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## Article

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# Relational capital and strategic orientations as antecedents of innovation: evidence from Mexican SMEs

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## Abstract

Questions "Where does innovation initiate in a company?" and "How can a small and medium-sized enterprise (SME) leverage its different resources to enhance its innovation capabilities to outperform its competitors?" remain unanswered to date. Accordingly, this study examined the relationship between the firm's relational capital and fundamental strategic orientations that a firm can adopt and how these different orientations affect innovation and organizational performance. The target sample included 360 Mexican SMEs who completed a pen-and-pencil questionnaire conducted at the four main cities of this country. Structural equation modeling was performed, and results revealed a strong positive effect of relational capital over all four strategic orientations considered in this study. However, mixed findings of strategic orientations and innovation were obtained. Although market and entrepreneurial orientation positively influenced innovation, a negative relationship was found between learning orientation and innovation and a nonsignificant relationship between technology orientation and innovation. As expected, innovation positively influenced the performance of SMEs. This study offers essential academic contributions and interesting managerial insights to improve performance using relational capital through innovation and strategic orientations. Therefore, we propose relational capital as an underexploited resource and a source of innovation for SMEs.

**Keywords:** Relational capital, Strategic orientations, Innovation, Mexico, SMEs

## Introduction

The changing and turbulent post-pandemic scenario compels small- and medium-sized enterprises (SMEs) to be more innovative in running their businesses to remain competitive. In addition, the increasing uncertainty promotes SMEs to increase their relationship with stakeholders, such as customers, partners, suppliers, business associations, and government, to collect relevant information and strengthen the linkages with their networks. Although several studies analyzed the effects of innovation on organizational performance (Hult et al., 2004; Rhee et al., 2010) and the relationship between relational capital and performance (Catanzaro et al., 2019; De Clercq & Sapienza, 2006), few studies linking innovation to relational capital are available (Onofrei et al., 2020). Furthermore, research analyzing

the time innovation, relational capital, and strategic orientation of the firm and its organizational performance simultaneously is lacking. Aside from the importance of innovation and relational capital on a firm's performance, the strategic orientation of a business has been demonstrated. It is also a key antecedent of organizational performance.

This study is aligned with the resource-based view (RBV) theory, which considers firms to possess a heterogeneous, firm-specific bundle of resources that are not perfectly mobile, valuable, rare, inimitable, and nonsubstitutable (Barney, 1991). Recently, most studies have focused on understanding the empirical implications of dynamic capabilities as a new approach of RBV theory (Hernández-Linares et al., 2021), particularly on how a company's resources and capabilities can affect its innovation and performance (Moscare-Balanquit, 2021).

Previous research on SMEs based on RBV revealed that strategic orientations play a crucial role improving the performance of SMEs (Ali et al., 2021; Alnawas & Abu Farha, 2020; Martin & Javalgi, 2016). Marketing capabilities are an essential implementation mechanism for translating strategic orientations into good performance (Kirca et al., 2005; O'Cass & Heirati, 2015). However, even though this line of research is essential to advance in understanding the relationship between strategic orientations and performance, scholars have focused on strategic orientations, such as entrepreneurial (Martin & Javalgi, 2016), market (Merrilees et al., 2011), and learning orientations (Sanzo et al., 2012). Previous authors have paid little attention to the role of other orientations, such as market or technology orientation (TO).

Innovation exerts a positive influence on different business factors, such as productivity (Ramstad, 2009), processes (Carmeli et al., 2010), organizational learning (Purcarea et al., 2013), and financial performance (Bowen et al., 2010; Evangelista & Vezzani, 2010). However, empirical research focusing on SMEs is limited (Maldonado et al., 2020; Rosli & Sidek, 2013).

Some studies focused on relational capital within a company and its impact on performance. The relational capital impacts business-related practices and has become a critical mechanism to sustain a competitive advantage (Yu & Huo, 2019; Zhao et al., 2019). However, despite the relevance of strategic orientations and relational capital, little research has focused on the relationship of these factors with innovation.

To fill the mentioned gap in the literature, our primary purpose is to establish the relationship between the firm's relational capital and the four strategic orientations—namely, market, learning, entrepreneurial, and technology—and how these orientations affect innovation and organizational performance.

In the first part of our work, we present each variable's theoretical approaches to support the proposed hypothesis. Then, we offer the research methodology we applied and show the results, followed by the correspondent analysis and discussion. Finally, we conclude with academic and managerial implications, limitations, and future research directions.

## **Theoretical background and hypothesis development**

### **Relational capital and market orientation**

Relational capital is the set of all relationships, power relationships, and cooperation established between firms, institutions, and people stemming from a strong sense of belonging and a highly developed cooperation capacity (Capello & Faggian, 2005).

According to Yayla et al. (2018), relational capital is a market-specific resource related to external relationships with channel partners and customers. According to Capello and Faggian (2005), we can link relational capital to the fundamentals of marketing in the relationship of value interchange for the market.

Empirical evidence shows that relational capital is a fundamental asset for any firm, particularly SMEs (Corvino et al., 2019; Welbourne & Pardo-del-Val, 2009). From an economic point of view, a network of sound relationships enables the participants to work with low transaction costs. Moreover, small companies can become much more efficient than large competitors. Previous research highlighted the relevance of inter-firm relationships and networks for survival and success (Day, 2000); therefore, relationships are valuable firm resources.

