

# Entrepreneurial orientation and market orientation

## Systematic literature review and future research

Héctor Montiel-Campos

*School of Business and Economics, Universidad de las Americas Puebla,  
San Andres Cholula, Puebla, Mexico*

### Abstract

**Purpose** – The purpose of this study is to provide a comprehensive qualitative review of the empirical accumulated knowledge on the relationship between entrepreneurial orientation (EO) and market orientation (MO).

**Design/methodology/approach** – To systematically review the empirical literature that simultaneously tests the core tenets of EO and MO, this study followed a multi-step approach, which has served as a replicable literature review method in previous studies. A final sample of 121 papers published between 1987 and 2016 was developed.

**Findings** – The results show that EO–MO relationship research has made considerable strides in recent years and is accelerating and broadening. This interest is manifested in the 83 journals and 266 authors that were identified. Additionally, the results confirm that the Anglo region contributed the majority of EO–MO relationships in the study sample. Finally, the 121 papers in the sample were organized into six different approaches, which in turn represent 53 research models where the unidimensional conceptualizations of EO and MO were predominant.

**Originality/value** – This study has shown that the EO–MO relationship has been studied from different approaches, which revealed several research models that advance the knowledge on relationships between EO and MO. EO and MO are, in turn, also positively associated with firm performance. Thus, the study results highlight numerous and varied fertile areas for future research that may offer a more detailed understanding of the EO–MO relationship.

**Keywords** Entrepreneurship, Strategic orientation, Entrepreneurial orientation, Market orientation, Literature review, Marketing

**Paper type** Research paper

### Introduction

Entrepreneurial orientation (EO) as an organizational construct is a cornerstone within the field of entrepreneurship (Covin and Lumpkin, 2011) and has become one of the most promising research areas in entrepreneurship literature (Martens *et al.*, 2016; Wales, 2016). EO is a behavior that involves a firm's style of making decisions and the practices it adopts to differentiate itself from competitors. According to Covin and Slevin (1989), the main proposition of EO is that organizations acting entrepreneurially are better able to adjust their operations in dynamic competitive environments to exploit market opportunities and enter



newly created markets. Previous studies have found that firms with an EO perform better and have a positive relationship to different measures of EO and performance (Rauch *et al.*, 2009; Wales *et al.*, 2013). A study by Wales (2016) revealed that over the past three decades, the broad influence of EO can be observed within neighboring scholarly areas such as marketing.

The market orientation (MO) construct is regarded by many scholars as one of the most important concepts in the marketing discipline, as it represents the foundation of marketing practice (Wijesekara *et al.*, 2016). MO is considered a cultural foundation for how an organization acquires and uses market information (Kohli and Jaworski, 1990; Narver and Slater, 1990). MO essentially represents a market-driven, adaptive way to create superior value that is offered to customers (Boso *et al.*, 2012). According to Hunt and Lambe (2000), MO spans both the strategy and culture of the firm, being both a part of the organizational culture, norms and values and a set of behaviors and activities. One of the strongest convictions in modern marketing is that MO contributes to firms' performance (Grinstein, 2008). In this situation, the nexus between marketing and entrepreneurship is clear; firms that successfully identify entrepreneurial opportunities depend on marketing skills to help them understand, influence and, above all, attract customers (Lam and Harper, 2015).

After decades of research conducted in various aspects of EO and MO, and with a growing interest in their complementarity to better understand their impact on firms' competitiveness (Boso *et al.*, 2012; Morgan *et al.*, 2015; Pehrsson, 2016), it is necessary to review and synthesize the current state of knowledge linking these constructs. Reviews may be important to highlight gaps and ideas that contribute for future research (Martens *et al.*, 2016; Wales *et al.*, 2013). Following the same interest of Wales *et al.* (2013), the main purpose of this study is not to provide an exhaustive interpretation of previous empirical research about the relationship between EO and MO, but rather to identify and analyze the different approaches previous studies have researched and how they influence each other directly or through other constructs.

To contribute to the development of EO–MO relationship knowledge, this study conducts a systematic review of the scientific literature on the subject, following the methodology used by David and Han (2004), to identify a multifaceted view of this literature and fruitful directions for future research. Therefore, the contributions of the paper are twofold. First, this paper provides an overview into the prevalence and breadth of studies that have investigated both EO and MO simultaneously. Second, this study presents a framework for understanding the different approaches and models in the study of the EO–MO relationship, which can help guide future studies into areas that are of special interest.

The paper is arranged as follows. After the introduction, the paper briefly summarizes the core tenets of EO and MO. Next, the method used to select the empirical studies for analysis is explained. The next section presents the results, and the penultimate section discusses the results and presents suggestions for future research. The final section draws a general conclusion.

## Theoretical background

### *Entrepreneurial orientation*

EO's roots can be traced to literature on the strategy-making process. However, it was not until the publication of Miller's (1983) seminal article that the concept of the entrepreneurial firm gained scholarly attention, which was later extended by Covin and Slevin (1989). Miller (1983, p. 771) argued that "an entrepreneurial firm is one that engages in product-market innovation, undertakes somewhat risky ventures, and is first to come up with 'proactive' innovations, beating competitors to the punch." Covin and Slevin (1989, p. 77) suggested that "entrepreneurial firms are those in which top managers have entrepreneurial management styles, as evidenced by the firms' strategic decisions and operating management

philosophy.” In essence, EO characterizes the practice of entrepreneurship in the organization and the strategic posture of the firm as a whole (Covin and Lumpkin, 2011).

EO is the state or quality of an organization, and it has been approached as a construct of several behavioral dimensions (Ireland *et al.*, 2009). Some scholars have argued that two approaches are the most commonly addressed in the literature (Covin and Wales, 2012; Martens *et al.*, 2016; Rauch *et al.*, 2009; Wales *et al.*, 2013). The first is viewed as a unidimensional concept that is more closely associated with the works of Miller (1983) and Covin and Slevin (1989). Unidimensional EO is a construct composed of three sub-dimensions, namely, innovativeness, risk-taking and proactiveness, which must positively covary for an EO to be manifested.

The second approach is known as multidimensional EO, which is associated with the work of Lumpkin and Dess (1996), who suggested that two additional dimensions were salient to EO: competitive aggressiveness and autonomy. Multidimensional EO suggests that the dimensions of EO may occur in different combinations, each representing a different and independent aspect of EO. More recently, Anderson *et al.* (2015) offered a reconceptualization of EO, which is consistent with Miller/Covin and Slevin, as the joint exhibition of observed entrepreneurial behaviors (innovativeness and proactiveness) and a managerial inclination at the strategic decision-making level favoring actions with uncertain outcomes (risk-taking).

Covin and Wales (2012) offered a discussion of the differences between the two conceptualizations. Nonetheless, recent meta-analyses have shown that the conceptualization of Miller/Covin and Slevin is predominant in the study of EO, and that entrepreneurial firms generally perform better than firms that are conservatively managed (Rauch *et al.*, 2009; Wales *et al.*, 2013).

#### *Market orientation*

MO has been one of the most important concepts of marketing literature and can be viewed as the culture or activities of the organization that create the behaviors required for superior performance (Deshpande *et al.*, 1993; Kohli and Jaworski, 1990; Kirca *et al.*, 2005; Narver and Slater, 1990; Slater and Narver, 2000a). In other words, MO refers to the extent to which firms are inclined to behave in accordance with the marketing concept (Kohli and Jaworski, 1990). According to Hakala (2011), MO may be perceived as a hybrid construct containing elements of exploration, but emphasizing exploitation of market opportunities.

Goldman and Grinstein (2010) commented that MO has been examined from both cultural and behavioral perspectives. From the cultural perspective, Narver and Slater (1990, p. 21) defined MO as “the organization culture that most effectively and efficiently creates the necessary behaviors for the creation of superior value for buyers and, thus, continuous superior performance for the business.” Three cultural perspective components of MO have been identified: customer orientation, competitor orientation and inter-functional coordination. The corresponding MO scale from this perspective was named MKTOR (Narver and Slater, 1990).

From the behavioral perspective, Kohli and Jaworski (1990, p. 6) defined MO as “the organization-wide generation of market intelligence pertaining to current and future customer needs, dissemination of the intelligence across departments, and organization-wide responsiveness to it.” From this perspective, MO is conceptualized as a three-dimensional construct that includes intelligence generation, intelligence dissemination and responsiveness (Kohli and Jaworski, 1990). The corresponding MO scale was named MARKOR (Kohli *et al.*, 1993). There is a third scale that is less commonly used in the literature. Deshpande and Farley’s (1998) composite measure of customer-focused MO (MORTN scale) was adopted to capture MO as an aspect of organizational culture (Deshpande *et al.*, 1993).

More recently, some authors have extended the MO construct to include two distinct approaches, namely, market-driven and market-driving, from [Jaworski et al. \(2000\)](#) proposal, or responsive and proactive, from in [Slater and Narver's \(2000a\)](#) proposal. Basically, the difference between these two approaches resides in that a market-driven or responsive MO builds on exploitation of the extant experience when a firm offers well-defined products to target customers, whereas a market-driving or proactive MO is a search for new experiences that help the firm to identify new and promising customer needs.

#### *The relationship between entrepreneurial orientation and market orientation*

Empirical research has reported that EO and MO are significantly correlated, but they are different constructs ([Roskos and Klandt, 2007](#)). [Baker and Sinkula \(2009\)](#) summarized a clear differentiation between the two concepts. According to the authors, MO reflects the degree to which firms' strategic market planning is driven by customer and competitor intelligence, whereas EO reflects the degree to which firms' growth objectives are driven by the identification and exploitation of untapped market opportunities. Specifically, both market-oriented and entrepreneurial firms strive to satisfy expressed and latent customer needs, pursue market expansions as they are identified and capitalize on emerging opportunities ([Grinstein, 2008](#)).

The correlation between EO and MO suggests that a change in either one will affect the other and the effectiveness of the whole relationship ([Todorovic and Ma, 2008](#)). Therefore, the synergy between EO and MO determines a firm's performance. In this situation, entrepreneurship and MO are complementary orientations; therefore, entrepreneurship needs an MO to effectively target its innovative actions in the market. MO needs entrepreneurship to achieve fast responses to market prospects ([González-Benito et al., 2009](#)). Consistent with the previous line of thought, [Balodi \(2014\)](#) suggested that it is important to identify the different configurations that have empirically analyzed the simultaneity and interaction between EO and MO, and its implications for firms' strategic and organizational attributes and overall performance.

#### *Firm performance*

Concerning the consequences of EO and MO for firms, the literature suggests that the overriding objective is for each to have a universally positive influence on performance. According to [Neely et al. \(1995\)](#), firm performance is a concept that is often discussed in various studies but rarely has a single definition. In general, firm performance can be defined as the achievement of an organization with respect to some criteria ([Lenz, 1980](#)) or as the process of quantifying the actions of a firm that leads it to achieve its goals and objectives ([Neely et al., 1995](#)). Although performance is one of the most commonly researched independent variables, it has been viewed as a complex and multidimensional phenomenon ([March and Sutton, 1997](#)). Accordingly, disagreement concerning the measurement of performance is evident in the management and strategy literature ([Combs et al., 2005](#); [Venkatraman and Ramanujam, 1986](#)). Based on the empirical literature on EO and MO, it can be inferred that studies have used different kinds of indicators for measuring firm performance. [Auh and Menguc \(2005\)](#) identify two different performance perspectives that have evolved over the years. First is the financial perspective, which has commonly used efficiency indicators (e.g. profitability, return on assets and sales). Second is the operational perspective, which has used effectiveness indicators (firm growth, market share, customer value, etc.). Finally, performance may be objectively or subjectively measured, and it can be relative to competitors or relative to expectations within the firm ([Pehrsson, 2016](#)).

## Research method

To systematically review the empirical literature that tests the core tenets of EO and MO simultaneously, a representative sample of journal articles was identified using an adapted version of the approach developed by [David and Han \(2004\)](#). This approach has served as a replicable literature review method in other areas of research as well ([Newbert, 2007](#); [Wales et al., 2013](#)). The interpretation of a large number of studies is necessarily subjective, but the degree of transparency does make it more rigorous and diminishes bias ([Pittaway and Cope, 2007](#)). Consistent with [David and Han \(2004\)](#), this process involved several criteria, which are outlined below.

