



Analysis of Company Operational Performance Using an Entrepreneurial Orientation Measurement Scale

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Abstract: The purpose of this research is to explore the relationship between entrepreneurial orientation (EO) and performance in Colombian companies. Previous research has shown that the dimensions of EO are positively related to company performance. Although EO models are available and have been validated for other countries, such validation is missing for Colombia. One of the instruments measuring three dimensions and nine variables of EO was applied to a population of 144 company representatives—executives in Cartagena, Colombia. The data was analyzed using structural equation modeling, showing strong internal consistency and construct coherency. The results indicate these Colombian companies—either deliberately or unintentionally—are strongly aligned and derive benefits from EO principles. The contribution of this article is to validate EO for Colombia and encourage further studies of company performance throughout Latin America.

Keywords: *Entrepreneurial Orientation, Innovation, Proactivity, Risk, Colombian Companies*

Introduction

A review of the competitive landscape and company performance around the world shows Innovation as a key attribute of survivability during global turbulent times (Fachrudin et al. 2021). As a global business practice, senior management's efforts as performance orientations allow the development of market advantages that catapult them to stronger competitive positions (Tien 2019). Although some aspects of a company's performance orientation remain unexploited, companies can still thrive. Even in Latin America, despite attaining some advances, there is still much to be achieved in terms of performance orientation, especially under disturbed global conditions (Escandon, Vargas, and González-Campo 2013).

A company's entrepreneurial orientation (EO) is crucial to its performance (Alarape 2013; Lumpkin and Dess 1996; Khedhaouria, Gurău, and Torrès 2015; Uddin, Bose, and Yousuf 2014; Wang 2008). EO is demonstrated by the degree to which its top management is willing to assume an entrepreneurial approach as a business practice to gain a competitive advantage (Naldi et al. 2007). Companies that are already well established tend to have a high level of EO due to their commitment to generating product-market innovations and their

inclination toward attempting new endeavors (D. Miller 2011). This disposition, for its part, determines the nature, complexity, and outcomes of strategic-level activities.

This research aims to design and validate the EO construct for Colombia while exploring the relationship between EO and performance potential in Colombian companies. The EO construct is tested using a sample of 144 companies from the Cartagena region. More specifically, this research assesses the influence of innovation, risk, and proactivity as EO factors using structural equation modeling. The data collected is used to substantiate the applicability of EO dimensions, their effects on senior executive decision-making behaviors, and the effectiveness of the programs and projects resulting from their judgments.

Overview of Strategic Orientations

In recent years, the literature on management and business strategy has been paying less attention to organizational efficiency and more attention to other strategic approaches such as “best practices” and innovation efforts (Barsh, Capozzi, and Davidson 2008). Competing solely on operational efficiency is no longer an option for companies since “best practices” can be replicated by competitors. Consequently, the advantage obtained from these practices is primarily transitory as new challenges and practices emerge continuously over time (Zhou and Robinson 2005).

Other than the “best practices” and pushing innovation, companies approach their strategic orientation in other ways. Some of these orientations include family orientation (Basco and Rodríguez 2011), marketing orientation (Avlonitis and Gounaris 1999), service orientation (Antioco et al. 2008), product orientation (Elder and Krishna 2012), customer orientation (Arnold and Palmatier 2011), and EO (Al Mamun and Fazal 2018). This last approach to strategic success is of interest to this research.

The use of EO for designing strategy is well established in the literature and refers to the processes, practices, and styles of businesses that manage their operations according to entrepreneurship principles (Lumpkin and Dess 1996). Some of the advantages of this approach include providing a competitive advantage (Sirivanh, Sukkabot, and Sateeraroj 2014), a significant factor in determining branding decisions for emerging markets (Reijonen et al. 2015), in formulating franchise relationships (Watson et al. 2019), guidance for start-up leadership (Kee and Rahman 2018), a way to assess microenterprise performance (Al Mamun and Fazal 2018), manufacturing policy (Lee, Chong, and Ramayah 2018), and managing uncertainty avoidance (Swierczek and Ha 2003).

Within the strategic literature, the two most mentioned long-term planning devices are Porter’s (1985) typology, which deals with the strategic positioning of the company within the industry, and the typology of Miles et al. (1978), which includes a proactive perspective of long-term planning that integrates structure, strategy, and processes. These typologies become models that serve as the basis for business decision-making. Both approaches share a deductive nature but have differences in the layout of structural archetypes and theoretical modeling (Hill and Jones 2015).

The Miles et al. (1978) typology establishes organizational configurations from a more holistic perspective, providing a richer description of the organizational characteristics associated with each strategy. In this sense, the typology of Miles and Snow considers strategy as a framework of decisions and actions, which would be aimed at maintaining, on the one hand, the coalignment of the organization with the environment and, on the other hand, its central internal interdependencies. The Porter (1985) model—despite being the most popular expression of the structure–conduct–results paradigm—takes a heavily structuralist approach to firm–environment coalignment. This is unlike the model from Miles et al. (1978), which assumes a contingent perspective of the organization–environment fit (Camisión, Garrigós, and Palacios Marqués 2007). The typology of Miles and Snow takes as its theoretical core a voluntarist or strategic choice approach (Miles et al. 1978).

This line of thought criticizes the determinism inherent in structuralist approaches, arguing instead that organizations frequently adopt different structural responses to fit the environment. It presents three challenges that require management attention: entrepreneurial, engineering, and administrative (Miles et al. 1978). The entrepreneurial challenge refers to how the organization is oriented toward the market, focusing on how it chooses its competitive opportunities. The engineering challenge consists of designing a system that allows an operational response stemming from the entrepreneurial challenge. Finally, the administrative challenge refers to how the organization rationalizes and stabilizes its activities to solve previous difficulties and how it manages the formulation and implementation of planning, coordination, control, and hiring processes that make the organization capable of evolving (i.e., innovation).

