

ISSN Online: 2329-3292 ISSN Print: 2329-3284

Linking Transformational Leadership and Firm Performance: The Role of Entrepreneurial Orientation

Cristiana Leite¹, Orlando Lima Rua^{1,2*}

¹Porto School of Accounting and Administration (ISCAP), Polytechnic of Porto (P.PORTO), Porto, Portugal ²Center for Organisational and Social Studies of the Polytechnic of Porto (CEOS.PP), Porto, Portugal Email: *orua@iscap.ipp.pt

How to cite this paper: Leite, C., & Rua, O. L. (2022). Linking Transformational Leadership and Firm Performance: The Role of Entrepreneurial Orientation. *Open Journal of Business and Management, 10,* 1900-1922.

https://doi.org/10.4236/ojbm.2022.104098

Received: June 9, 2022 Accepted: July 24, 2022 Published: July 27, 2022

Copyright © 2022 by author(s) and Scientific Research Publishing Inc. This work is licensed under the Creative Commons Attribution International License (CC BY 4.0).

http://creativecommons.org/licenses/by/4.0/





Abstract

This study aims to analyze the mediating role of entrepreneurial orientation on the relation between transformational leadership and firm performance. A survey-based quantitative study was carried out with Portuguese SMEs' textile and clothing industry executive directors for which the questionnaire was adopted from different published sources. Data analysis was performed through the structural equation model (SEM). The findings demonstrated a positive and significant relationship between transformational leadership and entrepreneurial orientation and between entrepreneurial orientation and firm performance. On the other hand, no evidence was found that transformational leadership is a variable that influences firm performance. Nevertheless, it was possible to prove the mediating effect of entrepreneurial orientation on the relationship between transformational leadership and firm performance. These findings highlight the catalyst role of entrepreneurial orientation, leveraging transformational leadership as antecedents of firm performance. These findings are valuable inputs for managers and public entities. In the future, the Portuguese SME's textile and clothing industry must intensify its involvement in the digital economy, allowing transformational leadership to add value to firm performance using innovative, proactive, and risk-taking digital services.

Keywords

Transformational Leadership, Entrepreneurial Orientation, Firm Performance, Structural Equations Modeling

1. Introduction

Trends have continuously influenced the business environment in quality, in-

novation, modernization of manufacturing processes, marketing, cooperative relationships, social and environmental responsibility, organizational culture, information and knowledge, which affect business capabilities (Monteiro et al., 2019; Rua, 2018, 2019). Moreover, nowadays, small and medium-sized enterprises (SMEs), in particular, are facing new opportunities and challenges, being present among the *players* in international trade (Shafi et al., 2020). However, these firms are vulnerable in the face of global competition. They need, therefore, to develop unique capabilities and strategies, which can be achieved through exemplary leadership and firm performance influenced by the will to achieve new goals from innovative paths (Rua et al., 2018).

The lack of organizational competitiveness is often linked to low productivity, which can be attributed to the existing leadership styles that do not promote the trust and commitment of human resources to the firm's objectives (Rua & Araújo, 2016). Thus, for these authors, it is imperative to highlight the possible impact of leadership on organizational performance, particularly transformational leadership, because it is characterized by innovative strategies that involve the firm's entire structure. Transformational leadership has attracted the attention of companies as a leadership style that can generate a high level of organizational performance (Rawashdeh et al., 2021). Despite the increasing number of studies dedicated to the relationship between transformational leadership and organizational performance, there is still a gap in the studies on transformational leadership because they predominantly focus on human capital to the detriment of social capital (Chen et al., 2016). These scholars consider human capital encompasses personal resources, while social capital comprises relational resources that facilitate action and value creation; thus, both human and social capital are essential for achieving competitive advantages.

The transformational leadership style is suitable for firms that adopt an entrepreneurial orientation strategy because it actively promotes innovation and information transfer through the leader's charismatic behavior (Dzomonda et al., 2017). Managers with high levels of transformational leadership can be associated with developing high levels of innovation at work, more significant effort, and the development of certain organizational behaviors among employees (Razavi & Ab Aziz, 2017). Thus, organizations need different ways to stimulate the entrepreneurial capacity of human capital; in small firms, the leaders' personality, strength, and knowledge should be the focus (Miller, 1983). Studies on the relationship between transformational leadership and entrepreneurial orientation are still scarce. Still, transformational leadership has a positive relationship with the dimensions of entrepreneurial orientation, which is considered essential for new entrepreneurial approaches and actions (Rua & Rodrigues, 2017; Yang, 2008).

Entrepreneurial orientation is intrinsically linked to firm performance and has represented one of the areas of entrepreneurship research with the most remarkable growth in knowledge; thus, it becomes pertinent to establish a relationship between entrepreneurial orientation and firm performance (Rauch et al., 2009). Some studies have shown that companies with entrepreneurial orientation have better results, but some have failed to identify this positive relationship (Wiklund & Shepherd, 2005). The relationship between entrepreneurial orientation and firm performance may depend on firms' external environment and internal characteristics (Rua, 2018, 2019). Consequently, the question arises whether entrepreneurial orientation is always an appropriate strategy or whether, on the other hand, its relationship with firm performance is more complex.

The need and novelty of this study are justified and supported in the literature. Therefore, this study is a response to the call of some scholars (e.g., Sürücü et al., 2022; Silva & Rua, forthcoming) to develop new studies considering the mediating role of innovative management constructs (e.g., entrepreneurial orientation) that can approach transformational leadership and firm performance (Silva et al., 2021). These studies will contribute to filling some lacks identified in the literature.

This study was applied to SMEs in the textile and clothing industry. This industry is one of the oldest and most traditional Portuguese industries and has always maintained its position as one of the most important for the national economy (DGAE, 2018). Exports have always assumed a higher weight than imports in the industry; 1) in 2016, this industry had a weight of 4% in the Gross Domestic Product of Portugal (DGAE, 2018), and 2) in 2018, about 65% of sales were destined for export, making the foreign market one of the main drivers of the sector (Pamésa Consultores, 2019).

This paper is organized as follows: First, the theoretical framework for this study is presented, leading to the hypothesis development. Transformational leadership, firm performance and entrepreneurial orientation literature were reviewed. The following section presents the methodology, including the research design and measures. Then, the results are analyzed. Finally, we discuss these results and present our conclusions.

2. Theoretical Framework

The Era of transformational leadership represents the most promising phase in developing leadership theory; its enormous improvements over previous Eras lie in intrinsic motivation (King, 1990). Transformational leadership is a type of visionary leadership in which leaders motivate and influence their employees to exceed certain expectations, as they have an emotional impact on them, offering them a vision of the future, communicating that vision and motivating them (Khan et al., 2014). A transformational leadership style provides individual development, shared vision, and encourages creative thinking by an organization's employees, ultimately improving individual performance and the organization itself (Afriyie et al., 2019).

Transformational leaders bring valuable and positive changes because they show characteristics of role models by providing intellectual motivation and showing individual concern for followers; the leader uses less authority and acts as a guide and mentor by improving the vision of followers (Jyoti & Bhau, 2015). Uddin et al. (2018) report that a transformational leader shows an intimate relationship with his followers, leading to sustainable organizational performance and expects followers to achieve more than expected by questioning the status quo and accepting challenges. Antonakis (2012) finds evidence that transformational leaders are associated with increased organizational effectiveness followed by greater satisfaction and motivation; however, it is not proved or implied that transformational leaders are capable of causing the change in organizations.

