

STRATEGY AND INNOVATION. STUDY OF THE INNOVATIVE CAPACITY OF THE SPANISH HOTEL INDUSTRY

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ABSTRACT

This paper analyses the relationships between certain determinants in the strategic management process on innovation in hotel organisations in Spain, as well as the influence of the level of innovation on competitive advantage and organisational performance. The theoretical positioning is based on the resource and capability-based approach, within the field of strategic management. An analysis of major hotel chains operating in Spain has shown that certain factors (namely twenty dimensions) of the strategic management process impact on the level of innovation positively, as well as a proper management of innovation influences organizational results, also positively.

KEYWORDS

Innovation, Tourism, Hospitality Sector, Strategic Management.

1. INTRODUCTION

The study of the relationship between innovation and strategic management is a field of research in which the business world - both academic and practical - is taking a growing interest. Furthermore, the importance that innovation represents for companies in a state of constant change is undeniable. Since the second half of the 1990s, innovation has become one of the most promising fields of study in terms of explaining competitive differences between companies. As a result, innovation as a strategic capability has been vindicated as the main source of competitive advantage and a device for achieving higher revenue.

The theoretical positioning in the present study is based on a resource and capability-based approach within the field of strategic management. On this basis, innovation stands out as a key strategic capability that is generated by activating a series of resources; its management is thus a fundamental element in developing dynamic capabilities conducive to obtaining competitive advantages (Teece et al., 1997; Eisenhardt and Martin, 2000; Zollo and Winter, 2002; Ferdinand et al., 2004). In the relationship to innovation, the benchmark approach in the literature is the dynamic capabilities approach; our study examines the theoretical perspectives that influence its characterisation and establishes contact points with other approaches within the resource and capability-based theory, in order to form a common basis of study for designing a model and its subsequent testing in an empirical study.

In the tourism industry, and the hotel subsector in our case, innovation plays a key role in the production of knowledge and a firm's capability to absorb it, so that it can be used to improve productive efficiency and the product's ultimate competitiveness (Nieto, 2003). In the case of Spain as a tourism product, it is a world-renowned destination whose economy is heavily dependent on tourism services; thus, it is the ideal setting in which to apply our research.

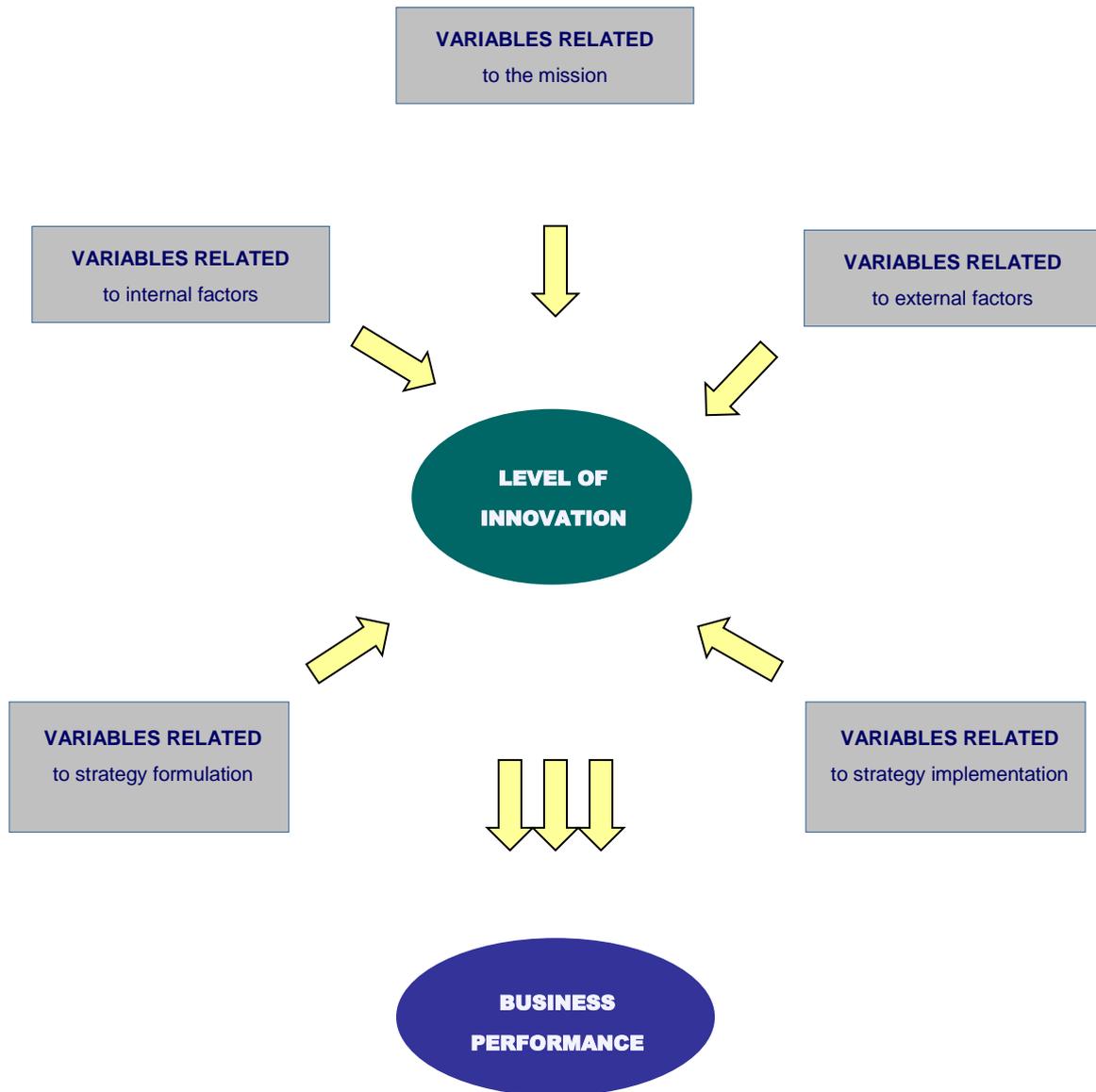
This study focuses on ascertaining the extent to which certain determinants in the strategic management process affect the level of innovation. Therefore, a model was created for this study that was tested along with a series of hypotheses in an empirical study of managers from the top Spanish and foreign hotel chains operating in the country, ranked according to turnover.

