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# LOOKING FOR PERFORMANCE: HOW INNOVATION AND STRATEGY MAY AFFECT MARKET ORIENTATION MODELS

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DEPARTMENT OF BUSINESS ADMINISTRATION

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***LOOKING FOR PERFORMANCE: HOW INNOVATION AND STRATEGY  
MAY AFFECT MARKET ORIENTATION MODELS***

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**Abstract**

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Despite 20 years of research into various aspects of the ‘Market Orientation’ (MO) construct, dubiety persists regarding the existence, nature and significance of the relationship between market orientation and firm performance. In order to get more evidence some authors suggest including innovation in MO models. Debate also continues to examine whether organizational strategy is an antecedent or a consequence of MO, whilst some argue that strategy moderates the MO-performance relationship. Furthermore, there are sectors of industry and geographies where the phenomenon has received very little investigation, even of an exploratory nature. This study aims to explore the MO-performance relationship and to value the effect of innovation in MO-performance models in a sector where MO was virtually unknown: the Spanish real estate industry. The magnitude of the shifts taking place in this sector enhances its potential as a showcase for processes of anticipation and adaptation to the environment. In addition, the paper aims to shed some light on the question of whether strategy potentially moderates the MO-performance link. Finally, the principal implications of our findings are discussed.

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**Keywords:** Market orientation, performance, strategy, innovation, real estate sector

## **LOOKING FOR PERFORMANCE: HOW INNOVATION AND STRATEGY MAY AFFECT MARKET ORIENTATION MODELS**

### **1.-INTRODUCTION**

The last two decades have seen Market Orientation (MO) as the focus of a great number of research studies in marketing, resulting in numerous analyses of the construct, the concept, its antecedents, consequences and potential moderating role. The MO-performance relationship, in particular, has received a great deal of attention, yet despite widespread acknowledgement of the direct relationship linking both constructs (e.g., Kirka et al., 2005; Cano et al., 2004), there remain important gaps in understanding and disputes over the contribution of MO to firms' performance. While in part, this may be due to disagreement over the scales used to measure performance (Shoham et al., 2005) or the presence and interaction between a series of moderating factors (Matsuno and Mentzer, 2000; Slater and Narver, 1994; Diamantopoulos and Hart, 1993). These observations alone do not account for the variation and discrepancy in the various MO-performance relationship models, as has been pointed out by Sivaramakrishnan et al. (2008, p. 55).

The work of Aldas-Manzano et al. (2005) suggests including innovation as intermediate variable between MO and performance. Results of their research reveal that MO and innovation are not isolated fields and therefore they are able to support a positive relationship between MO and performance. Similar ideas can be found in the works of Hernández-Espallardo and Delgado-Ballester (2009) and Dobni (2008).

The debate in the field of MO has also been expanded to the strategic area. Several authors have studied the MO-performance relationship in terms of an organization's strategic profile, in

an attempt to clarify the intensity of the relationship (e.g., Lee et al., 2006; Santos et al., 2005; Matsuno and Mentzer, 2000). Here again, however, the literature is far from unanimous regarding whether strategic profile is an antecedent or a consequence of MO. While some studies establish that strategy is antecedent to the degree of MO (e.g., Lukas, 1999), others advocate a cultural approach to the phenomenon and argue that the strategy adopted by an organization is in fact a consequence of the degree of MO adopted (e.g., Santos et al., 2005). A recent study developed by (AUTHORS) has found no consensus: in the same industry there is a group of firms advocating for strategy as antecedent of MO and other group defending that MO is antecedent of strategy. Still other authors suggest new ideas for the debate related to strategy as moderating element in the intensity of the MO-performance relationship (e.g., Matsuno and Mentzer, 2000) or defend the existence of an indirect effect (Lee et al, 2006).

Hence, the purpose of the current study is to shed light on i) the MO-performance relationship, including the effect of innovation and ii) the role of strategy as moderator of the MO-performance link. From both the academic and the practitioner's view it is an important distinction that guides the strategic planning processes of the organization and indeed the basis on which it seeks to compete in the marketplace.

To this end, we have centered our attention on the Spanish real estate sector—an ideal subject of analysis due to the magnitude of the shifts in demand and competitive intensity it has undergone in recent years. In such contexts, concepts like MO are fundamental.

In order to reach research objectives, this study hangs on theoretical scaffolding which—based on a thorough review of the literature—takes basic concepts like MO, performance, innovation and strategy into account. Next, the hypotheses for empirical research are developed. Characteristics of the empirical study are presented in the fourth section, while the following

section offers the findings of the research. Final sections of the paper are structured around a discussion of the more significant findings and their academic impact, implications for practice, and a section for conclusions, limitations and proposals for future research.

## 2.-CONCEPTUAL FRAMEWORK

As Sivaramakrishnan et al. (2008) point out, ever since Narver and Slater (1990) and Kohli and Jaworski (1990) identified antecedents and consequences of MO, the concept of MO has received considerable attention from marketing researchers and practitioners.