Behaviors based on transformational leadership can make work sources more available to the leader's workers and followers; they will feel more significant support and greater autonomy in performing their tasks. In addition, when the transformational leader delegates tasks based on the skills and needs of workers and followers, each of them will face a new challenge, which will help them develop and create (Kovjanic et al., 2013; Martinez et al., 2020). Transformational leadership focuses on the leader's behaviours that influence the values and aspirations of the followers, activating their higher needs and inspiring them to transcend their interests for the benefits of the organization. When these behaviours are held by top management, they may be particularly relevant as contextual factors that enhance or restrict the impact of entrepreneurial orientation (Engelen et al., 2015).

Innovation plays a vital role in these businesses' growth and sustainability due to markets' growing aggressiveness and competitiveness (Rua & Catessamo, 2015). Employees subjected to a transformational leadership style show a more entrepreneurial spirit; thus, they and top management should show innovative and proactive business opportunities (Rua & Rodrigues, 2017).

The relationship between transformational leadership and firm performance has already been analyzed in several studies, which argue that this relationship is relevant for the development of organizations within the market in which they operate, since, for a firm's performance to change positively, its leadership must be analyzed and adapted (Fraga, 2018). Transformational leadership characteristics allow employees to adopt healthy organisational behaviour, improving firm performance (González et al., 2018).

According to Jensen et al. (2020), transformational leadership positively influences some indicators of firm performance. These scholars confirmed that transformational leadership positively influences firm performance factors, ranging from subordinates' perception of leader effectiveness, leader performance, sales, and profit.

Thus, we propose empirically to test the following hypotheses:

*H*1. Transformational leadership has a positive and significant effect on entrepreneurial orientation.

*H*2. Transformational leadership has a positive and significant effect on firm performance.

The concept of entrepreneurial orientation has been widely studied in recent decades, and multiple scientific articles focus on this area of entrepreneurship, demonstrating its importance (Monteiro et al., 2017a, 2017b; França & Rua, 2016). The various studies conducted in the area have led to the general acceptance of the meaning and relevance of the concept (Soininen et al., 2012).

Entrepreneurial orientation involves innovating to rejuvenate market offerings, taking risks when experimenting with uncertain products, services, and markets, and being proactive towards competitors and market opportunities (Covin & Slevin, 1989). This process is in which entrepreneurs create "new entries", whether those entries are in new firms, a new product or technology, or a new market (Miller, 2011: p. 875). According to Covin and Miller (2014), there are two dominant perspectives on the concept of entrepreneurial orientation. The first one sees this concept as a composite construct in which entrepreneurial orientation is represented by the qualities of risk-taking, proactivity and innovative behaviours. The second one sees entrepreneurial orientation as a multidimensional concept; competitive aggressiveness and autonomy were add to the previous dimensions (Lumpkin & Dess, 1996).

Thus, as a one-dimensional concept, entrepreneurial orientation refers to an organizational attribute that reflects how "being an entrepreneur" manifests itself in organizations or business units with an evident domain of entrepreneurship (Covin & Wales, 2019; Miller, 1983). Both conceptualizations are undoubtedly legitimate; it is not a question of which one is correct or incorrect, but rather how these perspectives can coexist or even be combined (Lomberg et al., 2017). Miller (2011) encourages research to examine the individual effects of each dimension of entrepreneurial orientation and entrepreneurial orientation as a whole. In some research contexts, he points out that the best of both worlds may entail analyses presenting results for the construct of entrepreneurial orientation and each component.

Entrepreneurial orientation determines the firm's willingness to stay ahead of its competitors and take advantage of new opportunities for innovation in an uncertain environment (Obeidat, 2016). At an early stage, this behaviour was attributed solely to the manager or owner of the business when he could take risks in uncertain environments by implementing new corporate actions (Rua & Rodrigues, 2017). Thus, it represents a decision-making process that provides a basis for business decisions and actions. Therefore, firms that aim for a high entrepreneurial orientation profile face decisions that involve significant risk and allocation of scarce resources (Rauch et al., 2009).

There is no consensus on the relationship between entrepreneurial orientation and firm performance, as it is a complex relationship exposed to different factors (Rua, 2018, 2019). The dominant perspective so far is the use of the universal approach. This approach assumes that entrepreneurial orientation is universally beneficial, existing contingency models that bidirectionally relate entrepreneurial orientation and characteristics of the external environment or entrepreneurial

orientation and internal organizational characteristics (Wiklund & Shepherd, 2005).

Some studies have found a positive relationship with the performance of specific organizations in different sectors (Oliveira et al., 2019). Miller (2011) shows that entrepreneurial orientation can positively influence the firm's performance; therefore, firms with an entrepreneurial orientation emerge with better results than those without entrepreneurial orientation (Martens & Freitas, 2007).

For França and Rua (2016), each dimension of entrepreneurial orientation positively influences firm performance since innovative companies tend to have superior performance and proactive companies are pioneers, which results in competitive advantages. Still, the influence of risk-taking is less evident since it depends on the success of the implemented projects. Firms can control the market by presenting entrepreneurial orientation characteristics and becoming references in their area.

Transformational leadership is strongly related to greater productivity and better performance due to the qualities associated with its leaders; the fact that this type of leadership is associated with high levels of entrepreneurial orientation can contribute to high levels of firm performance (Yang, 2008). Although there is consensus and empirical evidence that entrepreneurial orientation improves the organization's financial performance and growth, there is still much scepticism about the value of entrepreneurial orientation (Covin et al., 2020).

Thus, we posit the following hypotheses:

*H*3. Entrepreneurial orientation has a positive and significant effect on firm performance.

*H*4. Entrepreneurial orientation has a mediating effect on the relationship between transformational leadership and firm performance.

3. Methodology

3.1. Sample and Data Collection

This study was applied to SMEs firms' executive directors in the Portuguese textile and clothing industry. We reached a total of 501 firms with their e-mail address available on the Textile and Clothing Association of Portugal (Associação Têxtil e Vestuário de Portugal—ATP) database.

The measurement instrument adopted is the online questionnaire survey, with questions created to generate the necessary data to achieve a given research project (McDaniel & Gates, 2020). The response to the online questionnaire was entirely anonymous; thus, no questions were asked that might break anonymity or require confidential responses. A total of 144 completed and validated questionnaires for 28.7% per cent of the population were obtained. This response rate is considered very good, given that the average top management survey response rates range from 15% - 20% (Menon & Bharadwaj, 1999).

Data was collected and organized through the Google Forms platform between 13 April 2021 and 24 May 2021.

