

Innovation Strategy, Quality and Performance in the Service Sector

Estrategia de Innovación, Calidad y Rendimiento en el Sector de Servicios

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ABSTRACT

The present research aims to identify how the innovation strategy affects the organizational performance and quality in processes of service sector organizations in Colombia, taking into account their production process improvements, and organizational methods. It was used the Survey of Development and Technological Innovation (EDIT) created by the Administrative National Department of Statistics DANE, collecting 19 subsectors and a total of 5.848 companies. Finding that the innovation strategy benefits the improvement in the quality of processes and this in turn, becomes the engine of organizational performance. The Colombian services sector represents an important sector for economic growth, the innovation strategy becomes the determining factor to create value in the processes and offer quality services that promote sector organizations as the best in each area. However, for the smaller organizations in each service sector, higher levels of investment are required that allow them to make improvements in production methods and continuous

organizational methods; investment in scientific, technological and innovation activities must have all sources of financing that translate into substantial changes in services.

Palabras clave: Innovation Strategy, Innovation, Organizational Performance, Service Industry, Quality Management.

JEL: M1, M10, L8

RESUMEN

La presente investigación busca identificar como la estrategia de innovación, afecta el desempeño organizacional y la calidad en los procesos de las organizaciones del sector servicios en Colombia, teniendo en cuenta sus mejoras en procesos productivos, y mejoras en métodos organizativos. Se utilizó la encuesta de Desarrollo e Innovación Tecnológica (EDIT) creada por el Departamento Administrativo Nacional de Estadística DANE, recolectando 19 subsectores y un total de 5.848 empresas. Se encontró que la estrategia de innovación beneficia la mejora en los procesos de calidad, lo

que a su vez mejora el desempeño organizacional. El sector colombiano de servicios representa un sector importante para el crecimiento económico; además, la estrategia de innovación se convierte en un factor determinante para crear valor en los procesos y la oferta de servicios de calidad. Sin embargo, para las compañías más pequeñas, se requieren altos niveles de inversión que permitan a las organizaciones hacer mejoras continuas en métodos de producción y métodos organizativos; la inversión en actividades de investigación científica, tecnológica y de innovación debe contar con fuentes de financiamiento que se traduzcan en cambios sustanciales en los servicios.

Key Words: Estrategia de innovación, desempeño organizacional, Servicios, Calidad.

JEL: M1, M10, L8.

INTRODUCCIÓN

The service sector in Colombia has been characterized by its little link between organizations of the same string,

however, during the last 10 years a tremendous effort has been established to overcome the lack of cooperation and explore through technology and innovation networks of work, proposals of value and more advanced services that allow to sink down in the international marketplaces.

The scientific, technological and innovation activities have been collected by the DANE (National Administrative Department of Statistics) in the Development and Technological Innovation Survey EDIT, which allows to establish a classification according to degree of innovation, while the Annual Survey of Services (EAS) recognizes the existence of 5266 companies in different subsectors; finding, for example, that "banking activities presented the highest proportion of innovative companies in the broad sense (91.3%)"; In addition to identifying that generally the subsectors of the service sector promote very particular innovations, especially in their processes, both surveys allow to detail why this subsector is different from others. Consequently, to describe how the innovation strategy of these companies presents superior components

to those of other subsectors is the particular interest in the present analysis, to identify how their innovation, technology and scientific activities allow them to have superior performance and how they can affect these components to the sector are elements of the study of the present research. Then, what is the effect of the innovation strategy measured in improvements of organizational processes and methods in the quality of the organization? And also, how do these characteristics affect their organizational performance in the sector?

LITERATURE REVIEW

1. The Competitive Strategy in the Colombian Industries

Traditionally the area of strategy has been extensively researched by authors such as: Chandler (1962) strategy and structure, Hannah and Freeman (1977) population ecology, Pfeffer and Salancik (1978) external control, Aldrich (1979) environment and organizations, Porter (1980) competitive strategy, Hrebiniak and Joyce (1985) organizational adaptation and

environmental determinism, Harrigan (1988) joint ventures and competitive strategy, Barney (1991) firm resources, Smith, Grimm and Gannon (1992) strategy dynamics competitive, Amit and Schoemaker (1993) strategic assets, Warren (2002) on dynamics of competitive strategy, Alegre et al. (2004) operational strategy and product innovation, Camisón (2006) strategy and competitiveness, all have contributed significantly to the administrative area in its different fronts, enabling the understanding of the strategy as a cross-organizational element.

