

# The mediating role of competitive and collaborative orientations in boosting entrepreneurial orientation's impact on firm performance

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## ABSTRACT

**Objective:** This study aims to assess the role of the relationships between organizations in shaping entrepreneurial performance. In particular, I tested the mediating role of inter-organizational cooperation and competition in the relationship between entrepreneurial orientation and firm performance.

**Research Design & Methods:** This quantitative study used structural equation modelling (SEM) to test hypotheses reflecting relationships among variables. I present the relationships in the research model. The research sample consisted of 117 one- and two-star hotels operating across Poland.

**Findings:** The most original finding refers to the mediating role of relationships among organizations. In particular, the study unveiled the mediating role of both competitive and collaborative orientation in the relationship between entrepreneurial orientation (EO) and firm performance. In both cases mediation was partial. Thus, collaborative behaviours may be as important as competitive ones in transforming entrepreneurial approach into performance. Additionally, the findings confirm the positive impact of EO on competitive and collaborative orientation, as well as the positive impact of these three factors on firm performance.

**Implications & Recommendations:** This study indicates that both entrepreneurs and researchers should consider inter-organizational relationships as a factor that can enhance entrepreneurial efforts. Thus, these relationships can play an important role in managerial practice and they can be a subject of research focused on organizational entrepreneurship. Regarding theory development, I recommend further studies on collaborative behaviours in pursuing and exploiting entrepreneurial opportunities; specifically, future studies can test presented relationships in other contexts (other industries, countries, and organization types). Moreover, I recommend the inclusion of other variables which can affect the tested relationships as they can help to explain the contingencies related to the tested model. Finally, further testing and improvement of used constructs (especially those reflecting cooperation and competition) are recommended.

**Contribution & Value Added:** This study's findings contribute to the literature on entrepreneurship and inter-organizational relationships. Specifically, this study explains the role of two opposite postures, namely, cooperation and competition, in the context of entrepreneurial orientations. With its findings, the study augments our understanding of entrepreneurial posture and sheds new light on the operationalization of entrepreneurial orientation, which highlights the role of competing behaviours and omits collaborative actions.

**Article type:** research article

**Keywords:** entrepreneurial orientation; inter-organizational cooperation; competition; performance; hotel; structural equation modelling (SEM)

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## INTRODUCTION

Along with the increasing role of entrepreneurial activity in the economy (Ribeiro-Soriano, 2017), entrepreneurship theory has been continuously developing. Scholars identify entrepreneurship as pursuing opportunities (Stevenson & Jarillo, 1990). Opportunities are the situations that enable gaining profit (Casson, 1982). In changing market environment, where threats often appear along with opportunities, the abilities to seek and exploit opportunities are pillars of firm strategy (*i.e.* entrepreneurial strategy; Drucker, 1985; Dyduch, 2019) and strategic entrepreneurship (Hitt *et al.*, 2001). One of the most commonly accepted conceptualizations of entrepreneurship at the organizational level is the entrepreneurial orientation (EO; Covin & Wales, 2019; Wales *et al.*, 2020). Entrepreneurial orientation is a multidimensional construct that includes risk-taking, proactiveness, and innovativeness (Covin & Slevin, 1989). In other concepts, autonomy and competitive aggressiveness also constitute dimensions of EO (Lumpkin & Dess, 1996).

Similarly to the development of entrepreneurship practice and theory, we can observe the increasing role of relationships among organizations. These relationships can include both rivalry (Markin *et al.*, 2017) and collaboration (Dwyer *et al.*, 1987), as well as simultaneous competing and cooperating (which is labelled as 'coopetition;' Brandenburger & Nalebuff, 1996). Competitive relations are important characteristics of a market and they force entrepreneurs to develop different strategies (Suder *et al.*, 2022) that can help them to develop their businesses in competitive, and sometimes hostile, environments (Covin & Slevin, 1989). Collaborative relations can involve numerous actors, resulting in the development of networks. All these situations are the subject of intense research; there is reliable evidence showing that they can affect the firm performance (*e.g.* Baker *et al.*, 2016).

Previous studies have also explored the role of relationships between organizations in the entrepreneurial context. In this vein, scholars perceive competing as a manifestation of entrepreneurial posture, and, as mentioned above, some propose competitive aggressiveness as a dimension of EO (Lumpkin & Dess, 1996). However, collaborative relationships are also the subject of entrepreneurial studies (*e.g.* Rocha & Miles, 2009) and there are premises to consider inter-organizational collaboration as a dimension of EO (Kusa, 2017). This approach results in the concept of collaborative entrepreneurship which highlights the ability of a company to collaborate outside the organization (Ribeiro-Soriano & Urbano, 2009). The studies focused on small business management also investigate the role of cooperation and networking and provide evidence that they can be profitable for companies (*e.g.* Kusa *et al.*, 2023). We may observe a similar positive outcome in studies focused on innovation (Alexiev *et al.*, 2016) which is a dimension of EO.

However, the relationships between organizations in the context of entrepreneurial activity are still underexplored. For example, despite massive evidence that competitive and collaborative behaviours can coexist, we have limited knowledge about their interactions and the mechanism leading to the outcome of these interactions in an entrepreneurial context. This study addressed this research gap and aimed to explain the role of relationships among organizations in shaping entrepreneurial performance. In particular, the study examined the mediating role of inter-organizational cooperation and competition in the relationship between EO and firm performance.