3.2. Measures

It was decided to use the logic presented in the study by Podsakoff et al. (1990) to assess transformational leadership, which was later translated in the studies of Rezende (2010) and Araújo (2011). This study examined the impact of the behavior of transformational leaders on organizational citizenship behaviors, mediated by the role played by trust and satisfaction of subordinates. The authors support the existence of several key behaviors associated with transformational leaders, so they created a scale consisting of 28 items, and the responses obtained in items 2, 6, 13, 15 and 17 will not be considered because they are related to transactional leadership (Silva et al., 2021). Each dimension is assessed through a 5-point Likert scale (1—"Strongly disagree" to 5—"Strongly agree"). It should be noted that items 3, 11 and 17 of the questionnaire have an inverted quotation and that items 2 and 14 were eliminated because they had communality lower than 0.5. Podsakoff et al. (1990) identified each of these behaviours as an essential element in the transformational leadership process, and several of these behaviours meet the consensus of researchers.

The Spanos and Lioukas' (2001) scale was adopted to evaluate firm performance. The scholars created a scale comprising 7 items, divided as follows: 4 items are dedicated to assessing the firm's market position, while the remaining 3 assess the firm's profitability. Thus, the firm's performance concerning its competition is assessed via a 5-point Likert scale (1—"Much below the average" to 5—"Much above the average").

Miller (1983) presents three dimensions of entrepreneurial orientation: innovation, proactivity, and risk-taking. Although more dimensions have been introduced in the literature and in this study, the theoretical review showed that Miller's three dimensions are the most used in empirical studies. Thus, the scale used by Covin and Slevin (1989) was adopted, consisting of nine items: three for innovation, three for proactivity and three for risk-taking. Each of the items was assessed through a 5-point Likert scale (1—"Strongly disagree" to 5—"Strongly agree").

4. Results

4.1. PLS-Structural Equations Modeling

Partial Least Squares Structural Equation Modeling (PLS-SEM) is widespread and recognized (Hair et al., 2016). The authors of the present study concluded that PLS-SEM was best suited to estimate the research model as: 1) this research focuses on prediction and explanation of the variance of the model's constructs (in this case, 3); 2) the research model has a complex structure; 3) it can measure the relationship between transformational leadership and firm performance, directly and indirectly, via entrepreneurial orientation; 4) the study uses first and second-order reflective constructs; 5) the sample (n = 144) is relatively small. The software used was SmartPLS 3.0.

4.2. Evaluation of the Measurement Model

We used Cronbach's alpha-based internal stability and consistency to measure the reliability of the variables in the research, which require a minimum level of 0.7 (Nunnally, 1978; Chin, 2010). The Cronbach's alpha levels obtained were between 0.931 and 0.978 (**Table 1**), which is considered excellent (Pestana & Gageiro, 2008).

The results showed that the measurement model met all general requirements. First, all reflective items have a load higher than 0.707, which means that the reliability of individual indicators (loadings) is higher than 0.5. Second, all-composite reliability values and Cronbach's alpha values were above 0.7, suggesting acceptable model reliability. Third, all constructs' Average Variance Extracted (AVE) values were higher than 0.50, indicating adequate convergent validity and implying that the indicators represent the same underlying constructs (Hair et al., 2016).

In addition, we used the composite reliability coefficient to test the constructs' validities (Chin, 1998). As can be seen from **Table 1**, using the parameters of Gefen and Straub (2005), which advocates a minimum level of 0.6, the variables exceed the reference value. The Fornell and Larcker (1981) criterion was used in this study. This author proposes that AVEs must have a minimum value of 0.5 to prove convergent validity. As can be seen in **Table 1**, all the constructs reached this value.

Table 1. Standardized factor analysis loading, KMO, CR, AVE, Mean and Standard Deviation.

First-order constructs	Item	Loading	кмо	CR	AVE	Mean	SD
Transformational			0.936	0.957	0.541		
leadership	TL28	0.891				3.91	0.955
$(\alpha = 0.943)$	TL8	0.841				4.05	0.871
	TL25	0.829				4.11	0.805
	TL24	0.823				4.12	0.905
	TL23	0.821				4.00	0.851
	TL22	0.813				4.17	0.813
	TL26	0.809				4.03	0.985
	TL19	0.807				3.81	0.916
	TL9	0.789				4.04	0.859
	TL20	0.784				3.81	0.945
	TL16	0.779				4.17	0.825
	TL12	0.778				3.94	0.858
	TL21	0.757				3.89	0.823
	TL7	0.736				4.12	0.944
	TL27	0.736				3.71	0.919

Continued							
	TL4	0.711				3.83	0.833
	TL18	0.689				3.74	0.871
	TL5	0.681				3.96	1.055
	TL1	0.465				3.99	0.816
	TL10	0.168				3.64	1.036
	TL11	-0.109				2.57	1.291
Entrepreneurial			0.824	0.886	0.502		
orientation	EO2	0.836				3.81	0.975
$(\alpha=0.864)$	EO3	0.834				3.69	1.028
	EO1	0.813				3.79	0.974
	EO4	0.798				3.34	1.032
	EO5	0.782				3.07	0.953
	EO8	0.645				3.41	1.069
	EO9	0.559				2.91	1.109
	EO6	0.425				2.25	1.064
	EO7	0.335				2.45	1.098
Organisational			0.851	0.940	0.691		
performance	OP7	0.878				3.02	0.872
$(\alpha = 0.925)$	OP6	0.878				3.06	0.744
	OP2	0.863				3.28	0.790
	OP4	0.870				3.20	0.773
	OP1	0.792				3.20	0.714
	OP3	0.760				3.11	0.719
	OP5	0.766				3.11	0.805

Source: Own elaboration.

Demonstrated discriminant validity of the model was as the results showed that the constructs with no theoretical relation, indeed, not significantly correlated; this gauged from the principle that all crossloads cannot be higher than the loading of each indicator (Hair et al., 2016). Based on Chin's (1998) classification of explanatory power as being moderate/substantial, the data in Table 2 show that the discriminant validity results were satisfactory; the measures of the constructs showed they were significantly different.

The Fornell-Larcker (1981) criterion (FLC) specifies that the average variance extracted (AVE) should be greater than the variance between constructs of the same model. Henseler et al. (2009) proposed a new and advanced criterion—the heterotrait-monotrait ratio (HTMT)—to assess discriminant validity and further proposed the FLC as an effective method to evaluate discriminant validity. However, the FLC fails to assess the lack of discriminant validity in various research situations. Therefore, in the present study, we used the HTMT to assess

the discriminant validity of the constructs; we presented these values in **Table 3**. All values were less than 0.9, as Marôco (2014); hence, discriminant validity was established for all constructs.

The measurement model is displayed in Figure 1.

Table 2. Discriminant validity.

FLC	1.	2.	3.
1. Entrepreneurial orientation	0.693		
2. Organisational performance	0.284	0.831	
3. Transformational leadership	0.693	0.140	0.736

Source: Own elaboration.

Table 3. HTMT.

нтмт	1.	2.	3.
1. Entrepreneurial orientation			
2. Organisational performance	0.295		
3. Transformational leadership	0.675	0.177	

Source: Own elaboration.