The competitive strategy was placed on the map of the administration with the works of Michael Porter and Mintzberg, who have framed the discussion on the effects of the competitive strategy for organizations and their stakeholders, particularly for their leaders and consumers, however, The recent theoretical developments have established that the competitive strategy requires new complements to fulfill its mission, that is to take the company to a better position than the competitors, generating not only economic profitability but a positive reputation in the global

markets, where the trust of the client and of the stakeholders in general is the most valuable asset. This is how other theories began to explain the radical transformation of companies to generate an effective strategy, then the resource-based theory arises, the theory of dynamic capabilities, theory of the firm, theory of industrial economy, government theory corporate, the theory of transaction costs, the theory of competencies and many other discussions about itself is the leader of the company responsible for the strategy, whether it is a matter of adaptation to the environment, or if it corresponds to an exogenous result of the organization consequence of its environment; This is where we face the new relationship between innovation and competitive strategy, making innovation indispensable to achieve a superior advantage in the market, therefore, a path begins in which innovation becomes a complement and almost a platform for the creation and implementation of the competitive strategy.

2. Strategy and Innovation

Strategic innovation is transformed for the companies of the services sector

into one of the greatest sources of productivity and competitiveness, especially for those organizations that seek to enter international markets, the strategy has been defined as the process that allows generating a superior competitive position in the market (Porter 1979), but its evolution in the last 20 years has included other issues ranging from corporate social responsibility, value creation, shared value, and finally innovation as a determining factor. Therefore, strategic innovation can be defined as the process of creating the same competitive advantage, but this time with a technological optimization, where products and services are constantly changing and the organization in turn creates value not from the product or service in itself but from different associated processes such as customer service and effective management of the value chain.

In general, when we talk about strategic innovation, concepts related to knowledge management appear (Drucker 1999), given that the management of information, communication and analysis of intangibles is currently the basis of creating a competitive advantage for the

organization; not enough infrastructure, adequate finances or machinery and products in inventory, the transformation of companies into global organizations has led organizations to transfer their efforts towards the achievement of intangible assets that can be easily transferred from one subsidiary to another, and that generate a higher value creation given that intangibles such as information, brand recognition, know-how of employees, know who, commercial networks, among others, build for the companies a superior leadership than the traditional fixed assets that had their moment in the last century.

The problem of strategic innovation in the service sector in Colombia has been little studied, generally in Latin America countries like Brazil and Chile have shown great advances in the technological era, creating ventures and organizations with a technological base (Gutman and Lavarello 2007) especially in agro-industrial sectors; For example, in the services area in Chile there are measurements (Brunner 2001) on technological capacity, however, for Colombia it does not work the same, and although there are surveys on innovation

and technology, no specific studies on the sector and its Impact on performance and quality in processes, so the subject is attractive. Consequently the first hypothesis:

H1a The innovation strategy of sector organizations positively affects their organizational performance.

The innovation strategy that we are going to study, however, depends to a large extent on the resources and the flexible use of those resources, for this reason in the analysis the levels of innovation in processes and in organizational methods, will be the variables that allow us to understand the innovation strategy, as indicated by the theory of dynamic capabilities; this theory considers that the capacities have three different levels: base stage, stage of development and stage of maturity, these dynamic capacities are known as tools to change the configuration of resources in the firms, these changes should be positive to improve the performance of the company; Teece et al (1997, 509) consider that:

The fundamental question in the change of strategic management is how firms achieve and sustain competitive advantage ... the approximation of dynamic capabilities ... seeks to analyze the sources of creation and capture of well-being of the signatures. The development of this theory recognizes that strategic theory is replete with analysis at the level of firm strategies to sustain and safeguard existing strategic competitive advantage, but has developed less with respect to understanding how and why certain firms develop an advantage competitive in a fast-changing regimes.

Helfat and Peteraf citing Teece et al. (1997: 516) in a definition of dynamic capacities:

The firm's ability to integrate, build, and reconfigure internal and external competencies to quickly address changing environments. These changing environments are confronted by the administrator where the premise here is that strategies are strongly influenced by two sets of forces or perceptions: first, the

perception of uncertainty in the environment, and second, the perception of the need for change in strategic properties of the organization (such as mission, objectives, strategies and structure) in order to coincide with the demands of the environment. The key to the discussion is the perceptual process of expanding the limits of the administrator at each point at which the strategy occurs (Anderson and Paine, 1975,812).