The entrepreneurship approach is well recognized in the literature as a long-term planning device for promoting and sustaining business performance (Schöllhammer 1982; Burgelman 1984; Guth and Ginsberg 1990; Zahra 1991). Some of its main objectives are the strategic renewal of the organizational responses (Guth and Ginsberg 1990), pursuing knowledge to achieve new sources of income in the future, attaining success in an international context (Birkinshaw 1997), seeking competitive advantages (Covin and Miles 1999), securing profitability (Zahra 1991), and developing innovations (Rouvinen 2002).

The literature notes that companies with an EO have two different forms: a venture capital business initiative or a strategic venture (Morris, Kuratko, and Covin 2010). On the one hand, a venture capital business initiative implies an entry into a new market, generally associated with creating a new company (Kuratko 2010). On the other hand, strategic ventures can be understood simultaneously in terms of opportunity and advantage-seeking behaviors to find a competitive advantage (Arzubiaga, Iturralde, and Maseda 2012). Naman and Slevin (1993) observed that some of the primary factors for these approaches are the ability of companies to innovate, initiate change, and react quickly to change. These are the main characteristics that distinguish an entrepreneurial company from other orientations.

Accordingly, EO has become one of the expanding and promising research topics in the field of company performance (George and Marino 2011). Since the 1980s, measuring a

company's degree of entrepreneurship has emerged as an extension of business strategy formulation. D. Miller (2011) developed an EO construct as a method of assessing company entrepreneurial activity (Naldi et al. 2007). Lumpkin and Dess (1996) make a basic distinction between these two forms of entrepreneurship: while traditional entrepreneurship emphasizes the "new entrant," that is, with a broader set of variables typically described in a business plan, the EO seeks performance enhancements of established businesses.

The EO associated with performance uses a dimensional approach. D. Miller (2011) defined this form of EO as a construct made up of three primary dimensions: innovation, risk, and proactivity. A few years later Miller's 1983 initial formulations, Covin and Slevin (1989, 3) refined the model, stating that "the entrepreneurial orientation of a company is demonstrated by the degree to which top management is willing to assume the risks related to the company (Risk dimension), to obtain a competitive advantage for the company (Innovation dimension), and compete aggressively with other firms (Proactivity dimension)."

Lumpkin and Dess (1996) include two additional dimensions to the EO construct: competitive aggressiveness and autonomy. According to these researchers, the five dimensions are complementary to each other and defined EO as "the decision-making processes, practices, and activities that lead to new (market) entry" (Lumpkin and Dess 1996, 136). Thus, while autonomy is intended as a strategy, Lumpkin and Dess's (1996) definition of EO limits the application of these additional dimensions to newly established companies.

For this study, the D. Miller (2011) dimensional approach is selected with its emphasis on three core dimensions, namely, innovation, risk, and proactivity. An instrument to measure these dimensions was adapted and translated into Spanish by Etchebarne, García Cruz, and Geldres (2008).

The first dimension of EO is innovation, which is considered a means to achieve growth (Rouvinen 2002). Here, Herskovits, Grijalbo, and Tafur (2013) emphasize the importance of innovation as a fundamental element for the creation of value over time. These authors also point out that innovation has been recognized as the most relevant element in the formulation of competitive advantages. Likewise, the proper management of innovation is recognized as a determining factor in the success and continuity of organizations and explains the ability of some companies to maintain competitive advantages over time (Miller, Fern, and Cardinal 2007).

As the second dimension, risk means taking audacious activities such as venturing into new business opportunities, targeting employment, and applying resources to new endeavors with high uncertainty (Rauch et al. 2009). In other words, risk describes the degree of management's willingness to commit to options, although the decisions have a considerable probability of failure (Lumpkin and Dess 1996). This dimension refers to a nonconservative view of decision-making and the achievement of organizational objectives, often involving significant investments (Covin and Slevin 1989; Venkatraman 1989). The dimension of risk goes hand in hand with innovation since it involves bold actions and the commitment of significant resources under higher than normally accepted risks (Rauch et al. 2009) with the

expectation of obtaining high returns (Lumpkin and Dess 1996). Finally, D. Miller (2011) states that a risk-averse company cannot be entrepreneurial, even if it seeks to “innovate” to imitate its competitors.

The third dimension that forms the EO construct is proactivity which refers to the ability to take initiative in anticipation of emerging market trends (Wales, Patel, and Lumpkin 2013). Venkatraman (1989, 949) describes proactivity as processes that anticipate and operate on future needs by “searching for new opportunities that may or may not be related to the usual line of action, the introduction of new products and brands ahead of the competition, and the elimination of operations that are strategically in the maturing or declining stages of the life cycle.” Proactivity can be understood as a prospect based on the continuous study of the environment where companies foresee opportunities to make available new products or services and shape the course of the market (Hughes, Hughes, and Morgan 2007).

Colombian businesses face significant challenges affecting operational performance, and therefore, there is a need for performance models and assessments such as EO to optimize their organizations. While Colombia has a relatively large labor force, the labor market could be challenging due to rigid labor laws, high nonwage labor costs, and labor disputes (Mondragón-Vélez et al. 2010). Access to financing, especially for small- and medium-sized enterprises, is problematic. Many businesses face hurdles in obtaining loans or credit at reasonable interest rates (Stephanou and Rodriguez 2008). The Colombian peso is subject to volatility, which affects the cost of imports and exports and the financial stability of businesses engaged in international trade (Cao-Alvira 2014). While Colombia has progressed in technology adoption and innovation, some businesses might still face challenges in accessing the latest technologies and fostering a culture of innovation (van Klyton, Tavera-Mesías, and Castaño-Muñoz 2021). Corruption has been a significant challenge in Colombia, impacting businesses through bribery, red tape, and regulatory hurdles (Poveda 2015). Increasing environmental and social responsibility awareness means businesses need to adapt their operational practices to meet evolving consumer and regulatory expectations (Aranguren Gómez and Maldonado García 2022).

A preliminary investigation into the use of EO in Colombia shows it has not been easy for companies to take advantage of the entrepreneurship approach. The results of previous studies have observed weaknesses in structural designs, lack of clarity in strategies, difficulties with short-term financial planning, and investments made without adequate evaluations. Other factors include difficulties in accessing financing, lack of knowledge of economic regulation, and unawareness of the options offered by the State for the financing of technological modernization and innovation (Barriga 1998; Cardona and Gutiérrez 2010).