The concept is based on work by Narver and Slater (1990) and Kohli and Jaworski (1990), and enjoyed relative consensus with respect to its meaning and operationalization by the early 1990s. Narver and Slater conceptualize MO as an organizational culture made up of three core dimensions: i) **customer orientation** — *understanding target customers in order to generate sustainable higher value* — for which customers' needs, desires and present or potential perceptions must be identified; ii) **competitor orientation** — *understanding and becoming familiar with the value alternatives in order to create the competitive advantage needed to guarantee long-term market permanence* — for which competitors must be identified and their strengths, weaknesses, and present/future actions and strategies analyzed; iii) **inter-functional coordination** — required in order for information to flow effectively (formally or informally) and reach responsible parties.

The behavioral approach proposed by Kohli and Jaworski is complementary to Narver and Slater's model, as Gao and Bradley (2007), Santos et al., (2005), Homburg and Pflesser (2000), Helfert et al. (2002), Avlonitis and Gounaris (1997), and Cadogan and Diamontopulos (1995), have acknowledged. Both perspectives have conceptual and operational overlaps in nearly all

dimensions, therefore a dissociation of the cultural and the behavioral approach should be avoided. Specifically Gounaris et al. (2004, p. 1483) highlight that MO represents the implementation of the marketing concept and it is a cultural orientation with behavioral implications since it focuses organizational efforts on understanding the market and on developing strategies in response to market opportunities or threats. The behavioral approach revolves around i) market information gathering or *intelligence generation* (regarding customers, competitors and other agents); ii) dissemination of intelligence throughout the organization; and iii) responsiveness, requiring effective inter-functional coordination. Whatever the approach is, MO has been shown in general as antecedent of performance.

The question that arises with respect to the potential link between MO and performance is important because of this link between cultural and behavioral aspects of the definition of MO in two respects. First, and most obviously, there is a need to understand whether the adoption of the cultural and behavioral aspects of MO is of consequence in the survival and development of organizations. Second, and more theoretically, how do both aspects give rise to the proposition that a MO -performance link exists. This is because while a positive relationship linking MO and performance has been empirically found, there are still questions about its robustness (Shohan et al., 2005). As the former authors suggests, this may be due to the fact that performance has been characterized in many ways: objectively, subjectively, and a combination of the two (e.g., market share, profitability, return on assets/investments, changes in market share, new product success, and a combination of these variables) and because different studies had used different scales to measure MO. As a result, widespread consensus regarding conclusions is lacking. Other reasons may be related to the absence of innovation in causal models or with strategic issues.

Literature on innovation appears to be varied and therefore the concept has been defined to describe many things and therefore approaches and definitions vary depending on the context and the scope of the analysis (Ortt and van der Duin, 2008; Salavou, 2004). For the purposes of our research we take as reference the proposal of Dobni (2008) who speaks about innovation as the implementation of ideas surrounding new products or services, modifications to existing ones (product or market focus, restructuring or cost saving initiatives, enhanced communications, personnel plans (process related), new technologies or responses to opportunities. Authors such as Alegre et al. (2006), McGuinness and Morgan (2005), Jin et al. (2004), Deshpandé and Farley (2004) have demonstrated positive links between innovation and performance. This may be because innovative firms are aware of the potential for certain products or managerial practices becoming obsolete. However, Jimenez-Jimenez et al. (2008) and Martins and Tercblanche (2003) alert that being innovative is not enough for success: you need to be able to implement innovation in the organizational culture and be sure that markets will value that innovation. To address the later issue firms should be market oriented and therefore as Hernandez-Espallardo and Delgado-Ballester (2009) and Aldas-Manzano et al. (2005) have recently demonstrated the influence of innovation in performance will be significant. A link between MO, innovation and performance has been established.

To address now the issue of strategy, it is necessary to bring the concept of strategy into play. Strategy, simply put, is the mechanism by which proposed objectives are reached. Farjoun (2002) defines strategy as an organization's position or scope, reflected in the harmonization of its internal structures, systems and processes with its external product markets and their environmental conditions at a given point in time. The literature recognizes two sub-processes: formulation and implementation. Adequate management of both is essential to organizational

success. In this line of thought, Slater and Narver (1996) already established that the link between MO and strategy is important to a deeper understanding of MO's impact on performance. This is because MO may facilitate organizational ability to anticipate, respond, and capitalize on environmental changes and as such is conceptually bound to the territory of 'strategy' (Santos et al., 2005). Conceptually, MO helps firms identify and respond to changes in their environment and in customer needs.

Thus, as Santos et al. (2005, p. 18) suggest, according to the resource based view of firm theory (RBV), MO can be considered to be an organizational resource which—along with other available resources—constitutes the cornerstone for organization strategy design. This idea is in line with Lee et al. (2006), Dobni and Luffman (2000), and Hunt and Morgan (1995), among others, who suggest that strategy, MO and performance are related. Strategy may also reinforce the positive correlation between MO and performance (Lee et al., 2006) or can moderate such relationship (Matsuno and Mentzer, 2000; Kumar et al., 2000). Therefore, we propose a research analyzing if strategy really moderates the MO-performance principal link.