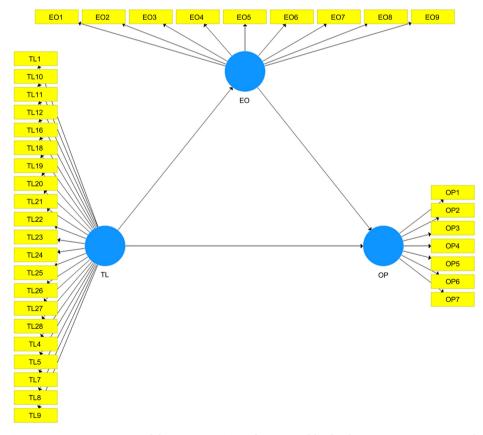


Figure 1. Measurement model. Note: LT—Transformational leadership; EO—Entrepreneurial orientation; OP—Organisational performance. Source: Own elaboration.

4.3. Evaluation of the Structural Model

We assessed the significance of the model based on path coefficients, t-values and standard errors. The hypotheses were tested for main and indirect effects through the bootstrapping procedure, using Smart PLS 3.0 (Ringle et al., 2015). The PLS algorithm and bootstrapping techniques were used to calculate the relative strength of each exogenous construct.

Based on Chin's (1998) criterion that the minimum structural coefficient should be 0.2, the effects proposed in the hypotheses are significant (**Table 4**). Transformational leadership has a significant and positive relationship with entrepreneurial orientation ($\beta = 0.693$, t = 15.728; LL = 0.608, UL = 0.779); thus, H1 was supported. On the other hand, transformational leadership does not have a significant and positive relationship with firm performance ($\beta = -0.110$, t = 0.780; LL = -0.372, UL = 0.175); therefore, H2 was not supported. Moreover, entrepreneurial orientation has a significant and positive relationship with firm performance ($\beta = 0.360$, t = 2.689; LL = 0.107, UL = 0.615); thus, H3 was supported.

Entrepreneurial orientation significantly mediated the relationship between transformational leadership and firm performance (β = 0.249, t = 2.558; LL = 0.074, UL = 0.448); consequently, H4 was supported (Table 5).

Figure 2 shows the structural model assessment, considering both direct and indirect effects.

The following criteria were adopted to determine the model fit: SRMR with a value less than 0.10 or of 0.08 (Hu & Bentler, 1999) and NFI with a value between zero and one (Hair et al., 2017) (**Table 6**).

Table 4. PLS direct effects.

Hypotheses	Original Sample (O)	Sample Mean (M)	Standard Error (STERR)	T-Statistics	L.L. (2.5%)	U.L. (97.5%)	Result
H1. TL -> EO	0.693	0.703	0.044	15.728*	0.608	0.779	Supported
H2. TL -> OP	-0.110	-0.117	0.141	0.780***	-0.372	0.175	Non supported
H3. EO -> OF	0.360	0.376	0.134	2.689**	0.107	0.615	Supported

Note: *p < 0.001; *p < 0.05; ***n.s.—non-significant. Source: Own elaboration.

Table 5. PLS indirect effects.

Hypotheses	Original Sample (O)	Sample Mean (M)	Standard Error (STERR)	T-Statistics (O/STERR)	L.L. (2.5%)	U.L. (97.5%)	Result
H4. TL -> EO -> OP	0.249	0.264	0.098	2.558*	0.074	0.448	Supported

Note: *p < 0.05. Source: Own elaboration.

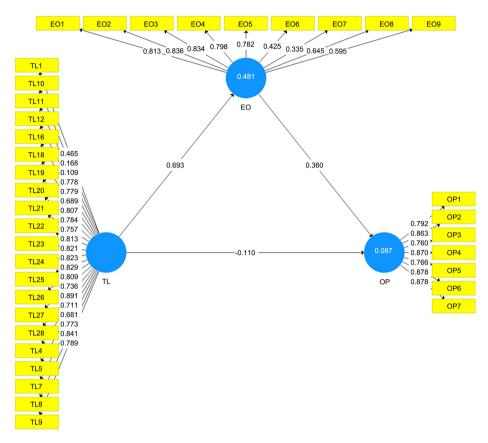


Figure 2. Structural model. Source: Own elaboration.

Table 6. Model fit.

Criteria	Value
SRMR	0.069
d_ULS	5.329
d_ULS	8.273
Chi-square	7579.646
NFI	0.578

Source: Own elaboration.

Besides, we tested the predictive power of the research model via Q-square (Q^2) (Hair et al., 2016). Chin (1998) recommends that Q^2 for endogenous variables is greater than zero. Q^2 values—EO (0.234) and OP (0.127)—meets the minimum criteria (>0.0). Hence, we conclude that our research model demonstrates predictive relevance.

5. Discussion

The relationship between transformational leadership and entrepreneurial orientation (H1) was supported ($\beta = 0.693$; t = 15.729; p < 0.001).

Entrepreneurial orientation provides new ways for companies to seek oppor-

tunities in the market, and the effective implementation of an entrepreneurial orientation requires transformational leadership behaviors by senior management (Engelen et al., 2015). Panagopoulos and Avlonitis (2010) also argue that leadership behaviors align and integrate mechanisms for implementing successful strategies.

The relationship between leadership and entrepreneurial orientation is undeniable, especially when we talk about transformational leadership. The transformational leader recognises, supports and develops employees' talent, skills and creativity levels. He does this by adopting unique and innovative processes, implementing bold measures, and an attitude of competitive aggressiveness toward the market (Ekiyor, 2019). Transformational leadership helps implement new strategies, creating an environment where employees feel trust and respect for the leader and are motivated to do more than expected (Yukl, 1989). Similarly, Obeidat et al. (2018) believe entrepreneurial orientation's success is related to transformational leadership. This type of leadership encourages employees to think creatively, generate new ideas about existing practices or products, and enables them to change. Consequently, their entrepreneurial attitudes and the organization's behaviours are reinforced.

Hypothesis 2 linking transformational leadership to firm performance was not supported ($\beta = -0.110$; t = 0.780; p > 0.001).

The study of the relationship between transformational leadership and firm performance still lacks empirical exploration and leaves several questions unanswered. Chen et al. (2019) acknowledge the inconsistent results in studies exploring the relationship between transformational leadership and firm performance. These argue that transformational leadership can positively affect an firm's performance, but adverse effects can be observed. These authors found evidence that transformational leadership negatively affects exploratory innovation and conditions firm performance when applied in environments with high technological uncertainty.

The evidence from this study thus does not corroborate researchers such as Rose and Mamabolo (2019); they believe that transformational leadership creates an environment where employees go beyond what is expected, it can improve firm performance. Joo and Lim (2013) also believe that transformational leadership contributes to personal, team and firm performance development, diverging from the results presented here.

The positive and significant effect of entrepreneurial orientation on firm performance was confirmed ($\beta = 0.360$; t = 2.689; p < 0.05), and H3 was supported.

Several researchers have proven the positive relationship between entrepreneurial orientation and firm performance (e.g., Abebe, 2014; Alvarez-Torres et al., 2019; Engelen et al., 2015; Lisboa et al., 2016; Monteiro et al., 2019; Rua et al., 2018).

Firms with a strong entrepreneurial orientation direct their strategic and practical decisions to obtain new opportunities, which results in better perfor-

mance results when compared with firms that do not have an entrepreneurial profile (Lumpkin & Dess, 1996; Muchiri & McMurray, 2015; Rauch et al., 2009). Studies suggest that firms with adaptive capacity and environments that support risk-taking, innovation, and proactivity are more likely to grow and profit (Lumpkin & Dess, 1996).