2. CONCEPTUAL FRAMEWORK, DEVELOPMENT OF THE RESEARCH MODEL AND HYPOTHESES

Several studies have highlighted the importance of the innovation strategy as a coherent plan for developing, acquiring and deploying resources and capabilities in order to achieve and sustain better results (Lefebvre et al., 1993; Zahra and George, 2002; Orfila et al., 2005; COTEC, 2008; Hjalager, 2010).

Based on the literature and considering this study's context, we propose the model presented in Figure 1, which describes the entire process that may be followed in innovation decisions - in our case, by companies in the Spanish hotel sector – in accordance with the phases or stages of a company's strategic management model. We start with the company's purpose and mission, continue with internal and external factors and conclude with the formulation of strategies and their implementation.

Figure 1. Analysis model for determinants of the level of innovation and their impact on business performance.



To construct each of these variables, a number of different authors and their contributions to this field of research were analysed. This theoretical study gave rise to twenty dimensions or factors to be analysed that allowed us to test the model in the empirical study through the corresponding hypotheses. Table 1 shows a list of the factors which were adapted to the characteristics of our model.

Table 1. Constructs for analysis of the conceptual model

Mission	
A firm bet for innovation in an organisation's mission and values	
Internal factors	
Influence on the level of innovation of certain internal factors	
A corporate structure that facilitates innovation	An innovation-oriented culture

Corporate support for creativity	Adoption of measures to overcome barriers to innovation
Adoption of appropriability measures	
External factors	
Influence on the level of innovation of certain external factors	
Competitive rivalry	Suppliers' bargaining power
Degree of customer satisfaction and loyalty	Bargaining power of substitute products
The dimensions of complexity and dynamism of the environment	The degree of active government commitment
Strategy formulation	
Influence on the level of innovation in the adoption of certain strategies	
Competitive strategies: competing through seeking cost leadership	Competitive strategies: committing to a differentiation strategy
Competitive strategies: adopting a segmentation strategy	Internationalisation as a growth strategy
Strategy implementation	
Degree of influence on the level of innovation of certain factors of implementation strategies	
Degree of development of quality management	Degree of sophistication in information systems
Objectives of increased productivity	
The level of innovation and its impact on business performance	
Degree of influence on business performance of the level of innovation	

Therefore, the analysis and construction of the model and its respective constructs, supported by the literature, provided all the arguments needed to formulate the hypotheses, which paved the way to achieving the objective of determining the extent to which determinants in the strategic management process influence the level of innovation and their impact on hotel companies' performance.