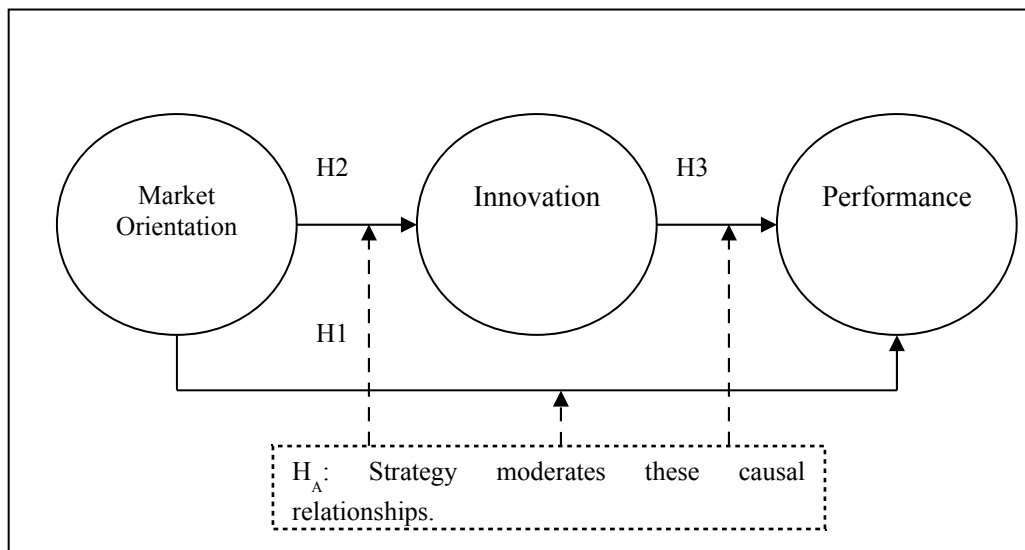
### **3.-HYPOTHESES**

The core objective of this study, as we indicated above, is to analyze the moderating effect of strategy in the relationships between MO, innovation and performance. As commented in section 2, the MO-performance relationship has been analyzed in dozens of studies over the years, yet consensus has yet to be reached with regard to the findings. That said, in this case some degree of consensus does seem to exist regarding the positive impact of MO on performance; the fact that full consensus has yet to be reached may be owing to differences in the measurement of performance in avoiding the effect of innovation. Issues related to strategy may also affect.



Hence our model considers a basic MO-performance hypothesis, complemented by the impact of innovation). A final hypothesis considers the potential moderating role of strategy in the MO-performance relationship. The model's causal relationships are shown in Figure 1.

**Figure 1: Model of Reference**



### 3.1.-MO and Performance

Orienting activity towards the market enables firms to identify their customers' current and potential needs and desires. Moreover, it helps them to monitor the strategic moves of their competitors and design effective organizational intelligence-gathering mechanisms capable of disseminating information and responding to changes in the environment. The literature substantiates this positive correlation between the degree of MO and business performance (e.g. Kirka et al., 2005; Sittimalakorn and Hart, 2004; Deng and Dart, 1994; Jaworski and Kohli, 1993; Ruekert, 1992). Hence, we can postulate that:

**Hypothesis 1:** *MO will positively affect business performance.*

### **3.2.-MO, Innovation and Performance**

The work of Jaworski and Kohli (1996) takes note of the fact that innovation has, in many cases, been unduly excluded from MO models. MO, as these authors claim, could be seen as antecedent to innovation. The literature corroborates that opting for MO aids in identifying market opportunities, thus boosting the success of both present and future products (Bogue et al., 2000; Sandvick et al., 2000). Market-oriented firms, it is presumed, will be sensitive to shifts in customer needs, aware of the potential for certain products becoming obsolete, and alert to competitors' responses to changing environments (Hernandez-Espallardo and Delgado-Ballester, 2009).

The relationship linking MO and innovation is generally assumed to be robust (Jimenez-Jimenez et al., 2008; Kayhan et al., 2006; Aldas-Manzano et al., 2005; Henard and Szymanski, 2001). A number of authors argue that MO has a significant positive impact on the success of launching highly innovative products—both for the market in general and the firm in particular (Im and Workman, 2004; Deshpandé and Farley, 2004; Vázquez et al., 2001; Baker and Sinkula, 1999; Han et al., 1998). A detailed, *a priori* understanding of the market is required if such actions are to result in success.

A decisive commitment to innovation puts firms in a position to monitor changes in their environment and quickly adapt to new realities in order to reap first-rate results (Dobni, 2008; McGuinness and Morgan, 2005; Jin et al., 2004; Deshpandé and Farley, 2004; Baker and Sinkula, 1999). Therefore it is easy to understand why innovation has been shown as antecedent of performance in dozen of researches (e.g., Alegre et al., 2006; Aldas-Manzano et al., 2005; Salavou, 2004). We can conclude, therefore, that MO is a catalyst for product innovation, which in turn paves the way for premium performance. Thus, MO has also an indirect positive impact

on business by way of innovation (Vázquez et al., 2001; Hurley and Hult, 1998). In other words, MO both enhances firms' capacity to launch innovative products and improves the chances of garnering positive returns:

**Hypothesis 2:** *There is a positive relationship linking MO and innovation.*

**Hypothesis 3:** *Innovation has a positive impact on business performance.*

### **3.3.-Strategy as Moderator of the MO-Performance Relationship**

The absence of universal consensus with regard to the MO-performance relationship has spawned literature which delves into the possible causes of this phenomenon (e.g., Mentzer and Matsuno, 2000; Slater and Narver, 1994). Greenley (1995) points out that strategy formulation and implantation itself may be a factor. Mentzer and Matsuno (2000) go even further, suggesting that strategy is neither an antecedent nor a consequence of MO—that in fact no theoretical arguments exist to explain such relationships; rather, the link between both concepts lies in how strategy moderates the influence of MO on results. This idea is in line with the proposals of Kumar et al. (2000), among others, and allows us to formulate the following hypothesis:

**Hypothesis A:** *Strategy moderates the intensity of the causal relationship between the variables included in the proposed model.*

## **4.-EMPIRICAL STUDY**

### **4.1.-Methodology**

At the root of the present study is the fundamental objective of providing answers to the questions posed in hypotheses H<sub>1</sub>, H<sub>2</sub>, H<sub>3</sub>, and H<sub>A</sub>. To this end, the empirical study is quantitative in order to test out the validity of hypotheses H<sub>1</sub>, H<sub>2</sub>, H<sub>3</sub>. In addition, both a multi-sample and a

moderating effect analysis are carried out to facilitate an assessment of the potential moderating role played by the strategic profile. More specifically, the analysis is built around structural equation models.

#### **4.2.-Data Collection**

The focus of analysis is the Spanish real estate sector—an ideal subject of analysis due to the magnitude of the shifts it has been undergoing for a number of years now. In 1998, a convergence of factors (e.g., a 4.5% increase in GDP, dropping interest rates, a growing population, and compliance with Maastricht Treaty benchmarks for inclusion in the European Union) created an economic and social framework which led to an unprecedented new boom cycle. By late 2007, however, most indicators predicted the onslaught of yet another real estate slump due to oversupply, diving demand, tougher lending conditions and soaring prices. By early 2008, the number of unsold new homes had reached 650,000. The market swang from a seller's market to a buyer's market, and only those firms which adapted and provided customers with value-added service would stay afloat.

Given the situation, companies—more than ever—should analyze organizational strategies and implement MO: if supply is greater than demand, firms will have to become more sensitive to the real needs and preferences of customers and develop a keener awareness of the competition; innovation and quality service could play a decisive role when it comes to gaining and keeping a competitive edge.

**Table 1: Fieldwork - Technical specifications**

<b>UNIVERSE</b>	CEOs, owners and/ or marketing managers of Spanish firms (construction and real state industry)
<b>GEOGRAPHICAL SCOPE</b>	Spain
<b>SAMPLE</b>	195 firms 156 (80%) differentiation-based firms; 39 (20%) costs leader 136 (69.74%) small firms; 59 (30,26%) big firms
<b>SAMPLING METHOD</b>	Random simple
<b>RESPONSE RATE</b>	22.94%
<b>SAMLE ERROR</b>	0.071
<b>CONFIDENCE LEVEL</b>	95%; $p=q=0.5$ (if $z= 1.96\%$ )
<b>RECOLECCIÓN DE DATOS</b>	Postal survey + e-mail
<b>FIELDWORK</b>	February-April, 2008

In this context, as exploratory analysis, we conducted a series of in-depth interviews with management at 12 Spanish real estate-sector firms between February and March, 2007, and then again in early 2008. At the outset, managers at selected firms were contacted to discuss research objectives and establish a functional timetable aimed at keeping disruption of daily activity to a minimum. The first informal company visits provided us with key informants (George and Torger, 1982; Kumar et al., 1993): the CEO (sometimes also the owner) and/or the Director of Marketing who, depending on company size and structure, may double as the CEO.

Quantitative data was obtained by way of a survey sent out to a random sample of 850 firms selected using the database provided by the Association of Spanish Developers and Real Estate Companies. Just under 200 valid surveys were returned—a 22.94% response rate. Table 1 shows the main characteristics of the fieldwork.

#### 4.2.-Measurement Scales

MO is assessed from the perspective of culture. We conceive of the construct as being a phenomenon linked to organizational norms and cultural values, and measure it using the scale proposed by Narver and Slater (1990)—15 indicators representing 3 core MO dimensions: customer orientation (6 items), competitor orientation (4 items), and interfunctional coordination (5 items). The scale's range goes from 1 ("not at all"), to 7 ("to an extreme extent") and it has been endorsed by authors such as Sittimalakorn and Hart (2004) or Langerak (2003), among others. Justification for using this scale to achieve our research goals is based on i) the attention paid to both customers and competitors—focal points in our study (Verhees and Meulenber, 2004; Verhees, 1998), and ii) the quality of its psychometric properties—both in the original study and in later research using this scale (e.g., Siguaw et al., 1994).

The innovation scale is initially based on proposals by Booz et al. (1982). Product innovativeness depends on market perception and the firm in question. Thus, it is well accepted that there are 6 new product types: *products which are new to the world*—those products which create a totally new market; *products which are new to a product line*—new incorporations to existing product lines; *new product lines*—products which are new to a given company, providing access to an existing market for the first time; *new and improved products*—improvements and modifications of existing products; *repositioned products*; and *cost-cutting products*—new products which generate equivalent revenue at a lower initial cost to the company. With this classification in mind, we propose a scale to measure the innovation variable which allows us to i) assess a given firm's degree of innovation, and ii) pinpoint the prevailing innovation profile.