Firms design boundaries to protect internal capabilities and resources from an unintended spillover (Estrada et al., 2016); therefore, firms establish interpersonal ties (Murray et al., 2021). Social connections across network boundaries lower the hierarchical barrier, thus improving the dissemination and use of knowledge (Anand et al., 2021) and enabling the effective implementation of market orientation (MO). For example, research among telecommunication technology providers in Indonesia reveals that networking capability positively affects MO (Kurniawan et al., 2020). Another empirical study in Iran showed a significant positive correlation between MO and relational capabilities (Shafei & Zohdi, 2014).

Firms need to translate the MO activities into relationship management activities (Helfert et al., 2002). For example, Febrian et al. (2020) found that relational capital significantly affects the networking and marketing performance of SMEs. Organizations that value existing relational capital have achieved success in the markets; therefore, the following hypothesis is developed:

**H1:** Relational capital is positively related to MO.

### **Relational capital and entrepreneurial orientation**

Entrepreneurial orientation (EO), according to Covin and Slevin (1988), is the firms' processes, structures, and behaviors characterized by innovation, proactiveness, and risk-taking. The proponents of EO suggest that this orientation can adjust their operation in dynamic environments (Covin & Slevin, 1989), resulting in positive effects on firm performance (e.g., Hult et al., 2004; Wiklund & Shepherd, 2005). In addition, the interplay between EO and other strategic orientations may lead organizations to sustained competitive advantages (Hult et al., 2004).

A study conducted on a sample of firms in the Spanish agri-food industry revealed that relational capital develops a high EO (Rodrigo-Alarcón et al., 2018). They reported that relational capital improves the firm's EO by promoting practices focused on experimentation and creativity, the tendency to be ahead of competitors in introducing novel ideas or products, and positioning that maximizes the likelihood of exploiting potential opportunities.

Several authors have also highlighted the role of networks in influencing entrepreneurial processes and firm outcomes (Butler et al., 2003; Hoang & Antoncic, 2003). Scholars stated that the fundamental of entrepreneurship is the ability to detect and exploit the opportunity in the market (e.g., Shane & Venkataraman, 2000).

Entrepreneurship is essentially a networking activity, and relationships are valuable assets because they provide access to knowledge, power, information, technologies, and capital (Elfring & Hulsink, 2003; Inkpen & Tsang, 2005). A study conducted on a sample of firms in the Spanish agri-food industry revealed that relational capital develops a high EO (Rodrigo-Alarcón et al., 2018). They found that relational capital improves the firm's EO by promoting practices focused on experimentation and creativity, the tendency to be ahead of competitors in introducing novel ideas or products, and positioning that maximizes the likelihood of exploiting potential opportunities. Then, the following hypothesis is formed:

**H2:** Relational capital is positively related to entrepreneurial orientation.

### **Relational capital and learning orientation**

LO is the organization's propensity to create and use knowledge to obtain a competitive advantage (Calantone et al., 2002; Chiou & Chen, 2012; Wang, 2008). Baker and Sinkula (1999b) mentioned that LO is a mechanism that affects the firm's ability to defy previous assumptions about the market and how a firm should be organized to deal with it. Hult et al. (2004) argued that LO occurs primarily at the cultural level of the firm. LO could improve the firm's innovation capability, and innovation is nurtured from inside and outside the company (Chiou & Chen, 2012).

Learning is the fundamental mechanism to create new knowledge and is often a purpose of collaborative relationships (Mohr & Sengupta, 2002). In that sense, relational capital encompasses relationships built on a history of trust and respect. Therefore, such aspects possibly facilitate tacit knowledge sharing, thereby assisting in a significant range of future opportunity exploitation among companies (Schenkel & Garrison, 2009).

Not all entrepreneurs have the capabilities or sufficient resources to exploit external opportunities; they seek collaboration with the main economic actors to carry out activities to access resources and markets. Therefore, they need to develop business networks to exploit new opportunities, obtain new learnings, and benefit from the synergistic effect of pooled resources.

From the perspective of RBV, relational capital is an integral component of social capital that develops as a result of the complexity of business actions, which are connected through information flows (that is, knowledge integration through learning) between alliance relationships. Therefore, strategic alliances can play a crucial role in mediating access to valued resources, allowing knowledge integration, and improving SME performance (Schoenherr et al., 2015).

In the network environment, the LO of firms reflects either exploration in seeking effectiveness through new business development or exploitation in their current business. Recent research suggests that through external collaboration, environmental learning integration is a crucial mediating mechanism for the relationship between relational capital and SMEs' environmental performance (Zahoor & Gerged, 2021). Liu et al. (2010) researched electronics and IT firms in Taiwan and found that trust positively affects knowledge acquisition as a critical component of relationship management. These results confirm the relational view that firms should establish an ongoing relationship that can foster learning to create value. Thus, the following hypothesis is developed:

**H3:** Relational capital is positively related to a learning orientation.

### Learning orientation and innovation

A company with developed strategic orientations, such as MO, still requires a LO mechanism to create an environment where mutually beneficial relationships between employees and their organizations facilitate learning and innovation. Therefore, LO can make an organization innovate effectively (Huang & Wang, 2011).