First, this study restricted the search by including only published journal articles, thereby excluding book chapters and conference proceedings. [David and Han \(2004\)](#) argued that journal articles have been through a review process that acts as a screen for quality due to certain levels of conceptual and methodological rigor to which published articles are subjected prior to publication.

Second, consistent with recommendations of other studies ([Rauch et al., 2009](#); [Martens et al., 2016](#)), the research databases chosen for this study were the ISI Web of Science, Scopus, ABI/Inform and EconLit. In addition, to be as comprehensive as possible, searched journals were indexed in the SAGE Premier, Emerald Insight, Springer Link, Wiley Online Library, EBSCO and Elsevier databases. A time span was not specified for the search because this research sought to include all the available articles in all databases through December 2016 that had been peer reviewed and that were in English.

Third, the next task was to select a representative sample of articles from databases that empirically tested the core tenets of EO and MO within a single study. For this purpose, the primary keywords “entrepreneur\*,” “market\*,” “orientation” and “strateg\*” were used, where “\*” indicates that variations on the ending of the word were permitted. To ensure substantive relevance as was described by [David and Han \(2004\)](#), the search was made in titles and abstracts of articles by requiring that at least the primary keywords “entrepreneur\*” and “market\*” both be present in at least one those fields. The initial search returned 2,084 articles available in all databases, without restrictions for areas of knowledge.

Fourth, to eliminate substantively irrelevant articles ([Newbert, 2007](#)), it was further required that articles contain at least one of 12 additional keywords in the title or abstract: “behavior,” “posture,” “proclivity,” “disposition,” “intensity,” “intrapreneurship,” “corporate,” “venturing,” “firm,” “customer,” “consumer” and “competitor.” Many of these keywords are associated with firm-level entrepreneurship and marketing in the literature ([Grinstein, 2008](#); [Kirca et al., 2005](#); [Wales et al., 2013](#)). This initial screening left 207 publications potentially relevant for the scope of this study.

Fifth, following [David and Han’s \(2004\)](#) recommendations, the abstracts of these articles had to give an indication of empirical analysis, such as a mention of sample size, specific industries or firms, analytic techniques or specific tests or results. After scanning the abstracts, it was evident that some of these articles were not appropriate ([Hakala, 2011](#); [Lam and Harker, 2015](#); [Todorovic and Ma, 2008](#)). Any doubt about empirical content resulted in an article’s retention. These criteria reduced the number of articles to 165.

Sixth, to further ensure the substantive context (i.e. article tests the core tenets of EO and MO) and empirical content (i.e. article presents adequate empirical data), the articles were read in their entirety. Articles were retained only if they examined relationships between EO and MO or if EO and MO were used as some of the many variables upon which the sampled firms were clustered. The articles where measurements of EO and MO were conceptually different from prior theories on the concepts (e.g. as individual or non-profit contexts) were

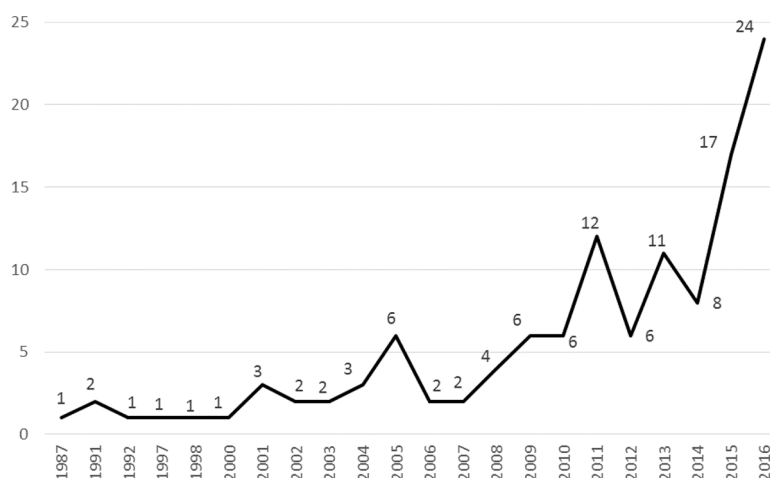
rejected (Acar *et al.*, 2013; Felgueira and Rodrigues, 2012). To maintain the theoretical tenability of the constructs, articles in which only one dimension of EO or MO was examined were also rejected (Racela, 2015; Zhou *et al.*, 2005). Wales *et al.* (2013) believed that studies that examine a single EO dimension and label it an examination of the EO construct would be inappropriate for review. This study applied the same criteria for studies with a single MO dimension. Therefore, articles with two or more dimensions of EO and MO were retained. Qualitative analyses and case studies were not included because, as David and Han (2004) declared, there is no systematic way to code the results in a way that is comparable to the results of statistical tests (Bucktowar *et al.*, 2015). Finally, articles where the measurement scales of EO or MO were not clear were also excluded (Asad *et al.*, 2016; Eggers *et al.*, 2012).

Seventh, the final step was to consolidate results from all databases and eliminate duplicated articles. The result was a final total of 121 articles, which were found in journals from across a variety of disciplines. A summary of the papers is presented in the Appendix. The sample of 121 articles compares favorably to previous studies, which had a sample size of 63 in David and Han (2004), 67 in Hakala (2011), 55 in Newbert (2007) and 158 in Wales *et al.* (2013). In short, this study has systematically generated a relatively large sample that is representative of the empirical EO and MO literature.

## Results and analysis

### *Scientific production*

Figure 1 shows that EO–MO research has increased over the period analyzed. The evolution of EO–MO research has three notable periods of scientific production. The first period is characterized by scarce scientific production. This period begins with the publication of the first article in 1987, which met the criteria mentioned in the previous section, and finished in the year 2000. This period has eight years (1988–1990; 1993–1996; and 1999) that did not show scientific production in this area. Seven articles were published during the first period. The second period, which goes from 2001 to 2010, showed significant growth, with the publication of 36 articles. There were studies in all years in this period, with three publishing peaks, 2005, 2009 and 2010, with six articles each. Finally, there was a noticeable increase in EO–MO research over the last period, from 2011 to 2016. The number of articles published



**Figure 1.**  
Evolution of EO-MO  
research (1987–2016)



jumped to an average of 13 per year from 2011 to 2016 compared to an average of 3.6 per year in the previous period.

Scientific journals and authors

The 121 sample articles were published in 83 different journals. Eight journals accounted for 32 per cent (39 articles) of the scientific production analyzed between 1987 and 2016 (Table I). The two most productive journals for EO–MO research were *Journal of Business Research*, with ten articles, *Journal of Small Business Management*, with seven articles, and *Asian Social Science*, *Journal of Enterprising Culture*, *Industrial Marketing Management* and *International Journal of Entrepreneurship and Small Business*, with four articles each. Notably, EO–MO research is of interest to a wide audience because the articles are being published in journals with a broad managerial scope (e.g. *Journal of Business Research*, *Asian Social Science* and *Social and Behavioral Sciences*), which means that EO–MO research is not exclusive to entrepreneurship and marketing journals. This suggest that EO and MO are non-parochial constructs because they have broad acceptance within the scholarly community (Wales *et al.*, 2013).

Analysis of the 121 articles showed the participation of 266 authors, 34 of which contributed to two or more studies, accounting for about 77 per cent of the scientific production of the sample (Table II). The remaining 232 authors had only one article in the sample. This result coincides with Martens *et al.* (2016), who commented that production is concentrated among a few authors, while a larger number of authors have a reduced contribution.

**Table I.**  
The most  
representative  
journals in EO-MO  
research (1987-2016)

Scientific journals	Articles
<i>Journal of Business Research</i> .	10
<i>Journal of Small Business Management</i>	7
<i>Asian Social Science</i> , <i>Industrial Marketing Management</i> , <i>International Journal of Entrepreneurship and Small Business</i> , <i>Journal of Enterprising Culture</i>	4
<i>European Journal of Marketing</i> , <i>Journal of the Academy of Marketing Science</i>	3
<i>Entrepreneurship Theory and Practice</i> , <i>International Journal of Entrepreneurial Behavior and Research</i> , <i>International Small Business Journal</i> , <i>Journal of Business Venturing</i> , <i>Journal of Product Innovation Management</i> , <i>Journal of Small Business and Entrepreneurship</i> , <i>Journal of Strategic Marketing</i> , <i>Procedia - Social and Behavioral Sciences</i>	2
Other 66...	66

**Table II.**  
Authors with at least  
two articles in EO-  
MO research (1987-  
2016)

Authors	Articles
Boso, N.	7
Cadogan, J.W., Story, V.M.	6
Li, Y., Liu, S.S., Liu, Y., Luo, X.	4
Frishammar, J., Miles, M.P., Muñoz-Gallego, P.A.	3
Acar, A.Z., Annan, J., Arnold, D.R., Balloun, J., Barrett, H., Becherer, R.C., Bhuian, S.N., Choi, S.B., González-Benito, O., Hakala, H., Hult, G.T.M., Kohtamaki, M., Knight, G.A., Lee, D.H., Morgan, T., Morris, M.H., O'Cass, A., Reijonen, H., Shariff, M.N.M., Shi, Y.Z., Tajeddini, K., Winstein, A., Zehir, C., Zhao, Y.	2

*National contexts*

Some authors have emphasized the importance of external context and cultural perspective in EO–MO research (Pehrsson, 2016; Todorovic and Ma, 2008). To identify the international variety in EO–MO research, this study chose the GLOBE clustering scheme (House *et al.*, 2004), which has been used in previous studies (Martens *et al.*, 2016; Wales *et al.*, 2013). Table III presents a list of external contexts in which EO–MO research has been conducted. The 121 papers were from empirical research in 42 countries, where the USA was the most important contributor with 21.4 per cent, followed by China (11.5 per cent) and the UK, South Korea and Germany (4.9 per cent each).

The studies conducted by Martens *et al.* (2016) and Wales *et al.* (2013), as well as the results of this study, identify the Anglo region as having the majority of contributions. According to the results, Confucian Asia and southern Asia are the second and third most important regions in the study, respectively. The results show that substantial research has examined EO–MO outside the US context. However, the Middle East, Latin America and Arab regions have minimal contributions to the study of EO–MO.

*Approaches to understanding entrepreneurial orientation–market orientation research*

The following section was developed to organize and summarize the studies that have investigated EO and MO within a single study. During the review process, it was evident that there is no universal approach that considers all possible relationships. Six approaches were identified to understand the relationship between EO and MO, as well as with other constructs. Each approach can contain various relatively homogenous models of research that differ from one another. It is important to remember that every model represents the interaction of a relatively small number of variables, and the analysis of these models is an essential step toward a better understanding of this complex phenomenon (Langley, 1999).

Cluster	Country	Articles	Cluster	Country	Articles
Anglo	USA	26	Nordic Europe	Finland	5
	UK	6		Sweden	5
	Australia	3		Norway	1
	Canada	2	Latin Europe	Scandinavia	1
	Ireland	1		Spain	5
	New Zealand	1		Israel	1
Confucian Asia	China	14		Portugal	1
	South Korea	6	Sub-Saharan Africa	Nigeria	3
	Taiwan	2		Ghana	3
	Vietnam	2	Eastern Europe	Greece	2
	Japan	1		Hungary	1
Southern Asia	Iran	3		Kazakhstan	1
	Bangladesh	2	Middle East	Romania	1
	Pakistan	2		Slovenia	1
	Sri Lanka	2		Turkey	4
	Thailand	2	Latin America	Brazil	1
	India	1		Mexico	1
Germanic Europe	Indonesia	1	Arab	Iraq	1
	Malaysia	1		Saudi Arabia	1
	Germany	6	Multinational		1
	Switzerland	3			
	Austria	2			
	Belgium	1			

**Table III.**  
Summary of EO–MO  
research by country



The hypotheses tested in each study served to identify these models and the unidimensional or multidimensional character of EO and MO.