Given the uniqueness of the sector under analysis and the connotations the concept holds for management at these firms, we had to modify the definitions of the 6 product types as outlined by Booz et al. (1982). Once definitions had been delineated they were submitted to external review with the aim of ensuring appropriate tailoring to the specific analytical context. To this end, a pretest was designed around personal interviews with management at a number of firms in the real estate sector. The resulting scale is shown in Appendix 1. Item I6 functions as a control variable to test the existence of a relationship linking the strategic profile reported on the surveys and the answer provided on this item. Furthermore—given that innovation may spring from a variety of sources—this scale affords an average value of all the indicators which will, in turn, be the indicator which measures firms’ overall degree of innovation. Jin et al. (2004) defend a similar approach under the premise that any given organization can prove strong in zero, one or several areas—and weak in others—hence labeled as anything from a non-innovator to a soft, hard or all-around innovator. Keeping our research objectives in mind, this seems like a satisfactory alternative.

The literature suggests that research results may vary according to the alternative chosen since little consensus exists regarding how to measure business performance (Shoham et al., 2005). Researchers themselves, therefore, should choose the literature-endorsed alternative they deem best serves their particular research goals (Langerak, 2002). In that spirit—when it came to measuring overall performance—we opted for scales proposed by Alpkan et al. (2008) and Homburg et al. (1999) which ponder both economic and market indicators. Subjective methods are used to quantify all of these indicators—managers were asked to use a Likert scale to compare their firm’s situation with that of their competitors. Our final proposal is the result of adapting these references to the pre-test results. The scale’s range goes from 1 (“not at all”), to 7

(“to an extreme extent”). In this way, economic outcomes will be measured as a function of sales, market share and profitability. By the same token, market outcomes will be measured in terms of degree of market recognition along with both customer satisfaction and fidelity.

With respect to identifying and quantifying the strategic profile—necessary, in this case, in order to assess the moderating effect of this variable in the proposed model—the literature (e.g., Morgan et al., 2003; Snow and Hambrick, 1980) recommends at least 4 alternatives: i) self-classification—by way of multi-item scales or the paragraph method; ii) objective indicator-based classification; iii) researcher-based classification; and iv) expert-based classification. After carefully considering the pros and cons of each, we opted in favor of self-classification using the paragraph method. This alternative appears frequently in the specialized literature on business strategies (e.g., Camelo et al., 2003; Slater and Olson, 2001; James and Hatten, 1995), and facilitates grouping the sample into different clusters *a priori* and analyzing for potential differences among subsamples (Hewett et al., 2002). In the present study, this depended on strategy type: differentiation or cost leader, proposed by Porter (1991).

### **4.3.-Measurement Scales Validation**

Following guidelines endorsed by the literature (e.g., Hair et al., 1999; Bentler, 1995) a confirmatory factorial analysis was carried out using structural equations and applying the Maximum Robust Likelihood method of estimation. EQS software was employed and 4 criteria were pondered: the *significance* of the factorial charges (T-student > 1.96), the *substantiality* of the factorial charges (standardized coefficients > 0.5), the individual reliability of each of the indicators ( $R^2$  associated with each factor > 0.5) and the quality of the fit of the model.



All indicators showed satisfactory results except for the R2 which, at  $R^2 = 0.489$  was slightly under the 0.5 reference value and had to be excluded from the study. Despite the manifest theoretical value of the study and having verified the validity of our methodology on previous occasions we felt it necessary to explore the underlying causes behind problems that had surfaced in our study. Our conclusion was that perhaps the concept of fidelity is not very widespread in the real estate sector. In other words, how often does one generally buy a home? Is the rate of change and/or purchase greater or smaller than with more common consumer products? The problems these questions give rise to indicate it may be wiser to discard this indicator when analyzing the concept in this sector, given that it is uncommon in the daily dealings of these firms. Once this had been done, the reference conditions were tested again for satisfactory results vis-à-vis the reference values.

The speed and efficiency of this normally complex depuration process is the result of opting for measurement scales which had previously been contrasted and validated by other authors. We should mention here that the innovation scale must be included in this confirmatory factor analysis (CFA)—despite the fact that the scale considers an average value—since the analysis calls for the joint consideration of all factors comprising the different scales. At the conclusion of this process the results showed a good fit vis-à-vis the reference measurements:  $\chi^2_{Sat.} = 134.736$  ( $p < 0.01$ ); RMR= 0.142; RMSEA= 0.031; NFI= 0.951; NNFI= 0.963; AGFI= 0.942; CFI= 0.959; IFI= 0.955; Normed  $\chi^2 = 1.42$ .

In addition, measurement scale reliability was assessed using Cronbach alpha statistics ( $>0.8$ ) (Nunnally, 1979) and the composite reliability index ( $>0.7$ ) (Hair et al., 1999). The scales are reliable and results are above optimum recommended values, as shown in Appendix 1.

Discriminant validity was assessed using the  $\chi^2$  difference test (Hair et al., 1999) and the test results were satisfactory as well.