Learning in SMEs is context-sensitive and firm-specific, producing operational efficiency in the short term (Badger et al., 2001; Keskin, 2006), indicating "reaction" more than innovation. According to Keskin (2006), the organizational cultures that question values with open-mindedness, commitment, and knowledge sharing facilitate firms to try out new ideas, develop new products/services, and be creative in their operation methods. Calantone et al. (2002) also maintained that an organization committed to learning could enhance its innovation; as a result, LO creates a capability to innovate. Atitumpong and Badir (2018) stated that learning member exchange and employee LO positively relate to the innovative work behavior of employees (Wahyono & Hutahayan, 2021). Therefore, the following hypothesis is developed:

**H4:** Learning orientation is positively related to innovation.

### Relational capital and technology orientation

Gatignon and Xuereb (1997) explicitly presented the concept of a technology-oriented firm. TO refers to a business's inclination to introduce or use new technologies, products, or innovations. A TO improves business or recent product performance, but studies have not consistently identified positive effects (Hakala, 2011). Creativity and invention are the main assets that guide a TO firm's activities and strategies (Zhou et al., 2005).

SMEs cooperate beyond their scope with other organizations to exploit new technologies in networks (Širec & Bradač, 2009). Some studies have examined how collaborative networks foster research and technology development (e.g., Protogerou et al., 2013). Moreover, managerial networking has evolved to understand how top management is linked with stakeholders and how the relational capital contributes to their businesses in different aspects (Panda, 2014). Thus, the following hypothesis is created:

**H5:** Relational capital is positively related to technology orientation.

A TO firm always persists in using technology as the backbone, and creativity is the organizational norm that guides the strategies and product development activities (Ali et al., 2021). TO firms heavily invest in research and development and usually accept the "state of the art" of technology, encouraging employees to propose radical ideas creating a "breakthrough innovation" culture. TO is considered central for bringing innovative, better-designed products into the market (Zhang et al., 2018). Rapid technology change and increased technical complexity make innovation an initial for SMEs. Empirical evidence suggests that TO positively correlates with innovation (Hult et al., 2004; Poudel et al., 2019; Voss & Voss, 2000). Thus, given the increasing acceptance of the importance of technological strategies, technology is a decisive factor in creating new business opportunities and securing a competitive advantage. Furthermore, technological capacity is a company's ability to design and develop new processes and products, improve knowledge and human capital skills, and transform learning into inputs (products and

services) of high added value to increase organizational performance (Wang 2008; Ulas, 2019).

Some studies have explained a strong relationship between technological capacity and innovation activities in SMEs; therefore, it is considered a capability that helps competitiveness (Hassan et al., 2018). Then, the following hypothesis is developed:

**H6:** Technology orientation is positively related to innovation.

#### **Market orientation and innovation**

MO is a set of behaviors and activities related to the generation, diffusion, and responsiveness to the market (Jaworski & Kohli, 1993). According to Narver and Slater (1990), MO is a culture that prioritizes the creation of value for the buyer. Thus, MO is an aspect of organizational culture and is a latent construction whose indicators are values and beliefs that demonstrate a concern for markets (Hult et al., 2004).

Innovation is often used to measure the degree of "newness" (Calantone & Garcia, 2002), with most research taking a company's perspective toward market-related novelty. Innovation capacity relates to a company's ability to engage in innovation, which means introducing new ideas, processes, or products (Hult et al., 2004) to be launched with a specific target market in mind.

MO has been criticized in the context of technology start-ups, which typically focus on innovation because customers in this industry manifest their needs without paying attention to long-term thinking (Renko et al., 2009). However, some studies show that this is not always true (Narver et al., 2004).

Several authors have established a positive relationship between MO and innovation (Grinstein, 2008b; Renko et al., 2009; Beck et al., 2011). For example, Beck et al. (2011) found that the positive relationship between MO and innovation is maintained in a sample of family businesses over several generations. The generation in control influences innovation through its influence on MO.

Im and Workman (2004) found that MO is the driving force of new product success. They recommend further studies to examine innovation and its performance implications. The following hypothesis is developed:

**H7:** MO is positively related to innovation.

#### **Entrepreneurial orientation and innovation**

Miller (1983) described EO as an emphasis on aggressive innovation, risky projects, and a predisposition to trailblazing innovations. EO has long been associated with a proactive competitive stance, management's propensity to perform complicated tasks, and a strong need to take innovative steps to achieve goals (Covin & Slevin, 1989). EO could also lead to the creation of new venture products, the nurturing of new businesses, or the revival of dormant companies.

Avlonitis and Salavou (2007) indicated that those entrepreneurs adopting an orientation characterized by risk-taking and a proactive competitive attitude tend to introduce new products.

Matsuno et al. (2002) found that EO positively affects firm performance combined with MO. However, a recent meta-analysis (Lopes et al., 2021) has shown that very few



studies from 1990 to 2018 link entrepreneurship and RBV similar to what our research suggests.