Although the EO construct has been validated for other countries (Lumpkin and Pidduck 2021), such validation is lacking for Colombia. This research aims to validate the EO construct for Colombia and explore the relationship between EO and performance potential in Colombian companies.

Methodology

The instrument used for this research is an adaptation from D. Miller (2011), validated and translated into Spanish by Etchebarne, García Cruz, and Geldres (2008). The instrument is made up of the three dimensions proposed by Miller (innovation, proactivity, and risk) where each of the dimensions is measured with three variables (see Figure 1). Innovation is made up of three variables: Variable 1 measures the number of new products or services that the company has marketed in the last five years. Variable 2 measures the level of changes in product and service lines in the last five years. Variable 3 measures the emphasis of senior management either on the commercialization of already proven products or services or on research, technological leadership, and innovation. Proactivity is made up of three variables: Variable 1 measures the company’s competitive attitude in terms of introducing new products/services, administrative techniques, and technologies. Variable 2 measures the competitive position of the company against the competition. Variable 3 of proactivity measures the way the company acts in terms of initiating or responding to actions concerning competitors. Risk is also made up of three variables: Variable 1 measures the preference for taking risks in projects. Variable 2 measures the way of taking risks in terms of the characteristics of the environment. The variable of risk measures decision-making that involves chance.

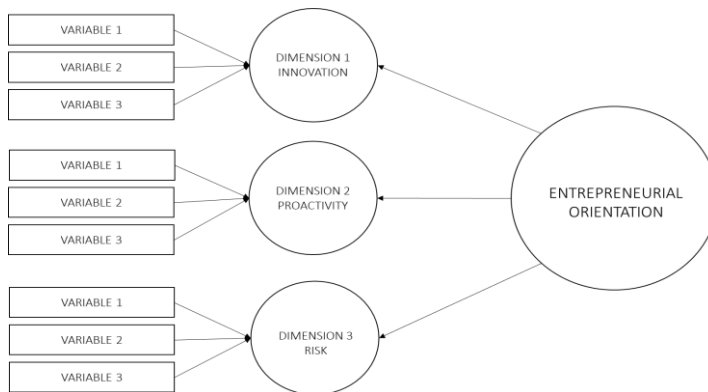


Figure 1: Entrepreneurial Orientation Model

Source: Rojas et al.

A pretest was carried out with the first thirty-four data submissions to assess the internal consistency of the instrument before moving forward. This analysis used was Cronbach’s Alpha which showed a strong internal consistency of $\alpha = 0.821$ (see Table 1). With this confidence, the instrument was applied to the remaining informants.

Table 1: Reliability Statistics, $n = 34$

<i>Cronbach’s Alpha</i>	<i>Cronbach’s Alpha (Based on Standardized Elements)</i>	<i>No. of Elements</i>

0.821	0.823	9
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Source: Rojas et al.

To evaluate the impact of the factors of innovation, risk, and proactivity in EO, a confirmatory factorial analysis (CFA) was applied using structural equation models (SEM). CFA is a multivariate statistical procedure that is used to test how well the measured variables represent the number of constructs. Additionally, the SEM allows the incorporation of unobserved variables (latent) that are measured indirectly by a set of observed variables or indicators (Chin 1998). The goal of SEM is to model the relations between measured and latent variables, or between multiple latent variables (Mueller and Hancock 2008). In this case, there are two latent variables or constructs (i.e., variables that are not measured straightforwardly). On one hand, there is the EO construct, which is considered to be an endogenous latent variable because it explains the model. On the other hand, there are three dimensions considered in the theoretical model (i.e., innovation, proactivity, and risk), which are deemed exogenous latent variables since they are meant to explain EO.

In terms of modeling, SEM employs a type of diagram named path model to represent the hypothesis and the relations among variables. The constructs are represented in path models as circles (i.e., EO, innovation, proactivity, and risk). Also, there are indicators, the so-called items or observed variables that are represented in the shape of squares or rectangles; here, these observed variables are embodied in the nine items described to measure the three dimensions considered in the theoretical model. The relation between construct and between constructs and indicators is represented by unidirectional arrow lines, revealing a predicted relation. When there is a strong theoretical basis, these lines can be interpreted as causal relations.

Furthermore, a path model is made up of two elements. First, there is a structural model composed of constructs (circles); this model shows the links or paths between the different constructs. Second, there are the measurement models. These models reflect the relations between constructs and the indicator variables. The error terms are connected to the constructs (endogenous) and are reflected in the path model through variables with unidirectional arrows; these error terms represent the unexplained variance when estimating the path models.

A goodness-of-fit test is performed as a final step of the methodology. The R^2 (or the coefficient of determination) refers to a statistical measure that establishes the proportion of variance in the dependent variable that can be explained by the independent variable (Hair et al. 2014). Said differently, R^2 determines how well the data accommodates a regression model. All statistical analyses were performed with SPSS.

Analysis and Discussion

The EO instrument was administered to executive managers selected from multiple sectors. The sample consisted of 144 companies from sixteen different businesses within the city of Cartagena. Companies from the commerce sector had a significant representation in the sample, with 18.8 percent, followed by companies from the Industrial (14.6%) and Financial

Services (11.1%) sectors. Within the sample, 60 of the 144 companies have been operating in the market for more than fifteen years (mature), 23 companies between eight and fifteen years (established), 38 companies between three and seven years (young), while there were 23 companies less than three years of operations (nascent). Regarding the number of employees, 28 percent of the sample consists of large companies (250 or more), 26 percent are medium-sized (between 50 and 250), 21 percent are small business, and 25 percent are micro businesses. From a volume of sales perspective, 19 percent of those surveyed indicated that their companies invoice more than 50 million dollars a year (large), a comparable amount for medium-sized companies (between 10 and 50 million dollars), 27 percent between 2 and 10 million (small), and 35 percent up to 2 million (microbusinesses). Finally, the distribution of assets of these companies shows that 22 percent have assets for more than 43 million dollars (large), 19 percent between 10 and 43 million dollars (medium), 23 percent between 2 and 10 million (small), and 36 percent of companies reported up to 2 million dollars (microbusinesses).