## 5.-RESULTS

With respect to the proposed causal model, once the measurement scales had been validated, we proceeded to step two: assessing the significance of the hypotheses using structural equation analysis and EQS software. The results of the analysis are shown on Table 2. In every case, our hypotheses tested significant at the 95% level with a standard deviation oscillating between 0.437 and 0.652.

The data confirms that MO has a positive impact on business performance (H<sub>1</sub>) ( $\beta_{est} = 0.652$ ,  $p < 0.01$ ). MO also serves as a catalyst for innovation within firms (H<sub>2</sub>) ( $\beta_{est} = 0.505$ ,  $p < 0.01$ ). Moreover, empirical evidence shows that, in this sector, innovation—interpreted very heterogeneously here—contributes to enhanced performance ( $\beta_{est} = 0.437$ ,  $p < 0.05$ ); thus, H<sub>3</sub> terms are met.

**Table 2: Hypothesis Contrast: Structural Coefficients**

Hypothesis	$\beta$ standardized	T-value	Causal relationship
<b>MO-performance (H1)</b>	0.652 <sup>a</sup>	13.736	YES
<b>mo-innovation (H2)</b>	0.503 <sup>a</sup>	4.519	YES
<b>Innovation-performance (H3)</b>	0.437 <sup>b</sup>	2.217	YES

a. Significant for 1%; b. Significant for 5%

In the analysis of R<sup>2</sup>-related data, the structural equations for business performance confirm that more than 50% deviation ( $R^2 = 0.524$ ) can be explained by the sum of the direct and indirect impact of MO by way of innovation. Such data underpins the explicative capacity of our model.

Finally—with respect to the fit of the structural model—point out that all indicators are within optimum recommended value parameters: RMR= 0.46; RMSEA= 0.038; NFI= 0.944; NNFI= 0.956; AGFI= 0.931; CFI= 0.943; IFI= 0.949; Normed  $\chi^2$ = 1.59).

Two steps were required in order to assess strategy's moderating role in causal relationships within the model, following guidelines put forth by Iglesias and Vázquez (2001), and Jaccard and Wan (1996). The first—which is not a formal analysis of impact—in this case involved analyzing the estimated parameters for each group and the significance of each causal hypothesis. To this end—according to self-classification criteria (e.g., Morgan et al., 2003; Slater and Olson, 2001)—the sample was split into two subsamples following the advice of Langerak (2003, p. 98-99): i) the *differentiation* cluster, consisting in 156 firms (80% of total sample), and ii) the *cost leader* cluster, comprising 39 firms (20% of total). It should be noted that these percentages are in the ballpark of sector averages.

Existing differences in values for non-standardized coefficients suggest the possibility of variations among subsamples. The MO-performance relationship ( $H_1$ ) appears to be more intense in the differentiation cluster (0.714) vis-à-vis the cost leader cluster (0.698). On the other hand, the values are relatively close and our hypothesis is significant to 99% for both clusters. Apparently not enough evidence exists to support hypothesis  $H_A$ ; thus we cannot substantiate that strategy moderates the relationship between MO and performance. This outcome contradicts the line of thought in Dobni and Luffman (2003), Matsuno and Mentzer (2000) and Kumar et al. (2000), among others, defending the role of strategy as a moderating factor in the MO-performance relationship.

The model also suggests that strategy can have an impact on the causal relationships linking MO and innovation ( $H_2$ ), and innovation and performance ( $H_3$ ). In the case of  $H_2$ , our data reveals

variations among subsamples; the causal relationship is more intense in firms which opt for a differentiation-based strategy (0.658) than in cost leader-oriented firms (0.493). The relationship is significant to 99% in the differentiation cluster, yet under 95% in the cost leader subsample. Strategy, therefore, may indeed moderate the MO-innovation relationship (H<sub>2</sub>). Such findings are, essentially, logical: cost leader-oriented firms intuitively focus on using less expensive materials, building in less exclusive areas and, perhaps, streamlining production processes. Firms opting for differentiation, on the contrary, invest more in innovations which allow them to differentiate themselves from the competition. In the case of the innovation-performance relationship (H<sub>3</sub>), similar results were obtained (0.601 versus 0.512). Findings from the multi-sample analysis are shown on Table 3.

**Table 3: Multi-sample Strategic Profile Analysis**

<b>Differentiation-based</b>	<input type="checkbox"/> non-standardized	<b>T-value</b>	<b>Causal relationship</b>
MO-performance (H1)	0.714 <sup>a</sup>	13.967	YES
MO-innovation (H2)	0.658 <sup>a</sup>	7.114	YES
Innovation-performance (H3)	0.601 <sup>a</sup>	3.025	YES
<b>Cost leader</b>	<input type="checkbox"/> non-standardized	<b>T-value</b>	<b>Causal relationship</b>
MO-performance (H1)	0.698 <sup>a</sup>	7.551	YES
MO-innovation (H2)	0.493 <sup>b</sup>	2.339	YES
Innovation-performance (H3)	0.512 <sup>b</sup>	2.098	YES

a. Significant for 1%; b. Significant for 5%

In order to determine whether such intersample variations are significant (i.e., moderating effect), it is necessary to proceed to step 2. This involves re-estimating the model, the restriction being that structural model regression coefficients—both gamma and beta according to LISREL notation—be equal in both groups. Hence, if there is no moderating effect and path coefficients

are equal in both populations, the proposed variable will not have a significant impact. Conversely, if there is considerable moderating effect, this will affect the structure of the model (significant LM;  $p < 0.05$ ).

