal and management control from a value perspective (Italian: Controllo interno e di gestione nella prospettiva del valore). *Management Control*, Suppl. 1/2019: 5-12. <https://doi.org/10.3280/MACO2019-SU1001>
- Perera, A. A. S., Rahmat, A. K., Khatibi, A., & Azam, S. M. F. (2020). Review of literature: implementation of enterprise risk management into higher education. *International Journal of Education and Research*, 8(10), 155-172.
- Rauf, U. A. A., Jabarand, J., & Mansor, N. (2020). An empirical study of enterprise risk management implementation on performance in Malaysian public higher education. *International Journal of Advanced Science and Technology*, 29, 962-973.
- Rehman, A. U., & Anwar, M. (2019). Mediating role of enterprise risk management practices between business strategy and SME performance. *Small Enterprise Research*, 26(2), 207-227. <https://doi.org/10.1080/13215906.2019.1624385>
- Rochette, M. (2009). From risk management to ERM. *Journal of Risk Management in Financial Institutions*, 2(4), 394-408
- Sax, J., & Torp, S. S. (2015). Speak up! Enhancing risk performance with enterprise risk management, leadership style and employee voice. *Management Decision*, 53(7), 1452-1468. <https://doi.org/10.1108/MD-10-2014-0625>
- Schober, P., Boer, C., & Schwarte, L. A. (2018). Correlation coefficients: appropriate use and interpretation. *Anesthesia & analgesia*, 126(5), 1763-1768. <https://doi.org/10.1213/ane.0000000000002864>
- Schwizer, P. (2020). A board of directors that is more responsible and aware of the company's goals is the best weapon in post-Covid-19 management (Italian: Un CdA più responsabile e consapevole dei fini dell'impresa è la migliore arma nella gestione post Covid-19). *Impresa Progetto, Electronic Journal of Management*, 3, 1-8.
- Sobekov áMajkov á M. (2016). The Relationship between the Risk of a Change of the Interest Rate and the Age of Entrepreneurs among Slovak SMEs. *Journal of Competitiveness*, 8(3), 125-138. <https://doi.org/10.7441/joc.2016.03.08>
- Trisnawati, R., Mustikawati, S., & Sasongko, N. (2023). Enterprise risk management disclosure and CEO characteristics: an empirical study of go public companies in Indonesia. *Business: Theory and Practice*, 24(2), 379-391. <https://doi.org/10.3846/btp.2023.18505>
- Yahaya, O. A., & Yakubu, I. (2022). Risk committee's influence on enterprise risk management. *Journal of Risk and Financial Management*, 15(4), 120.
- Yang, S., Ishtiaq, M., & Anwar, M. (2018). Enterprise Risk Management Practices and Firm Performance, the Mediating Role of Competitive Advantage and the Moderating Role of Financial Literacy. *Journal of Risk and Financial Management*, 11(3), 35. <https://doi.org/10.3390/jrfm11030035>
- Yudianto, I., Mulyani, S., Fahmi, M., & Winarningsih, S. (2021). The influence of enterprise risk management implementation and internal audit quality on universities' performance in Indonesia. *Journal of Southwest Jiaotong University*, 56(2). <https://doi.org/10.35741/issn.0258-2724.56.2.13>