To achieve its aim, this study used a research model that reflects direct and mediated relationships among EO, competing, collaborating, and firm performance. The study employed structural equation modelling (SEM) to test the model and hypotheses about these relationships. I tested the model and the hypotheses with a sample consisting of 117 one- and two-star hotels operating throughout Poland. This study intended to contribute to the literature on entrepreneurship and inter-organizational relationships. Specifically, this study strived to augment our understanding of mechanisms of organizational entrepreneurship by explaining the role of two opposite postures, namely, cooperation and competition, in shaping entrepreneurial performance. Furthermore, the study joined the process of improving the operationalization of organizational entrepreneurship by testing the model which includes EO, external cooperation, and inter-organizational competition. Finally, this study aimed to contribute to the literature on tourism management, as it examined the mediating relationships between

the target variables in this industry (as proposed by Czernek-Marszałek, 2019) and focused on a less studied segment of the industry, namely, low-category hotels (as recommended by Perdomo-Verdecia *et al.*, 2022); these arguments justify the sample choice.

The structure of the remainder of the article is as follows. Firstly, I will propose research hypotheses and a theoretical model based on the literature review. Secondly, I will describe the research methodology. Thirdly, I will present our results and confront them with the findings of previous studies. Finally, I will conclude with the contributions and limitations of the study as well as recommendations for future research.

## LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

As stated in the Introduction, one of the most common conceptualizations of entrepreneurship is EO. This study focused on the three-dimensional EO construct which includes risk-taking, proactiveness, and innovativeness. The impact of EO on firm performance is a subject of numerous studies in the fields of entrepreneurship and organizational strategy. However, this impact is not clear. Although most studies report a positive impact (*e.g.* Rauch *et al.*, 2009; Kraus *et al.*, 2012), others report a lack of such impact (*e.g.* Renko *et al.*, 2009), and there are also cases of negative impact (*e.g.* D'Souza & Fan, 2022). Moreover, this relationship can be non-linear (Tang *et al.*, 2008; Wales *et al.*, 2013). This ambiguity suggests that this relationship can be affected by other factors, both internal (*e.g.* hotel category; Hernández-Perlines, 2016) and external (*e.g.* market characteristics; Rosenbusch *et al.*, 2013; Wójcik-Karpacz *et al.*, 2019). In studies focused on the hospitality industry, scholars also consider EO as a factor positively affecting hotel performance (*e.g.* Tajeddini *et al.*, 2020; Singal & Batra, 2021). Based on the above, I submitted a hypothesis about the positive impact of EO on firm performance, but after that, I proposed additional hypotheses related to selected factors that can affect this relationship. Thus, I put forward the following hypothesis which was an axle of our theoretical model:

**H1:** Entrepreneurial orientation positively affects firm performance.

Entrepreneurial orientation reflects a posture towards a firm environment. This posture can affect different behaviours of entrepreneurs. Regarding an entrepreneur's attitude towards other enterprises, we can distinguish two opposite positions: competitive and collaborative. In the entrepreneurship theory, the former dominates (Markin *et al.*, 2017); scholars perceive competing as a manifestation of entrepreneurship (Lumpkin & Dess, 1996). As a result, some EO operationalisations include 'competitive aggressiveness' defined as 'a firm's propensity to directly and intensely challenge its competitors to achieve entry' (Lumpkin & Dess, 1996, p. 148). Consequently, an entrepreneurial firm is expected to take diverse actions to outperform its market rivals (Giachetti, 2016), including direct confrontation (Lumpkin & Dees, 1996). Compared to risk-taking, innovativeness, and proactiveness, competitive aggressiveness less commonly constitutes a dimension of EO in empirical studies (Covin & Lumpkin, 2011); this encouraged me to interpret competitive orientation as a factor separated from EO. However, I propose that it is influenced by EO.

Entrepreneurial posture (expressed by the pursuit of opportunities) can lead to inter-organizational cooperation; specifically, entrepreneurs can cooperate to pursue an opportunity. Entrepreneurs can cooperate at the early stages of the entrepreneurial process, which results in starting their business in partnership (Ruef, 2010). However, they collaborate also at later stages within networks, supply chains, or clusters (Blomqvist & Levy, 2006). Cooperation enables overcoming resource limitations (Nason & Wiklund, 2018), which can prevent firms from pursuing opportunities. This refers also to knowledge resources that are necessary to recognize and capture an opportunity; sharing information and knowledge facilitates generating new ideas, innovation, and finally value creation (Gupta & Govindarajan, 2000). Thus, creating cooperative relationships aimed at pursuing opportunities can be interpreted as a manifestation of entrepreneurship (Franco & Haase, 2013; Kusa, 2017). This is similar to creating a new firm, which is an entrepreneurial act (Gartner, 1989). Previous studies showed that inter-organizational cooperation positively correlates with EO (Kusa *et al.*, 2019) and entrepreneurial

firms are able to form collaborative relationships (Ribeiro-Soriano & Urbano, 2009) and business networks (Abbas *et al.*, 2019). Thus, I hypothesised:

**H2:** Entrepreneurial orientation positively affects collaborative orientation.

**H3:** Entrepreneurial orientation positively affects competitive orientation.

Noteworthy, entrepreneurs can simultaneously collaborate and compete with other companies (including their direct competitors; Bouncken *et al.*, 2015). This behaviour is called 'coopetition' (Brandenburger & Nalebuff, 1996) and it somehow manifests flexibility (regarding relationships towards other entities) which is a required characteristic in changing environments and can also be perceived as an entrepreneurial trait (Kusa *et al.*, 2022). Thus, coopetition can be considered in an entrepreneurial context (Soppe *et al.*, 2014; Bouncken *et al.*, 2015; Galkina & Lundgren-Henriksson, 2017; Kusa, 2020). Coopetition is also visible in the hospitality industry (Kallmuenzer *et al.*, 2021). However, since coopetition is a complex phenomenon (Bengtsson & Kock, 2000; Raza-Ullah *et al.*, 2018), it deserves a separate study and I did not include it in mine.

Inter-organizational collaboration is commonly perceived as a facilitator in increasing firm performance. This proposition was developed under resource-based theory. Accordingly, cooperation enables firms, especially small ones, to cope with resource limitations (Welbourne & Pardo, 2009; Staniewski *et al.*, 2016; Li *et al.*, 2021), which is especially valuable during a crisis (Duda *et al.*, 2024); this also refers to small and medium-sized tourism and hospitality enterprises (Pham *et al.*, 2021; Tajeddini *et al.*, 2023). Moreover, cooperation enables firms to reduce the operational costs of the business (Banchuen *et al.*, 2017) and benefit from the investment- and cost-sharing mechanisms (Crick & Crick, 2020). Inter-firm collaboration positively affects creativity, continuous improvement (Fawcett *et al.*, 2008), and innovativeness (Alexiev *et al.*, 2016). Finally, collaboration enhances firm performance (Yue-Ming, 2005). This was also confirmed in entrepreneurship studies. For example, inter-organizational cooperation accompanied by EO dimensions can lead to firm performance (Kusa *et al.*, 2022). Consequently, firms get involved in various types of cooperation with different partners at different levels (Child *et al.*, 2005; Della Peruta *et al.*, 2018; Li *et al.*, 2021). In the tourism context, it is expected to generate 'domino effect' which can be beneficiary for all businesses in the destination (Czernek-Marszałek, 2020a). Owing to this, scholars consider cooperation one of the firm strategies (Nielsen, 1986; Faulkner, 1995) and a foundation for a company's business model (Crick & Crick, 2020). Thus, I hypothesised:

**H4:** Collaborative orientation positively affects firm performance.

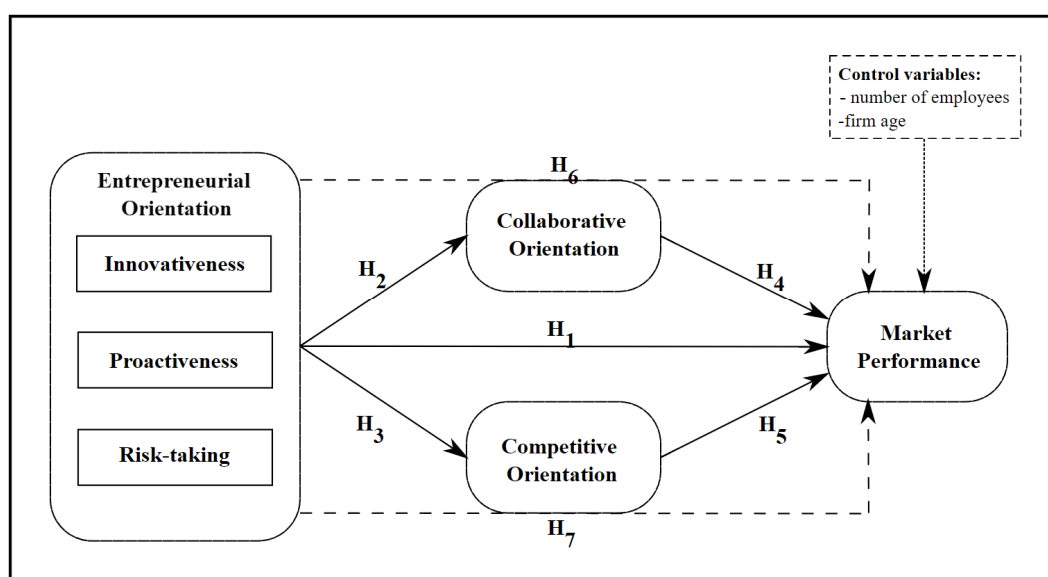
A competitive approach towards other market actors is one of the pillars of an organizational strategy aimed at enhancing competitive advantage (Porter, 1985). For example, in the hospitality industry, competition from neighbouring hotels triggers additional online efforts (Xu *et al.*, 2022). Numerous studies indicate the relationship between competitive behaviours and firm performance (*e.g.* Ajamieh *et al.*, 2016; Schulze *et al.*, 2022), in particular, improving operating performance (Hughes-Morgan *et al.*, 2018), financial performance (Vlas *et al.*, 2022), market position (Lumpkin & Dess, 1996), profitability, and market share (Giachetti, 2016). Consequently, firms develop their competitive methods to increase performance (Powers & Hahn, 2002). This can be enhanced by some negative consequences of social embeddedness, such as limiting the innovativeness of cooperative activities or lowering adaptive abilities, which are observable in the tourism context (Czernek-Marszałek, 2020b). However, the impact of competitive actions can vary depending on firm size. It is stronger in small firms compared to large ones (Weinzimmer *et al.*, 2023). Furthermore, at the embryonic stage of a firm, competitive aggressiveness does not affect firm performance (Hughes & Morgan, 2007). The relationship between competitive aggressiveness and performance can be non-linear (*e.g.* inverted U-shaped; see Andrevski & Ferrier, 2019). Finally, the impact of the competitive approach can be affected by other factors. For example, when accompanied by innovativeness, a competitive approach can lead to firm performance in SMEs (Kusa *et al.*, 2022). Previous research shows that a competitive approach to human resource and IT strategies increases hotel performance (Tavitiyaman *et al.*, 2011). Based on the above, I hypothesised:

**H5:** Competitive orientation positively affects firm performance.

Taking into account associations of collaborating and competing with both EO and performance (they impact performance, but at the same time, they are affected by EO), I propose that they can play a mediating role in the relationship between EO and performance. Some premises of such role was previously reported; for example, the competitive tactics mediate pioneering orientation and new product performance (García-Villaverde *et al.*, 2017). Additionally, relational capital mediates the impact of green innovation strategic orientation on competitive advantage in the hospitality industry (Dang & Wang, 2022). Thus, I hypothesised:

- H6:** Collaborative orientation mediates the impact of entrepreneurial orientation on firm performance.
- H7:** Competitive orientation mediates the impact of entrepreneurial orientation on firm performance.

As stated in the Introduction, organizations can compete and collaborate simultaneously. This encouraged me to propose a theoretical model which includes both collaboration and competition, as well as EO and performance. Figure 1 illustrates the model below.



**Figure 1. Theoretical model**

Source: own elaboration.

## RESEARCH METHODOLOGY

### Sample and Data Collection

I tested the proposed hypotheses and the theoretical model with one- and two-star hotels operating in Poland. I compiled the list based on the Central List of Hotel Facilities provided by the Ministry of Sport and Tourism of the Republic of Poland (2021); according to the List, there were 680 such entities (November 10, 2021). Representatives of one hundred and seventeen hotels provided their responses to the questionnaire in the November – December 2021 period and they constituted the research sample in my analysis.

Among surveyed entities, 20.8% were one-star and 79.2% – two-star hotels. In total, 57.4% provide 20-50 beds, 20.8% – 51-100 beds, and 21.8% – more than 100 beds. Only 23.7% of surveyed entrepreneurs managed more than one hotel and 16.9% of surveyed hotels were associated with a hotel chain. The majority of hotels in the sample were micro (51.5%) and small (44.6%) enterprises. Only 3.9% were medium ones. Moreover, 7.0% have operated for less than six years, 18.8% between 6-10 years, 31.6% between 11-20, 30.7% between 21-30 years, and 11.9% – over 30 years.

### Variables

In this study, firm performance (PERF) was the dependent variable. Other variables were entrepreneurial orientation (EO), external collaborative orientation (COL), and external competitive orientation (COM). In this study, I considered the latter two factors as both independent and dependent variables, as they are associated in different ways with other factors. Entrepreneurial orientation was an independent variable. Entrepreneurial orientation was considered a second-order construct. It includes three constructs, namely, innovativeness, proactiveness, and risk-taking. Table 5 presents the assessment of the EO construct. All variables were indices and consisted of three or four items. Table 1 shows the results of the reliability and validity assessment of each construct. All constructs were based on previous entrepreneurship studies, in particular, performance, EO, and its dimensions were based on the works of Hughes and Morgan (2007) and Kusa *et al.* (2021), and collaborative and competing orientations were based on the study by Kusa, Suder, Baumane-Vitolija (2022). In total, the questionnaire comprised 20 questions related to our variables. I present them in Appendix 1. Each question was assessed on a seven-degree scale, where 1 stands for 'fully disagree' and 7 stands for 'fully agree.'

Moreover, I considered firm age and size as control variables. However, the relevant analysis indicated that they did not significantly affect the relationships examined in the research model. Following the recommendation of Bernerth and Aguinis (2016), they were not included in the final analysis.

### Method

Due to the research model (Figure 1), which reflects the impact of EO on COL, COM, and PERF, as well as the mediating effect of COL and COM on the impact of EO on PERF, it was appropriate to use a statistical method that allows for the assessment of causal relationships including the evaluation of predictive capabilities. Structural equation modelling based on the partial least squares method (PLS-SEM) provides such possibilities. Scholars commonly use this method of data analysis in many disciplines concerned with causal relationships for latent variables (Hair *et al.*, 2022). In particular, PLS-SEM allows for verifying the significance of both direct and indirect (mediated) relationships (Nitzl *et al.*, 2016; Sarstedt *et al.*, 2017; Suder *et al.*, 2023). I conducted the analysis using SmartPLS software version 4.0.8.7.