Our findings confirm previous levels. The data separately associated with each one of the restrictions indicates that only MO-innovation (0.018) and innovation-performance relationships (0.041) are linked to a significant LM ( $p < 0,05$ ), while MO-performance (0.407) is consistent with the data. Thus, there is only enough evidence to partially defend  $H_A$ . Our data demonstrates that strategy does not directly moderate the MO-performance relationship; it does so indirectly by way of innovation. The data is shown on Table 4, below. In addition, the data result is  $R^2 = 0.552$  for the differentiation subsample versus  $R^2 = 0.504$  for the cost leader cluster. Therefore, the model is capable of explaining the relationship between MO and performance in both subsamples on the basis of direct impact—in addition to the indirect impact of innovation. With regards to fit, the findings show a reasonable fit between the multi-sample model and the data.

**Table 4: Analysis of Strategy's Moderating Role**

<b>Models</b>	<b>Restriction</b>	<b>Dif. <math>\chi^2</math> (gl)</b>	<b>p-value</b>
M1	MO-performance	0.687 (1)	0.4071
M2	MO-innovation	5.586 (1)	<b>0.0181</b>
M3	Innovation-performance	4.163 (1)	<b>0.0413</b>

## 6.-DISCUSSION

Findings of the research show that, effectively, relationships between MO, innovation and performance exist and they are moderated by the effect of strategy.

An important conclusion our data leads to is rooted in an analysis of the MO-performance relationship. The literature assessing this relationship has been very abundant and has deemed it both positive and significant (e.g., Kirka et al., 2005; Sittimalakorn and Hart, 2004; Jaworski and

Kohli, 1993). As our first hypothesis predicted, the data ratifies this opinion. Several other authors (e.g., Shoham et al., 2005), however, have found that—on occasions—the MO-performance relationship is not entirely empirically grounded; due, perhaps, to the way in which performance was measured. In an attempt to deal with this discrepancy we opted to measure performance in terms of managerial perception, taking into account both economic and market aspects.

Furthermore, innovation boosts the positive impact of MO on performance. Jaworski and Kohli (1996) sang the praises of including innovation in models assessing the MO-performance relationship. In consonance with such suggestions, we chose to include the innovation factor in our analysis. Our findings show—as  $H_2$  and  $H_3$  predicted—a clear relationship linking i) MO and innovation, which is in line with ideas defended by Hernandez-Espallardo and Delgado-Ballester (2009) and Aldas-Manzano et al. (2005) and ii) innovation and performance, as suggested by Alegre et al. (2006), Aldas-Manzano et al., (2005) or Salavou (2004). We can therefore also defend that MO has an indirect impact on performance by way of innovation. This matches, for instance, with Vázquez et al. (2001). Clearly, probability is on the side of those firms which opt for innovation and are therefore both more alert to changes in their environment and equipped to adapt swiftly. These firms enjoy the added bonus of being in a position to wield innovation so as to set themselves apart from the competition. A similar notion—in this case casting innovation in a moderating role affecting the MO-performance relationship—finds support in Langerak et al. (2007, p. 281) who conclude that innovation may be the missing link between MO culture and enhanced performance.

The indirect impact MO has on performance by way of innovation is, moreover, of upmost interest when analyzing strategy's potential moderating role in the proposed model. Our data

suggests that strategy does not moderate the MO-performance relationship; not directly, at least. This find contradicts the vast majority of previous studies addressing the issue (e.g., Mentzer and Matsuno, 2000; Greenley, 1995; Slater and Narver, 1994). Langerak (2003), for example, notes that there is a positive correlation between MO and performance in companies opting for a differentiation-based strategy, whereas in cost leadership-oriented firms, MO does not have any bearing on performance. As to the scope of the present study, it may be the case that the still recent years of plenty enjoyed by the sector are behind the fact that Spanish real estate firms have turned a profit—regardless of their strategic profile. Furthermore, a subtle reorientation towards the market in the early stages of a sector shift may have mitigated potential turbulence in commercial processes. That said, certain exploratory data suggests that—once the shift had concluded—strategy, in effect, could moderate this relationship. It would seem, therefore, that we are looking at a key line of future research. For the time being, intuition would have the data point towards greater relevance for the *sector*, vis-à-vis strategy, as a moderating factor.

The notion that the competitive context moderates the MO-performance relationship coincides with findings reported in Slater and Narver (1994)—and contradicts one of the ideas defended by Langerak (2003) in suggesting that market conditions do not moderate the relationship of reference. On the other hand, we have confirmed that strategy does in fact moderate the MO-performance relationship indirectly by way of innovation. The market has begun to value innovation as a form of adaptation and differentiation which favors commercial processes. Hence, those firms capable of innovating and setting themselves apart from the competition will potentially enjoy better positioning vis-à-vis companies focusing exclusively on cost leadership. This last point puts us back in line with key studies in the literature.

