

Association Model Among Competitive Advantage Factors and Corporate Performance

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This study sought to answer the following question: The empirical model in which strategic planning affects innovation and competitive advantage and how does this influence corporate performance perceived by the CEOs of companies in Monterrey, Nuevo León, does this have an acceptable outcome in regards of the theoretical fit model? This study was empirical, quantitative, descriptive, exploratory, explicative and transversal in nature. The studied population consisted of executives who attended the training sessions of the Institute of Public Accountants of Nuevo León (IPANL). For this study, a sample of 134 executives was selected by convenience sampling. For the data collection, an instrument of 94 indicators was elaborated and the indicators within the study were the following: 31 indicators for strategic planning, 15 indicators for innovation, 24 indicators for competitive advantage, and 24 indicators for corporate performance. The null hypotheses were analyzed using multivariate analysis denominated as a structural equation model, utilizing maximum plausibility methods. According to the selected structural equation indexes, the obtained results show that the proposed model had an acceptable goodness of fit index.

Keywords: strategic planning, innovation, competitive advantage, corporate performance, and structural equations

Introduction

The constant changes have generated a need for companies to plan ahead in order to preserve their competitive strength and keep growing. Aguilar Cruz (2000) stated that the consistency in change in the environment has rapidly increased, due to a major interrelation with the environment, demands are more complex when it comes to size of administrative operations and complexity of commercial organizations. Thompson, Strickland, and Gamble (2012), Delgado Barzallo (2013), and Flores Martínez (2014) noted that without plans, managers cannot know how to organize their personnel or their resources; managers and their employees have low probabilities of achieving their goals or even know when or where they are deviating from their planned goals. Erroneous plans affect the health of the organization. They also explained the importance of a strategic plan for the organizations which have grown in recent years thanks to globalization. The strategic plan enables companies to stay competitive by offering good prices, excellent quality and the specifications that the client requires.

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Without a doubt strategic planning is of great relevance, and the fundamental advantages of strategic planning are the following: (1) it contributes to ordered and goal-directed activities; (2) it points out the necessity of future changes; (3) it establishes a basis for control; (4) it forces a visualization for every aspect; (5) it directs everyone's attention towards the objectives; (6) it simultaneously maintains the focus in present matters as it does with future ones; (7) it allows the reinforcement of assimilated principles in the organization's mission, vision and strategies; (8) it incentivizes interdisciplinary planning and interpersonal communication; (9) it promotes priority assignment for the optimal allocation of resources; (10) it is also the direct bridge towards short-term tactical planning; (11) it demands managers to visualize planning from a macro perspective, as well as main objectives and the commitment to achieve them; (12) it helps the protagonists identify with the importance of their roles within the organization; (13) it allows having a comparative advantage in the market where the institution belongs to; (14) it projects an improved institutional image and a solid front to both competitors and clients; (15) it provides an important aid to branding and strategic positioning of both products and services; (16) it allows for the improvement of productivity, competitiveness and profitability levels through implanted strategies oriented to a main objective; (17) it identifies and incorporates the organization with new principles and values; and (18) it establishes optimization norms for every type of resource (Montalvo, 2011; Wirth, 2014; McDonald, 1994; as cited in Sainz de Vicuña Ancín, 2009). In other words, strategic planning needs to be both proactive and entrepreneurial, in such a way that it is capable of responding to the different needs of the community (Hall & Page, 2006).

In spite of planning being key for organizations, it will not give good results if it is used by itself. Authors such as Eisenhardt and Martin (2000) mentioned that innovation provides the organization with tools to adapt to the environment as well as capabilities that help the organization have a competitive advantage. Palmer, Danforth, and Clark (1995) mentioned that the characteristics that innovation gives to organizations are unique in the creation of competitive advantages that will help develop good economic performance in moments of crisis. For González Molano and Martínez Campo (2014), innovation has become a key instrument inside of any organization that wishes to stay competitive in an ever-changing environment. In their study, they presented the relationship between strategic management and organizational innovation with a perspective of conceptual evolution of these constructs, since innovation needs to be included in strategic planning in order to achieve better results for the organization. With the previous statement, it can be said that organizations need strategic planning, both innovation and competitive advantage as key ingredients of good corporate performance. This study presents the following hypothesis: The empirical model in which strategic planning affects innovation and competitive advantage, and how it influences corporate performance as perceived by company managers from Monterrey, Nuevo León, and if it has an acceptable goodness of fit within the theoretical model.