3. RESEARCH DESIGN

The population universe in this study consisted of senior management from the top 150 Spanish and foreign hotel chains operating in Spain ranked in order of revenue. Data was collected in October and November 2009 from a survey of directors from the top 150 Spanish and international hotel chains in the country ranked in order of revenue. The questionnaire was completed by 48 executives in these hotel chains, which represents a response rate of 32%. No significant differences between the composition of the population and the sample were found, as observed in other studies on innovation or tourism analysed in the literature: Jacob et al. (2003), Galende (2006), and Ottenbacher (2007). Several technical features of the sample's composition are shown in the following table:

Table 2. Technical file on the composition of the sample

Data collection method	Online and telephone survey
Types of questions	Questions with a Likert scale and semantic differential (104 items)
Target population	Top 150 Spanish and foreign hotel chains ranked by revenue
Scope	Spain
Date of data collection	October and November, 2009
Sample obtained	48 questionnaires
Response rate	32%

4. RESULTS

The properties of the metrics used were analysed before proceeding with the different analyses that led to the tests of each hypothesis. This ensured each variable's capacity to measure the concept it represented. In our case, the scale reliability and validity properties were re-analysed.

As for the first property, the internal reliability of the questionnaire's 104 items analysed separately in each section gave very positive Cronbach alpha values, all of which were higher than 0.8. Concerning validity testing, a factorial analysis of the main components was performed with a varimax rotation to validate the different metric scales for each section of the study. Two statistics were used to assess the appropriateness of this type of analysis: the Bartlett test of sphericity and the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy. The results of the two tests, applied to all the items in the global model, gave a high value in the KMO test of close to 1 (0.879); the Bartlett test of sphericity rejected the null hypothesis that the correlation matrix is an identity matrix ($\chi^2 = 1932.29$ and significant with $p=0.000$), which allowed us to accept the data's fit to a factorial analysis model.

The following results from our study model were obtained by applying the analysis of the main components to the global scale of the 104-item model that allowed the different factors of the strategic management models that affect the level of innovation to be related: 1) we corroborated the existence of twenty factors or dimensions that explained 87.991% of the total variance. This result is highly satisfactory (Hair et al., 1998); 2) the correlations between the different factors and different items expressed through the factor loading were quite high, because almost all the expressed values were higher than 0.70; 3) the proportions of variance explained for each item, expressed through communalities, were very high, since they account for a percentage of variability in the responses of more than 0.80 in most cases.

Therefore, in relation to the convergent validity analysis - which indicates whether the different items used to measure the concept actually correlate with each other - the magnitude of the factor loading, which was not only greater than 0.4 (Hair et al., 1998) but greater 0.6 in all cases, ensures this validity. Lastly, with respect to discriminant validity, the grouping of items in each factor corresponding to the innovation variables related to strategy implementation ensured the unidimensionality of the different constructs', confirming each one's unequivocal capacity to measure the intended concept.

Once the reliability and validity of the scale items were obtained, a correlations analysis was conducted to test the hypotheses considered. To do so, Pearson's r test was used to determine the existence of correlation, as described below. Overall, at the global level, none of the six hypotheses proposed were

rejected; the only correlation that could not be demonstrated was concerning one of the external factors, in the dimension related to the environment.

Table 3 shows the summary of the results of these correlations, with the global sign given for each hypothesis and the sign for each factor or dimension that belongs to each section in the strategic management model, as well as the support or rejection obtained.

Table 3. Summary of the tests of hypotheses

Hypothesis	Result (sign)	Support obtained
H1: The explicit inclusion of innovation in an organisation’s mission and values has a positive impact on the level of innovation.	Global (+)	Positive test
H2: Certain internal factors have a positive impact on the level of innovation.	Global (+) - Business structure (+) - Culture (+) - Creativity (+) - Barriers to innovation (+) - Appropriability (+)	Positive test (*)
H3: Certain external factors have a positive impact on the level of innovation.	Global (+) - Competitor rivalry (+) - Supplier power (+) - Customer satisfaction (+) - Dynamic environment (-) - Government (+)	Positive test (**)
H4: Formulating competitive and growth strategies has a positive impact on the level of innovation.	Global (+) - Cost leader (+) - Differentiation (+) - Segmentation (+) - Internationalisation (+)	Positive test (***)
H5: Implementing strategies has a positive impact on the level of innovation.	Global (+) - Quality management (+) - Information systems (+) - Productivity (+)	Positive test (****)
H6: The level of innovation, driven by the explicit management thereof, has a positive impact on business performance.	Global (+)	Positive test

(*)The highest positive coefficients were showed by the following variables: creativity, innovation-oriented culture and business structure that facilitates innovation.

(**) Competitive rivalry gave the highest positive correlation. The correlations between level of innovation and the environment dimensions of complexity and dynamism are not statistically positive

(***) The highest correlation coefficients are given by cost leadership and differentiation strategies.

(****) Quality management is the item witch correlates the most with the level of innovation.