Yang (2008) found evidence that high levels of entrepreneurial orientation contribute positively to firm performance. Findings showed that innovation and proactivity seem to have a more notable impact than risk-taking; still, the latter dimension also positively influences. Moreover, in today's markets characterized by constantly changing dynamics, firms must develop strategies resulting in product changes. This new dynamism of the markets is characterized by shorter product life cycles, which requires adopting an entrepreneurial orientation to ensure firms' continuous innovation and sustainability (Rose & Mamabolo, 2019).

Finally, the mediating effect of entrepreneurial orientation on the relationship between transformational leadership and firm performance was confirmed. Therefore, H4 was supported ($\beta = 0.249$; t = 2.558; p < 0.05).

As analyzed in the literature review, these three concepts are related, but there is still no consensus on the relationship between transformational leadership and firm performance. This relationship was not supported; however, a relationship between transformational leadership and firm performance was confirmed when another variable (entrepreneurial orientation) was verified. Transformational leadership influences firm performance; however, for this to happen, entrepreneurial orientation must be present as a mediator of this relationship. Thus, there is an indirect influence in which transformational leadership *per se* cannot influence firm performance; however, if entrepreneurial orientation exists as a mediating variable, it is possible to observe an influence between the three variables.

Different researchers suggest that entrepreneurial orientation provides a path for firms to pursue new market opportunities, and it is essential to have effective leadership in the implementation of entrepreneurial orientation (Muchiri & McMurray, 2015). Yang (2008) argues that transformational leadership can significantly impact firm performance and growth than transactional leadership. He believes that aspects of transformational leadership such as idealized influence, inspirational motivation, intellectual stimulation, and individual consideration are key factors to success. Therefore, transformational leadership with high levels of entrepreneurial orientation can contribute to a more successful firm performance.

Likewise, Rose and Mamabolo (2019) also opted for a research model with the three constructs under analysis in their study. Their empirical analysis also found that entrepreneurial orientation can mediate a good relationship between transformational leadership and firm performance.

6. Conclusion

6.1. Final Remarks

This study explores the relationship between transformational leadership, entrepreneurial orientation and firm performance in the Portuguese textile and clothing industry. Among scholars, these are topics of growing importance. The literature studied supported a positive relationship between the constructs, although the positive impact of transformational leadership and entrepreneurial orientation on firm performance was conditioned by the factors adopted to analyze this relationship (Jensen et al., 2020; Wiklund & Shepherd, 2005). For this reason, the benefits between the three variables did not meet complete consensus among the scientific community.

This research proved that transformational leadership positively influences entrepreneurial orientation; however, the same direct impact on firm performance was not observed. Transformational leadership can indirectly influence firm performance through the mediating effect of entrepreneurial orientation, which is a lever in this relationship.

The effect of transformational leadership on firm performance did not obtain the expected results; still, the influence of entrepreneurial orientation impacts firm performance. The textile and clothing industry intends to differentiate itself through technological innovation, investment in people and developing new processes, know-how and skills (Industry 4.0). Thus, a focus on the main dimensions of entrepreneurial orientation (innovation, proactivity and risk-taking), combined with transformational leadership, can contribute to competitive advantage.

The sector has faced serious challenges since the onset of the Covid-19 pandemic, forcing a considerable proportion of firms to allocate their production and technical resources to producing healthcare articles. This need for change has resulted in substantial production shortfalls, stagnant supply chains, and forced firms to cease operations.

It can be observed that the textile and clothing industry has always suffered from the market's volatility, especially the European market, having to constantly adapt to new needs and demands, mainly from large groups, such as Inditex, with a strong presence in Portugal. In this context, entrepreneurial orientation becomes crucial, as it allows companies to constantly evolve and follow the market needs and trends to achieve superior performance (França & Rua, 2016).

We conclude, therefore, that the textile and clothing industry is in one of its most challenging stages, with several external and internal factors capable of influencing its success. It should be noted that, in the Portuguese context, we are facing an industry composed mainly of small and medium-sized firms, often family-owned, dependent on exports, especially to Europe, and cost leadership. These characteristics need to be replaced by investments that promote consistent industry growth.

6.2. Theoretical and Practical Implication

This study makes significant contributions to theory and practice since it responds to some literature gaps mentioned by scholars. It provides relevant results for business managers and private and public entities since it explores the relationship between transformational leadership, entrepreneurial orientation, and firm performance. Thus, it is a response to some researchers who have encouraged analysing how leadership behaviors and entrepreneurial orientation influence firm performance (Engelen et al., 2015; Muchiri & McMurray, 2015).

Understanding the relationship between transformational leadership and firm performance is an essential factor for the effective development of organizations. Discovering the methods that improve firm performance is a vital task of today's leaders.

It should be noted that the concepts of transformational leadership, entrepreneurial orientation and firm performance were developed and the validity of the scales applied was once again proven, and they can be used in future studies. In addition, this study was applied to an essential industry of the Portuguese economy, which allowed understanding of the types of practices to promote its development.

The literature and studies on leadership and entrepreneurial orientation are proliferating, but the question of how leadership can influence an organization's innovative, proactive, and risk-taking behaviors remains (Engelen et al., 2015; Khan et al., 2014). However, most studies have focused on large companies, rarely focusing on the potential of small companies (Yukl, 2012). In this study, 45.80% of the sample is composed of responses from small business executive directors, contributing to the literature and a breakthrough to bridge this gap.

Finally, this research has produced new implications for firms' management, demonstrating that it is essential to understand how their leadership and applied resources can optimize firms outcomes. Thus, a clear understanding of how firms develop an entrepreneurial orientation is paramount for managers, public bodies and researchers aiming to contribute to firms' competitiveness and performance.

6.3. Limitations and Future Research Suggestions

This study presents some limitations regarding the methodology and methods used to analyze the data and results obtained. Some alternatives may suggest other types of conclusions: 1) the sample was extracted from ATP (2021) database of SMEs firms in the Portuguese textile and clothing industry; it is, therefore, a non-probabilistic convenience sample; 2) the responses given in the questionnaire survey were based on the perceptions and opinions of the respondents; thus, although the reliability analysis was very good for all variables, it should be taken into account that the responses given may not correspond precisely to the reality of the firms; and 3) although the results obtained were satisfactory, it was

possible to separately assess the main dimensions of entrepreneurial orientation and transformational leadership, as they were worked in blocks, which could have contributed to more comprehensive research.

The concepts of transformational leadership, entrepreneurial orientation and firm performance must continue to be understood in the context of small businesses. Attention should be paid to the differences between small and large firms, especially to how the latter explores the dimensions of entrepreneurial orientation. Moreover, it would be interesting to analyze the dynamics of these relations in different contexts since we are limited to a single country and activity sector.

There remains a gap in the literature regarding how entrepreneurial orientation, leadership, organizational and environmental factors can influence firm performance. Therefore, scholars could study which factors can enhance the mediating effect of entrepreneurial orientation that can boost firm performance.

Although a substantial part of the existing literature concludes a positive relationship between transformational leadership and firm performance, this was not the case in this study. Therefore, the nature of this relationship has not yet obtained results that can be generalized to all contexts, and questions remain about how and why leadership affects firm performance. For this reason, in the future, this type of study could be applied to different sectors and countries so that the relationship between the variables in question begins to obtain greater clarity.