The descriptive statistics of the sample are presented in Table 2. From this table, it can be observed that proactivity and risk show mean values of over 4.0 on all respective variables, with “competitive position” within proactivity as the highest. The lowest values are within the innovation scale, the lowest being “changes in product or services lines” (mean = 3.67; standard deviation = 1.50). This indicates a diminished effort for innovation compared to the values of the other dimensions. Regarding proactivity, the item with the highest value is the one related to competitive posture (mean = 4.29; standard deviation = 4.26), and from the assumption of risk, the item with the highest value is decision-making (mean = 4.20, standard deviation = 1.51). Note that the standard errors are within a range of 0.12 and 0.15. Since skewness is between -0.5 and 0.5 and kurtosis shows low values, the data is considered normally distributed for each dimension and therefore, appropriate for further statistical analysis.

As a first measure, the relationships of the construct items are established, that is, the relationship of the factor loads of the observable variables with each of the constructs to which they belong is evidenced. Subsequently, the variances between the constructs that explain the EO are determined and are presented in Figure 2. The three dimensions considered to measure the construct of EO are innovation, proactivity, and risk. Each of these dimensions consists of three observable variables or indicators that allow determining the effective relationship between each dimension and the EO of the analyzed companies. The data from each dimension and respective variables are presented next.

Table 2: Descriptive Results for the EO Construct ($n = 144$)

Descriptive	Innovation			Proactivity			Risk		
	New P/S	changes In P/S lines	Emphasis of senior management	Intro. Novelties	Competitive position	Competitive action	Risks in projects	Assumption of risk	decision-making
Mean	3,99	3,67	3,76	4,11	4,29	4,26	4,03	4,14	4,20
Standard Error	0,14	0,13	0,15	0,14	0,13	0,14	0,13	0,12	0,13
Median	4	4	4	4	4	4,5	4	4	4
Mode	3	4	4	4	5	5	5	4	4
Standard deviation	1,68	1,50	1,82	1,69	1,55	1,71	1,50	1,45	1,51
Sample Variance	2,82	2,25	3,31	2,85	2,39	2,94	2,26	2,09	2,27
Kurtosis	-0,68	-0,32	-0,88	-0,81	-0,50	-0,60	-0,47	-0,03	-0,56
Skewness	0,07	0,13	0,16	-0,23	-0,14	-0,39	-0,01	-0,19	0,02
Range	6	6	6	6	6	7	6	6	6
Minimum	1	1	1	1	1	0	1	1	1
Maximum	7	7	7	7	7	7	7	7	7
Sum	575	528	542	592	618	614	580	596	605
Count	144	144	144	144	144	144	144	144	144

Source: Rojas et al.

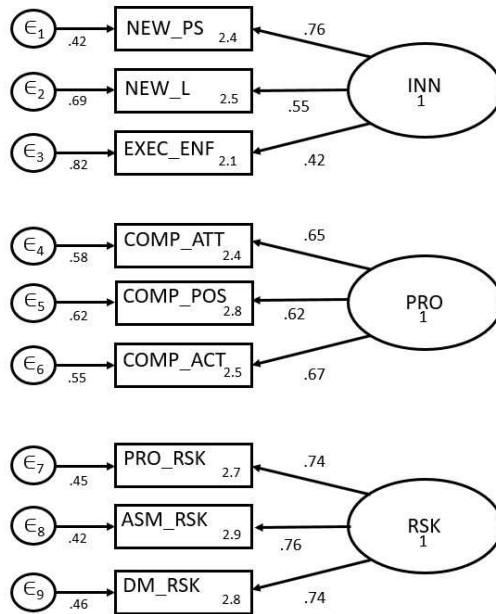


Figure 2: Estimated SEM for EO Dimensions

Source: Rojas et al.

The results from Figure 2 show a strong relationship between the innovation dimension and each of its variables. Specifically, the relationship between the number of new products or services that the company has marketed in the last five years (NEW_PS) and innovation is 0.76, the level of changes in products and service lines in the last five years (NEW_L) is 0.55, and executive emphasis on innovation (EXEC_ENF) is 0.42. The variance of the observable variables for the risk dimension presented values greater than 0.70 (PRO-RSK = 0.74; ASM_RSK = 0.76; DM_RSK = 0.74) and the proactive variables had values within the 0.60 range (COMP_ATT = 0.65; COMP_POS = 0.62; COMP_ACT = 0.67). Therefore, these results

suggest a “moderate-to-strong” relationship with each dimension. The measurement error for each of the observable variables (represented by the letter Epsilon) is inversely proportional to the parameter’s value that explains the relationship with each dimension.

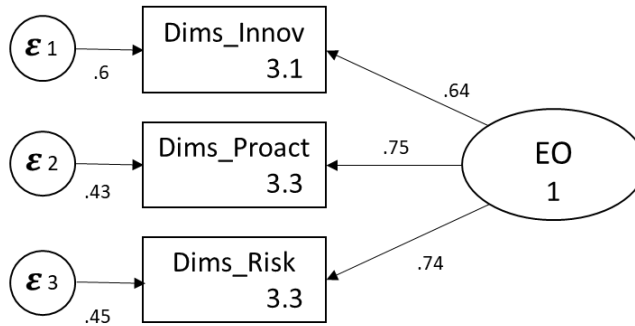


Figure 3: Estimated Structural Equation Model
 Source: Rojas et al.

Once the dimensions of innovation, proactivity, and risk have been explained through each of their respective observed variables, the effect of the dimensions on the EO construct is presented in Figure 3 as a result of an R^2 analysis. The R^2 shows the percentage of the variance of the dependent variable concerning the independent variables. Thus, 64 percent of the sample’s activities are related to innovation, 75 percent to proactive endeavors, and 74 percent to risk actions. Overall, the data from the sampled companies demonstrated a moderate-to-substantial fit with the EO construct.

The purpose of this research was to validate the EO construct for Colombia and explore the relationship between EO and performance potential in Colombian companies. Accordingly, the results of Cronbach’s Alpha and structural equation modeling show a strong internal consistency and construct coherency, suggesting that the EO construct is valid for Colombia.