I conducted the analysis in three stages. In the first stage, I evaluated the measurement model with a particular focus on verifying the correctness of individual constructs (variables). In the second stage, I built a structural model. Owing to the bootstrapping technique, I could verify the significance of path coefficients (both direct and indirect). In the final stage of the analysis, I estimated the type and strength of the mediating effects for the proposed mediators.

## RESULTS AND DISCUSSION

### Evaluation of Measurement Model

To assess the correctness of measuring constructs (variables) using the proposed indicators, a measurement model should be evaluated for its reliability and validity (Klarner *et al.*, 2013). Tables 1 and 2 present the evaluation results.

To verify the reliability and validity of the constructs, I used Cronbach's alpha and composite reliability; Table 1 shows their values. According to Kock and Lynn (2012), the threshold of acceptability for these measures is 0.7. For four of the six constructs, the values of these measures were above the aforementioned threshold, which indicates that the indicators were adequate for building the constructs. For two variables, namely, proactiveness and risk-taking, Cronbach's alphas were slightly below 0.7. However, according to Hair *et al.* (2011), the acceptable level for Cronbach's alpha is 0.6. Thus, I also considered these two constructs to be internally consistent, especially since their values of composite reliability (which is a measure similar to Cronbach's alpha; Netemeyer *et al.*, 2003), were much higher than the recommended threshold of acceptability.

Table 1 also shows the outer loadings of each latent variable and the corresponding average variance extracted (AVE). According to the PLS-SEM methodology, the expected value for loadings is 0.7

while the acceptable value is 0.5 (Hair *et al.*, 2022). Only one outer loading for the proactiveness construct (PR\_1) was slightly lower than the threshold of 0.7, which allowed for considering all indicators as significant. The AVE values for all constructs were higher than 0.5, which confirmed that all considered variables were relevant (Fornell & Larcker, 1981; Kock & Lynn, 2012).

**Table 1. The results of the assessment of constructs and measurement model**

Construct	Item	Outer loadings	Collinearity statistics (VIF)	Cronbach's alpha	Composite reliability (CR)	Average variance extracted (AVE)
Innovativeness	IN_1	0.784	1.435	0.783	0.874	0.698
	IN_2	0.853	1.904			
	IN_3	0.867	1.798			
Proactiveness	PR_1	0.645	1.431	0.66	0.809	0.589
	PR_2	0.844	1.726			
	PR_3	0.798	1.257			
Risk-taking	RT_1	0.745	1.325	0.683	0.821	0.606
	RT_2	0.748	1.361			
	RT_3	0.839	1.301			
Collaborative orientation	COL_1	0.754	1.704	0.826	0.885	0.658
	COL_2	0.885	2.475			
	COL_3	0.834	2.357			
	COL_4	0.766	1.844			
Competitive orientation	COM_1	0.857	1.554	0.745	0.854	0.661
	COM_2	0.785	1.497			
	COM_3	0.795	1.422			
Market performance	PERF_1	0.827	2.257	0.848	0.897	0.685
	PERF_2	0.863	2.521			
	PERF_3	0.824	2.622			
	PERF_4	0.796	2.386			

Source: own elaboration.

To confirm the absence of collinearity of indicators within each construct, I used the variance inflation factor (VIF). According to Diamantopoulos and Siguaw (2006), the problem of collinearity of indicators does not occur if the VIF values are below 3.30. Data presented in Table 1 shows that all items met this criterion.

An important element in verifying the validity of the model is the assessment of the discriminant (differential) validity of the constructs (Iacobucci, 2010; Kock, 2020). I checked the validity based on the Fornell-Larcker criterion and used the heterotrait-monotrait (HTMT) coefficient. According to Fornell and Larcker (1981) and Kock (2015), discriminant validity requires that the square roots of AVE is greater than its correlations with the other constructs in the model. In contrast, according to Henseler *et al.* (2015), latent variables meet the condition of differential validity if values of HTMT coefficients are below 0.85. Results of the discriminant validity presented in Table 2 show that all examined constructs had differential validity.

I used the standardized root mean squared of residuals (SRMR) as a criterion for fitting the model to the data (Henseler *et al.*, 2015). According to Iacobucci (2010) and Kock (2020), the value of SRMR should be below 0.1. Regarding my model, the SRMR was 0.093, which was an acceptable value and confirmed that the model fit the data at a good level.

In my model, I considered EO a second-order construct. Therefore, I followed the recommendations of Diamantopoulos and Winklhofer (2001) and Rasoolimanesh (2022) and determined the collinearity statistics for the outer and inner models. Moreover, I calculated the outer weights for each EO dimension and verified their significance. Table 3 shows the results of this analysis.

The results presented in Table 3 confirm that the EO as a second-order construct is proper in terms of its validity. In particular, for both the outer and inner models, the collinearity statistic had a value

below the recommended threshold (*i.e.* 3.30). Furthermore, the outer weights for each construct were statistically significant ( $p < 0.05$ ) (Ramayah *et al.*, 2018).