*Corollary approach*

The most basic approach is the one that considers EO and MO as different constructs, despite them being related. The purpose of this approach is to examine that relationship between EO and MO, and determine whether organizations that demonstrate a stronger EO should also be more market-oriented, and vice versa. The major finding of the studies in this research is that EO and MO are found to be correlated, but they do not appear to represent the same underlying business philosophy. This finding was even examined by comparing different kinds of firms. For example, Morris and Paul (1987) used small and medium firms, while Miles *et al.* (1992) compared spinoff versus non-spinoff organizations. Roskos and Klandt (2007) emphasized the nature of new firms, while González-Benito *et al.* (2009) highlighted the context of a disadvantaged socio-economic region in the EO–MO relationship. Figure 2 summarizes the five studies that are included in this approach, where three of them are among the oldest in the sample of this research (Miles and Arnold, 1991; Miles *et al.*, 1992; Morris and Paul, 1987).

*Dependent variables approach*

EO and MO in this stream of literature are approached as dependent variables. The purpose of this approach is a better understanding of the factors motivating the need for EO and MO in established firms. In other words, the antecedents might not affect both EO and MO, or at least not in the same way. Two studies were identified using this approach (Figure 3). Davis *et al.* (1991) related the degree of perceived environmental turbulence as motivators of EO and MO, while Zachary *et al.* (2011) emphasized the organizational identity.

*Positional advantage approach*

This approach uses EO, MO and other variables as indicators (first-order factors) of an intervening latent variable (second-order factor), which is linked to a dependent variable. The argument behind this approach is that EO and MO do not act independently, but rather they are predicted to be elements that collectively contribute to the development of a latent variable. This stream of literature evaluates whether EO, MO and other variables concurrently give rise to positional advantage, which is linked to firm performance. Figure 4

Model	Authors (year)	Variables
EO ← → MO	González-Benito <i>et al.</i> (2009)	EO: Uni, IPR MO: Uni, Behavioral-MARKOR
	Miles and Arnold (1991)	EO: Uni, IPR MO: Uni, Morris and Paul's (1987) scale
	Miles <i>et al.</i> (1992)	EO: Uni, IPR MO: Uni, Morris and Paul's (1987) scale
	Morris and Paul (1987)	EO: Uni, IPR MO: Uni, Own scale
	Roskos and Klandt (2007)	EO: Multi, IPRC MO: Uni, Behavioral-MARKOR

**Notes:** EO = entrepreneurial orientation; MO = market orientation;  
A = antecedent variable; D = dependent variable; Uni =  
unidimensional; Multi = multidimensional; I = innovativeness;  
P = proactiveness; R = risk-taking; C = competitive aggressiveness

**Figure 2.**  
Studies in the  
corollary approach

shows the studies of [Hult and Ketchen \(2001\)](#) and [Lonial and Carter \(2015\)](#), where EO and MO used other first-order factors and relatively different dependent variables.

### Sequential approach

According to [Hakala \(2011\)](#), the sequential approach considers orientations as following one another in development sequences, i.e. considering one orientation at a time. The sequential approach attempts to argue the supremacy of one orientation over another under certain circumstances or to achieve certain goals ([Hakala, 2011](#)). The studies using this approach suggest that orientations develop over time as the result of changes in the context or as part of the developmental process of the firm. The results appear to consider EO and MO in two different sequential approaches. First, MO was posited as an antecedent of EO, with 12 studies being identified in this group. Second, EO was posited as an antecedent of MO, with 16 studies in this group. [Figure 5](#) shows the different models in each approach.

There are several coincidences between the models represented in the two sequential approaches. The simplest model in this approach is where MO is analyzed as an antecedent of EO and vice versa. Interestingly, the only two studies that used multidimensional scales are included in these models ([Morgan and Strong, 1998](#); [Osman et al., 2011](#)) because these studies wanted to analyze the different effects of each dimension. There are studies that included dependent variables in their models. For example, [Grinstein \(2008\)](#) analyzed the effect of MO on different orientations, including EO, while [Hakala and Kohtamäki \(2010\)](#) analyzed the influence of EO on MO and technology orientation. Other examples include

Model	Authors (year)	Variables
	<a href="#">Davis et al. (1991)</a>	EO: Uni, IPR MO: Uni, Own Scale A: Environmental turbulence D: Organizational characteristics
	<a href="#">Zachary et al. (2011)</a>	EO: Uni, IPRCA MO: Uni, Cultural-MKTOR A: Franchise performance, franchise age, and franchise size D: Charismatic leadership rhetoric

**Notes:** EO = entrepreneurial orientation; MO = market orientation; A = antecedent variable; D = dependent variable; Uni = unidimensional; I = innovativeness; P = proactiveness; R = risk-taking; C = competitive aggressiveness; A = autonomy

**Figure 3.**  
Studies in the  
dependent variables  
approach

Model	Authors (year)	Variables
	<a href="#">Hult and Ketchen (2001)</a>	EO: Uni, IPR MO: Uni, Cultural-MKTOR Fo: Innovativeness and organizational learning So: Positional advantage D: Return on investment, income, and stock price
	<a href="#">Lonial and Carter (2015)</a>	EO: Uni, IPR MO: Uni, Behavioral-MARKOR Fo: Learning orientation So: Positional advantage D: Firm performance

**Notes:** EO = entrepreneurial orientation; MO = market orientation; Fo = first-order factor; So = second-order factor; D = dependent variable; Uni = unidimensional; I = innovativeness; P = proactiveness; R = risk-taking

**Figure 4.**  
Studies in the  
positional advantage  
approach

a) First sequential approach: MO as antecedent of EO

Model	Authors (year)	Variables
MO → EO	Morgan and Strong (1998)	EO: Multi, PRC MO: Uni, Cultural-MKTOR
MO → EO Al → EO	Sciascia <i>et al.</i> (2006)	EO: Uni, IPR MO: Uni, Behavioral-MARKOR Al: CEO's resources, resources, firm's organization, and environment
	Seilov (2015)	EO: Uni, IPR MO: Uni, Cultural-MKTOR Al: Competitor orientation
MO → EO MO → D	Grinstein (2008)	EO: Uni, IPR MO: Uni, Cultural-MKTOR and Behavioral-MARKOR D: Innovation orientation, learning orientation, and employee orientation
	Liu <i>et al.</i> (2003)	EO: Uni, IPR MO: Uni, Cultural-MORTN D: Learning orientation and organizational performance
MO → D MO → EO → D	Acar <i>et al.</i> (2013)	EO: Uni, IP MO: Uni, Cultural-MKTOR D: Individual service performance
MO → Me → EO → D	Mac and Evangelista (2016)	EO: Uni, IPR MO: Uni, Cultural-MKTOR Me: Commitment to learning D: Export performance
MO → EO → D MO → Me → D	Rodriguez-Gutiérrez <i>et al.</i> (2014)	EO: Uni, IPR MO: Uni, Cultural-MKTOR Me: Learning orientation D: Firm performance
	Shavazi <i>et al.</i> (2015)	EO: Uni, IPR MO: Uni, Behavioral-MARKOR Me: Learning orientation D: Export performance
MO → Me → EO Al → Me → EO	Kakapour <i>et al.</i> (2016)	EO: Uni, IP MO: Uni, Behavioral-MARKOR Al: Learning orientation Me: Opportunity recognition
MO → EO → D Al → EO → D	Luo <i>et al.</i> (2005a)	EO: Uni, IPR MO: Uni, Cultural-MORTN Al: Ownership, internationalization, firm size, and firm age D: Sales growth and market share
MO → EO → D Mo → EO → D	Becherer and Maurer (1997)	EO: Uni, IPR MO: Uni, Morris and Paul's (1987) scale Mo: Environmental turbulence and environmental hostility D: Change in profits

Notes: EO = Entrepreneurial orientation; MO = Market orientation; Al = Alternative variable; Mo = Moderating variable; Me = Mediating variable; D = Dependent variable; Uni = Unidimensional; Multi = Multidimensional; I = Innovativeness; P = Proactiveness; R = Risk-taking; C = Competitive


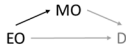
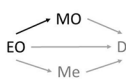
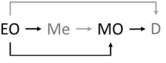
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Figure 5.  
Studies in the  
sequential approach

Acar *et al.* (2013) and Sung *et al.* (2014), who considered individual service performance and corporate citizenship as dependent variables, although in different models.

The results show that studies in the two sequential approaches where the presence of alternative, mediating and moderating variables were important to understand the relationship between EO and MO. For example, Becherer and Maurer (1997) used characteristics of the environment as moderating variables, and Long (2013) considered learning orientation as a mediating variable.

## b) Second sequential approach: EO as antecedent of MO

Model	Authors (year)	Variables
EO → MO	González-Benito <i>et al.</i> (2009)	EO: Uni, IPR MO: Uni, Behavioral-MARKOR
	Osman <i>et al.</i> (2011)	EO: Multi, IPR MO: Multi, Cultural-MKTOR
	Hakala and Kohtamäki (2010)	EO: Uni, IPR MO: Uni, Cultural-MKTOR D: Technology orientation
	Abubakar and Bambale (2016)	EO: Uni, IPR MO: Uni, Behavioral-MARKOR D: Firm performance
	Amin <i>et al.</i> (2016)	EO: Uni, IPR MO: Uni, Cultural-MKTOR D: Firm performance
	Ruzgar <i>et al.</i> (2015)	EO: Uni, IPR MO: Uni, Cultural-MKTOR D: Firm performance
	Sung <i>et al.</i> (2014)	EO: Uni, IPR MO: Uni, Cultural-MKTOR D: Corporate citizenship
	Vega-Vázquez <i>et al.</i> (2016)	EO: Uni, IPRCA MO: Uni, Cultural-MORTN D: Firm performance
	Chen (2012)	EO: Uni, IPRA MO: Uni, Cultural-MKTOR Me: Policy orientation D: Firm performance
	Choi and Williams (2016)	EO: Uni, IPR MO: Uni, Cultural-MKTOR Me: Technology action D: Firm performance
	Hyung and Dedahanov (2014)	EO: Uni, IPR MO: Uni, Cultural-MKTOR Me: Technology orientation D: Firm performance
	Long (2013)	EO: Uni, IPR MO: Uni, Behavioral-MARKOR Me: Learning orientation D: Firm performance
	Matsuno <i>et al.</i> (2002)	EO: Uni, IPR MO: Uni, Behavioral-MARKOR Me: Organizational structure D: Market share, new product sales, and return on investment
	Monferrer <i>et al.</i> (2012)	EO: Uni, IPR MO: Uni, Behavioral-MARKOR Me: International competitive position D: International performance
	O'Cass and Ngo (2011)	EO: Uni, IPR MO: Uni, Behavioral-MARKOR Me: Innovation capability and marketing capability D: Marketplace performance
	Aljanabi and Noor (2015)	EO: Uni, IPR MO: Uni, Behavioral-MARKOR AI: Absorptive capacity D: Technological innovation capabilities

**Notes:** (a) First sequential approach (MO as antecedent of EO) and (b) second sequential approach: (EO as antecedent of MO); EO = entrepreneurial orientation; MO = market orientation; AI = alternative variable; Mo = moderating variable; Me = mediating variable; D = dependent variable; Uni = unidimensional; Multi = multidimensional; I = Innovativeness; P = proactiveness; R = risk-taking; C = competitive aggressiveness

Figure 5.

*Alternative approach*

The alternative approach suggests that there is a choice between alternative orientations. It argues for a fit with contingency factors ([Hakala, 2011](#)). The results indicate that EO and MO can produce different effects; therefore, one orientation is better than another in a given circumstance. Likewise, EO and MO can produce the same effect, but provide a different route. Studies using the alternative approach compared strategic orientations for determining when a certain orientation should be selected to implement strategy, depending on the goal or the effects they produce. The alternative approach is the most numerous with 57 studies, which can be organized in three different groups as shown in [Figure 6](#). The three groups suggest that there is a single best alternative for the prevailing circumstances, which means that there is not a universally beneficial orientation because it depends on the context.