When comparing EO performance with operational performance, the data indicates these Colombian companies—either deliberately or unintentionally—are strongly aligned and derive benefits from EO principles. Despite this healthy alignment, the data also detected an area of performance improvement. The value for the innovation dimension is relatively low (0.64) and points to a developmental opportunity for these companies. The fact that risk (0.74) and proactivity (0.75) are high values provides the prospect and a take-charge disposition to promote strategies for new products or services as a performance enhancer. However, the data shows a low value of executive emphasis ($Exec\ Enf = 0.42$) within the innovation dimension. Whether this adversity to executive emphasis is a consequence of hiring practices, training, economics, culture, or other factors still needs to be determined.

Just as we have identified in the present study, other research on EO has also uncovered comparable performance observations leading to improved operational development. For example, using data from 213 medium-to-large firms, Wang (2008) found that a learning orientation (LO) is a significant factor in maximizing EO effectiveness. In another study,

Richard et al. (2004) found that some EO factors negatively moderated relationships for racial and gender heterogeneity within a firm. In a study of 267 small business owners from eleven small-to-medium businesses, Runyan, Droge, and Swinney (2008) demonstrated that EO predicts performance more in businesses less than ten years in operation but less predictable in businesses over ten years. Tang et al. (2007) were able to determine that EO is stronger among state-owned companies when compared to privately owned companies. Rezaei and Ortt (2018) collected data on 279 high-tech enterprises and found a positive relationship between innovativeness and R&D performance, proactiveness, and marketing and sales performance, but a negative relationship between risk-taking and production performance.

Various practical and theoretical implications arise from our study. First, a valid and reliable instrument constructed with Colombian firms is available as an assessment tool to assist local companies in discovering performance improvements. This study also confirms what the literature has suggested is the value of EO as a performance assessment tool (Rauch et al. 2009) and provides another reference that helps promote research on building an international enterprise orientation construct (Ahmed and Brennan 2019). EO assessments can also provide insights into executive and manager attitudes (Bolton and Lane 2012) and as a basis for measuring academic performance (Gorostiaga et al. 2023).

There are several limitations and delimiters associated with this research. Ideally, comparing a sample of high-performance and low-performance companies and companies of different sizes would have provided a more definitive understanding of EO value as an actual versus potential performance device. Also, this research was conducted with companies from multiple sectors. The sample used has representation from the finance, manufacturing, public, technology, and logistics sectors. It is unclear in the literature if EO as a performance tool is sector-sensitive. For example, to what degree does EO apply to nonprofit or faith-based organizations? Additionally, the data was unable to identify reasons for observable high and low values. It is worth investigating if the lower scores of executive interest (Exec_Enf) are prevalent throughout Colombia or if it is a regional phenomenon. Finally, validating the EO construct in other Latin American countries contributes to a wider acceptance of the construct. Many of these observations remain as future areas of study.

Summary and Conclusion

The data results from 144 companies in the Cartagena region demonstrated internal consistency and construct coherency of EO, albeit noted limitations. Overall, the data from the sampled companies demonstrated a moderate-to-substantial fit with the EO construct, especially along the risk and proactivity dimensions.

This research also revealed areas of strengths and potential areas of improvement. Proactivity, which refers to the ability to take initiative in anticipation of emerging market trends, is reflected as a strong strategic attribute. Since this resulted in the highest value, it suggests these Colombian companies strategize by taking active roles in the market rather

than just responding to marketing trends. This provides opportunities to develop and introduce new products or services as pioneers and shape the direction of the market (Hughes, Hughes, and Morgan 2007). Along with proactivity, the Colombian companies sampled also show high risk-taking values and a willingness to take nonconservative views in their decision-making and organizational objectives (Covin and Slevin 1989). Finally, innovation is considered a means to achieve growth (Rouvinen 2002). Yet the values for this dimension are the lowest of the three. Although innovation has been recognized as a determining factor in the success and continuity of organizations (D. J. Miller, Fern, and Cardinal 2007), Colombian companies could benefit is more deliberate strategizing for innovation, especially as it relates to executive emphasis.

In summary, EO has become one of the expansive and promising strategy devices and research topics in the field of company performance (George and Marino 2011). EO is demonstrated by the degree to which its top management is willing to assume an entrepreneurial approach as a business strategy to improve performance and gain a competitive advantage (Naldi et al. 2007). Despite attaining some advances in Latin American countries, there is still much to be achieved in terms of performance orientation, especially under disturbed global conditions (Escandon, Vargas, and Gonzalez 2013). Strategizing along the EO is promising for Colombian companies and the rest of Latin America.

Informed Consent

The authors have obtained informed consent from all participants.

Conflict of Interest

The authors declare that there is no conflict of interest.

REFERENCES

- Ahmed, Farhad Uddin, and Louis Brennan. 2019. "Performance Determinants of Early Internationalizing Firms: The Role of International Entrepreneurial Orientation." *Journal of International Entrepreneurship* 17:389–424. <https://doi.org/10.1007/s10843-019-00250-7>.
- Alarape, Aderemi Ayinla. 2013. "Entrepreneurial Orientation and the Growth Performance of Small and Medium Enterprises in Southwestern Nigeria." *Journal of Small Business & Entrepreneurship* 26 (6): 553–577. <https://doi.org/10.1080/08276331.2014.892308>.
- Al Mamun, Abdullah, and Syed Ali Fazal. 2018. "Effect of Entrepreneurial Orientation on Competency and Micro-Enterprise Performance." *Asia Pacific Journal of Innovation and Entrepreneurship* 12 (3): 379–398. <https://doi.org/10.1108/APJIE-05-2018-0033>.
- Antioco, Michael, Rudy K. Moenaert, Adam Lindgreen, and Martin G. M. Wetzels. 2008. "Organizational Antecedents to and Consequences of Service Business Orientations