Zhou et al. (2005) concluded that EO positively affects breakthrough innovations; in the same line, Zaidi and Zaidi (2021) found that EO significantly affects innovation intensity. However, the literature on OE has not differentiated between "new to the company" and "new to the world" innovations. Pérez-Luño et al. (2011) stated that the innovation dimension of EO has remained under conceptualized and concluded that EO is related to "new to the world" rather than "new to the company" innovations. In other words, only "new to the world" product launches appear to be a result of their EO. Therefore, the following hypothesis is created:

**H8:** Entrepreneurial orientation is positively related to innovation.

### **Innovation and firm performance.**

Schumpeter's profit extraction theory supports the traditional explanation of the positive relationship between innovation and business performance, which holds that innovative firms obtain a temporary quasi-monopoly that allows them to extract rents (Rubera & Kirca, 2012).

In addition, highly innovative companies can develop creative solutions that undermine their competitors (Hughes & Morgan, 2007). Companies want to maintain their market power through continuous innovations, trying to maintain superior performance with the introduction of multiple products. Innovation contributes positively by attenuating the natural forces of competition or changing consumption patterns that dissipate superior returns over time (Sharma & Lacey, 2004).

Previous research examined the relationship between innovation and business performance (e.g., Hult et al., 2004; Olavarrieta & Friedmann, 2008; Rhee et al., 2010; Trachuk & Linder, 2022) or as a mediating variable (Tjahjadi et al., 2022). In a meta-analysis, Bowen et al. (2010) found that the temporal sequencing of research designs is flawed in previous empirical studies of the causal directions of organizational performance and the innovation relationship. When they corrected the studies for the real-time sequence used, they found a positive relationship between innovation and future performance. However, past performance and innovation are less clear. The following hypothesis is then formed:

**H9:** Innovation is positively related to firm performance.

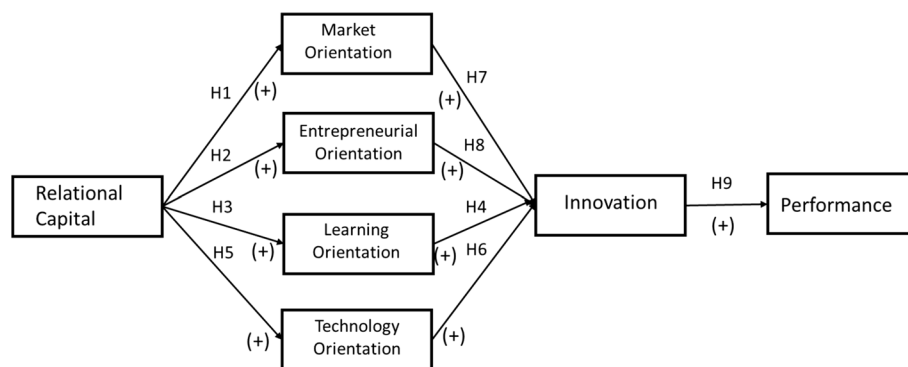
Figure 1 shows the model proposed with all the hypotheses:

### **Methodology**

We used a random sample of SMEs in Mexico. We interviewed 360 companies from the service, industry, and commerce sectors with a pen-and-pencil survey in four principal cities: Mexico, Guadalajara, Monterrey, and Puebla. In addition, professional pollsters of a renowned Mexican-polling firm applied one-by-one questionnaires to firm directors, business owners, and businesses responsible during February 2019.

A questionnaire was designed using adapted scales for each of the constructs proposed in the study. Then, a group of experienced academics at Tecnológico de Monterrey reviewed the questionnaire and provided feedback. In the first part of the study, pretests were conducted with two SMEs to verify the comprehensibility of the survey





**Fig. 1** Model proposed. Source: Self-elaborated

questions. The polling firm tested the questionnaire before it was applied. One of the benefits of using surveys in business research is that they allow researchers to gather a large quantity of data quickly and cheaply. Compared with qualitative techniques, surveys do not require participants to spend time at the organization, and the responses can be tabulated within a short timeframe (Choy, 2014). Moreover, numerical data obtained through this approach facilitate comparisons between organizations or groups and allow determination of the extent of agreement or disagreement between respondents (Yauch & Steudel, 2003: 473).

Furthermore, face-to-face surveys capture more attributes and are rated higher by respondents than online surveys (Hogan et al., 2016). While online surveys can access larger and geographically distributed populations and achieve quicker returns than face-to-face surveys, they may no longer be as universally appealing as previously believed (Lefever et al., 2007). One potential disadvantage with surveys is the nonresponse bias, but our survey was collected in person. Thus, we did not report the response rate; all the surveys were completed.

All constructs were measured using Likert-type scales with a 5-point response format anchored by "strongly disagree" to "strongly agree" unless otherwise noted. Independent variables were discussed first, followed by the description of the dependent variables and the control. All  $\alpha$  values showed acceptable values with  $\alpha > 0.769$ .

Relational capital was measured using a 6-item scale based on Delgado-Verde et al. (2011). The scale represents the ability to measure the relationships between clients and suppliers.

The MO was measured using MKTOR (Narver & Slater, 1990). In addition, extensive research has been conducted regarding MO, emphasizing this orientation's focus on customers (Deshpandé et al., 2013).