The first alternative approach group is characterized by the presence of alternative strategic orientations. This group of studies analyzed the influence of EO and MO on dependent variables, for example, international performance in [Frishammar and Andersson \(2009\)](#) and driving market innovations and market-driven innovations in [Zortea-Johnston et al. \(2012\)](#). Some studies included alternative strategic orientations in addition to EO and MO. For example, [Sarker and Palit \(2015\)](#) and [Aminu and Shariff \(2015\)](#) included learning orientation and technology orientation. There is also another group of studies that includes the effect of moderating variables, some of which are characteristics of the environment ([Frishammar and Hrte, 2007](#)), while others are organizational capabilities ([Herath and Mahmood, 2014](#)). Finally, some studies include mediating variables, and interestingly, many of them are organizational capabilities, such as dynamic capability in [Sarkar et al. \(2016\)](#) and innovativeness in [Civre and Omerzel \(2015\)](#). There are seven studies in the second alternative approach group, and all of them consider antecedent variables to EO and MO. For example, [Mirzaei et al. \(2016\)](#) used environmental turbulence. The third group of studies using the alternative approach is singular, because it incorporates double mediating variables. For example, [Lin et al. \(2008\)](#) and [Rhee et al. \(2010\)](#) used learning orientation and innovativeness.

*Complementary approach*

The complementary approach considers orientations as mutually complementary. According to [Hakala \(2011\)](#), the starting point for the view of a complementary approach is that different orientations support each other in some way. It may be on the level of correlation, mediation or moderating effects. [Hakala \(2011, p. 210\)](#) declared that:


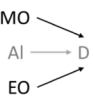
The core of the complementary approach is that the relationship between orientations is also considered, and that the pattern, rather than the orientations separately, create the desired effects in the dependent variable.

The studies in this approach view orientations as flexible constructs that are simultaneously combined for a fit with the contingency factors. [Figure 7](#) shows the studies under the complementary approach, which is the second most numerous with 31 studies.

The simplest model can be found in the study of [Kwak et al. \(2013\)](#), who examined the structural interrelationships between the operational dimensions of EO and MO. There is a group of studies that analyzed the joint effect of EO and MO on dependent variables, although in three different ways. For example, [Chen and Hsu \(2013\)](#) examined the moderating influence of MO on the EO–performance relationship. Meanwhile, [Li et al. \(2008\)](#) and [Brockman et al. \(2012\)](#) examined the MO–performance relationship and the moderating

influence of EO on that relationship. The third group was characterized for the independent effect of EO and MO on a dependent variable, besides the joint effect (Zahra, 2008).

There is another group of studies that analyzed the joint effect of EO and MO with other alternative strategic orientations. For example, Feder (2015) and Deutscher *et al.* (2016) incorporated learning orientation. The results suggested that performance depends on configurations. Also, there are several models of research that examined the impact of the

Model	Authors (year)	Variables
	Atuahene-Gima and Ko (2001)	EO: Uni, IPR MO: Uni, Behavioral-MARKOR D: New product performance, timing of market entry, product quality, marketing synergy, market launch, and product innovation
	Frishammar and Andersson (2009)	EO: Multi, IPR MO: Uni, Cultural-MORTN D: International performance
	González-Benito <i>et al.</i> (2009)	EO: Uni, IPR MO: Uni, Behavioral-MARKOR D: Business performance
	Gruber-Muecke and Hofer (2015)	EO: Uni, IPR MO: Uni, Cultural-MKTOR D: Firm performance
	Liu <i>et al.</i> (2002)	EO: Uni, IPR MO: Uni, Cultural-MORTN D: Learning orientation and marketing program dynamism
	Maatoofi and Tajeddini (2011)	EO: Uni, IPR MO: Uni, Cultural-MKTOR D: Product quality, marketing synergy, expertise in offering new product, amount of management support for innovation, and intensity of environmental competition
	Slater and Narver (2000b)	EO: Uni, IPR MO: Uni, Cultural-MKTOR D: Return on investment
	Verhees <i>et al.</i> (2012)	EO: Uni, IPR MO: Uni, Cultural-MORTN D: Strategy
	Wijesekara <i>et al.</i> (2016)	EO: Uni, IPR MO: Uni, Cultural-MKTOR D: Firm performance
	Zortea-Johnston <i>et al.</i> (2012)	EO: Uni, IPRCA MO: Uni, Behavioral-MARKOR D: Driving markets innovations and market driven innovations
	Altindag <i>et al.</i> (2011)	EO: Uni, IPR MO: Uni, Cultural-MKTOR AI: Innovation orientation and learning orientation D: Business growth performance and business financial performance
	Aminu and Shariff (2015)	EO: Uni, IPR MO: Uni, Cultural-MORTN AI: Learning orientation and technology orientation D: Access to finance
	Barrett <i>et al.</i> (2005)	EO: Uni, IPR MO: Uni, Behavioral-MARKOR AI: Learning orientation and organizational flexibility; D: International performance
	Barrett <i>et al.</i> (2009)	EO: Uni, IPR MO: Uni, Behavioral-MARKOR AI: Learning orientation and organizational flexibility D: Firm performance

(continued)

**Figure 6.**  
Studies in the  
alternative approach



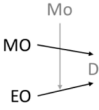
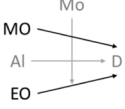
	Hakala and Kohtamäki (2010)	EO: Uni, IPR MO: Uni, Cultural-MKTOR AI: Technology orientation D: Firm performance
	Hakala and Kohtamäki (2011)	EO: Uni, IPR MO: Uni, Cultural-MKTOR AI: Technology orientation D: Organizational learning capability and firm performance
	Jansson <i>et al.</i> (2015)	EO: Uni, PR MO: Uni, Cultural-MKTOR AI: Pro-environmental values and business sustainability practices D: Commitment to sustainability
	Neto <i>et al.</i> (2016)	EO: Uni, IPR MO: Uni, Cultural-MKTOR AI: Specific agents and generic agents D: Incremental innovation and radical innovation
	Salavou and Lioukas (2003)	EO: Uni, PR MO: Uni, Cultural-MKTOR and Behavioral-MARKOR AI: Technology policy D: Product innovativeness
	Sarker and Palit (2015)	EO: Multi, IPRCA MO: Multi, Cultural-MKTOR AI: Learning orientation D: Firm performance
	Abebe and Angriawan (2014)	EO: Uni, IPR MO: Uni, Cultural-MKTOR Mo: Perceived competitive intensity D: Degree of exploration activities and degree of exploitation activities
	Faroque (2015)	EO: Uni, IPR MO: Uni, Cultural-MORTN Mo: Environmental dynamism D: International opportunity recognition and development
	Frishammar and Hörte (2007)	EO: Multi, IPR MO: Uni, Cultural-MORTN Mo: Degree of product newness to customers, technological turbulence, and competitive intensity D: New product development
	Herath and Mahmood (2014)	EO: Uni, IPR MO: Uni, Cultural-MKTOR AI: Learning orientation Mo: Absorptive capacity D: Firm performance
	Luo <i>et al.</i> (2005b)	EO: Uni, IPR MO: Uni, Cultural-MORTN AI: Innovative capability Mo: Global market sourcing, global market seeking, and global partnership D: Marketing program dynamism and sales growth
	Panda (2014)	EO: Uni, IPR MO: Uni, Cultural-MKTOR

Figure 6.

(continued)

simultaneous implementation of EO and MO on a dependent variable and whether this relationship depends on levels of moderating variables. For example, [Boso \*et al.\* \(2016\)](#) used conditions of the environment as moderating variables, while [Merlo and Auh \(2009\)](#) used organizational conditions. Finally, seven studies argued that the complementary effect of EO and MO on performance is through a mediating variable. In this sense, practically all studies used organizational capabilities as mediating variables; for example, Mu and Di

		AI: Technology orientation Mo: Competitive intensity D: Managerial networks
	Pérez-Luño <i>et al.</i> (2016)	EO: Uni, IPR MO: Uni, Cultural-MKTOR AI: Environmental hostility Mo: Environmental hostility D: Tacit knowledge
	Renko <i>et al.</i> (2009)	EO: Uni, IPR MO: Uni, Behavioral-MARKOR AI: Technological capability Mo: Technological capability D: Product innovativeness and capital invested in the firm
MO → Me → D EO → Me → D	Baker and Sinkula (2009)	EO: Uni, IPR MO: Uni, Cultural-MORTN Me: Innovation success D: Profitability
	Kajalo and Lindblom (2015)	EO: Uni, IPR MO: Uni, Cultural-MORTN Me: Marketing capabilities D: Business performance
	Li <i>et al.</i> (2006)	EO: Uni, IPRCA MO: Uni, Cultural-MKTOR Me: Personal control and output control D: New product development
	Tajeddini (2010)	EO: Uni, IPR MO: Uni, Cultural-MORTN Me: Innovativeness D: Profit goal achievement, sales goal achievement, and ROI achievement
	Veidal and Korneliusen (2013)	EO: Uni, IPR MO: Uni, Behavioral-MARKOR Me: Organizational innovation D: Firm performance
	Yu <i>et al.</i> (2016)	EO: Uni, IPR MO: Uni, Cultural-MKTOR Me: Internet of things capability and Internet of things alliance D: Product innovation and process innovation
MO → Me → D AI → Me → D EO → Me → D	Lee <i>et al.</i> (2014)	EO: Uni, PR MO: Uni, Cultural-MKTOR AI: Technology orientation and learning orientation Me: Firm innovativeness D: Firm performance
	Sarkar <i>et al.</i> (2016)	EO: Multi, IPR MO: Uni, Cultural-MORTN AI: Learning orientation Me: Dynamic capability D: Firm performance
MO → Me → D EO → Me → D	Civire and Omerzel (2015)	EO: Uni, IPR MO: Uni, Cultural-MKTOR Me: Innovativeness D: Firm performance
	Knight and Cavusgil	EO: Uni, IPR

(continued)

Figure 6.

Benedetto (2011) used organizational learning and [Ahmadi and O'Cass \(2016\)](#) exploratory and exploitative innovation activities.

### Discussion and future research

The purpose of this research was to conduct a qualitative review of EO–MO relationship literature. Based on the results of this study, it is possible to document a summary of prior

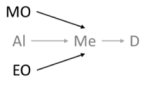
	(2004)	MO: Uni, Behavioral-MARKOR Me: Global technological competence, unique products development, quality focus, and leveraging foreign distributor competencies D: Performance in international markets
	Tammi <i>et al.</i> (2016)	EO: Uni, IPR MO: Uni, Cultural-MKTOR Me: National public sector customers and Sub-national public sector customers D: Firm performance
	Tzokas <i>et al.</i> (2001)	EO: Uni, IPR MO: Uni, Behavioral-MARKOR Me: Marketing competencies D: Overall performance
	Colton <i>et al.</i> (2010)	EO: Uni, IPR MO: Uni, Cultural-MORTN AI: Foreign market orientation Me: Brand strength and supplier relations D: Performance relative to objectives and revenue growth
	Ibrahim and Shariff (2016)	EO: Uni, IPR MO: Uni, Cultural-MORTN AI: Learning orientation and technology orientation Me: Access to finance D: Firm performance
	Laukkanen <i>et al.</i> (2013)	EO: Uni, IPR MO: Uni, Cultural-MKTOR AI: Learning orientation and brand orientation Me: Brand performance and market performance D: Business growth
	Tutar <i>et al.</i> (2015)	EO: Uni, IPR MO: Uni, Cultural-MKTOR AI: Technology orientation Me: Innovation capability D: Market performance
	Tajeddini (2015)	EO: Uni, IPR MO: Uni, Cultural-MKTOR AI: Learning orientation Me: Innovativeness D: Business performance
	Hult <i>et al.</i> (2004)	EO: Uni, IPR MO: Uni, Cultural-MKTOR AI: Learning orientation Mo: Market turbulence Me: Innovativeness D: Business performance
	Li (2005)	EO: Uni, PR MO: Uni, Cultural-MKTOR AI: Technology orientation Mo: Competitive intensity Me: Network building D: Income/firm size

Figure 6.

scientific production and how EO–MO relationship has been studied over the past 30 years. Despite this progress, this section will discuss some aspects that represent avenues for future research in light of the general characteristics and the identified approaches.