**Table 2. Assessment of discriminant validity of the constructs of the Fornell-Larcker and Henseler (HTMT) criterion**

Constructs	Fornell-Larcker criterion						Henseler (HTMT) criterion				
	IN	PR	RT	COL	COM	PERF	IN	PR	RT	COL	COM
IN	<b>0.835</b>										
PR	0.571	<b>0.767</b>					0.754				
RT	0.31	0.276	<b>0.779</b>				0.386	0.366			
COL	0.518	0.528	0.362	<b>0.811</b>			0.639	0.686	0.463		
COM	0.288	0.418	0.372	0.449	<b>0.813</b>		0.361	0.539	0.507	0.564	
PERF	0.314	0.465	0.312	0.472	0.407	<b>0.828</b>	0.378	0.594	0.397	0.56	0.498

Note: elements in bold on diagonal show square roots of AVE.

Source: own elaboration.

**Table 3. Assessment of measurement model of second-order construct**

Second-order construct	Construct	Outer weights	p-value	VIF for outer model	VIF for inner model
Entrepreneurial orientation	Innovativeness	0.411	0.000	1.542	1.176
	Proactiveness	0.506	0.000	1.508	
	Risk-taking	0.372	0.000	1.125	

Source: own elaboration.

The above-presented results of the evaluation of the measurement model and construct validity confirmed that the adopted research model was appropriate for the data used in the study.

### Testing Hypotheses With Structural Model

The bootstrapping procedure with 5000 iterations enabled me to verify the statistical significance of the estimated path coefficients (I used a two-sided test with an assumed limiting test probability of 0.05). For each endogenous variable, I calculated the coefficient of determination ( $R^2$ ); following Cohen (1988) and Kock (2014), a value of this measure above 20% indicates that the model is predictively useful. Moreover, I determined an effect size coefficient ( $f^2$ ) for each direct relationship; it allows assessing the role of individual exogenous variables in explaining the variance of the endogenous variable (Cohen, 1988). In particular, I considered the effect size large for  $f^2 > 0.35$ , medium for  $f^2 > 0.15$ , and small for an effect size above 0.02.

Figure 2 and Tables 4 and 5 provide the results of the analysis for the structural model. Specifically, Figure 2 presents the path coefficients for each relationship (both direct and indirect) with an indication of their significance. Furthermore, Figure 2 presents the coefficients of determination for each endogenous variable. Table 4 provides complete results for direct relationships analysis and Table 5 provides a summary of results for indirect relationships.

All path coefficients had a positive value, which indicates the presence of a positive influence in the investigated relationships. Moreover, all  $\beta$ -coefficients were statistically significant. In particular, the obtained results indicate that EO was a significant determinant of the PERF, COL, and COM in the examined sample. Thus, hypotheses H1, H2, and H3 were confirmed. In the proposed model, EO had the strongest direct effect on COL ( $\beta_2 = 0.615$ ,  $p < 0.05$ ) with a large effect size ( $f^2 = 0.607$ ). Based on the  $R^2$  value, EO explains 37.8% of the COL variance. Moreover, EO is also a significant trigger for entrepreneurs' willingness to compete (for COM  $\beta_3 = 0.468$ ,  $p < 0.05$ ) with a medium effect size ( $f^2 = 0.237$ ). The variability of the COM was nearly 22% explained by EO. The value of the path coefficient for the EO-PERF relationship ( $\beta_1 = 0.248$ ,  $p < 0.05$ ) indicates that more entrepreneurial behaviour (higher level of EO) leads to higher market performance (PERF). However, the effect size was relatively low ( $f^2 = 0.051$ ). The results of this part of the examination are in line with previous studies indicating the role of EO in shaping firm performance (*e.g.* Rauch *et al.*, 2009; Kraus *et al.*, 2012). These results



confirm also previous propositions regarding the impact of EO on both collaboration (e.g. Ribeiro-Soriano & Urbano, 2009; Franco & Haase, 2013) and competition (e.g. Lumpkin & Dess, 1996) on the level of inter-organizational relationships.

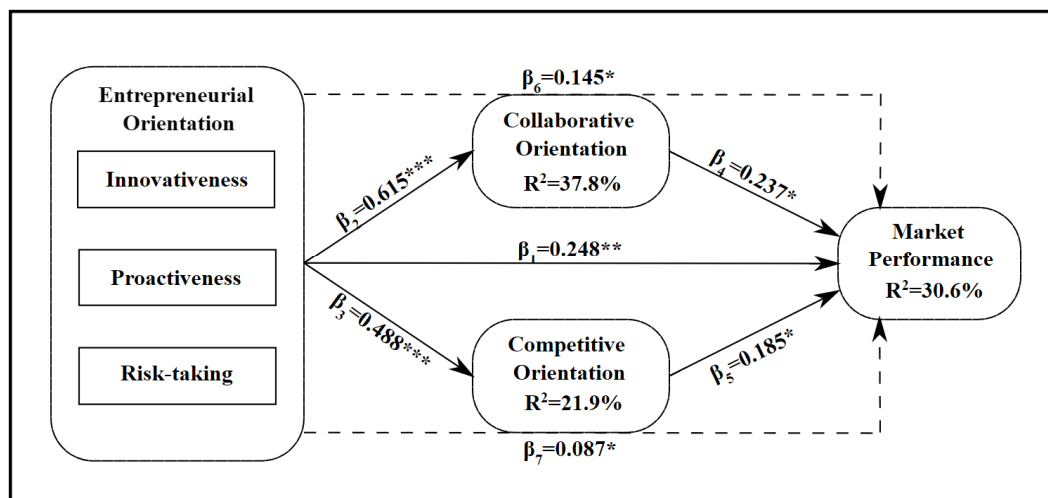


Figure 2. Structural model

Notes: \*\*\* p-value < 0.001; \*\* p-value < 0.01; \* p-value < 0.05.