Contribution and Benefits of the Study

The importance of this study can be easily noted, because managers need theories that are applicable to real life scenarios mainly because the company's performance hinges on the managers. Families, communities, governments and organizations in general hinge from the company's performance as well.

It should also be noted that this study is a pioneer on the discussed subject, as companies that are affiliated to IPANL have no precedent of studying strategic planning constructs, innovation, competitive advantage and corporate performance. The current study lays foundations so that IPANL-affiliated companies can start their own analysis and identify opportunity areas in relation to the studied constructs, since the surveys are answered by a representative sample of the managers in charge who have ample knowledge of the organizations which they represent.

The purpose of this study is to compare a theoretical model with an empirical model, which has been evaluated by executives, managers and administrators of companies from Monterrey, Nuevo León so that the model can be replicated in other places.

Theoretical Foundation

Strategic planning, innovation, competitive advantage and corporate performance are key factors for a company's success which have not been studied as a group; the majority of authors have studied them separately and acknowledged their importance in the company. Ríos Manríquez, Ferrer Guerra, and Regalado Hernández (2010) conducted a study of the strategies that Mexican companies follow in order to position themselves at a global level. To conduct the analysis, they utilized 15 companies that quote in the Mexican Stock Exchange and that can be considered as benchmark Mexican companies. It was found that in order to have constant developments in their competitive advantages, company managers need to create strategies, internal as well as external policies in order to compete in the market, and achieve established objectives. The key to corporate success lies in efficient and effective results that management obtains via the application of strategic policies related to the product as well as client and supplier relations, distribution channels, etc., to have a competitive advantage over the competition.

Wilfred, Plata de Planta, and Romero Silva (2010) studied about innovation in the strengthening of strategic planning for university management. The employed methodology was descriptive, documented and was consulted online. The obtained results expressed that managerial innovation allows identification of strategic planning as a managerial tool, which increases the possibility of success; in summary, it was found that managerial innovation and strategic planning are key components for university management. In the same way, Dibrell, Craig, and Neubaum (2014) studied the relationship between financial performance, strategic planning, flexible planning and innovation, finding the same results. According to the European Commission (1995) and Teece, Pisano, and Shuen (1997), innovation is finding something. Pineda Serna (2010) studied the innovation as a tool for companies to improve their services and products that in turn produces a competitive advantage. Mentioning that management, which focuses on those factors, allows the improvement in its design and strategic decision-making. The environment conditions are highly viable for businesses in the restaurant industry.

In the study about innovation and competitive advantage, Wolfe (1994) and Arana Flórez and Nogales (2012) stated that innovation is the mechanism, by which an organization can obtain a competitive advantage in the market via specific resources. Furthermore, K. Laudon and J. Laudon (2000) indicated that competitive advantages are all the elements that allow the formation of differentiation from other organizations, at the same time enhancing relationships amongst organizations. Clients can distinguish competitive advantages when they receive a product or service from a company that provides better quality, cost and location.

Díaz Jaimes and Ortiz Pimiento (2012) and C. Lee, K. Lee, and Pennings (2001) suggested that the importance of corporate performance lies in knowing the organization and its processes, which need to be constantly supervised in order to be efficient and to be able to strengthen in the market.

Porter (1991) and McEvily and Chakravarthy (2002) stated that international success of organizations is based on the search of competitive advantage due to it being necessary for the survival of businesses, staying in the market depends on it.

Schroeder, Bates, and Junttila (2002) studied the employees' learning ability based on cross-training that can help them provide better customer service as well as having better relations with suppliers in order to have a competitive advantage. They related this advantage by measuring the plant's performance. They also found that employees who had superior skills had a more significant relation with the development of the plant.

Organizations can use many strategies to compete in the market, but the construct of this study that cannot be missing according to Neely, Gregory, and Platts (2005) is organizational performance because this construct is helpful when it comes to identifying both opportunities and threats. The diagnosis contributes to the implementation of determined measures in order to adopt certain procedures and improve the performance of organizations. Avci, Madanoglu, and Okumus (2011) noted that the importance of measuring organizational performance is that it helps with decision-making based on sure and certain information; this is a vital aspect in corporate management.