The broad influence of EO and MO in their respective fields of research has increased their usefulness in investigating a wide range of phenomena across different contextual conditions. This has caused researchers from other fields to turn their attention to the study of the EO–MO relationship, as is evidenced by the 266 different authors (232 of them with just one publication) who published in 83 different journals (66 of them with just one article). However, it is important that future research address the complexities that EO and MO can take in a context different from the one in which they were initially generated (i.e. firms in

*Second alternative approach: Antecedent*

Model	Authors (year)	Variables
	Liu <i>et al.</i> (2011)	EO: Uni, IPR MO: Uni, Cultural-MKTOR A: Ownership concentration and CEO ownership D: Internationalization
	Mirzaei <i>et al.</i> (2016)	EO: Uni, IPC MO: Uni, Cultural-MKTOR A: Environmental turbulence D: New product sales and number of marketing channels
	Zhang and Bruning (2011)	EO: Uni, IPR MO: Uni, Cultural-MKTOR A: Need for achievement, internal locus of control, and need for cognition D: Firm performance
	Kraft and Bausch (2016)	EO: Uni, IPR MO: Uni, Cultural-MKTOR, Behavioral-MARKOR A: Transformational leadership Al: Learning orientation D: Exploitative innovation and exploratory innovation
	González-Benito <i>et al.</i> (2015)	EO: Uni, IPR MO: Uni, Behavioral-MARKOR A: Size Mo: Size D: Innovation
	Qureshi and Mian (2010)	EO: Uni, IPR MO: Uni, Behavioral-MARKOR A: Environment turbulence Al: Strategic orientation Me: Marketing capabilities D: Firm performance
	Qureshi and Kratzer (2011)	EO: Uni, IPR MO: Uni, Behavioral-MARKOR A: Environment turbulence Me: Marketing capabilities D: Firm performance

*(continued)*


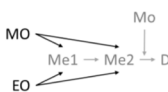
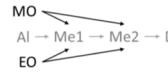
Figure 6.

the profit context). For example, the proposals of [Felgueira and Rodrigues \(2012\)](#) and [Morris \*et al.\* \(2007\)](#) can be useful for studying the EO–MO relationship in the non-profit context.

Consistent with the previous argument, there is a growing interest in unifying EO and MO under the concept of entrepreneurial marketing, which represents a temptation for researchers who want to study the EO–MO relationship. Future research must be cautious about this concept because it dilutes the core tenets of EO and MO, and there is no unified description of the construct or agreement on what variables are critical to an entrepreneurial marketing framework ([Haden \*et al.\*, 2016](#); [O'Cass and Morris, 2016](#); [Solé, 2013](#)). A good example of this is [Ahmadi and O'Cass's \(2016\)](#) study, which preserved the core tenets of EO and MO in their analysis despite using the term entrepreneurial marketing.

Prior research has emphasized that EO and MO may vary in different national contexts. The results of this study showed 42 countries where the EO–MO relationship was researched; however, many countries have paid minimal attention to the issue. Future researchers would do well to not only develop studies in these countries and include characteristics of the external context (dynamism, hostility, etc.) but also include the influence of cultural and institutional factors ([Hofstede \*et al.\*, 2002](#)). Besides, according to [Perhsson \(2016\)](#), it would be interesting to compare results within various countries. However, this would require an international research agenda that considers better ways to suit local conditions.

Third alternative approach: Mediating

Model	Authors (year)	Variables
	Hong <i>et al.</i> (2013)	EO: Uni, IPR MO: Uni, Cultural-MKTOR Me1: Proficiency of NPD process and proficiency of IPM process Me2: Product meaningfulness and product novelty D: New product performance
	Lin <i>et al.</i> (2008)	EO: Uni, PR MO: Uni, Cultural-MKTOR Me1: Learning orientation Me2: Innovativeness Mo: Organizational structure D: Business performance
	Rhee <i>et al.</i> (2010)	EO: Uni, PR MO: Uni, Cultural-MKTOR Al: Firm size and firm age Me1: Learning orientation Me2: Innovativeness D: Business performance





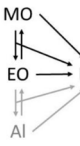
**Notes:** (a) First alternative approach: Strategic orientations: EO = entrepreneurial orientation; MO = market orientation; Al: alternative variable; Mo: moderating variable; Me = mediating variable; D = dependent variable; Uni = unidimensional; Multi = multidimensional; I = innovativeness; P = proactiveness; R = risk-taking; C = competitive aggressiveness; A = autonomy; (b) Second alternative approach: Antecedent: EO = entrepreneurial orientation; MO = market orientation; A = Antecedent variable; Al = alternative variable; Mo = moderating variable; Me = mediating variables; D = dependent variable; Uni = unidimensional; I = innovativeness; P = proactiveness; R = risk-taking; C = competitive aggressiveness; (c) Third alternative approach: Mediating: EO = entrepreneurial orientation; MO = market orientation; Al = alternative variable; Me1 = mediating variable 1; Me2 = mediating variable 2; Mo = moderating variable; D = dependent variable; Uni = unidimensional; I = innovativeness; P = proactiveness; R = risk-taking;

Figure 6.

According to the dimensionality of EO and MO, the 121 papers that studied the relationship between EO and MO show interesting opportunities for future research. First, 9 per cent of the sample (11 studies) used multidimensional scales, which were identified in the previous section. This could mean broad acceptance for understanding EO and MO in aggregated levels, instead of analyzing the dimensions of each construct. However, the option will always exist to analyze individual effects of the variables that form EO and MO in future research, as long as that is the objective (Lumpkin and Dess, 1996; Covin and Wales, 2012). Second, approximately 91 per cent of the studies used a unidimensional scale for studying EO, where innovativeness, proactiveness and risk-taking were the predominant dimensions with 75 per cent of the entire sample. On the other hand, approximately 97 per cent of the studies used unidimensional scales for studying MO, where MKTOR and MARKOR scales were the most used scales with 46 and 37 per cent, respectively, of the entire sample. Third, at least half of the studies used firm performance or some variant of this as a dependent variable (e.g. export performance, marketplace performance, international performance and business growth performance). Although performance is a key component of strategy, future studies should analyze EO and MO and their effects on other dependent variables,

which can be at organizational levels (e.g. innovation, networking and organizational learning).

The six approaches identified in this study revealed several models that advance the knowledge on relationships between EO and MO and offer opportunities for future research. The first three approaches (corollary, dependent and positional advantage) included nine studies, of which seven were published before 2010. It could be an indicative that these

Model	Authors (year)	Variables
EO ↔ MO	Kwak <i>et al.</i> (2013)	EO: Multi, IPR MO: Multi, Behavioral-MARKOR
	Chen and Hsu (2013)	EO: Multi, IPR MO: Multi, Behavioral-MARKOR D: Firm performance
	González-Benito <i>et al.</i> (2009)	EO: Uni, IPR MO: Uni, Behavioral-MARKOR D: Business performance
	Bhuiyan <i>et al.</i> (2005)	EO: Uni, IPR MO: Uni, Behavioral-MARKOR D: Business performance
	Brockman <i>et al.</i> (2012)	EO: Multi, IR MO: Uni, Cultural-MORTN D: Business performance
	Hussain <i>et al.</i> (2016)	EO: Uni, IPRCA MO: Uni, Cultural-MKTOR D: Business performance
	Li <i>et al.</i> (2008)	EO: Multi, IPR MO: Uni, Cultural-MKTOR D: Business performance
	Vitale <i>et al.</i> (2004)	EO: Uni, IPR MO: Uni, Behavioral-MARKOR D: Business performance
	Bhuiyan and Habib (2005)	EO: Uni, IPR MO: Uni, Behavioral-MARKOR D: Business performance
	Zahra (2008)	EO: Uni, IPR MO: Uni, Behavioral-MARKOR D: Organizational performance
	Boso <i>et al.</i> (2016a)	EO: Uni, IPRCA MO: Uni, Behavioral-MARKOR AI: Radical product innovation capability D: Sales performance
	Deutscher <i>et al.</i> (2016)	EO: Uni, IPR MO: Uni, Behavioral-MARKOR AI: Learning orientation D: Firm performance
	Feder (2015)	EO: Uni, IPR MO: Uni, Behavioral-MARKOR AI: Learning orientation D: International performance
	Gagnon <i>et al.</i> (2013)	EO: Uni, IPR MO: Uni, Behavioral-MARKOR AI: Sustainable orientation D: Firm performance and environmental scanning
	Ho <i>et al.</i> (2016)	EO: Uni, IPR MO: Uni, Cultural-MKTOR AI: Relationship orientation and technology orientation D: Firm performance
	Nasution <i>et al.</i> (2011)	EO: Uni, IPRCA

(continued)

**Figure 7.**  
Studies in the  
complementary  
approach



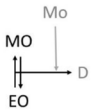
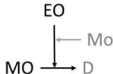
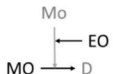
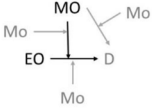
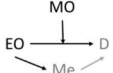


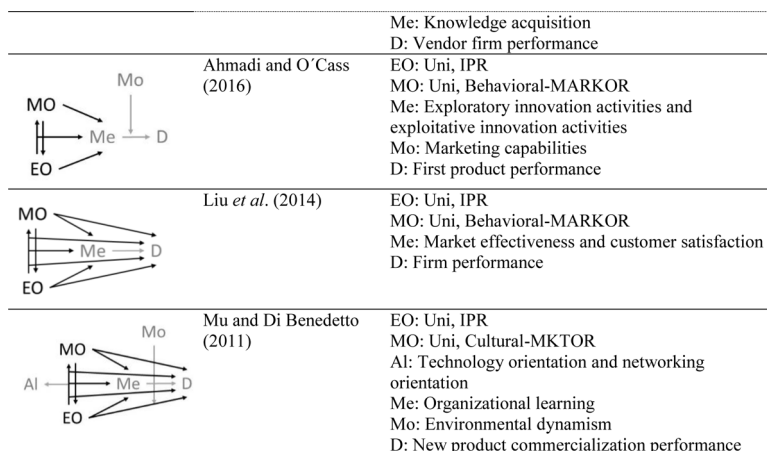
		MO: Uni, Cultural-MKTOR AI: Learning orientation and human resources practices D: Innovation and customer value
	Boso <i>et al.</i> (2013a)	EO: Uni, IPRCA MO: Uni, Behavioral-MARKOR Mo: Social network ties and business network ties D: Firm performance
	Boso <i>et al.</i> (2016b)	EO: Uni, IPRCA MO: Uni, Behavioral-MARKOR Mo: Financial capital and Export market turbulence D: Export performance
	Merlo and Auh (2009)	EO: Uni, IPR MO: Uni, Cultural-MKTOR Mo: Marketing subunit influence D: Business performance
	Brettel <i>et al.</i> (2011)	EO: Uni, IPR MO: Uni, Cultural-MKTOR Mo: National culture and macroeconomic development stage D: Customer satisfaction, market effectiveness, and profitability
	Boso <i>et al.</i> (2012)	EO: Uni, IPRCA MO: Uni, Behavioral-MARKOR Mo: Competitive intensity and financial capital D: Export new product performance
	Boso <i>et al.</i> (2013b)	EO: Uni, IPRCA MO: Uni, Behavioral-MARKOR Mo: Export market dynamism D: Export product innovation success
	Cadogan <i>et al.</i> (2016)	EO: Uni, IPRCA MO: Uni, Behavioral-MARKOR Mo: Coordination flexibility D: Export performance
	Thoumrungrroje and Racela (2013)	EO: Uni, IPR MO: Uni, Cultural-MKTOR Me: Product innovation D: New product performance and firm performance
	Morgan <i>et al.</i> (2015)	EO: Uni, IPR MO: Uni, Cultural-MORTN Me: Degree of product newness D: New product development performance
	Dutta <i>et al.</i> (2016)	EO: Uni, IPRCA MO: Uni, Cultural-MORTN Me: Learning orientation D: Firm performance
	Boso <i>et al.</i> (2016c)	EO: Uni, IPRCA MO: Uni, Behavioral-MARKOR Me: Resource transformation capability D: Export performance
	Li <i>et al.</i> (2010)	EO: Uni, IPR MO: Uni, Cultural-MKTOR

Figure 7.