For the rest of strategic orientations, an adapted scale based on Baker and Sinkula (1999b) was used to measure EO. In the present study, the LO was measured using an adapted scale based on Sinkula et al. (1997), and the TO was measured using an adapted 5-item scale based on Gatignon and Xuereb (1997). The scale represents the ability and willingness of an organization to develop new technologies and the usage of sophisticated technologies (Gao et al., 2007). Innovation was measured using an adapted 3-item scale based on Baker and Sinkula (1999a). The scale considers three essential items: new products launching, degree of differentiation of innovations, and degree of success of

new products. Finally, a scale based on diverse authors was used to measure performance (Jaworski & Kohli, 1993; Narver & Slater, 1990). It includes financial performance, customer satisfaction, employee satisfaction, and operational aspects. Subjective performance measures are reliable and valid when objective data are unavailable, such as in SME cases (Dess & Robinson, 1984).

The first step was an exploratory factor analysis using IBM SPSS Statistics 21 to validate each proposed construct. After the exploratory analyses, we used structural equation modeling. Marketing researchers widely used this technique (Uribe et al., 2013) and combined the confirmatory factor analysis (CFA) and multiple regressions. In addition, it allows researchers to analyze relationships between observed and unobserved variables (constructs) (Schreiber et al., 2006).

## Results

The structural model shows the relationship of different latent variables (constructs). The measurement model shows the relationship between latent variables and the observed variables used to measure latent variables. Figure 2 shows the CFA for the proposed model. Again, AMOS 21 was used to conduct CFA.

Table 1 shows the results for the reliability and validity of the model (convergent and discriminant validity).

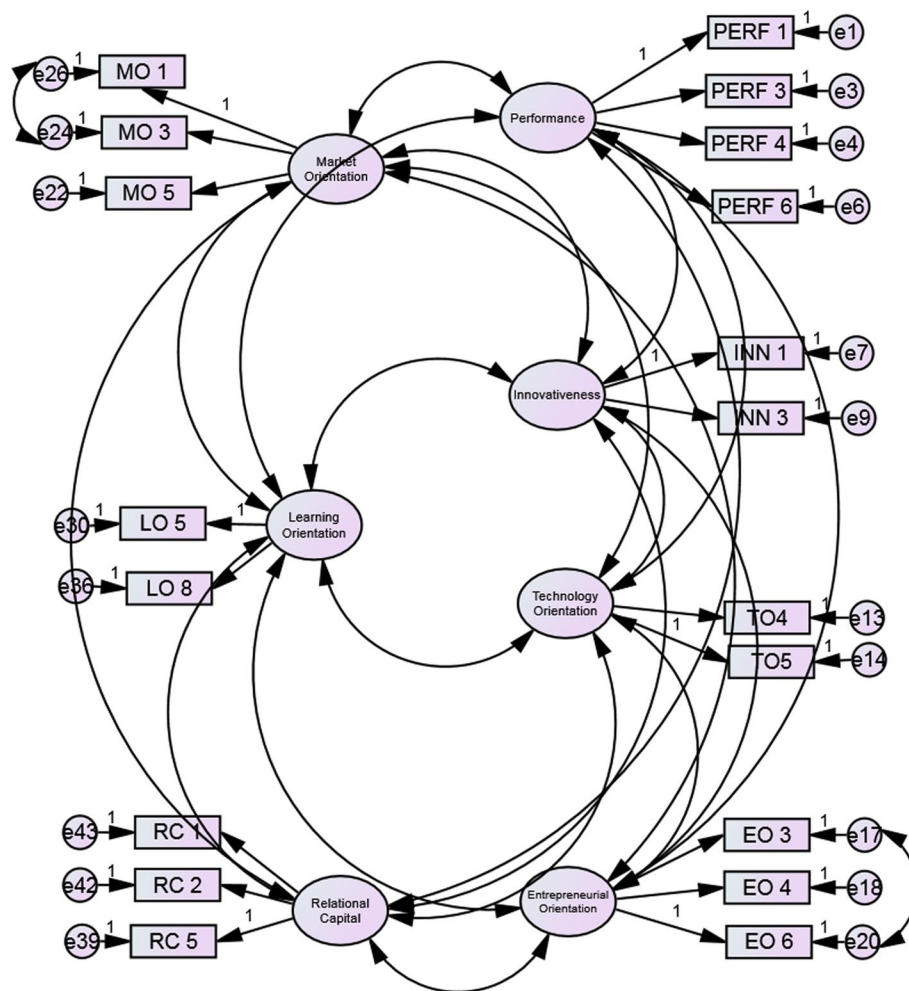
Table 2 shows the relationship between variables in the proposed model. The table shows the following results: (i) relational capital exerts a direct and positive effect on MO, supporting H1; (ii) relational capital exerts a direct and positive effect on EO, supporting H2; (iii) relational capital exerts a direct and positive effect on LO, supporting H3; (iv) relational capital exerts a direct and positive effect on TO, supporting H5; (v) MO exerts a direct and positive effect on innovation, supporting H7; (vi) EO exerts a direct and positive effect on innovation, supporting H8; (vii) LO exerts a direct and positive effect on innovation, not supporting H4; (viii) no significant relationship exists between TO and innovation, not supporting H6; and (ix) innovation exerts a direct and positive effect on performance, supporting H9.