- in Manufacturing Companies.” *Journal of the Academy of Marketing Science* 36 (3): 337–358. <https://doi.org/10.1007/s11747-008-0085-1>.
- Aranguren Gómez, Nagore, and Stella Maldonado García. 2022. “Building Corporate Reputation through Corporate Social Responsibility Disclosures. The Case of Colombian Companies.” *Corporate Reputation Review* 1–25. <https://doi.org/10.1057/s41299-022-00155-7>.
- Arnold, Todd J., and Robert W. Palmatier. 2011. “The Effects of Customer Acquisition and Retention Orientations on a Firm’s Radical and Incremental Innovation Performance.” *Journal of the Academy of Marketing Science* 39 (2): 234–251. <https://doi.org/10.1007/s11747-010-0203-8>.
- Arzubiaga, U., T. Iturralde, and A. Maseda. 2012. “La Medición de la Orientación Emprendedora en las Empresas Familiares: Una Revisión Crítica de la Literatura.” *Revista de Empresa Familiar* 2 (2): 57–71. <https://doi.org/10.24310/ejfb.ejfb.v2i2.4029>.
- Avlonitis, George J., and Spiros P. Gounaris. 1999. “Marketing Orientation and Its Determinants: An Empirical Analysis.” *European Journal of Marketing* 33 (11/12): 1003–1037. <https://doi.org/10.1108/03090569910285896>.
- Barriga, Enrique. 1998. “La Gestión de la Pequeña y Mediana Industria en los Países Miembros del Grupo Andino.” *Módulo País Colombia*. Universidad EAFIT. <http://hdl.handle.net/10784/29752>.
- Barsh, Joanna, Marla M. Capozzi, and Jonathan Davidson. 2008. “Leadership and Innovation.” *McKinsey Quarterly* 1:38–47.
- Basco, Rodrigo, and María José Pérez Rodríguez. 2011. “Ideal Types of Family Business Management: Horizontal Fit between Family and Business Decisions and the Relationship with Family Business Performance.” *Journal of Family Business Strategy* 2 (3): 151–165. <https://doi.org/10.1016/j.jfbs.2011.07.004>.
- Birkinshaw, Julian. 1997. “Entrepreneurship in Multinational Corporations: The Characteristics of Subsidiary Initiatives.” *Strategic Management Journal* 18 (3): 207–229. [https://doi.org/10.1002/\(SICI\)1097-0266\(199703\)18:3<207::AID-SMJ864>3.0.CO;2-Q](https://doi.org/10.1002/(SICI)1097-0266(199703)18:3<207::AID-SMJ864>3.0.CO;2-Q).
- Bolton, Dawn Langkamp, and Michelle D. Lane. 2012. “Individual Entrepreneurial Orientation: Development of a Measurement Instrument.” *Education + Training* 54 (2/3): 219–233. <https://doi.org/10.1108/00400911211210314>.
- Burgelman, Robert A. 1984. “Designs for Corporate Entrepreneurship in Established Firms.” *California Management Review* 26 (3): 154–166. <https://doi.org/10.2307/41165086>.
- Camisón Zornoza, Cesar, Fernando J. Garrigós Simón, and Daniel Palacios Marqués. 2007. “Estrategias Competitivas y Desempeño Empresarial: Estudio Comparativo de los Modelos de Robinson & Pearce y Miles & Snow en el Sector Hotelero Español.” *Investigaciones Europeas de Dirección y Economía de la Empresa* 13 (3): 161–182. <https://www.redalyc.org/articulo.oa?id=274120871009>.

- Cao-Alvira, José J. 2014. "Real Exchange Rate Volatility on the Short- and Long-Run Trade Dynamics in Colombia." *International Trade Journal* 28 (1): 45–64. <https://doi.org/10.1080/08853908.2013.820654>.
- Cardona Acevedo, Marleny, and Jahir Alexander Gutiérrez. 2010. "Elementos en el Fortalecimiento de los Mundos de Producción de las PYMES en Colombia desde la Organización y las Políticas." *Pensamiento & Gestión* 28:107–131.
- Chin, Wynne W. 1998. "The Partial Least Squares Approach to Structural Equation Modeling." *Modern Methods for Business Research* 2:295–336.
- Covin, Jeffrey G., and Dennis P. Slevin. 1989. "Strategic Management of Small Firms in Hostile and Benign Environments." *Strategic Management Journal* 10 (1): 75–87. <https://doi.org/10.1002/smj.4250100107>.
- Covin, Jeffrey G., and Morgan P. Miles. 1999. "Corporate Entrepreneurship and the Pursuit of Competitive Advantage." *Entrepreneurship Theory and Practice* 23 (3): 47–63. <https://doi.org/10.1177/104225879902300304>.
- Elder, Ryan S., and Aradhna Krishna. 2012. "The 'Visual Depiction Effect' in Advertising: Facilitating Embodied Mental Simulation through Product Orientation." *Journal of Consumer Research* 38 (6): 988–1003. <https://doi.org/10.1086/661531>.
- Escandon, Diana Marcela, Guillermo Murillo Vargas, and Carlos Hernán González-Campo. 2013. "Determinantes de los Resultados Internacionales de las PyMEs de Reciente Creación en Colombia." *Revista Innovar Journal* 23(49): 17–30. <https://www.redalyc.org/pdf/818/81828691003.pdf>.
- Etchebarne, M. Soledad, Rosario García Cruz, and Valeska V. Geldres. 2008. "La Orientación Emprendedora a Nivel de la Firma." *Multidisciplinary Business Review* 1 (1): 15–25. <https://journalmbr.net/index.php/mbr/article/view/392>.
- Fachrudin, Dudi Hendra, Agus Rahayu, Nanang Fattah, and Lili Adi Wibowo. 2021. "The Mediating Role of Dynamic Capabilities and Business Model Innovation on the Relationship between Environment Turbulence and Firm Performance." In *3rd Annual International Conference on Public and Business Administration (AICoBPA 2020)*, 20–25. Atlantis Press.
- George, Bradley A., and Louis Marino. 2011. "The Epistemology of Entrepreneurial Orientation: Conceptual Formation, Modeling, and Operationalization." *Entrepreneurship Theory and Practice* 35 (5): 989–1024. <https://doi.org/10.1111/j.1540-6520.2011.00455.x>.
- Gorostiaga, Arantxa, Jone Aliri, Nekane Balluerka, and Joanes Lameirinhas. 2023. "Assessment of Entrepreneurial Orientation and Its Relationship with Gender and Academic Performance." *Educación XX1* 26 (2): 323–350. <https://doi.org/10.5944/educxx1.32994>.
- Guth, William D., and Ari Ginsberg. 1990. "Guest Editors' Introduction: Corporate Entrepreneurship." *Strategic Management Journal* 11:5–15. <https://www.jstor.org/stable/2486666>.