In short, the present research is an important contribution to the literature. The MO-performance relationship has proved to be both positive and significant—enhanced by the indirect impact of innovation. Finally, strategy does not moderate the MO-performance relationship directly, but indirectly by way of innovation.

**Table 5: Summary of Findings**

<b>Theoretical Proposal</b>	<b>Evidence</b>
MO-performance	Yes (direct impact + indirect impact through innovation)
Strategy as moderator of MO-performance	Yes, although only indirectly (via innovation)

Once the theoretical relevance of MO as an antecedent to enhanced performance has been established we should consider a series of guidelines for implementation. To this end, some best practices recommend reflecting on the potential advantages of orienting activity towards the market. The first step is for management to fully grasp the meaning, philosophy and true dimension of MO: it is not a process which yields immediate returns; MO requires gradual adaptation. In addition, all members of the organization must identify themselves with the new philosophy and be willing to i) complete required tasks and assignments, and ii) work as a team.

Innovation, when MO is present, whether considered as technology, strategy or management tool used by the company for the first time -whether used previously by other companies or not- or as new product created specifically for the market, has a positive influence on performance. However, thinking on best practices, in-company experience has shown that an adequate organizational structure, staff and processes exercise on the development of practices and/ or commercialization of new products are required.



It is crucial that the organization as a whole be willing to learn from each and every situation that presents itself—and to make the most of available feedback. If this is to be achieved, relatively flexible, dynamic structures are of the essence. For the organization in question, successful MO and innovation execution paves the way for a sustainable competitive edge, although moderated by the effect of the strategic profile and strategy implementation.

## 7.-CONCLUSIONS

The present study participates in the debate on the relationship linking strategy, MO and performance. We have also added the effect of innovation. Our research findings suggest that—for the context studied—the link between MO and performance is significant and it is reinforced by the effect of innovation. Our data also reveal that strategy may be an indirect moderator of the MO-performance link. These results significantly enrich this study's contribution to the literature, as it joins the ranks of other inquiries on the topic. The wealth of data obtained may be due to the intense readjustment processes the sector under analysis is currently experiencing. Such processes boost the relevance of MO with respect to previous periods in which analyzing real market needs and keeping tabs on the competition was not required in order to obtain positive business results.

The study is, however, limited in several ways. Firstly, the Spanish real estate sector is the only sector analyzed; conclusions may not hold up in different contexts. However, the absence of previous studies substantiates the value of the research presented here. Moreover, the literature is far from a consensus regarding which measurement scales to use for quantitative study model variables. Given the characteristics of the sector under analysis, the pre-test data called for using the scales chosen. In addition, we feel that the satisfactory results from the reliability analysis of

the scales make up—at least partially—for this shortcoming. Finally, the size of each of the subsamples may be slightly unbalanced (156 versus 39). This could have affected the significance levels obtained for some of the test parameters. However, as it was already explained in section four, for this reason we used the non-standardized parameters as reference. We also highlight that proportion between does closely reflect the reality of the sector, characterized by a predominance of firms opting for a differentiation-based strategy (although the number of cost leadership-oriented companies is on the rise due to the economic situation).

With respect to proposals for future research, we recommend taking a closer look at other industries and countries. We would also be interested in seeing the incorporation of new variables into the causal model; as already commented in section 5 and following ideas by Narver and Slater (1994), researchers may check if context also moderates the relationships included in our causal model; or more in-depth analysis of the impact of other variables such as firm size, ownership structure and management education and experience levels. Yet another line of research would be to analyze organizational adjustment processes in firms in the early stages of MO with a special focus on learning orientation. Lastly, as the scope of the present study is limited to the firm's point of view, a fascinating vein of inquiry yet to be tapped would involve filling out the picture by including customer perceptions regarding the real degree of MO in firms.

## Appendix 1: Measurement scales (□ Cronbach, CRI)

Based on 7 points Likert scales

### **Customer orientation (0,905; 0,855)**

CSO1.-We are highly committed for satisfying necessities of our customers

CSO2.-Our success is based on creating customers value

CSO3.-One of our competitive advantages is understanding customers needs better than our competitors

CSO4.-We are focused on customers satisfaction

CSO5.-We measure customers' satisfaction

CSO6.-We are also committed with after-sales services

### **Competitor orientation (0,913; 0,871)**

CM1.-Our sales force share information related to other real-states

CM2.-We respond rapidly to competitor's actions

CM3.-Our top managers discuss about competitor's strategies

CM4.-We are focused on target opportunities for competitive advantages

### **Interfunctional coordination (0,887; 0,852)**

IC1.-Our employees have information about present and potential customers periodically

IC2.-All the departments share relevant information

IC3.-All the departments are integrated and coordinated in strategy

IC4.-All functions contribute to customer value

IC5.-All the departments share resources with other business units

## **Performance**

**(0,841; 0,806)**

P1.-Our customers are satisfied

P2.-Our customers are loyal

P3.-Our brand is well-known in the market

P4.-We have an interesting market share

P5.-We get economic profits

**Innovation & strategy** (see comments on section 4.2 *Measurement scales*)

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