According to Perin and Sampaio (2004), the study of performance in organizations has increased, not only academically, but also corporately, due to a growing interest in the comprehension of the causes that influence its existence, modification or development.

Methodological Aspects

Problem

The empirical model in which strategic planning affects innovation and competitive advantage, and how it influences corporate performance perceived by corporate managers from Monterrey, Nuevo León. Does it have an acceptable goodness of fit in relation to the theoretical model (see Figure 1)?

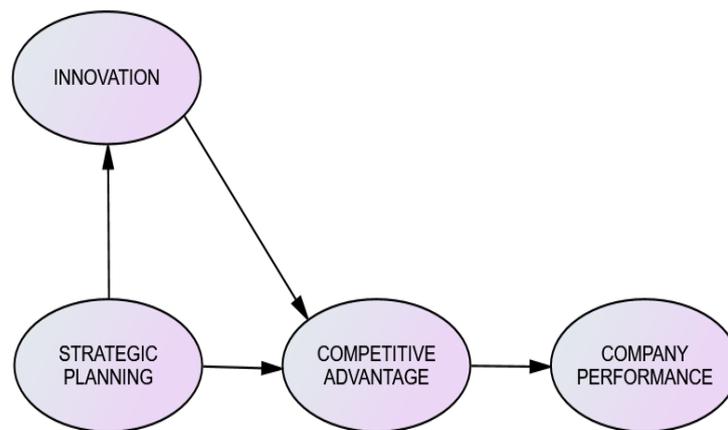


Figure 1. Model of this study's problem.

Method Description

This study was empirical, quantitative, descriptive, exploratory, explicative and transversal. To test this model, structural equation modeling (SEM) was used to analyze a set of relationships between one or more independent variables, either continuous or discrete (Ullman & Bentler, 2003). Results were obtained by utilizing the software AMOS 21.0. The reason for the usage of this model was that there are some dependent variables which are related with other independent variables, and the essentiality of testing this model in the same progress as a whole.

Sample

The sample population for this study consisted of the executives who participated in the trainings carried out by the IPANL in the second to last week of December in 2015. IPANL receives 1,800 executives per year. For this study, a sample of 134 executives was selected by convenience sampling, representing 7.4% of the total population. For the data collection, an instrument of 94 indicators was created, and the indicators within the study were the following: 31 indicators of strategic planning (SP), 15 indicators of innovation (IN), 24 indicators of competitive advantage (CA), and 24 indicators of corporate performance (CP).

The 134 executives previously mentioned consisted of: 67.2% male and 32.8% female. The 8.2% of the population sample currently works as corporate executives, 22.4% are general managers, 56.7% are area managers and the remaining 12.7% are simply managers. The 62% concluded their bachelors degree, 35.1% have a master's degree and the remaining 2.2% have a Ph.D.

Data Collection

The instruments were evaluated by using the Likert scale ranging from 1 (means nothing) to 7 (totally); this scale notes the measure in which companies use the previously mentioned latent variables.

Data Analysis

The normality values for every item of all constructs were analyzed at first glance. Using the benchmark $p < 0.001$ may be outlier for skewness and kurtosis, and it can be noticed that two participants were deleted due to them being considered as outlier or extreme data.

Results

Confirmatory factor analysis (CFA) is the first step of SEM and is applied to the measurement model. A CFA of the measurement model specifying the posited relationships of the observed indicators to the latent constructs, with all constructs allowed to be inter-correlated freely, was tested. According to Anderson and Gerbing (1988), confirmatory measurement models should be evaluated and re-specified before measurement and structural equation models are examined simultaneously. Thus, before testing the measurement models overall, each construct in the model was analyzed separately.

The utilized indexes for the evaluation of goodness of fit of the measurement models, the meaning of their acronyms and their acceptable criteria are the following: (1) Chi-squared (χ^2), with a level of p significance greater than 0.05; (2) a normed fit index (NFI) which is equal to or greater than 0.90; (3) a comparative fit index (CFI) which is equal to or greater than 0.90; (4) a goodness of fit index (GFI) which is equal to or greater than 0.90; (5) a root mean square error of approximation (RMSEA) which is equal to or less than 0.08; and (6) a normed chi squared (χ^2/df) less than 3. The indexation criterion for the model measurement was obtained by selecting the five highest standardized coefficients to create the model. In Table 1, the results of the models are displayed. According to Hair, Black, Babin, and Anderson (2014), the results are acceptable.