Figure 3 shows the SEM analysis result.

## Discussion

As we have seen from the previous results, the proposed hypothesized model was widely supported, suggesting that theories typically applied to developed economies can be used to emerging economies and SMEs. Despite the different models proposed, a positive relationship was confirmed between innovation and firm performance in SMEs. Woodside (2005) mentioned that analyses should advance from the one-directional structural equation modeling of innovation and business performance to a system's dynamic modeling that includes real feedback looped models.

A significant finding of this investigation is the direct and positive relationship between relational capital and a firm's strategic orientations. As was stated before, little research has focused on this type of relationship. However, Teece (2007) mentioned that strategic orientations are dynamic capabilities for the organization, and diverse antecedents can be found. Therefore, all of the hypotheses (H1–H4) were remarkably supported with  $p < 0.01$ .



**Fig. 2** Confirmatory factor analysis for the proposed model. Source: Self-elaborated

**Table 1** Reliability, convergent, and discriminant validity (CR > 0.7, AVE > 0.5; CR > AVE, MSV < AVE)

	CR	AVE	MSV	LO	PERF	INN	TO	EO	MO	RC
LO	0.576*	0.405*	0.814*	<b>0.636*</b>						
PERF	0.816	0.527	0.518	0.375	<b>0.726</b>					
INN	0.744	0.592	0.518	0.297	0.720	<b>0.770</b>				
TO	0.712	0.553	0.601*	0.704	0.382	0.364	<b>0.744*</b>			
EO	0.629*	0.365*	0.601*	0.751	0.662	0.535	0.775	<b>0.604*</b>		
MO	0.682*	0.419*	0.814*	0.902	0.361	0.427	0.435	0.513	<b>0.647*</b>	
RC	0.760	0.515	0.596*	0.772	0.414	0.422	0.638	0.590	0.744	<b>0.717*</b>

\*Values below recommended criteria

Source: Self-elaborated

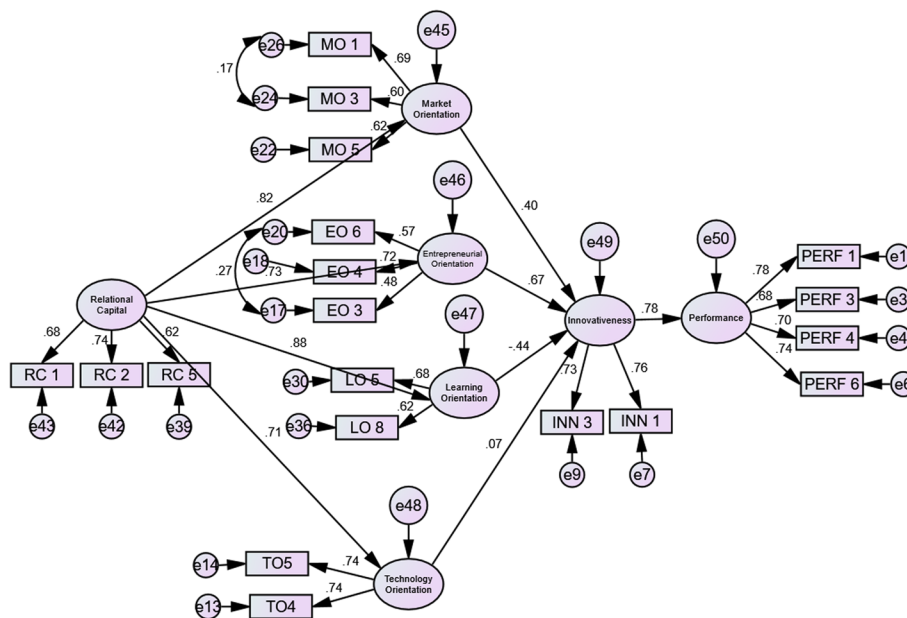
MO is a highly studied strategic orientation in the marketing literature (Kirca et al., 2005). However, few empirical studies have researched its relationship with relational capital. Our research contributes to the literature suggesting that relational capital is closely linked to MO, and relational capital is an essential antecedent for being

**Table 2** Relationship between variables in the proposed model

Relationships	Estimate	Std. estimate	SE	P	Hypothesis
MO <- RC	.908	.816	.102	***	H1 is supported
EO <- RC	.771	.726	.107	***	H2 is supported
LO <- RC	1.057	.884	.115	***	H3 is supported
TO <- RC	1.089	.713	.130	***	H4 is supported
INN <- MO	.508	.398	.195	**	H5 is supported
INN <- EO	.894	.668	.198	***	H6 is supported
INN <- LO	-.528	-.445	.216	*	H7 is not supported
INN <- TO	.064	.068	.092	ns	H8 is not supported
PERF <- INN	.816	.780	.079	***	H9 is supported

N = 360, \*p < 0.05; \*\*p < 0.01; \*\*\*p < 0.001; ns: nonsignificant

Source: Self-elaborated



**Fig. 3** The proposed model to SEM. Source: Self-elaborated

market oriented. Thus, building relational capital is another way to enhance MO and other precursors identified in previous studies, such as those related to the behavior of the top management team or employee incentives, among others (Jaworski & Kholi, 1993).