Therefore, organizations not only expect investment in resources as a strategy to radically improve their performance, but also expect these resources to be transformed into capacities that can be adapted to different places in the organization's processes, especially when the resource what is invested, is proper.

3. The Resource Based View of the Firm

The resource based view of the firm is a theory that allows the organization to be understood as a resource structure where the heterogeneity of these

resources leads the organization to competitive advantage. A clear definition of this theory is that of Helfat and Peteraf (2003, 997): "the resource-based view provides an explanation of competitive heterogeneity based on the premise that nearby competitors differ in their resources and capabilities in durable and important ways".

The perspective of resources has two traditional views, the first based on the idea of strengths and weaknesses where organizations have specific resources that allow them to face the environment, the second where organizations have products to offer to the market and need resources to develop these products (Wernerfelt, 1984).

Wernerfelt (1984, 172) proposed some questions that are significant in choosing a strategy:

(a) On which of the firm's resources should diversification be based? (b) What resources should be developed through diversification? (c) In which sequence and in which markets should the diversification take place?

(d) What types of signatures are desirable to acquire for this particular firm?

The administrator in the resource-based theory is considered as a single resource, therefore the administrator must fit into the organization and has the important role of leading the company choosing different strategies for each situation, "unless the external selection of the environment be so constrained that it limits administrators to only one option, different administrators in different firms can take different options (Adner and Helfat, 2003, Peteraf and Reed, 2003)" (Helfat and Peteraf, 2003, 1004).

One of the resources of the firm is to employ trained personnel (Wernerfelt, 1984), when someone is hired for a top position the expectation of their performance in the company will be higher, which means that the administrator is hired to improve productivity and develop strategies that place the company in a competitive position against its competitors, this is to acquire competitive advantage. However, companies have to develop this human resource by converting it into human

capital, where human resources have the tools to achieve the performance that the company wants, the administrator becomes an essential resource of the firm.

This is how it can be said that the resources used for innovation improve the quality of the services offered, because these resources are used for research and development, design, creation, training that allow to substantially improve what is put on the market, then organizations of all subsectors within the service sector will prefer to invest high sums for scientific, technological and innovation activities, improving their processes, given that their performance will improve, offering them a privileged place in the market. The second hypothesis is proposed:

H1b The innovation strategy improves the quality in the processes of the organization.

METHOD

In order to carry out the present study, information was taken from the EDIT Technological Innovation and Development Survey carried out by the DANE with data for 2015. Data related to the independent resource variables invested in Scientific, Technological and Innovation Activities (ACTI), the information allows to classified the companies between innovation types; also the source to make innovation in three main categories: own resources, public resources, bank resources. For this analysis, the Survey of technological innovation and development (EDIT) was taken, particularly chosen the variables that measure innovation in different methods, variables about sales and certifications as dependent variables, all of them was in the millions or quantities, none of them was dichotomous variables, the detail of each of them explains as follows.

Dependent Variables: Performance as a variable that many authors had found as a response variable for innovation process (Han, Kim y Srivastava, 1998, Hull y Rothenberg,

2018), was of particular interest for the study, especially because companies in service industry, has particular characteristics to make innovation process and get short term results of it, and Quality as a variable that looks to have cause and positive effect, in innovation studies (Flynn, 1994), both of them was the focus of this study, a logarithm transformation for variables was made, for the two models the organizational performance measure through national and international sales of each sector for specialized consumers, and the variable of quality in processes is included from the certifications received by the organizations in the sector.

Log Organizational Performance

Log Certifications processes and products

Independent Variables: For the innovation perspective it was used three variables: (1) the innovative companies in methods or techniques, (2) number of innovations in methods of providing services, distribution, delivery or logistics system; new or significantly improved, (3) number of innovations in new organizational methods implemented in

internal operation, all of them transformed with logarithm. Agree with the Oslo Manual (1997) organizations tends to has different possibilities to make innovation, these three categories are contemplated in these possibilities, and had been studied in several specialized journals about innovation, but not in this particular Colombian context. For the control variable, the type of industry was taken into account agree with the ISIC international classification of industries.