The next step is to check the construct validity of the measurement model, which includes convergent validity and discriminant validity.

In order to ensure the convergent validity, first it is imperative to analyze the factor loading, factor loading squared, and measurement errors. Hair et al. (2014) stated that each factor loading must be at least 0.50 while the ideal value is 0.70 or greater. In addition, squared factor loading should be at least 0.50. Therefore, they must explain half of the variables even if factor loadings are significant.

Table 1

Measurement Model Fit Summary

Goodness-of-fit indices	Constructs			
	Strategic planning	Innovation	Competitive advantage	Company performance
RMSEA	0.099	0.077	0.146	0.113
CFI	0.988	0.993	0.976	0.982
NFI	0.979	0.983	0.969	0.972
GFI	0.974	0.973	0.943	0.965
CMIN	11.484	8.840	18.899	13.426
Chi/gl	2.297	1.778	3.780	2.685
TLI	0.976	0.985	0.953	0.964
<i>P</i>	0.043	0.116	0.002	0.020

Table 2 shows the average of squared factor loading (AVE) and construct reliability (CR) values for every construct. According to Hair et al. (2014), AVE value should be greater than 0.50 and CR values should be greater than 0.70 for supporting CR. For each latent variable, AVE met the recommended minimum threshold of 0.050. All composite reliability values exceeded the recommended level of 0.70. In short, these construct reliability scores show that all the indicators are defined well with those factor loadings by the related constructs.

Table 2

AVE and CR Values for Constructs of the Model

Construct	AVE	CR
Strategic planning	0.886	0.975
Innovation	0.869	0.971
Competitive advantage	0.903	0.979
Company performance	0.827	0.959

Factor loading was used to assess convergent validity; construct reliability, and an average variance extraction was implemented according to Hair et al. (2014). Therefore, all factors in the measurement model have adequate convergent validity.

In discriminant validity analysis of the model, each correlation between constructs and their AVE values was examined (see Table 3). All of the AVE values of constructs are greater than the square of correlation between constructs except for “competitive advantage” and “company performance”. However, these two constructs are totally different constructs and there is no similarity between their indicators so it can be said that all constructs satisfy the discriminant validity requirement for this study.

Table 3

Discriminant Validity

Construct 1	Construct 2	Correlation	Square of correlation	AVE of Construct 1	AVE of Construct 2
Innovation	<--> Strategic planning	0.815	0.664	0.869	0.886
Innovation	<--> Competitive advantage	0.821	0.674	0.869	0.902
Innovation	<--> Company performance	0.781	0.609	0.869	0.827
Strategic planning	<--> Competitive advantage	0.807	0.651	0.886	0.902
Strategic planning	<--> Company performance	0.793	0.628	0.886	0.827
Competitive advantage	<--> Company performance	0.919	0.844	0.902	0.827

Structural Model

After a valid measurement model, the structural model, which is constructed based on the literature review, is tested. The structural model is given in Figure 2.

The model was tested with the five highest standardized coefficients and no good fit was found. It was decided to remove two items per construct for a better fit for the model. The chi squared for the model was found to be 58.081 with 50 degrees of freedom. The ratio of chi squared to degrees of freedom (1.161) is less than 3; therefore, it is within the acceptable range. As a summary for goodness of fit indexes of the structural model, fit measure values are listed in Table 4. It can be observed that all indexes are in the acceptable interval. Therefore, it can be said that structural model also satisfies model fit requirements.