- Hair, Joe F., Jr., Marko Sarstedt, Lucas Hopkins, and Volker G. Kuppelwieser. 2014. "Partial Least Squares Structural Equation Modeling (PLS-SEM): An Emerging Tool in Business Research." *European Business Review* 26 (2): 106–121. <https://doi.org/10.1108/EBR-10-2013-0128>.
- Herskovits, Rubén, Mercedes Grijalbo, and Javier Tafur. 2013. "Understanding the Main Drivers of Value Creation in an Open Innovation Program." *International Entrepreneurship and Management Journal* 9 (4): 631–640. <https://doi.org/10.1007/s11365-013-0267-2>.
- Hill, Charles, and Garteh Jones. 2015. *Administración Estratégica un Enfoque Integral: Teoría y Casos*, 11th ed. Mexico: Cengage Learning.
- Hughes, Mathew, Paul Hughes, and Robert E. Morgan. 2007. "Exploitative Learning and Entrepreneurial Orientation Alignment in Emerging Young Firms: Implications for Market and Response Performance." *British Journal of Management* 18 (4): 359–375. <https://doi.org/10.1111/j.1467-8551.2007.00519.x>.
- Kee, Daisy Mui Hung, and Nurulhasanah Abdul Rahman. 2018. "Effects of Entrepreneurial Orientation on Start-Up Success: A Gender Perspective." *Management Science Letters* 8 (6): 699–706. <https://doi.org/10.5267/j.msl.2018.4.012>.
- Khedhaouria, Anis, Călin Gurău, and Olivier Torrès. 2015. "Creativity, Self-efficacy, and Small-Firm Performance: The Mediating Role of Entrepreneurial Orientation." *Small Business Economics* 44 (3): 485–504. <https://doi.org/10.1007/s11187-014-9608-y>.
- Kuratko, Donald F. 2010. "Corporate Entrepreneurship: An Introduction and Research Review." In *Handbook of Entrepreneurship Research, International Handbook Series on Entrepreneurship*, edited by Zoltan J. Acs and David B. Audretsch, 129–163, vol. 5. New York: Springer.
- Lee, Wee Loong, Aik Lee Chong, and T. Ramayah. 2018. "The Effects of Entrepreneurial Orientation on the Performance of the Malaysian Manufacturing Sector." *Asia-Pacific Journal of Business Administration* 11 (1): 30–45. <https://doi.org/10.1108/APJBA-06-2018-0099>.
- Lumpkin, G. T., and Gregory G. Dess. 1996. "Clarifying the Entrepreneurial Orientation Construct and Linking It to Performance." *Academy of Management Review* 21 (1): 135–172. <https://doi.org/10.2307/258632>.
- Lumpkin, G. T., and Robert J. Pidduck. 2021. "Global Entrepreneurial Orientation (GEO): An Updated, Multidimensional View of EO." In *Entrepreneurial Orientation: Epistemological, Theoretical, and Empirical Perspectives*, edited by Andrew C. Corbett, Patrick M. Kreiser, Louis D. Marino, and William J. Wales, 17–68. New York: Springer.
- Miles, Raymond E., Charles C. Snow, Alan D. Meyer, and Henry J. Coleman Jr. 1978. "Organizational Strategy, Structure, and Process." *Academy of Management Review* 3 (3): 546–562. <https://doi.org/10.2307/257544>.

- Miller, Danny. 2011. "Miller (1983) Revisited: A Reflection on EO Research and Some Suggestions for the Future." *Entrepreneurship Theory and Practice* 35 (5): 873–894. <https://doi.org/10.1111/j.1540-6520.2011.00457.x>.
- Miller, Douglas J., Michael J. Fern, and Laura B. Cardinal. 2007. "The Use of Knowledge for Technological Innovation within Diversified Firms." *Academy of Management Journal* 50 (2): 307–325. <https://doi.org/10.5465/amj.2007.24634437>.
- Mondragón-Vélez, Camilo, Ximena Peña, Daniel Wills, and Adriana Kugler. 2010. "Labor Market Rigidities and Informality in Colombia." *Economía Journal* 11 (1): 65–101. <https://ideas.repec.org/a/col/000425/008355.html>.
- Morris, Michael H., Donald F. Kuratko, and Jeffrey G. Covin. 2010. *Corporate Entrepreneurship & Innovation*, 3rd ed. Mason, OH: Cengage Learning.
- Mueller, Ralph O., and Gregory R. Hancock. 2018. "Structural Equation Modeling." In *The Reviewer's Guide to Quantitative Methods in the Social Sciences*, edited by Gregory R. Hancock, Laura M. Stapleton, and Ralph O. Mueller, 445–456. New York: Routledge.
- Naldi, Lucia, Mattias Nordqvist, Karin Sjöberg, and Johan Wiklund. 2007. "Entrepreneurial Orientation, Risk Taking, and Performance in Family Firms." *Family Business Review* 20 (1): 33–47. <https://doi.org/10.1111/j.1741-6248.2007.00082.x>.
- Naman, John L., and Dennis P. Slevin. 1993. "Entrepreneurship and the Concept of Fit: A Model and Empirical Tests." *Strategic Management Journal* 14 (2): 137–153. <https://doi.org/10.1002/smj.4250140205>.
- Porter, Michael E. 1985. "Technology and Competitive Advantage." *Journal of Business Strategy* 5 (3): 60–78. <https://doi.org/10.1108/eb039075>.
- Poveda, Alexander Cotte. 2015. "Corruption, Economic Development, and Insecurity in Colombia." In *Business Law and Ethics: Concepts, Methodologies, Tools, and Applications*, 572–584. Hershey, PA: IGI Global.
- Rauch, Andreas, Johan Wiklund, George T. Lumpkin, and Michael Frese. 2009. "Entrepreneurial Orientation and Business Performance: An Assessment of Past Research and Suggestions for the Future." *Entrepreneurship Theory and Practice* 33 (3): 761–778. <https://doi.org/10.1111/j.1540-6520.2009.00308.x>.
- Reijonen, Helen, Saku Hirvonen, Gábor Nagy, Tommi Laukkanen, and Mika Gabriellson. 2015. "The Impact of Entrepreneurial Orientation on B2B Branding and Business Growth in Emerging Markets." *Industrial Marketing Management* 51:35–46. <https://doi.org/10.1016/j.indmarman.2015.04.016>.
- Rezaei, Jafar, and Roland Ortt. 2018. "Entrepreneurial Orientation and Firm Performance: The Mediating Role of Functional Performances." *Management Research Review* 41 (7): 878–900. <https://doi.org/10.1108/MRR-03-2017-0092>.
- Richard, Orlando C., Tim Barnett, Sean Dwyer, and Ken Chadwick. 2004. "Cultural Diversity in Management, Firm Performance, and the Moderating Role of Entrepreneurial Orientation Dimensions." *Academy of Management Journal* 47 (2): 255–266. <https://doi.org/10.2307/20159576>.