Finally, it would be interesting to analyze the inverse causal relationship between the variable discussed, i.e., how can better firm performance stimulate entrepreneurial orientation since the scarcity of resources can, for example, encourage experimentation, allowing the discovery of new opportunities.

Acknowledgements

This work is financed by portuguese national funds through FCT—Fundação para a Ciência e Tecnologia, under the project UIDB/05422/2020.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

References

Abebe, M. A. (2014). Electronic Commerce Adoption Entrepreneurial Orientation and Small and Medium-Sized Enterprise (SME) Performance. *Journal of Small Business and Enterprise Development, 21,* 100-116. https://doi.org/10.1108/jsbed-10-2013-0145

Afriyie, S., Du, J., & Ibn Musah, A. A. (2019). Innovation and Marketing Performance of SME in an Emerging Economy: The Moderating Effect of Transformational Leadership. *Journal of Global Entrepreneurship Research*, *9*, 2-25. https://doi.org/10.1186/s40497-019-0165-3

Alvarez-Torres, F. J., Lopez-Torres, G. C., & Schiuma, G. (2019). Linking Entrepreneurial Orientation to SMEs' Performance: Implications for Entrepreneurship Universities.

- Management Decision, 57, 3364-3386. https://doi.org/10.1108/MD-11-2018-1234
- Antonakis, J. (2012). Transformational and Charismatic Leadership. In D. V. Day, & Antonakis (Eds.), *The Nature of Leadership* (pp. 256-288). SAGE Publications, Inc. https://www.researchgate.net/publication/258221547_Transformational_and_Charismatic_Leadership
- Araújo, J. M. C. (2011). *Influência da liderança Transformacional na confiança e com*prometimento organizacionais. Manuscrito não publicado, Instituto Universitário de Lisboa.
 - https://recipp.ipp.pt/bitstream/10400.22/515/1/Disserta%C3%A7%C3%A3o_Mestrado _APNOR_Vers%C3%A3o_Final.pdf
- Chen, J. X., Sharma, P., Zhan, W., & Liu, L. (2019). Demystifying the Impact of CEO Transformational Leadership on Firm Performance: Interactive Roles of Exploratory Innovation and Environmental Uncertainty. *Journal of Business Research*, *96*, 85-96. https://doi.org/10.1016/j.jbusres.2018.10.061
- Chen, L., Zheng, W., Yang, B., & Bai, S. (2016). Transformational Leadership, Social Capital and Organizational Innovation. *Leadership & Organizational Development Journal*, 37, 843-859. https://doi.org/10.1108/LODJ-07-2015-0157
- Chin, W. W. (1998). Commentary: Issues and Opinion on Structural Equation Modeling. MIS Quarterly, 22, 7-16. https://www.jstor.org/stable/249674
- Chin, W. W. (2010). How to Write up and Report PLS Analyses. In V. Esposito Vinzi, W. W. Chin, J. Henseler, & H. Wang (Eds.), *Handbook of Partial Least Squares: Concepts, Methods and Applications*, (pp. 655-690). Springer-Verlag. https://doi.org/10.1007/978-3-540-32827-8_29
- Covin, J. G., & Miller, D. (2014). International Entrepreneurial Orientation: Conceptual Considerations, Research Themes, Measurement Issues, and Future Research Directions. *Entrepreneurship Theory and Practice*, *38*, 11-44. https://doi.org/10.1111/etap.12027
- Covin, J. G., & Slevin, D. P. (1989). Strategic Management of Small Firms in Hostile and Benign Environments. *Strategic Management Journal*, *10*, 75-87. https://doi.org/10.1002/smj.4250100107
- Covin, J. G., & Wales, W. J. (2019). Crafting High-Impact Entrepreneurial Orientation Research: Some Suggested Guidelines. *Entrepreneurship Theory and Practice*, *43*, 3-18. https://doi.org/10.1177/1042258718773181
- Covin, J. G., Rigtering, J. P. C., Hughes, M., Kraus, S., Cheng, C. F., & Bouncken, R. B. (2020). Individual and Team Entrepreneurial Orientation: Scale Development and Configurations for Success. *Journal of Business Research*, *112*, 1-12. https://doi.org/10.1016/j.jbusres.2020.02.023
- DGAE (2018). *Indústria têxtil e vestuário: Sinopse 2018.* Direção Geral das Atividades Económicas.
 - $\frac{https://www.dgae.gov.pt/gestao-de-ficheiros-externos-dgae-ano-2019/sinopse-textil-ve}{stuario-17-04-2019.aspx}$
- Dzomonda, O., Fatoki, O., & Oni, O. (2017). The Impact of Leadership Styles on the Entrepreneurial Orientation of Small and Medium Enterprises in South Africa. *Journal of Economics and Behavioral Studies, 9,* 104-113. https://doi.org/10.22610/jebs.v9i2(J).1654
- Ekiyor, R. (2019). Leadership Styles and Entrepreneurial Orientation. *European Journal of Business and Management, 11,* 88-94. https://doi.org/10.7176/EJBM/11-8-11
- Engelen, A., Gupta, V., Strenger, L., & Brettel, M. (2015). Entrepreneurial Orientation,

- Firm Performance, and the Moderating Role of Transformational Leadership Behaviors. *Journal of Management, 41,* 1069-1097.
- https://doi.org/10.1177/0149206312455244
- Fornell, C., & Larcker, D. F. (1981). Structural Equation Models with Unobservable Mariables and Measurement Error: Algebra and Statistics. *Journal of Marketing Research*, *18*, 382-388. https://doi.org/10.1177/002224378101800313
- Fraga, T. (2018). *O impacto da liderança na performance organizacional.* Dissertação de mestrado em gestão empresarial, ISCAC.
 - https://comum.rcaap.pt/bitstream/10400.26/27830/1/Teresa_Fraga.pdf
- França, A., & Rua, O. (2016). Influence of Entrepreneurial Orientation and Absorptive Capacities in Export Performance [Influência da orientação empreendedora e das capacidades abortivas no desempenho das exportações]. *Tourism & Management Studies*, 12, 196-202. https://doi.org/10.18089/tms.2016.12121
- Gefen, D., & Straub, D. (2005). A Practical Guide to Factorial Validity Using PLS-Graph: Tutorial and Annotated Example. Communications of the Association for Information Systems, 16, 90-110. https://doi.org/10.17705/1CAIS.01605
- González, L., Jiménez Jiménez, D., & Martínez Lorente, Á. R. (2018). Exploring the Mediating Effects between Transformational Leadership and Organizational Performance. Employee Relations, 40, 412-432. https://doi.org/10.1108/ER-10-2016-0190
- Hair, J. F., Hollingsworth, C. L., Randolph, A. B., & Chong, A. Y. L. (2017). An Updated and Expand Assessment of PLS-SEM in Information Systems Research. *Industrial Management & Data Systems*, 117, 442-458. https://doi.org/10.1108/IMDS-04-2016-0130
- Hair, J. F., Hult, G. T. M., Ringle, C., & Sarstedt, M. (2016). *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*. SAGE Publications.
- Henseler, J., Ringle, C. M., & Sinkovics, R. R. (2009). The Use of Partial Least Squares Path Modeling in International Marketing. In R. R. Sinkovics, & P. N. Ghauri (Eds.), New Challenges to International Marketing (Advances in International Marketing, Vol. 20) (pp. 277-319). Emerald Group Publishing Limited. https://doi.org/10.1108/S1474-7979(2009)0000020014
- Hu, L. T., & Bentler, P. M. (1999). Cutoff Criteria for Fit Indexes in Covariance Structure Analysis: Conventional Criteria versus New Alternatives. Structural Equation Modeling, 6, 1-55. https://doi.org/10.1080/10705519909540118
- Jensen, M., Potočnik, K., & Chaudhry, S. (2020). A Mixed-Methods Study of CEO Transformational Leadership and Firm Performance. European Management Journal, 38, 836-845. https://doi.org/10.1016/j.emj.2020.05.004
- Joo, B. K., & Lim, T. (2013). Transformational Leadership and Career Satisfaction: The Mediating Role of Psychological Empowerment. *Journal of Leadership & Organiza*tional Studies, 20, 316-326. https://doi.org/10.1177/1548051813484359
- Jyoti, J., & Bhau, S. (2015). Impact of Transformational Leadership on Job Performance: Mediating Role of Leader-Member Exchange and Relational Identification. SAGE Open, 5, 1-13. https://doi.org/10.1177/2158244015612518
- Khan, M. I., Yasir, M., Mohamad, N., Awan, U., Shah, S., Qureshi, M., & Zaman, K. (2014). Transformational Leadership, Emotional Intelligence and Organizational Commitment: Pakistan's Services Sector. Argumenta Oeconomica, 2, 68-92. https://doi.org/10.15611/aoe.2014.2.04
- King, A. S. (1990). Evolution of Leadership Theory. *Vikalpa, 15*, 43-56. https://doi.org/10.1177/0256090919900205