4.1. REGRESSION ANALYSIS TO TEST THE MODEL AS A WHOLE

After the hypotheses of each dimension studied individually were tested, we attempted to find and analyse these variables together, in keeping with the model that shows the correlation between factors in the different phases of the strategic management process and their impact on the level of innovation in the Spanish hotel sector. To do so, a multiple linear regression analysis was used. In our case, the level or degree of innovation variable was the model’s dependent variable and it was correlated to the five groups of variables from the strategic management process, which are the model’s independent or explanatory variables.

To be able to use this type of analysis, we first examined whether several conditions were met the verification of the non-existence of collinearity and if the data obtained met the assumption of normality.

The correlation analysis showed the non-existence of strong indications of the presence of multicollinearity. A very low degree of collinearity could only be seen among some variables, but this did not seriously affect the subsequent application of the linear regression analysis technique. This low degree of correlation could be seen between the external and internal factor variables ($r = 0.476$, with a p -value < 0.05) and to a lesser extent, between the external factor and strategy formulation variables ($r = 0.416$, $p = 0.041$).

After applying the correlation analysis, we aimed to ascertain whether the empirical data satisfied the assumption of normality. To do so, the Kolmogorov-Smirnov test was performed and satisfactory data obtained, especially on the independent variables, as shown in the following significance levels: mission, $p=0.034$; internal factors, $p=0.017$; external factors, $p=0.023$; strategy formulation, $p=0.005$; strategy implementation, $p=0.009$, and level of innovation, $p=0.045$. Therefore, the normality of the data was accepted (for a significance level of 5%).

After all these previous verifications, the proposed model was tested through a multiple linear regression analysis. The regression obtained the correlation between the independent variables and the dependent variable, seeking to explain the variations in the degree or level of innovation of hotel chains in Spain.

Table 4. Results of the regression analysis of the determinants of innovation in the hotel sector

Variables	Innovation Level	
	Coefficient β	Sig.
Constant	1.417	0.000
Mission	0.124	0.083
Internal Factors	0.234	0.041
External Factors	-0.447	0.035

Formulation Strategy	0.481	0.015
Implementation Strategy	0.589	0.000
F	15.012	
R ²	0.623	
p	0.000	

As for the quality of the regression model, i.e., the degree of fit (similarity) between the predictions of the regression equation and corporate level of innovation, we must look to the corrected R². Accordingly, the five independent variables in the analysis taken together explain 62.3% of the variance of the dependent variable (corrected R² = 0.623). The F statistic tests the null hypothesis that the R² population value (multiple correlation coefficient) is zero and therefore, it allowed us to decide whether there is a significant linear correlation between the dependent variable and all the independent variables considered or taken together. In our case, this statistic gave a value of 15.012, having been assigned a critical (sig.) level of less than 0.05, indicating that a significant linear correlation does indeed exist. These results enable us to support the model that correlates the factors in the various phases of the strategic management process with the level of innovation in the Spanish hotel sector.

5. CONCLUSIONS AND CONTRIBUTIONS OF THE RESEARCH

Major implications, both practical and academic, for the study of innovation, can be drawn from the results obtained in this study. From a practical standpoint, the main conclusions are related to the way in which the hotel industry should manage innovation so that it has a positive impact on competitive advantage. As a result, we offer below a sample of the strengths and weaknesses taken from the empirical study, which may lead to drawing practical implications that both influence and can be taken into account to improve the industry, in terms of both public and private institutions.

Strengths:

- Spanish hotel directors perceive the importance of innovation to the point where they understand that innovation should be treated as a strategy in itself in many cases.
- They also believe that innovation must go beyond the organisation's internal sphere and connect with customers and suppliers.
- Directors appreciate that the explicit inclusion of innovation in an organisation's mission and values may raise the level of innovation as well as encourage improved business performance, which translates into maintaining advantages over competing hotel chains over time.
- A culture or widespread way of thinking that is innovation-oriented exists and a willingness to change and learn prevails in organisations as a result.
- The hotel sector is tapping the potential of generating an appropriate environment for creativity as a way of improving the optimisation of the processes and quality of service provided.
- Directors are well aware of the importance of innovation in competing better and of how innovation can be a cost disadvantage for current and potential competitors.