(continued)

models are not on the cutting edge of the EO–MO relationship study. The sequential approach offers more complex relationships between EO and MO, where the slight majority of studies locate EO as an antecedent of MO. The sequential approach represents 16 different models and 68 per cent of studies that were published after 2011. This approach could be more convenient for analyzing mediating variables, which may represent



**Notes:** EO = entrepreneurial orientation; MO = market orientation; AI = alternative variable; Me = mediating variable; Mo = moderating variable; D = dependent variable; Uni = unidimensional; Multi = multidimensional; I = innovativeness; P = proactiveness; R = risk-taking; C = competitive aggressiveness; A = autonomy

Figure 7

antecedents or consequences of EO or MO. According to [Hakala \(2011\)](#), this approach suggests that orientations develop toward more complex sets of activities that improve firm performance. However, it requires that future research include more variables and consider longitudinal and qualitative methodologies.

Undoubtedly, the alternative approach was the most studied for the researchers, where the influence of EO and MO alone, or with other orientations (e.g. technology, learning, brand, foreign market and innovation) on mediating or dependent variables were analyzed. Approximately 45 per cent of the articles in the sample used this approach, and interestingly, 60 per cent of the studies in this approach were published after 2011. This approach has taken advantage of using various orientations for studying the concept of strategic orientation of the firm. In this sense, some studies have incorporated more variables in their research models (i.e. antecedent, mediating and moderating) to understand their influence on business performance. The 17 research models identified in this approach may represent an interesting scenario for future research because they can contrast alternative orientations and contingency factors under similar conditions around business performance or organizational capabilities.

Finally, the complementary approach represents another alternative for studying the EO–MO relationship. There are two important aspects of this approach that are worth mentioning: the majority of studies in this approach (approximately 74 per cent) were published after 2011 and 17 research models were identified. These characteristics may represent the most recent call to researchers to consider orientations as complementary and mutually supportive ([Deutscher \*et al.\*, 2016](#); [Ho \*et al.\*, 2016](#)). The complementary approach may be indicating a trend in the research of the EO–MO relationship, the reason for which researchers should consider this approach in future studies without neglecting that EO and MO are different constructs that underlie different business philosophies, as has been demonstrated in the corollary approach ([González-Benito \*et al.\*, 2009](#); [Roskos and Klandt, 2007](#)). This suggestion is consistent with [Hakala \(2011\)](#), who

suggested that the complementary approach would be the most productive way to enhance understanding of a firm's performance.

### Conclusions and implications

Owing to the philosophy of and accumulated knowledge EO and MO in the entrepreneurship and marketing literature, these constructs have been considered drivers of firms' decisions and behaviors. In terms of contribution to academic knowledge, this study has researched and highlighted the cumulative achievements of the extant EO–MO relationship literature, which has increased considerably in recent years. But this study has also shown that the EO–MO relationship has been studied from six different approaches, which revealed several models that advance the understanding of the relationships between these two constructs. Although the purpose of this study was not to decide which approach is better, it is possible to conclude that each approach or, even more significantly, each research model tries to provide the best explanation for the relationship between EO and MO. However, the present study has identified some knowledge gaps that constitute the foundation for the theoretical and methodological implications for future research that have previously been commented upon.

First, it suggests that the measurement of performance could be further enriched if studies include indicators of the two perspectives (i.e. financial and operational). However, the choice of indicators of performance needs to be consistent with the framework in question (Cadogan, 2012). Second, there is a necessity for further studies that explicitly consider environment or the competitive context that defines a firm's engagement with its rivals. Hypercompetition is a multifaceted concept that includes reduction in entry barriers through global competition, technological revolutions that shorten design cycles and offer opportunities for disruption, and improved methods of information dissemination that allow quick imitation (Bettis and Hitt, 1995). Therefore, a hypercompetitive environment may be a reasonable construct in future studies of the moderation of relationships between EO–MO and firm performance. Third, the analysis of EO and MO's precursors could also have important implications for how firms perform within the competitive landscape. The extent to which firms develop knowledge through frequent internal and external conceptualization, as well as the constant examination of the quality of these conceptualizations, will influence its dominant logic (Von Krogh *et al.*, 2000). Hence, elements of EO and MO may be pursued simultaneously, to varying degrees, through dominant logic.

Methodology issues have implications for opportunities for future research. First, according to Deutscher *et al.* (2016), strategic orientations are not stable but rather evolve over time. Thus, a longitudinal research design would certainly yield further insights into the effects of the evolution of EO and MO and their influence on firm performance over time. This can be especially important in new firms, which undergo major challenges when trying to become viable entities. Second, the previous implication may be largely based on qualitative work, and the obvious implication is that more qualitative work should be done. Although this study did not include qualitative studies, it is necessary to consider the possibility that future empirical research is likely to benefit from explicit consideration of both quantitative and qualitative methods. Third, further studies should consider applying a multi-level approach to efforts to understand complex organizational phenomena (Hitt *et al.*, 2007). While previous studies have highlighted the importance of main-effects-only and contingency approaches where EO and MO are included, greater insight into firm performance can be gained by a configurational approach. That is, an approach is required that involves the simultaneous and joint consideration of various aspects of firms at different levels of analysis. Finally, it is hoped that an extension and refinement of the findings of this study may be useful for future research and may enhance understanding of the relationship between the fields of entrepreneurship and marketing.

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## References

- Acar, A.Z., Zehir, C., Özgenel, N. and Özşahin, M. (2013), "The effects of customer and entrepreneurial orientations on individual service performance in banking sector", *Procedia - Social and Behavioral Sciences*, Vol. 99, pp. 526-535.
- Ahmadi, H. and O'Cass, A. (2016), "The role of entrepreneurial marketing in new technology ventures first product commercialization", *Journal of Strategic Marketing*, Vol. 24 No. 1, pp. 47-60.
- Aminu, I.M. and Shariff, M.N.M. (2015), "Influence of strategic orientation on SMEs access to finance in Nigeria", *Asian Social Science*, Vol. 11 No. 4, pp. 298-309.
- Anderson, B.S., Kreiser, P.M., Kuratko, D.F., Hornsby, J.S. and Eshima, Y. (2015), "Reconceptualizing entrepreneurial orientation", *Strategic Management Journal*, Vol. 36 No. 10, pp. 1579-1596.
- Asad, M., Shariff, M.N.M. and Hafeez, M.H. (2016), "Moderating effect of network ties on the relationship between entrepreneurial orientation, market orientation, and performance of SMEs", *Paradigms: A Research Journal of Commerce and Social Sciences*, Vol. 10 No. 2, pp. 74-81.
- Auh, S. and Menguc, B. (2005), "The influence of top management team functional diversity on strategic orientations: the moderating role of environmental turbulence and inter-functional coordination", *International Journal of Research in Marketing*, Vol. 22 No. 3, pp. 333-350.
- Baker, W.E. and Sinkula, J.M. (2009), "The complementary effects of market orientation and entrepreneurial orientation on profitability in small businesses", *Journal of Small Business Management*, Vol. 47 No. 4, pp. 443-464.
- Balodi, K.C. (2014), "Strategic orientation and organizational forms: an integrative framework", *European Business Review*, Vol. 26 No. 2, pp. 188-203.
- Becherer, R.C. and Maurer, J.G. (1997), "The moderating effect of environmental variables on the entrepreneurial and marketing orientation of entrepreneur-led firms", *Entrepreneurship Theory and Practice*, Vol. 22 No. 1, pp. 47-58.
- Bettis, R.A. and Hitt, M.A. (1995), "The new competitive landscape", *Strategic Management Journal*, Vol. 16 No. S1, pp. 7-19.
- Boso, N., Cadogan, J.W. and Story, V.M. (2012), "Complementary effect of entrepreneurial and market orientations on export new product success under differing levels of competitive intensity and financial capital", *International Business Review*, Vol. 21 No. 4, pp. 667-681.
- Boso, N., Oghazi, P., Cadogan, J.W. and Story, V.M. (2016), "Entrepreneurial and market-oriented activities, financial capital, environment turbulence, and export performance in an emerging economy", *Journal of Small Business Strategy*, Vol. 26 No. 1, pp. 1-24.
- Brockman, B.K., Jones, M.A. and Becherer, R.C. (2012), "Customer orientation and performance in small firms: examining the moderating influence of risk-taking, innovativeness, and opportunity focus", *Journal of Small Business Management*, Vol. 50 No. 3, pp. 429-446.
- Bucktowar, R., Kocak, A. and Padichi, K. (2015), "Entrepreneurial orientation, market orientation and networking: impact on innovation and firm performance", *Journal of Developmental Entrepreneurship*, Vol. 20 No. 4, pp. 1-22.
- Cadogan, J.W. (2012), "International marketing, strategic orientations and business success", *International Marketing Review*, Vol. 29 No. 4, pp. 340-348.
- Chen, H.L. and Hsu, C.H. (2013), "Entrepreneurial orientation and firm performance in non-profit service organizations: contingent effects of market orientation", *The Service Industries Journal*, Vol. 33 No. 5, pp. 445-466.
- Çivire, Z. and Omerzel, D.G. (2015), "The behaviour of tourism firms in the area of innovativeness", *Economic Research*, Vol. 28 No. 1, pp. 312-330.
- Combs, J.G., Crook, T.R. and Shook, C.L. (2005), "The dimensionality of organizational performance and its implications for strategic management research", in Ketchen, D.J. and Bergh, D.D. (Eds), *Research Methodology in Strategic Management*, Elsevier, San Diego, CA, pp. 259-286.

- Covin, J.G. and Slevin, D.P. (1989), "Strategic management of small firms in hostile and benign environments", *Strategic Management Journal*, Vol. 10 No. 1, pp. 75-87.
- Covin, J.G. and Lumpkin, G.T. (2011), "Entrepreneurial orientation theory and research: reflections on a needed construct", *Entrepreneurship Theory and Practice*, Vol. 35 No. 5, pp. 855-872.
- Covin, J.G. and Wales, W.J. (2012), "The measurement of entrepreneurial orientation", *Entrepreneurship Theory and Practice*, Vol. 36 No. 4, pp. 677-702.
- David, R.J. and Han, S.K. (2004), "A systematic assessment of the empirical support for transaction cost economics", *Strategic Management Journal*, Vol. 25 No. 1, pp. 39-58.
- Davis, D., Morris, M. and Allen, J. (1991), "Perceived environmental turbulence and its effect on selected entrepreneurship, marketing and organizational characteristics in industrial firms", *Journal of the Academy of Marketing Science*, Vol. 19 No. 1, pp. 43-51.
- Deshpande, R., Farley, J.U. and Webster, F.E. Jr (1993), "Corporate culture, customer orientation and innovativeness in Japanese firms: a quadrad analysis", *Journal of Marketing*, Vol. 57 No. 1, pp. 23-37.
- Deshpande, R. and Farley, J.U. (1998), "Measuring market orientation: generalization and synthesis", *Journal of Market-Focused Management*, Vol. 2 No. 3, pp. 213-232.
- Deutscher, F., Zapkau, F.B., Schwens, C., Baum, M. and Kabst, R. (2016), "Strategic orientations and performance: a configurational perspective", *Journal of Business Research*, Vol. 69 No. 2, pp. 849-861.
- Eggers, F., Hansen, D.J. and Davis, A.E. (2012), "Examining the relationship between customer and entrepreneurial orientation on nascent firms' marketing strategy", *International Entrepreneurship and Management Journal*, Vol. 8 No. 2, pp. 203-222.
- Feder, E.S. (2015), "International market, entrepreneurial and learning orientations as drivers of firm performance", *Studia Universitatis Babeş-Bolyia Oeconomica*, Vol. 60 No. 1, pp. 3-22.
- Felgueira, T. and Rodrigues, R.G. (2012), "Entrepreneurial orientation, market orientation and performance of teachers and researchers in public higher education institutions", *Public Policy and Administration*, Vol. 11 No. 4, pp. 703-718.
- Frishammar, J. and Hörte, S.A. (2007), "The role of market orientation and entrepreneurial orientation for new product development performance in manufacturing firms", *Technology Analysis and Strategic Management*, Vol. 19 No. 6, pp. 765-788.
- Frishammar, J. and Andersson, S. (2009), "The overestimated role of strategic orientations for international performance in smaller firms", *Journal of International Entrepreneurship*, Vol. 7 No. 1, pp. 57-77.
- Goldman, A. and Grinstein, A. (2010), "Stages in the development of market orientation publication activity: a longitudinal assessment", *European Journal of Marketing*, Vol. 44 Nos 9/10, pp. 1384-1409.
- González-Benito, O., González-Benito, J. and Muñoz-Gallego, P.A. (2009), "Role of entrepreneurship and market orientation in firm's success", *European Journal of Marketing*, Vol. 43 Nos 3/4, pp. 500-522.
- Grinstein, A. (2008), "The relationships between market orientation and alternative strategic orientations. A Meta-analysis", *European Journal of Marketing*, Vol. 42 Nos 1/2, pp. 115-134.
- Haden, S.S.P., Kernek, C.R. and Toombs, L.A. (2016), "The entrepreneurial marketing of trumpet records", *Journal of Research in Marketing and Entrepreneurship*, Vol. 18 No. 1, pp. 109-126.
- Hakala, H. (2011), "Strategic orientations in management literature: three approaches to understanding the interaction between market, technology, entrepreneurial and learning orientations", *International Journal of Management Reviews*, Vol. 13 No. 2, pp. 199-217.
- Hakala, H. and Kohtamäki, M. (2010), "The interplay between orientations: entrepreneurial, technology and customer orientations in software companies", *Journal of Enterprising Culture*, Vol. 18 No. 03, pp. 265-290.