- Kovjanic, S., Schuh, S. C., & Jonas, K. (2013). Transformational Leadership and Performance: An Experimental Investigation of the Mediating Effects of Basic Needs Satisfaction and Work Engagement. *Journal of Occupational and Organizational Psychology*, 86, 543-555. https://doi.org/10.1111/joop.12022
- Lisboa, A., Skarmeas, D., & Saridakis, C. (2016). Entrepreneurial Orientation Pathways to Performance: A Fuzzy-Set Analysis. *Journal of Business Research, 69,* 1319-1324. https://doi.org/10.1016/j.jbusres.2015.10.099
- Lomberg, C., Urbig, D., Stöckmann, C., Marino, L. D., & Dickson, P. H. (2017). Entrepreneurial Orientation: The Dimensions' Shared Effects in Explaining Firm Performance. *Entrepreneurship Theory and Practice*, 41, 973-998. https://doi.org/10.1111/etap.12237
- Lumpkin, G. T., & Dess, G. G. (1996). Clarifying the Entrepreneurial Orientation Construct and Linking It to Performance. *Academy of Management Review, 21,* 135-172. https://doi.org/10.2307/258632
- Marôco, J. (2014). Análise de Equações Estruturais: Fundamentos teóricos, Software & Aplicações (2ª edição). Report Number.
- Martens, C. D. P., & de Freitas, H. M. R. (2007). Empreendedorismo no nível organizacional: Um modelo conceitual para estudo da orientação empreendedora, suas dimensões e elementos. *Revista ADM MADE (Universidade Estácio de Sá), 11*, 15-44.
- Martinez, I., Salanova, M., & Valeria, C. O. (2020). Our Boss Is a Good Boss! Cross-Level Effects of Transformational Leadership on Work Engagement in Service Jobs. *Journal of Work and Organizational Psychology*, *36*, 87-94. https://doi.org/10.5093/jwop2020a10
- McDaniel, C., & Gates, R. (2020). *Marketing Research* (12th ed.). John Wiley & Sons. https://www.wiley.com/en-us/Marketing+Research%2C+12th+Edition-p-9781119716310
- Menon, A., & Bharadwaj, S. (1999). Antecedents and Consequences of Marketing Strategy Making: A Model and a Test. *Journal of Marketing*, *63*, 18-40. https://doi.org/10.1177/002224299906300202
- Miller, D. (1983). The Correlates of Entrepreneurship in Three Types of Firms. *Management Science*, *29*, 770-791. https://doi.org/10.1287/mnsc.29.7.770
- Miller, D. (2011). Miller (1983) Revisited: A Reflection on EO Research and Some Suggestions for the Future. *Entrepreneurship Theory and Practice*, *35*, 873-894. https://doi.org/10.1111/j.1540-6520.2011.00457.x
- Monteiro, A. P., Soares, A. M., & Rua, O. L. (2017a). Entrepreneurial Orientation and Export Performance: The Mediating Effect of Organizational Resources and Dynamic Capabilities. *Journal for International Business and Entrepreneurship Development,* 10, 3-19. https://doi.org/10.1504/JIBED.2017.10003726
- Monteiro, A. P., Soares, A. M., & Rua, O. L. (2017b). Linking Intangible Resources and Export Performance: The Role of Entrepreneurial Orientation and Dynamic Capabilities. *Baltic Journal of Management, 12,* 329-347. https://doi.org/10.1108/BJM-05-2016-0097
- Monteiro, A. P., Soares, A. M., & Rua, O. L. (2019). Linking Intangible Resources and Entrepreneurial Orientation to Export Performance: The Mediating Effect of Dynamic Capabilities, *Journal of Innovation & Knowledge*, *4*, 179-187. https://doi.org/10.1016/j.jik.2019.04.001
- Muchiri, M., & McMurray, A. (2015). Entrepreneurial Orientation within Small Firms: A Critical Review of Why Leadership and Contextual Factors Matter. *Small Enterprise Research*, 22, 17-31. https://doi.org/10.1080/13215906.2015.1017076

- Nunnally, J. C. (1978). Psychometric Theory. McGraw-Hill
- Obeidat, B. Y. (2016). The Effect of Strategic Orientation on Organizational Performance: The Mediating Role of Innovation. *International Journal of Communications, Network and System Sciences*, *9*, 478-505. https://doi.org/10.4236/ijcns.2016.911039
- Obeidat, D. B. Y., Nofal, R., & Masa'deh, R. (2018). The Effect of Transformational Leadership on Entrepreneurial Orientation: The Mediating Role of Organizational Learning Capability. *Canadian Center of Science and Education, 12,* 77-104. https://doi.org/10.5539/mas.v12n11p77
- Oliveira, R., Cruz, J., Coura, L., & Oliveira, R. (2019). Orientação empreendedora e desempenho organizacional: Efeitos da internacionalização sobre os acionistas/investidores e funcionários. *Seminários em Administração (SemeAd 2019)*. https://www.researchgate.net/publication/335828008 Orientacao empreendedora e

https://www.researchgate.net/publication/335828008_Orientacao_empreendedora_e_desempenho_organizacional_Efeitos_da_internacionalizacao_sobre_os_acionistasinvestidores_e_funcionarios