- Hoteliers understand that they develop innovations for their customers' unmet needs and in doing so, the customer perceives improved service level through this innovation.
- Directors are aware that innovation improves product image and even brings about changes in tastes and fashions. This means they must be very attentive to market innovations, since they shorten a product's life cycle.
- Directors understand that competing by undercutting competitors' prices means higher investment in innovation, while they argue that innovation allows them to make processes more efficient, optimise cost control and encourage investment in technology in order to cut costs.
- There is a widely-held opinion that choosing differentiation as a competitive strategy entails higher investments in innovation.
- The directors' opinions on how innovation enables an organisation to provide the highest quality services perceived by customers and how innovation can improve brand image also scored positively.
- Therefore, customers continue to be a crucial part of innovation to the point that hoteliers appreciate that securing customer loyalty requires raising the level of innovation along with improving marketing techniques and methods.
- Hotel managers consider new forms of growth such as partnerships through franchising, management or joint venture agreements innovations in themselves, as well as a strategy.
- Many hotel chains in Spain use quality management models and models for ongoing quality improvement and there is awareness of the importance of incorporating innovation into management quality plans.
- Considerable weight is also given to the role played in innovation by new technologies as well as having mechanisms to incentivise the organisation's employees to share information and knowledge.
- The introduction of new forms of marketing such as the innovations that use customer loyalty schemes, the 2.0 environment, Internet sales and social networks is valued by management as a major source of the percentage of sales of hotel occupancy.
- Directors in the hotel sector in Spain believe that the level of innovation brought about by the explicit management of innovation has a positive impact on business performance.

Weaknesses:

- Hotel decision-makers do not believe that innovation management is as important as other company activities, such as production, marketing, human resources or the financial area.
- It seems that organisational culture does not particularly contribute to taking major risks; however, it does allow for a certain "error tolerance" in relation to innovation.
- Directors do not seem to place a great deal of value on adopting programmes for overcoming resistance to changes in implementing innovation.
- The Spanish hotel industry shows little interest in adopting legal measures to protect innovations generated within an organisation itself (patents, utility models, ...), nor is it concerned about instigating measures to keep innovations secret, probably because many innovations are acquired abroad.

Thus, the results of our study show that hotel directors clearly distinguish the strategic value of innovation as a critical factor in competing and understand that among other benefits, it establishes entry barriers, allows product differentiation, ensures a competitive pricing policy, affects customers' and suppliers' bargaining power, helps build a good brand image and secures customer loyalty.

Innovation must be planned carefully and above all, perhaps as the main conclusion of our study, innovation must be treated as a strategy in itself, a strategy for competing and thus a growth strategy.

From a methodological point of view, we have proposed a methodology to measure the various determinants of the level of innovation from which a number of highly differentiated dimensions were obtained; this methodology allowed us to examine the impact of innovation on business results. In this sense, this study may be of interest to directors of hotel chains, since a detailed view of many factors that are part of innovation management is offered by both the theoretical research and its empirical analysis; the latter offers conclusions on what competing managers provide in relation to these multiple factors, which interact with innovation and directly affect business performance and the achievement of competitive advantages.

5.1. LIMITATIONS AND FUTURE LINES OF RESEARCH

The first limitation to note is the study's cross-sectional nature, since it does not allow the evolution of innovation strategies and their effect on the variations in some of the determinants therein to be verified over time. In addition, this cross-sectional nature may mean that some effects that are important in generating income and competitive advantages in a dynamic sense are not covered that, since they are differed over time. Therefore, conducting longitudinal studies that monitor the evolution of different innovation strategies and the factors that determine them over several time periods would be of interest, in order to capture trajectories or behaviour patterns and their impact on the results.

Developing a methodology that uses a type of segmentation other than directors, involving middle management, department heads and even workers, would also be of considerable interest for future research. This could entail all the employees that intervene directly in innovations that make up the activities that are a source of competitive advantage and improve results. This effort involves applying a model whose factors can be divided into departmental functions or tasks, for which each of the factors would need to be analysed in different sub-activities to be disaggregated and a network of variables created that would allow the scope of each in relation to innovation to be ascertained.

Among the factors studied, the correlative relationship between corporate strategy and innovation should be studied in more depth. Although this section was addressed in one of the main blocks of our study, its results may serve as the basis for considering new research projects. Especially useful would be examining in more depth innovation by type of competitive strategy (cost, differentiation, and segmentation) or by type of growth strategy, such as the relationship between innovation and growth in privately-owned hotel firms, contract management or franchising.

It would be of interest to improve the conceptual model presented in this paper with other empirical investigations. In this sense, it might be possible to replicate the research in other sub-sectors or include new types of establishments in the starting population, which would increase the population universe under study and thus, could serve to expand the sample analysed. It would also be of interest to conduct qualitative research in more depth, using other available techniques, such as case studies. These methodologies would complement the results achieved here and help obtain a deeper interpretation of them in terms of the type of analysis. Another option would be to apply the study

model and this technique to comparing the most important tourism firms or different companies in different sectors within the services sector.

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