Log Innovative companies in methods or techniques.

Log Number of innovations in methods of providing services, distribution, delivery or logistics system; new or significantly improved.

Log Number of innovations in new organizational methods implemented in internal operation.

For the analysis, there is a total of 18 types of industries according to ISIC Rev. 4.0 classification, the 18 subsectors grouped a total of 5,848 organizations, as shown below (see Table No. 1)

Table N. 1 Subsectors in Service Sector

Economic Activity

Supply of electricity, gas, steam and hot water
 Water collection, treatment and distribution
 Wastewater treatment and disposal of waste
 Trade, maintenance and repair of vehicles
 Wholesale trade, except vehicle trade
 Retail trade, except vehicle trade
 Air and land transportation
 Mail and messaging services
 Hotels and restaurants
 Editing activities
 Cinematography, sound recording and music editing
 Broadcasting of sound and television
 Telecommunications
 Development of computer systems and data processing
 Banking
 Research and development centers
 Higher education
 Activities related to human health

Source: The Author

The field of strategic innovation where the present study is framed has been widely developed by authors such as Pitt and Clarke (1999), Markides (1997), Jacobs and Heracleous (2005), Stieglitz and Heine (2007) and many others, who have located to the strategic innovation in the conversation of the competitive strategy as a unique element that given the platform of knowledge

management, becomes an urgent need for organizations of all sectors, accepting in addition, that organizations must improve their processes , constantly change according to the environment and include technology as a vital part of their organizational work. Generally in the foreign literature, there are multiple analyzes dedicated to the competitive strategy and innovation from theories such as the theory of the firm, the theory of resources and capabilities, the theory of dynamic capabilities, but the cases of Latin American companies and the service sector in particular is scarce, some analyzes in the area are: Bianchi et al. (2017), Cimoli et al. (2016), by Freitas et al. (2016), Meller and Gana (2016). Therefore, it is necessary to cover this research gap where organizations of the service sector in Colombia are studied from the perspectives of strategy and innovation, recognizing the main role of human resources to achieve certain levels of innovation and a higher degree of performance with appropriate strategies. Therefore, the construct to study corresponds to:

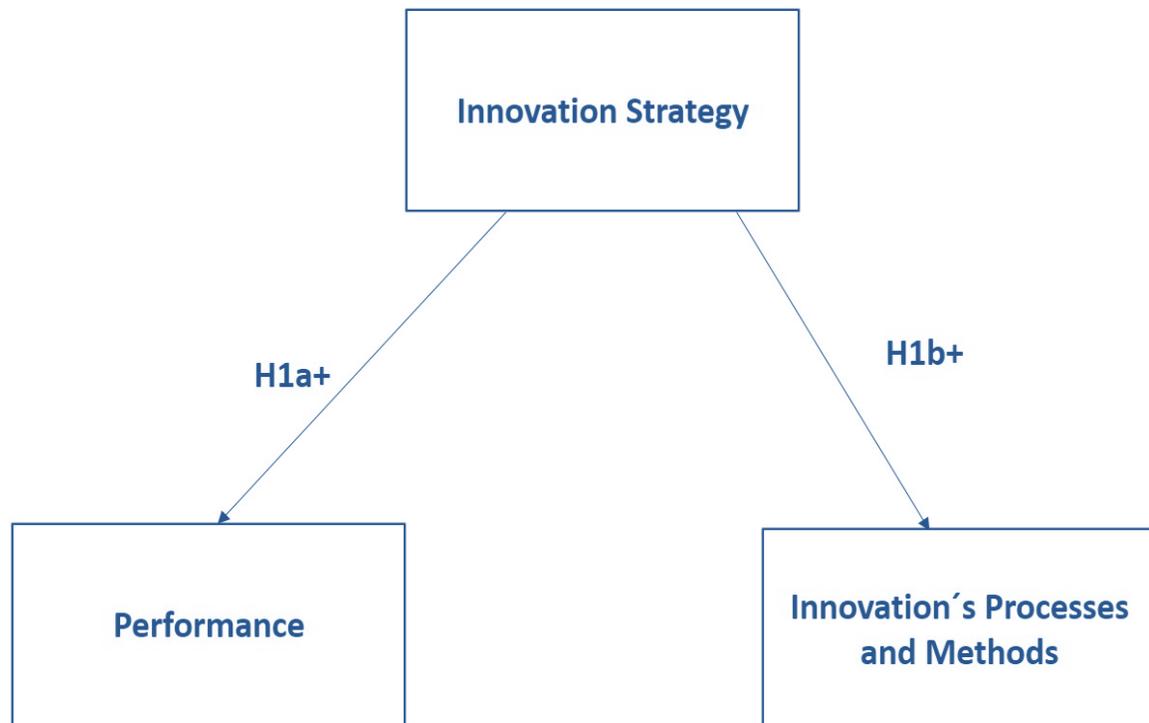


Figure No.1 Construct
Source: The Author

It is evident for the 18 sectors investments in scientific, technological and innovation activities with public resources for 7,697,439 million pesos, while own resources amount to 101,703,663 Colombian pesos, loan resources correspond to 14,273,313 million pesos Colombians. Although the figures for the sector are low figures compared to the investments that are presented in other Latin American countries for investment in science, technology and innovation, there are

considerable advances in the services sector linked especially to process quality and organizational performance, particularly when the resources invested in these activities are bank loans that must be returned as an investment and not assumed as an expense for organizations in the service sector.

Table 2 shows the descriptive statistics and table no. 3 shows the relationship between the variables of study, it is interesting to recognize that improvements in production methods and

organization are those that impact performance in this sector, and in the initial analysis, it was considered that investment in research activities and technology that directly generated the

effect, but it was not so, the investment converted into substantial improvements that really generate an innovation strategy in the organization and its sector.

Table N.2 Descriptive Statistics

	Descriptive Statistics				
	N	Min	Max	Mean	Standard Deviation
ISIC	19	0	64116412	6363273,79	18899463,184
LogInnovative companies in methods or techniques	19	,6020599910	2,4116197060	1,633321808895	,5129238006496
LogNumber of innovations in methods of providing services, distribution, delivery or logistics system; new or significantly improved	19	,7781512500	2,4842998390	1,706731540474	,4582273265019
LogOrganizational Performance	19	,6020599910	2,7259116320	1,781370366474	,5609915500213
Valid N (listwise)	19				

Source: The Author

Table N. 3 Partial Correlation

Control Variables			Log Innovative companies in methods or techniques	LogNumber of innovations in methods of providing services, distribution, delivery or logistics system; new or significantly improved	Log Organizational Performance
ISIC	Log Innovative companies in methods or techniques	Correlation	1,000	,914**	,978**
	LogNumber of innovations in methods of providing services, distribution, delivery or logistics system; new or significantly improved	Correlation	,914**	1,000	,851**
	Log Organizational Performance	Correlation	,978**	,851**	1,000

** . Correlation is significant at the 0,01 level

Source: The Author

The first model confirms hypothesis 1a that correspond to the effect of the innovation strategy on organizational performance, the model explains in 95% the important effect of improvements in organizational methods that correspond to changes in the company's routines,

and in production processes, which should be clarified, although the service sector, all associated processes for the service to reach the final customer are considered part of the service creation process.

Table N. 4

ANOVA ^a						
Model		Sume of Squares	df	Mean Square	F	Sig.
1	Regression	5,456	2	2,728	209,462	,000 ^b
	Residual	,208	16	,013		
	Total	5,665	18			

a. Dependent Variable: LogOrganizationalPerformance

b. Predictors: (Constant), LogNumber of innovations in methods of providing services, distribution, delivery or logistics system; new or significantly improved; Log Innovative companies in methods or techniques

Source: The Author

Table N. 5

ANOVA ^a						
Model		Sume of Squares	df	Mean Square	F	Sig.
1	Regression	5,456	2	2,728	209,462	,000 ^b
	Residual	,208	16	,013		
	Total	5,665	18			

a. Dependent Variable: LogOrganizationalPerformance

b. Predictors: (Constant), LogNumber of innovations in methods of providing services, distribution, delivery or logistics system; new or significantly improved; Log Innovative companies in methods or techniques

Source: The Author

Hypothesis 1b is confirmed, 98% of the model shows how the innovation strategy focused especially on

organizational methods improves the quality of processes of service organizations, it is interesting to note that

modifications in routines, structures and policies of the organization generate a positive effect on the quality of the processes, which makes sense for this

type of organizations that require a continuous improvement to offer a service of quality and superior performance.