Source: own elaboration based on survey results.

Table 4. Results for direct effect evaluation

Hypothesis	Path	Original sample (O)	Bootstrapping				f <sup>2</sup>	Hypothesis testing
			Sample mean (M)	Standard deviation (STDEV)	T statistics ( O/STDEV )	P value		
H1	EO→PERF	0.248	0.257	0.089	2.806	0.005	0.051	Confirmed
H2	EO→COL	0.615	0.615	0.055	11.087	0.000	0.607	Confirmed
H3	EO→COM	0.468	0.469	0.071	6.571	0.000	0.281	Confirmed
H4	COL→PERF	0.237	0.23	0.106	2.241	0.025	0.048	Confirmed
H5	COM→PERF	0.185	0.182	0.084	2.211	0.027	0.036	Confirmed

Source: own elaboration.

The results indicate that firm performance is significantly influenced not only by EO but also cooperation and competition. Accordingly, hypotheses H4 and H5 were confirmed. Although COL had a greater impact on PERF than COM ( $\beta_4 = 0.237$ ,  $p < 0.05$  and  $\beta_5 = 0.185$ ,  $p < 0.05$ , respectively), for both variables, the effect size was obtained at a low level. The three variables, namely EO, COL and COM, jointly explain slightly more than 30% of the variance of PERF. These results confirm previous observations regarding the positive impact of both collaboration (e.g. Yue-Ming, 2005; Welbourne & Pardo, 2009; Kusa *et al.*, 2022) and competitive orientation (e.g. Powers & Hahn, 2002; Hughes-Morgan *et al.*, 2018; Kusa *et al.*, 2022) on firm performance. Noteworthy, the results confirm the relevance of tested relationships in the hospitality industry, which corresponds with studies on EO (e.g. Hernández-Perlines, 2016; Tajeddini *et al.*, 2020; Singal & Batra, 2021) and inter-organizational relationships in this industry (e.g. Kallmuenzer *et al.*, 2021; Pham *et al.*, 2021; Tajeddini *et al.*, 2023). As hotels are an important element of each destination, their collaborative behaviours can affect other local players. They can enhance the ‘domino effects’ observed at the local level (Czernek-Marszałek, 2020a). The results can help explain the role of competition in improving performance (as shown by Xu *et al.*, 2022). In the case of hotels, this mechanism can be complex and associated with entrepreneurial behaviours.

### Evaluation of Indirect and Mediating Effects

In addition to direct relationships, this study examined indirect relationships, which enabled me to assess the mediating effect of collaborative and competitive orientation on the relationship between EO and

market performance (Nitzl *et al.*, 2016; Hair *et al.*, 2022). The mediating effect occurs if the significance of the coefficient for the indirect relationship is confirmed (Zhao *et al.*, 2010). In such cases, it is additionally possible to check the type (full or partial) of mediation (MacKinnon *et al.*, 2007). To determine the type of mediation and compare mediation strength (if there are several mediators), I used the VAF (Variance Accounted For) measure (Hair *et al.*, 2017), which is defined as follows:  $VAF = (a \times b) / (a \times b + c') \times 100\%$ , in which  $a \times b$  reflects the indirect effect and  $c'$  reflects the direct effect. VAF takes values between 0 and 100%; the higher value it takes, the greater role of the mediator in the relation (above 80% – full mediation, between 20% and 80% – partial mediation, below 20% – no mediation effect; Helm *et al.*, 2010). The results of the mediation effect evaluation are presented in Table 5.

**Table 5. Results for mediating effect evaluation**

Hypothesis	Path	Original sample (O)	Bootstrapping				VAF	Hypothesis testing
			Sample mean (M)	Standard deviation (STDEV)	T statistics ( O/STDEV )	P value		
H6	EO→COL→PERF	0.145	0.142	0.07	2.081	0.037	36.4%	Confirmed (partial mediation)
H7	EO→COM→PERF	0.087	0.085	0.042	2.079	0.038	25.5%	Confirmed (partial mediation)

Source: own elaboration.