- Herath, H.M.A. and Mahmood, R. (2014), "Strategic orientations and SME performance: moderating effect of absorptive capacity of the firm", *Asian Social Science*, Vol. 10 No. 13, pp. 95-107.
- Hitt, M.A., Beamish, P.W., Jackson, S.E. and Mathieu, J.E. (2007), "Building theoretical and empirical bridges across level: multilevel research in management", *Academy of Management Journal*, Vol. 50 No. 6, pp. 1385-1399.
- Ho, J., Plewa, C. and Lu, V.N. (2016), "Examining strategic orientation complementarity using multiple regression analysis and fuzzy set QCA", *Journal of Business Research*, Vol. 69 No. 6, pp. 2199-2205.
- House, R., Hanges, P., Javidan, M., Dorfman, P. and Gupta, V. (2004), *Culture, Leadership and Organizations: The GLOBE Study of 62 Societies*, Thousand Oaks, Sage.
- Hofstede, F.T., Wedel, M. and Steenkamp, E.M. (2002), "Identifying spatial segments in international markets", *Marketing Science*, Vol. 21 No. 2, pp. 160-177.
- Hult, G.T.M. and Ketchen, D.J. Jr (2001), "Does market orientation matter? A test of the relationship between positional advantage and performance", *Strategic Management Journal*, Vol. 22 No. 9, pp. 899-906.
- Hunt, S.D. and Lambe, C.J. (2000), "Marketing's contribution to business strategy: market orientation, relationship marketing and resource-advantage theory", *International Journal of Management Reviews*, Vol. 2 No. 1, pp. 17-43.
- Ireland, R.D., Covin, J.G. and Kuratko, D.F. (2009), "Conceptualizing corporate entrepreneurship strategy", *Entrepreneurship Theory and Practice*, Vol. 33 No. 1, pp. 19-46.
- Jaworski, B.J., Kohli, A.K. and Sahay, A. (2000), "Market-driven versus driving markets", *Academy of Marketing Science*, Vol. 28 No. 1, pp. 45-54.
- Kirca, A.H., Jayachandran, S. and Bearden, W.O. (2005), "Market orientation: a Meta-analytic review and assessment of its antecedents and impact on performance", *Journal of Marketing*, Vol. 69 No. 2, pp. 24-41.
- Kohli, A.K. and Jaworski, B.J. (1990), "Market orientation: the construct, research propositions, and managerial implications", *Journal of Marketing*, Vol. 54 No. 2, pp. 1-18.
- Kohli, A., Jaworski, B. and Kumar, A. (1993), "MARKOR: a measure of market orientation", *Journal of Marketing Research*, Vol. 30 No. 4, pp. 467-477.
- Kwak, H., Jaju, A., Puzakova, M. and Rocereto, J.F. (2013), "The connubial relationship between market orientation and entrepreneurial orientation", *Journal of Marketing Theory and Practice*, Vol. 21 No. 2, pp. 141-161.
- Lam, W. and Harker, M.J. (2015), "Marketing and entrepreneurship: an integrated view from the entrepreneur's perspective", *International Small Business Journal*, Vol. 33 No. 3, pp. 321-348.
- Langley, A. (1999), "Strategies for theorizing from process data", *Academy of Management Review*, Vol. 24 No. 4, pp. 691-710.
- Lenz, R.T. (1980), "Environment, strategy, organization, structure and performance: patterns in one industry", *Strategic Management Journal*, Vol. 1 No. 3, pp. 209-226.
- Li, Y., Zhao, Y., Tan, J. and Liu, Y. (2008), "Moderating effects of entrepreneurial orientation on market orientation-performance linkage: evidence from chinese small firms", *Journal of Small Business Management*, Vol. 46 No. 1, pp. 113-133.
- Lin, C.H., Peng, C.H. and Kao, D.T. (2008), "The innovativeness effect of market orientation and learning orientation on business performance", *International Journal of Manpower*, Vol. 29 No. 8, pp. 752-772.
- Long, H.C. (2013) "The relationship among learning orientation, market orientation, entrepreneurial orientation, and firm performance of vietnam marketing communications firms", *Philippine Management Review*, Vol. 20, pp. 37-46.,
- Lonial, S.C. and Carter, R.E. (2015), "The impact of organizational orientations on medium and small firm performance: a resource-based perspective", *Journal of Small Business Management*, Vol. 53 No. 1, pp. 94-113.



- Lumpkin, G.T. and Dess, G.G. (1996), "Clarifying the entrepreneurial orientation construct and linking it to performance", *Academy of Management Review*, Vol. 21 No. 1, pp. 135-172.
- March, J.G. and Sutton, R.I. (1997), "Organizational performance as a dependent variable", *Organization Science*, Vol. 8 No. 6, pp. 698-706.
- Martens, C.D.P., Martins, L.F., Belfort, A.C.R. and De Freitas, H.M. (2016), "Research on entrepreneurial orientation: current status and future agenda", *International Journal of Entrepreneurial Behavior and Research*, Vol. 22 No. 4, pp. 556-583.
- Merlo, O. and Auh, S. (2009), "The effects of entrepreneurial orientation, market orientation, and marketing subunit influence on firm performance", *Marketing Letters*, Vol. 20 No. 3, pp. 295-311.
- Miles, M.P. and Arnold, D.R. (1991), "The relationship between marketing orientation and entrepreneurial orientation", *Entrepreneurship Theory and Practice*, Vol. 15 No. 4, pp. 49-65.
- Miles, M.P., Thompson, D.L. and Arnold, D.R. (1992), "The degree of marketing and entrepreneurial orientations in spinoff and non-spinoff organizations", *Journal of Business and Entrepreneurship*, Vol. 4 No. 2, pp. 67-75.
- Miller, D. (1983), "The correlates of entrepreneurship in three types of firms", *Management Science*, Vol. 29 No. 7, pp. 770-791.
- Mirzaei, O., Micheels, E.T. and Boecker, A. (2016), "Product and marketing innovation in farm-based business: the role of entrepreneurial orientation and market orientation", *International Food and Agribusiness Management Review*, Vol. 19 No. 2, pp. 99-130.
- Morgan, R.E. and Strong, C.A. (1998), "Market orientation and dimensions of strategic orientation", *European Journal of Marketing*, Vol. 32 Nos 11/12, pp. 1051-1073.
- Morgan, T., Anokhin, S., Kretinin, A. and Frishammar, J. (2015), "The dark side of the entrepreneurial orientation and market orientation interplay: a new product development perspective", *International Small Business Journal*, Vol. 33 No. 7, pp. 731-751.
- Morris, M.H. and Paul, G.W. (1987), "The relationship between entrepreneurship and marketing in established firms", *Journal of Business Venturing*, Vol. 2 No. 3, pp. 247-259.
- Morris, M.H., Combes, S., Schindehutte, M. and Allen, J. (2007), "Antecedents and outcomes of entrepreneurial and market orientations in a non-profit context: theoretical and empirical insights", *Journal of Leadership and Organizational Studies*, Vol. 13 No. 4, pp. 12-39.
- Narver, J.C. and Slater, S.F. (1990), "The effect of a market orientation on business profitability", *Journal of Marketing*, Vol. 54 No. 4, pp. 20-35.
- Neely, A., Gregory, M. and Platts, K. (1995), "Performance measurement system design: a literature review and research agenda", *International Journal of Operations and Production Management*, Vol. 15 No. 4, pp. 80-116.
- Newbert, S.L. (2007), "Empirical research on the resource-based view of the firm: an assessment and suggestions for future research", *Strategic Management Journal*, Vol. 28 No. 2, pp. 121-146.
- O'Cass, A. and Morris, S. (2016), "Anatomy of entrepreneurial marketing", *Journal of Strategic Marketing*, Vol. 24 No. 1, pp. 2-4.
- Osman, M.H.M., Ahmad, F.S., Rashid, M.A. and Hussain, G. (2011), "Assimilating entrepreneurial orientation and market orientation dimensions in the context of women-owned small and medium sized businesses", *African Journal of Business Management*, Vol. 5 No. 14, pp. 5974-5983.
- Pehrsson, A. (2016), "Firm's strategic orientation, market context, and performance. Literature review and opportunities for international strategy research", *European Business Review*, Vol. 28 No. 4, pp. 378-404.
- Pittaway, L. and Cope, J. (2007), "Entrepreneurship education: a systematic review of the evidence", *International Small Business Journal*, Vol. 25 No. 5, pp. 479-510.
- Racela, O. (2015), "Viable strategic configurations and new product development capability and performance. Evidence from Thailand", *Asia Pacific Journal of Marketing and Logistics*, Vol. 27 No. 2, pp. 249-266.