Butler et al. (2003) reported that entrepreneurial processes are collaborative. The empirical results obtained from this study confirm this assertion. It also follows what was stated as supporting this hypothesis: entrepreneurs need collaboration with different business actors to gain access to resources and markets. A significant relational capital should enhance proactiveness (a component of EO) because social capital can be mobilized to ensure the success of an organization and promote entrepreneurship (Hayton, 2005; Liu et al., 2016). Considering risk-taking (another component of EO), social capital alters the risk tolerance of socially connected individuals because it offers a way

to pool individual risks and reinforces an individual's sense of power, leading to riskier preferences (Ferris et al., 2017).

Regarding innovativeness (the third component of EO), Santos-Rodrigues et al. (2011) used survey data from 135 firms of Spain and North Portugal and concluded that relational capital positively and directly influences the product–process innovativeness. Collaboration networks and clients are directly related to the innovative capacity (Santos-Rodrigues et al., 2011). These results highlight the importance and influence of intellectual capital on innovativeness. Thus, in summary, relational capital has a close link with EO because it positively influences all components of this strategic orientation: risk-taking, proactiveness, and innovativeness.

LO and relational capital have been explored in specific contexts. For example, Liu et al. (2010) found a positive relationship between these two constructs in an alliance scenario. Our results show that this finding can be extended into the SMEs context. Numerous studies have acknowledged the critical role of networks in emerging markets (Dimitratos et al., 2012; Morais & Ferreira, 2020). Strong network relationships may supply SMEs with rare sources of unique inputs, which enhance the capabilities of these firms (Falahat et al., 2021). Thus, network relationships, as a way to build relational capital, may help SMEs increase their organizational learning.

A strong positive relationship was found between TO and relational capital. This result suggests that interactions with different business actors could foster technology in SMEs. In addition, networking among industry, universities, and public research institutes is necessary to utilize all technological capabilities for industrial development (Kondo, 2005). According to Rothaermel and Hess (2007), by focusing on the importance of the internal asset base of the firm, researchers often neglect those network relationships that may allow firms to create unique technology resource combinations. Thus, our results confirm that relational capital positively affects the degree of TO. SMEs may enhance their TO by building up solid and long-term relationships with customers, suppliers, universities, and public research institutes, among others (Rothaermel & Hess, 2007).

Regarding the relationships between the different strategic orientations and innovations, we supported two of our four hypotheses, namely, the direct and positive effect of MO on innovation and the direct and positive effect between EO and innovation.

Much discussion can be found in MO literature regarding the contribution of this orientation to innovation. Although most research on this field has demonstrated a closed link between MO and innovation (Anand et al., 2021; Lado & Maydeu-Olivares, 2001), many studies revealed a nonsignificant contribution or even a negative relationship because of the nature of MO (i.e., Keskin, 2006). However, Keskin (2006) did not consider "innovation" as a dependent variable and classified "innovativeness" as a different concept.

A positive relationship was also found between EO and innovation. This result is consistent with other studies that obtained similar results (Tajeddini, 2010). EO has also been usually related to innovation in previous studies (Seo, 2019; Zhai et al., 2018).

Organizational learning allows the development, acquisition, transformation, and exploitation of new knowledge that enhances corporate innovation (Jiménez-Jiménez & Sanz-Valle, 2011). Several studies found a positive relationship between LO and innovation (Calantone et al., 2002). However, the direct but negative relationship between LO

and innovation in our research is surprising. In addition, learning in SMEs is firm specific and work based, producing operational efficiency in the short term (Badger et al., 2001; Keskin, 2006), indicating a "reaction" more than an innovation. This idea could be one of the potential explanations for this finding. Another possible explanation is that other factors should be considered to understand the negative relationship in the SME context. Additional research on this relationship must be conducted to clarify the real effects of LO on innovation in SMEs and the potential moderating effects.

Most previous studies among SMEs suggest that a positive orientation of firms toward technology exerts a significant effect on their innovation (Al-Ansari et al., 2013; Humphreys et al., 2005). However, in our research, the relationship between TO and innovation is not significant. Zhou and Wu (2009) commented that mixed results could be found in this relationship because of the assumed linear relationship between technological capability (or TO) and explorative innovation. They found that although technological capability fosters innovation exploitation at an accelerating rate, it has an inverted U-shaped relationship with innovative exploration. A high level of TO impedes explorative innovation. Another potential explanation for these unexpected results is that many different scales assess innovation. Some try to measure innovativeness, others pure innovation, and others innovation success. Our research used a scale from Baker and Sinkula (2009) that measures innovation success. TO does not guarantee innovation success, possibly because being technology oriented may improve innovation or innovativeness. Nevertheless, to be successful with innovation, companies need to be market oriented, apart from technology (Van Riel et al., 2004). Additional research is warranted to understand this finding better.

## Conclusion

This study investigated the relationship of relational capital with strategic orientations and how these factors affect innovation and performance. Our results support the proposed model.

A direct and positive relationship was found between relational capital and critical strategic orientations: market, entrepreneurial, learning, and technology. Meanwhile, an indirect relationship was found between relational capital and innovation through MO and EO. Hence, relational capital is crucial for improving strategic orientations, innovation, and business performance.