The results presented in Table 5 indicate that both COL and COM are mediators for the EO-PERF relationship. The path coefficients for both mediated relationships were statistically significant, in particular  $\beta_6 = 0.145$  ( $p < 0.05$ ) for COL and  $\beta_7 = 0.087$  ( $p < 0.05$ ) for COM. As the direct relationship (EO-PERF) was also statistically significant, this mediation was partial. Additionally, VAF values confirm the mediating effect; VAF fell within the range of 20-80% for both mediators. Thus, hypotheses H6 and H7 were confirmed. Furthermore, the comparison of the VAF values for COL and COM indicates that the mediating strength of cooperation is greater than that of competition. This finding is contrary to a general understanding that competition is more entrepreneurial than cooperation (*e.g.* Lumpkin & Dess, 1996; Markin *et al.*, 2017). However, this also shows that the role of both behaviours can be complex (as indicated previously by García-Villaverde *et al.*, 2017 and Dang & Wang, 2022). This is also somehow in line with studies that suggest that entrepreneurial studies can benefit from the inclusion perspective of coopetition (Soppe *et al.*, 2014; Bouncken *et al.*, 2015; Galkina & Lundgren-Henriksson, 2017; Kusa, 2020). Similarly, the findings correspond with previous studies on tourism management (Czernek-Marszałek, 2019), indicating the mediating role of cooperation in low-category hotels. Finally, this finding confirms that the impact of EO on firm performance can be indirect and can be affected by other factors (in this case, mediated by the type of relationship with other entities). With this finding, the study joins a research stream that focuses on the determinants of this relationship and intends to clarify the ambiguity regarding the relationship between EO and performance (*e.g.* Rosenbusch *et al.*, 2013; Hernández-Perlines, 2016; Wójcik-Karpacz *et al.*, 2019).

## CONCLUSIONS

The study aimed to determine the relationship between EO, collaboration, competition, and firm performance, with a special focus on the mediating role of inter-organizational cooperation and competition in the relationship between EO and firm performance. The most original finding unveiled the mediating role of both competitive and collaborative orientation in the relationship between EO and firm performance. In both cases, mediation was partial. This allows me to posit that collaborative behaviours can be as important as cooperative ones in transforming entrepreneurial approach into performance, which sheds new light on our understanding of entrepreneurial behaviours and suggests revising these operationalisations of EO that highlight the role of competing behaviours and omit collaborative actions. Furthermore, the findings confirm the positive impact of EO on competitive orientation and collaborative orientation, as well as the positive impact of these three factors (EO, COM, and COL)

on firm performance. With these findings, the study contributes to the literature on entrepreneurship and inter-organizational relationships. Furthermore, the study adds value to the tourism management literature by explaining the relationships examined in low-category hotels.

This study offers implications for both researchers and practitioners and suggests considering inter-organizational relationships as a factor that can enhance entrepreneurial efforts. Thus, inter-organizational relationships can play an important role in managerial practice and be a subject of research focused on organizational entrepreneurship. The results indicate that hoteliers should improve both collaborative and competitive abilities along with their entrepreneurial skills and use them concurrently to maximize their gains.

However, when applying the presented results, several limitations should be considered. I obtained the results based on the examination of a homogeneous sample (small one- and two-star hotels operating in one country). Therefore, in the case of other companies, the results may differ from those presented in this study. Moreover, it is necessary to take into account the applied operationalization of the tested phenomena, especially collaborating and competing; the use of other operationalisations, which would expose other aspects of these phenomena, can lead to differing results. Finally, there may be more relationships than just the unveiled ones (for example, moderating roles of collaborating or competing); the size of the sample surveyed in this study allowed for testing only selected hypotheses. The above limitations indicate directions for further research exploring the role of inter-organizational relationships in entrepreneurial activities. In particular, I recommend conducting similar research in other contexts (*e.g.* in terms of industry, location, organization type). In the tourism context, studies focused on hotels of other categories (including accommodations that are not classified) or family-owned hotels can be relevant to get a full picture of the role of entrepreneurial, collaborative, and competitive orientations in the hospitality sector. The inclusion of other variables that can affect the tested relationships is also recommended as they can help to explain the contingencies related to the tested model. Finally, I recommend further testing and improvement of the constructs used (especially those reflecting cooperation and competition). Such research would make it possible to confirm the relationships indicated in this study, which could provide a basis for formulating new proposals in the field of inter-organizational relationships and entrepreneurship theory.

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### Appendix A: Constructs' items

#### Innovativeness

- Our organization seeks out new ways to do things.
- We actively introduce improvements and innovations in our organization.
- Innovation is the source of our success.

#### Proactiveness

- We analyze our external environment.
- We strive to identify future trends.
- We initiate actions to which other organizations respond.

#### Risk taking

- When we see an attractive opportunity, we follow it regardless of the accompanying risk.
- The term 'risk taker' is considered a positive attribute for people in our business.
- Relative to our competitors, we pursue high-risk opportunities oftener.

#### Collaborative orientation

- We are more collaborative than our competitors.
- We take advantage of collaboration when we launch new products on the market.
- We take advantage of collaboration when we introduce new processes.
- We perceive collaboration as facilitator of our development.

#### Competitive orientation

- In general, our organization takes a bold or aggressive approach when competing.
- We try to undo and out-manuever the competition as best as we can.
- We are more competitive than our competitors.

#### Market Performance


- Relative to competing products, our products are more successful in terms of sales.
- Relative to competing products, those of our business achieve and maintain a higher market share.
- Relative to our competitors, our income is greater.
- Relative to our competitors, our profit is greater.

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### Conflict of Interest

The author declares that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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