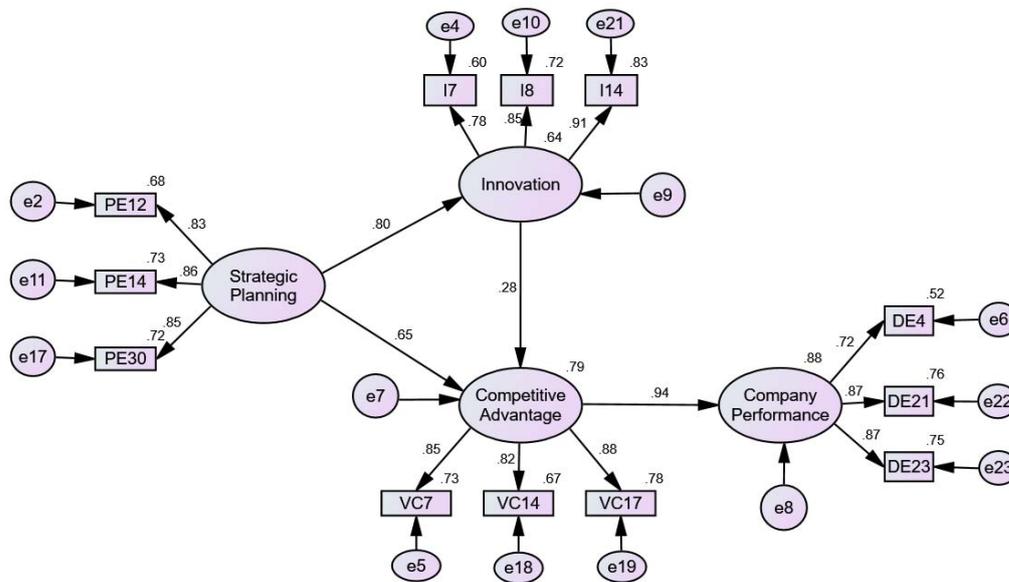


Figure 2. Structural model.

Table 4

Structural Model Fit Summary

Fit measure	Structural model result
Absolute fit indices	
Degrees of freedom (DF)	50
Chi squared (χ^2)	58.081
<i>p</i>	0.202
Normed chi squared	1.162
Comparative fit indices	
GFI	0.937
CFI	0.993
NFI	0.955
Others	
Adjusted goodness of fit index (AGFI)	0.902
RMSEA	0.035

Discussion and Conclusion

The main results of this study can be summarized in the following way: strategic planning affects innovation and competitive advantage. Innovation works as a mediator between strategic planning and competitive advantage. Competitive advantage is a mediator between strategic planning and corporate performance, and finally, strategic planning, innovation and competitive advantage affect corporate performance. The goal of this study was to find out if this managerial theory has any relationship with corporate reality according to authors such as Wilfred et al. (2010), Ríos Manríquez et al. (2010), Díaz Jaimes and Ortiz Pimiento (2012), and Lee et al. (2001).

It is recommended that company executives give greater attention to strategic planning, due to it being a key factor for a company's success, and dedicate enough time to define the mission and vision statement as well, the same can be said about the objectives, a complete internal and external company analysis should be done. Acknowledging the fact that strategic planning goes beyond "planning" but actually specifying how the plans will be taken into action and designated the necessary resources that should be assigned in order to carry out the plans. It is also recommended that the development of innovative products should be a priority, innovation development in a company's value chain, the commitment with the company's change actions and the innovation strategies planning, with the goal of achieving all proposed objectives in order to achieve better results. It is also important to strengthen the competitive advantage regarding financial management and the quality of both products and services, as well as strengthening the efficiency of capacity when it comes to sales. Innovation and motivation of the human resource, with the goal of achieving the company's objectives and obtain better results.

With this in mind, strategic planning is a key factor in corporate performance in different areas, such as finance, marketing, production, human resources and achieving organizational goals.

Limitations and Future Research Directions

This study, just like any other study, had a few limitations, some of the most notable ones were: the sample was taken in a training center where the majority are public accountants and executive managers, consequently the application of the instrument depended on the authorized dates to apply the surveys at the IPANL and it was impossible to get a random and broader sample due to the absences of some of the executives. It was not possible to create the perfect environment to apply the instrument. Another limitation that the instrument had was that it was not possible to visit the executives at their places of work.

The following list presents ideas that can be considered for future studies, in order to find the models that can contribute to the enrichment of the organizations: (1) replicating this study, making the necessary adaptations to the instruments in order to apply the survey to non-lucrative companies or universities; (2) managing the instrument to a greater sample than the one it was managed to in this study; (3) evaluating the same model, utilizing different indicators, by using high standardized coefficients to analyze the results; and (4) adding new exogenous and endogenous constructs in order to broaden the model.

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