One crucial theoretical implication from our research is that relational capital is a key capability for SMEs. The minimal research devoted to studying the potential capabilities of relational capital to enhance competitive advantage is surprising. This lack of research applies not only to SMEs but also to big companies. However, relational capital could be even more critical in the case of SMEs because this type of firm has few resources to compete with prominent companies. Thus, relational capital is an available capability that may become an important tool to compete. Another theoretical implication of the study is that learning orientation, which usually exerts a positive or a nonsignificant effect on innovation, may also negatively influence. This finding indicates that, at least in the case of Mexican SMEs, LO sometimes negatively contributes to being innovative. The reasons for this phenomenon are unclear because we did not find similar results in previous studies. Pending questions include



the following: Is there something special among Mexican SMEs that can explain this unexpected result? Is this because those SMEs in their learning process ignore or disregard all issues related to innovation? Do they prefer to buy innovation instead of learning how to develop it? Further research is warranted to clarify this relationship.

Another crucial theoretical implication is the lack of a relationship between TO and innovation. The explanation for the previous negative relationship between LO and innovation is more straightforward than this. This lack of a significant relationship is because we assess innovation with an "innovation success" scale. It means that TO is insufficient to succeed with the innovation activity of SMEs. TO possibly improves innovation in general but not necessarily innovation success. For successful innovation, apart from a TO, MO is also necessary. When technology and marketing are balanced, chances that innovations can be successful are high.

Regarding managerial implications, SME managers should pay attention to their relational capital and the broader concept named intellectual capital. Building relational capital not only needs the involvement of the top management of SMEs. Similar to being market oriented, having a solid relational capital is a matter of all employees. Thus, top managers should promote a culture among firms that fosters an attitude of employees to establish close relationships with all key company stakeholders. Our empirical results indicate that other managerial implications for SMEs confirm innovation as a determinant of business performance. Consequently, managers are advised to improve innovation in their businesses with the correct investments and efforts to achieve superior business performance.

Some limitations can be identified, as well as future lines of research. One of them is related to the cross-sectional nature of the study. In addition, strategic directions are not static but evolving, which may not reflect the dynamics of change and its potentially lagging influence on performance (Wiklund & Shepherd, 2005). However, a reason can be argued against this limitation. Some longitudinal studies suggest that the effect of strategic orientations on performance shows somewhat similar results (Dawes, 2000). However, a longitudinal research design certainly provides insightful results on the effects of changing strategic orientations and their influence on SME performance over time. Therefore, longitudinal studies that can capture the changing nature of strategic orientations and their effect on company performance should be conducted in the future.

Another significant limitation is that the study findings are based on data from a single country. Although Mexico shares many characteristics with other emerging economies, the results cannot be generalized. Therefore, we suggest designing new research in other emerging economies to contrast the findings of this study.

The sample used for the study includes companies from the commerce, industry, and services sectors. The methodology used for the survey addresses them in a general sense, avoiding the conclusion of a specific sector. Alternative analysis techniques, such as multiple cluster analysis, may be suggested for future studies.

Another limitation of the study is the effect of single respondent bias. Different points of view can be found in the literature about it. Snow and Hrebiniak (1980) claimed that top managers have the best idea in the entire organization, whereas Hambrick (1981) strongly recommended asking only the CEO for answers. Bowman

and Ambrosini (1997) found that data collected by a single respondent may be unreliable. Thus, future research could use more than one respondent to contrast the results.

Additional investigations can be designed to extend the proposed model to include other essential company resources and capabilities, such as physical assets. Environmental factors or physical location may also be considered.

Strategic directions per se do not automatically lead to superior performance. Consequently, further research must identify the underlying action components to understand how strategic directions work.

TO and innovation can sometimes be considered closely related terms (Grinstein, 2008a). However, even though statistical evidence shows that both constructs are well identified, these two phenomena are difficult to distinguish in practice. One result of this research is that TO does not have a significant relationship with innovation. In the future, researchers should design differentiated measures for OT and innovation.

Another line of future research can be derived from the negative relationship between learning orientation and innovation. Additional studies are warranted to contrast this result.

#### Abbreviations

CFA	Confirmatory factor analysis
EO	Entrepreneurial orientation
LO	Learning orientation
MO	Market orientation
RBV	Resource-based vision
SEM	Structural equation modeling
SMEs	Small and medium enterprises
TO	Technology orientation

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#### Author contributions

The authors contributed equally to the design and implementation of the research, the analysis of the results, and the manuscript's writing. All the authors read and approved the final manuscript.

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#### Availability of data and materials

The data supporting this study's findings are available from the corresponding author, Edgar Ramírez-Solis, upon reasonable request.

#### Declarations

##### Competing interests

The authors certify that they have NO affiliations with or involvement in any organization or entity with any financial interest (such as honoraria; educational grants; participation in bureaus; membership, employment, consultancies, stock ownership, or other equity interest; and expert testimony or patent-licensing arrangements) or nonfinancial interest (such as personal or professional relationships, affiliations, knowledge, or beliefs) in the subject matter or materials discussed in this manuscript. Therefore, the authors have no conflicts of interest to disclose.

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