- 
- Rauch, A., Wiklund, J., Lumpkin, G.T. and Frese, M. (2009), "Entrepreneurial orientation and business performance: an assessment of past research and suggestions for the future", *Entrepreneurship Theory and Practice*, Vol. 33 No. 3, pp. 761-787.
- Rhee, J., Park, T. and Lee, D.H. (2010), "Drivers of innovativeness and performance for innovative SMEs in South Korea: mediation or learning orientation", *Technovation*, Vol. 30 No. 1, pp. 65-75.
- Roskos, S. and Klandt, H. (2007), "Young technology ventures in Europe: aspects of market orientation and entrepreneurial orientation", *International Journal of Entrepreneurship and Small Business*, Vol. 4 No. 5, pp. 543-563.
- Sarkar, S., Coelho, D.M. and Maroco, J. (2016), "Strategic orientations, dynamic capabilities, and firm performance: an analysis for knowledge intensive business services", *Journal of the Knowledge Economy*, Vol. 7 No. 4, pp. 1000-1020.
- Sarker, S. and Palit, M. (2015), "Strategic orientation and performance of small and medium enterprises in Bangladesh", *International Journal of Entrepreneurship and Small Business*, Vol. 24 No. 4, pp. 572-586.
- Slater, S.F. and Narver, J.C. (2000a), "Intelligence generation and superior customer value", *Journal of the Academy of Marketing Science*, Vol. 28 No. 1, pp. 120-127.
- Solé, M. (2013), "Entrepreneurial marketing: conceptual exploration and link to performance", *Journal of Research in Marketing and Entrepreneurship*, Vol. 15 No. 1, pp. 23-38.
- Sung, C.S., Choi, D.Y., Kim, D. and Lee, W.J. (2014), "Do entrepreneurial companies make good corporate citizens? Exploring the relationships between entrepreneurial orientation, market orientation, and corporate citizenship", *Journal of Enterprising Culture*, Vol. 22 No. 1, pp. 1-25.
- Todorovic, Z.W. and Ma, J. (2008), "Entrepreneurial and market orientation relationship to performance. The multicultural perspective", *Journal of Enterprising Communities: People and Places in the Global Economy*, Vol. 2 No. 1, pp. 21-36.
- Venkatraman, N. and Ramanujam, V. (1986), "Measurement of business performance in strategy research: a comparison of approaches", *Academy of Management Review*, Vol. 11 No. 4, pp. 801-814.
- Von Krogh, G., Erat, P. and Macus, M. (2000), "Exploring the link between dominant logic and company performance", *Creativity and Innovation Management*, Vol. 9 No. 2, pp. 82-93.
- Wales, W.J., Gupta, V.K. and Mousa, F.T. (2013), "Empirical research on entrepreneurial orientation: an assessment and suggestions for future research", *International Small Business Journal*, Vol. 31 No. 4, pp. 357-383.
- Wales, W.J. (2016), "Entrepreneurial orientation: a review and synthesis of promising research directions", *International Small Business Journal*, Vol. 34 No. 1, pp. 3-15.
- Wijesekara, W.A.D.S., Samantha, K.P.A.P. and Gunawardana, T.S.L.W. (2016), "Relationships between market and entrepreneurial orientation and organizational performance: empirical evidence from small and medium scale garment manufacturers in Sri Lanka", *Journal of Enterprising Culture*, Vol. 24 No. 1, pp. 7-53.
- Zachary, M.A., McKenny, A.F., Short, J.C., Davis, K.M. and Wu, D. (2011), "Franchise branding: an organizational identity perspective", *Journal of the Academy of Marketing Science*, Vol. 39 No. 4, pp. 629-645.
- Zahra, S.A. (2008), "Being entrepreneurial and market driven: implications for company performance", *Journal of Strategy and Management*, Vol. 1 No. 2, pp. 125-142.
- Zhou, K.Z., Tim, C.K. and Tse, D.K. (2005), "The effects of strategic orientations on technology- and market-based breakthrough innovations", *Journal of Marketing*, Vol. 69 No. 2, pp. 42-60.
- Zortea-Johnston, E., Darroch, J. and Matear, S. (2012), "Business orientations and innovation in small and medium sized enterprises", *International Entrepreneurship and Management Journal*, Vol. 8 No. 2, pp. 145-164.

**Appendix. Summary of articles in the sample by author/year/journal**

- Abebe and Angriawan (2014) *Journal of Business Research*.
- Abubakar and Bambale (2016) *Journal of Marketing and Management*.
- \*Acar *et al.* (2013) *Procedia - Social and Behavioral Sciences*.
- \*Ahmadi and O'Cass (2016) *Journal of Strategic Marketing*.
- Aljanabi and Noor (2015) *Asian Social Science*.
- Altindag *et al.* (2011) *Eurasian Business Review*.
- Amin *et al.* (2016) *Nankai Business Review International*.
- Aminu and Shariff (2015) *Asian Social Science*.
- Atuahene-Gima and Ko (2001) *Organization Science*.
- \*Baker and Sinkula (2009) *Journal of Small Business Management*.
- Barrett *et al.* (2005) *SAM Advanced Management Journal*.
- Barrett *et al.* (2009) *Quality and Quantity*.
- \*Becherer and Maurer (1997) *Entrepreneurship Theory and Practice*.
- Bhuian and Habib (2005) *Journal of Transnational Management*.
- Bhuian *et al.* (2005) *Journal of Business Research*.
- \*Boso *et al.* (2012) *International Business Review*.
- Boso *et al.* (2013a) *Journal of Business Venturing*.
- Boso *et al.* (2013b) *International Small Business Journal*.
- Boso *et al.* (2016a) *Journal of Business Research*.
- \*Boso *et al.* (2016b) *Journal of Small Business Strategy*.
- Boso *et al.* (2016c) *Thunderbird International Business Review*.
- Brettel *et al.* (2011) *Z Betriebswirtsch.*
- \*Brockman *et al.* (2012) *Journal of Small Business Management*.
- Cadogan *et al.* (2016) *Journal of Business Research*.
- Chen (2012) *International Journal of Digital Content Technology and its Applications*.
- \*Chen and Hsu (2013) *The Service Industries Journal*.
- Choi and Williams (2016) *Industry and Innovation*.
- \*Čivre and Omerzel (2015) *Economic Research*.
- Colton *et al.* (2010) *Journal of International Marketing*.
- \*Davis *et al.* (1991) *Journal of the Academy of Marketing Science*.
- \*Deutscher *et al.* (2016) *Journal of Business Research*.
- Dutta *et al.* (2016) *Journal of Enterprising Culture*.
- Faroque (2015) *International Journal of Entrepreneurship and Small Business*.
- \*Feder (2015) *Studia Universitatis Babes-Bolyai Oeconomica*.
- \*Frishammar and Hörte (2007) *Technology Analysis and Strategic Management*.
- \*Frishammar and Andersson (2009) *Journal of International Entrepreneurship*.
- Gagnon *et al.* (2013) *Journal of Marketing Development and Competitiveness*.
- \*González-Benito *et al.* (2009) *European Journal of Marketing*.
- González-Benito *et al.* (2015) *International Journal of Innovation Management*.
- \*Grinstein (2008) *European Journal of Marketing*.
- Gruber-Muecke and Hofer (2015) *International Journal of Emerging Markets*.
- \*Hakala and Kohtamäki (2010) *Journal of Enterprising Culture*.
- Hakala and Kohtamäki (2011) *International Journal of Entrepreneurial Behavior and Research*.
- \*Herath and Mahmood (2014) *Asian Social Science*.
- \*Ho *et al.* (2016) *Journal of Business Research*.
- Hong *et al.* (2013) *Journal of Product Innovation Management*.

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- \*Hult and Ketchen (2001) *Strategic Management Journal*.  
Hult *et al.* (2004) *Industrial Marketing Management*.  
Hussain *et al.* (2016) *Pakistan Journal of Commerce and Social Sciences*.  
Hyung and Dedahanov (2014) *Asian Social Science*.  
Ibrahim and Sharif (2016) *International Journal of Business and Society*.  
Jansson *et al.* (2015) *Business Strategy and the Environment*.  
Kajalo and Lindblom (2015) *International Journal of Retail and Distribution Management*.  
Kakapour *et al.* (2016) *Journal of Small Business and Entrepreneurship*.  
Knight and Cavusgil (2004) *Journal of International Business Studies*.  
Kraft and Baush (2016) *Journal of Product Innovation Management*.  
\*Kwak *et al.* (2013) *Journal of Marketing Theory and Practice*.  
Laukkanen *et al.* (2013) *International Marketing Review*.  
Lee *et al.* (2014) *Emerging Markets Finance and Trade*.  
Li (2005) *Asia Pacific Journal of Management*.  
Li *et al.* (2006) *Industrial Marketing Management*.  
\*Li *et al.* (2008) *Journal of Small Business Management*.  
Li *et al.* (2010) *Journal of Management Studies*.  
\*Lin *et al.* (2008) *International Journal of Manpower*.  
Liu *et al.* (2002) *International Journal of Research in Marketing*.  
Liu *et al.* (2003) *Journal of Business Research*.  
Liu *et al.* (2011) *Journal of World Business*.  
Liu *et al.* (2014) *Nonprofit and Voluntary Sector Quarterly*.  
\*Long (2013) *Philippine Management Review*.  
\*Lonial and Carter (2015) *Journal of Small Business Management*.  
Luo *et al.* (2005a) *Journal of Business Research*.  
Luo *et al.* (2005b) *Journal of the Academy of Marketing Science*.  
Maatoofi and Tajeddini (2011) *Journal of Management Research*.  
Mac and Evangelista (2016) *Journal of Global Marketing*.  
Matsuno *et al.* (2002) *Journal of Marketing*.  
\*Merlo and Auh (2009) *Marketing Letters*.  
\*Miles and Arnold (1991) *Entrepreneurship Theory and Practice*.  
\*Miles *et al.* (1992) *Journal of Business and Entrepreneurship*.  
\*Mirzaei *et al.* (2016) *International Food and Agribusiness Management Review*.  
Monferrer *et al.* (2012) *Market-Trziste*.  
\*Morgan and Strong (1998) *European Journal of Marketing*.  
\*Morgan *et al.* (2015) *International Small Business Journal*.  
\*Morris and Paul (1987) *Journal of Business Venturing*.  
\*Mu and Di Benedetto (2011) *R&D Management*.  
Nasution (2011) *Industrial Marketing Management*.  
Neto *et al.* (2016) *Ciencia Rural*.  
O'Cass and Ngo (2011) *Industrial Marketing Management*.  
\*Osman *et al.* (2011) *African Journal of Business Management*.  
Panda (2014) *Journal of Strategy and Management*.  
Pérez-Luño *et al.* (2016) *Journal of Small Business Management*.  
Qureshi and Mian (2010) *Journal of Strategic Innovation and Sustainability*.  
Qureshi and Kratzer (2011) *Journal of Small Business and Entrepreneurship*.  
Renko *et al.* (2009) *Journal of Small Business Management*.

- \*Rhee *et al.* (2010) *Technovation*.  
Rodríguez-Gutiérrez *et al.* (2014) *Journal of Small Business Management*.  
\*Roskos and Klandt (2007) *International Journal of Entrepreneurship and Small Business*.  
Ruzgar *et al.* (2015) *WSEAS Transactions on Business and Economics*.  
Salavou and Lioukas (2003) *Creativity and Innovation Management*.  
\*Sarkar *et al.* (2016) *Journal of Knowledge Economy*.  
\*Sarker and Palit (2015) *International Journal of Entrepreneurship and Small Business*.  
Sciascia *et al.* (2006) *Entrepreneurship Management*.  
Seilov (2015) *International Journal of Contemporary Hospitality Management*.  
Shavazi *et al.* (2015) *Iranian Journal of Management Studies*.  
Slater and Narver (2000b) *Journal of Business Research*.  
\*Sung *et al.* (2014) *Journal of Enterprising Culture*.  
Tajeddini (2010) *Tourism Management*.  
Tajeddini (2015) *Review of Applied Management Studies*.  
Tammi *et al.* (2016) *Environment and Planning C: Government and Policy*.  
Thoumrungroje and Racela (2013) *Journal of Strategic Marketing*.  
Tutar *et al.* (2015) *Procedia - Social and Behavioral Sciences*.  
Tzokas *et al.* (2001) *Enterprise and Innovation Management Studies*.  
Vega-Vázquez *et al.* (2016) *Journal of Business Research*.  
Veidal and Korneliussen (2013) *International Journal of Entrepreneurship and Small Business*.  
Verhees *et al.* (2012) *Journal on Chain and Network Science*.  
Vitale *et al.* (2004) *Journal of Research in Marketing and Entrepreneurship*.  
\*Wijesekara *et al.* (2016) *Journal of Enterprising Culture*.  
Yu *et al.* (2016) *Internet Research*.  
\*Zachary *et al.* (2011) *Journal of the Academy Marketing Science*.  
\*Zahra (2008) *Journal of Strategy and Management*.  
Zhang and Bruning (2011) *International Journal of Entrepreneurial Behavior and Research*.  
\*Zortea-Johnston *et al.* (2012) *International Entrepreneurship and Management Journal*.  
\*Included in the references.

#### Corresponding author

Héctor Montiel-Campos can be contacted at: [hector.montiel@udlap.mx](mailto:hector.montiel@udlap.mx)