- Pamésa Consultores, L. (2019). *A fileira têxtil e vestuário no horizonte 2025.* ATP—Associação Têxtil e Vestuário de Portugal.
 - $\underline{https://pamesa.pt/servicos/estudos-setoriais/attachment/a-fileira-textil-e-vestuario-no-horizonte-2025/$
- Panagopoulos, N. G., & Avlonitis, G. J. (2010). Performance Implications of Sales Strategy: The Moderating Effects of Leadership and Environment. *International Journal of Research in Marketing*, *27*, 46-57. https://doi.org/10.1016/j.ijresmar.2009.11.001
- Pestana, M. H., & Gageiro, J. N. (2008). *Análise De Dados Para Ciências Sociais: A Complementaridade Do SPSS* (5ª edição revista e corrigida). Edições Sílabo.
- Podsakoff, P., MacKenzie, S., Moorman, R., & Fetter, R. (1990). Transformational Leader Behaviors and Their Effects on Followers' Trust in Leader, Satisfaction, and Organizational Citizenship Behaviors. *The Leadership Quarterly*, 1, 107-142. https://doi.org/10.1016/1048-9843(90)90009-7
- Rauch, A., Wiklund, J., Lumpkin, G. T., & Frese, M. (2009). Entrepreneurial Orientation and Business Performance: An Assessment of Past Research and Suggestions for the Future. *Entrepreneurship Theory and Practice*, *33*, 761-787. https://doi.org/10.1111/j.1540-6520.2009.00308.x
- Rawashdeh, A. M., Almasarweh, M. S., Al-Balqa, E. B., & Al-Rawashdeh, F. (2021). Examining the Effect of Transformational Leadership to Organizational Performance through Quality Innovation: A Developing Country Perspective. *International Journal for Quality Research*, 15, 353-368. https://doi.org/10.24874/IJQR15.01-20
- Razavi, S. H., & Ab Aziz, K. (2017). The Dynamics between Entrepreneurial Orientation, Transformational Leadership, and Intrapreneurial Intention in Iranian R&D Sector. *International Journal of Entrepreneurial Behavior & Research, 23*, 769-792. https://doi.org/10.1108/IJEBR-10-2016-0337
- Rezende, H. A. (2010). *A liderança transformacional e transaccional e as suas influências nos comportamentos de cidadania organizacional.* Manuscrito não publicado, Instituto Universitário de Lisboa.
- Ringle, C. M., Wende, S., & Becker, J. M. (2015). SmartPLS. SmartPLS GmbH, Boenningstedt.
- Rose, E., & Mamabolo, A. (2019). Transformational Leadership as an Antecedent and SME Performance as a Consequence of Entrepreneurial Orientation in an Emerging Market Context. *International Journal of Entrepreneurship, 23,* 1-16.
- Rua, O. (2019). Absorptive Capabilities and Competitive Advantage: The Linkage. Peri-

- *odica Polytechnica Social and Management Sciences, 27,* 164-172. https://doi.org/10.3311/PPso.11998
- Rua, O. L. (2018). From Intangible Resources to Export Performance: Exploring the Mediating Effect of Absorptive Capabilities and Innovation. *Review of International Business and Strategy*, 28, 373-394. https://doi.org/10.1108/RIBS-02-2018-0012
- Rua, O. L., & Catessamo, M. F. (2015). *Inovação e empreendedorismo em Angola: Contribuições para o desempenho das PME*. Vida Económica.
- Rua, O. L., Franca, A., & Ortiz, R. F. (2018). Entrepreneurial Orientation and Firm Performance. In S. M. Da Rocha Brito (Ed.), Entrepreneurship—Trends and Challenges. IntechOpen. https://ideas.repec.org/h/ito/pchaps/121206.html https://doi.org/10.5772/intechopen.72009
- Rua, O. M., & Araújo, J. M. (2016). Linking Transformational Leadership and Organizational Trust: Has Organizational Commitment a Mediating Effect on It? *Cuadernos de Gestión*, 16, 43-62. https://doi.org/10.5295/cdg.140484om
- Rua, O., & Rodrigues, S. (2017). Empowerment e orientação empreendedora: Fundamentação teórica. *Dos Algarves: A Multidisciplinary e-Journal, 31*, 70-80. https://doi.org/10.18089/DAMeJ.2017.31.5
- Shafi, M., Liu, J., & Ren, W. (2020). Impact of COVID-19 Pandemic on Micro, Small, and Medium-Sized Enterprises Operating in Pakistan. *Research in Globalization*, 2, Article ID: 100018. https://doi.org/10.1016/j.resglo.2020.100018
- Silva, T., & Rua, O. L. (Forthcoming). The Mediating Effect of Intrapreneurship in the Relationship between Transformational Leadership and Individual Performance on Technological Sector SMEs. *Entrepreneurial Journal of Entrepreneurial Venture*.
- Silva, T., Rua, O. L., & Oliveira, A. (2021). Transformational Leadership and Individual Performance in the Portuguese Technological Sector. *E-Journal of Intercultural Studies*, 9.
 - https://www.iscap.pt/cei/e-rei/n9vol3/atas/Tiago%20Silva_Orlando%20Rua_Ant%C3%B3nio%20Oliveira_Lideran%C3%A7a%20transformacional%20e%20desempenho%20individual%20no%20setor%20tecnol%C3%B3gico%20portugu%C3%AAs.pdf
- Soininen, J., Martikainen, M., Puumalainen, K., & Kyläheiko, K. (2012). Entrepreneurial Orientation: Growth and Profitability of Finnish Small- and Medium-Sized Enterprises. *International Journal of Production Economics*, *140*, 614-621. https://doi.org/10.1016/j.ijpe.2011.05.029
- Spanos, Y. E., & Lioukas, S. (2001). An Examination into the Causal Logic of Rent Generation: Contrasting Porter's Competitive Strategy Framework and the Resource-Based Perspective. Strategic Management Journal, 22, 907-934. https://doi.org/10.1002/smj.174
- Sürücü, L., Maslakçi, A., & Sesen, H. (2022). Transformational Leadership, Job Performance, Self-Efficacy, and Leader Support: Testing a Moderated Mediation Model. *Baltic Journal of Management, 17,* 467-483. https://doi.org/10.1108/BJM-08-2021-0306
- Uddin, M., Rahman, M., & Howladar, M. (2018). Deviant Workplace Behavior and Job Performance: The Moderating Effect of Transformational Leadership. *Iranian Journal* of Management Studies, 11, 147-183. https://doi.org/10.22059/IJMS.2018.226143.672514
- Wiklund, J., & Shepherd, D. (2005). Entrepreneurial Orientation and Small Business Performance: A Configurational Approach. *Journal of Business Venturing, 20,* 71-91. https://doi.org/10.1016/j.jbusvent.2004.01.001
- Yang, C. W. (2008). The Relationships among Leadership Styles, Entrepreneurial Orien-

tation, and Business Performance. Managing Global Transitions, 6, 257-275.

Yukl, G. (1989). Managerial Leadership: A Review of Theory and Research. *Journal of Management*, 15, 251-289. https://doi.org/10.1177/014920638901500207

Yukl, G. (2012). Effective Leadership Behavior: What We Know and What Questions Need More Attention. *Academy of Management Perspectives, 26*, 66-85. https://doi.org/10.5465/amp.2012.0088