- Rouvinen, Petri. 2002. "Characteristics of Product and Process Innovators: Some Evidence from the Finnish Innovation Survey." *Applied Economics Letters* 9 (9): 575–580. <https://doi.org/10.1080/13504850110108102>.
- Runyan, R., C. Droge, and J. Swinney. 2008. "Entrepreneurial Orientation versus Small Business Orientation: What Are Their Relationships to Firm Performance?" *Journal of Small Business Management* 46 (4): 567–588. <https://doi.org/10.1111/j.1540-627X.2008.00257.x>.
- Schöllhammer, Hans. 1982. "Internal Corporate Entrepreneurship." In *Encyclopedia of Entrepreneurship*, edited by D. Kent, L. Sexton, and K. H. Vesper, 209–223. Englewood Cliffs, NJ: Prentice-Hall.
- Sirivanh, Thongvanh, Sasiwemon Sukkabot, and Meta Sateeraroj. 2014. "The Effect of Entrepreneurial Orientation and Competitive Advantage on SMEs' Growth: A Structural Equation Modeling Study." *International Journal of Business and Social Science* 5 (6): 189–194. https://ijbssnet.com/journals/Vol_5_No_6_1_May_2014/21.pdf.
- Stephanou, Constantinos, and Camila Rodriguez. 2008. "Bank Financing to Small and Medium-Sized Enterprises (SMEs) in Colombia." *World Bank Policy Research Working Paper* 4481. <https://doi.org/10.1596/1813-9450-4481>.
- Swierczek, Fredric William, and Thai Thanh Ha. 2003. "Entrepreneurial Orientation, Uncertainty Avoidance and Firm Performance: An Analysis of Thai and Vietnamese SMEs." *International Journal of Entrepreneurship and Innovation* 4 (1): 46–58. <https://doi.org/10.5367/000000003101299393>.
- Tang, Jintong, Zhi Tang, Yuli Zhang, and Qianwen Li. 2007. "The Impact of Entrepreneurial Orientation and Ownership Type on Firm Performance in the Emerging Region of China." *Journal of Developmental Entrepreneurship* 12 (4): 383–397. <https://doi.org/10.1142/S1084946707000733>.
- Tien, Nguyen Hoang. 2019. *International Economics, Business and Management Strategy*. Delhi: Academic Publications.
- Uddin, Reaz, Tarun Kanti Bose, and Salahuddin Yousuf. 2014. "Entrepreneurial Orientation (EO) and Performance of Business in Khulna City, Bangladesh." *Journal of Small Business & Entrepreneurship* 27 (4): 343–352. <https://doi.org/10.1080/08276331.2015.1067356>.
- van Klyton, Aaron, Juan Fernando Tavera-Mesías, and Wilson Castaño-Muñoz. 2021. "Innovation Resistance and Mobile Banking in Rural Colombia." *Journal of Rural Studies* 81:269–280. <https://doi.org/10.1016/j.jrurstud.2020.10.035>.
- Venkatraman, Venkat N. 1989. "Strategic Orientation of Business Enterprises: The Construct, Dimensionality and Measurement." *Management Science* 35 (8): 423–44. <https://doi.org/10.1287/mnsc.35.8.942>.
- Wales, William J., Pankaj C. Patel, and G. Tom Lumpkin. 2013. "In Pursuit of Greatness: CEO Narcissism, Entrepreneurial Orientation, and Firm Performance Variance." *Journal of Management Studies* 50 (6): 1041–1069. <https://doi.org/10.1111/joms.12034>.

- Wang, Catherine L. 2008. "Entrepreneurial Orientation, Learning Orientation, and Firm Performance." *Entrepreneurship Theory and Practice* 32 (4): 635–657. <https://doi.org/10.1111/j.1540-6520.2008.00246.x>.
- Watson, Anna, Olufunmilola Dada, Owen Wright, and Rozenn Perrigot. 2019. "Entrepreneurial Orientation Rhetoric in Franchise Organizations: The impact of National Culture." *Entrepreneurship Theory and Practice* 43 (4): 751–772. <https://doi.org/10.1177/1042258717738519>.
- Zahra, Shaker A. 1991. "Predictors and Financial Outcomes of Corporate Entrepreneurship: An Exploratory Study." *Journal of Business Venturing* 6 (4): 259–285. [https://doi.org/10.1016/0883-9026\(91\)90019-A](https://doi.org/10.1016/0883-9026(91)90019-A).
- Zhou, Joe, and Greg Robinson. 2005. "Utility Enterprise Information Management Strategies." *Journal of American Academy of Business* 6 (2): 148–153. https://gridwiseac.org/pdfs/forum_papers/114_127_paper_final.pdf.

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