Table N. 6

Model ummary ^{c, d}

Model	R	R Square ^b	Adjusted R Square	Standard Error of the Estimate	Durbin-Watson
1	,991 ^a	,982	,981	,2496731871793	1,574

a. Predictors: LogNumber of innovations in new organizational methods implemented in internal operation

c. Dependent Variable: LogCertifications processes and products

Source: The Author

Table N. 7

ANOVA ^{a, b}

Model		Sume of Squares	df	Mean Square	F	Sig.
1	Regression	62,548	1	62,548	1003,384	,000 ^c
	Residual	1,122	18	,062		
	Total	63,670 ^d	19			

a. Dependent Variable: LogCertifications processes and products

b. Linear regression through the origin

c. Predictors: LogNumber of innovations in new organizational methods implemented in internal operation

d. This total sum of squares is not corrected for the constant because the constant is zero for the regression through the origin.

Source: The Author

The hypotheses have been confirmed, the innovation strategy has a double effect on the one hand the organizational performance is better in the organizations of the service sector,

which means that their sales levels increase every time they generate substantial improvements in methods of providing services, distribution, delivery or logistic system, which we have called

production methods, and second, in the quality of processes of these companies, improving routines within the organization, internal improvements called improvements in organizational methods are generated improvements in the quality of each process, this effect for organizations is translated into certifications that impact on the final customer who acquires the service.

Finally, it is very explanatory to recognize that the organizations of the service sector, due to their particularity and offer of implicit value in the same offer of each service, generate a positive impact on quality, generating greater value for the consumer, which in the long term must offer a superior advantage for the organization in the sector, especially for companies that do not have enough resources to invest in scientific, technological and innovation activities; Generally familiar organizations that do not reach very high incomes benefit from this internal improvement modality, they have an innovation strategy and obtain results in performance and quality at low cost.

CONCLUSIONES

The Colombian services sector represents an important sector for economic growth, the innovation strategy becomes the determining factor to create value in the processes and offer quality services that promote sector organizations as the best in each area. However, for the smaller organizations in each service sector, higher levels of investment are required that allow them to make improvements in production methods and continuous organizational methods; investment in scientific, technological and innovation activities must have all sources of financing that translate into substantial changes in services, it is worth exploring in future studies, as different levels of investment can generate a different effect between sectors, and how from the perspective of product innovation and not the process as studied in this research generates a different impact, it would be especially interesting to analyze by sector the culture of innovation in the service sector and as external factors can limit the science, technology and innovation activities.

It is also important to highlight that the present study, although replicable to other countries and sectors, its results are not generalizable, that is, the particular context of the sector means that substantially the type of organization, the type of investment, the levels of the same and the results in processes and performance are particular, however, it is necessary to recognize that it offers interesting elements for the innovation strategy: first, that the innovation strategy itself requires an institutional (government) structure and policy that promotes the intention to innovate in processes for the service sector, second that quality is not achieved exclusively through the standardization of processes but that the flexibility of these is what allows to respond to the special needs of each consumer, which is very valid for this type of sector, third, that organizational performance is positively affected by the innovation strategy especially because they are the substantial improvements that allow the organization to modify its processes from the beginning to turn them into processes that move from innovation to the generation of value, creating special processes and structures such as the

areas of creativity and research and development, which they help service sector organizations to create more innovative, quality services that improve superior performance and create a competitive advantage for companies.

BIBLIOGRAFÍA

- Aldrich, H. (1999). *Organizations evolving*. Sage.
- Alegre-Vidal, J., Lapiedra-Alcamí, R., & Chiva-Gómez, R. (2004). Linking operations strategy and product innovation: an empirical study of Spanish ceramic tile producers. *Research Policy*, 33(5), 829-839.
- Amit, R., & Schoemaker, P. J. H. (1993). Activos estratégicos y alquiler de organización. *Gestión Estratégica Journal*, 14(1), 33-46.
- Anderson, C. R., & Paine, F. T. (1975). Managerial perceptions and strategic behavior. *Academy of Management Journal*, 18(4), 811-823.

- Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of management*, 17(1), 99-120.
- Bianchi, C., Bovaird, T., & Loeffler, E. (2017). Applying a Dynamic Performance Management Framework to Wicked Issues: How Coproduction Helps to Transform Young People's Services in Surrey County Council, UK. *International Journal of Public Administration*, 1-14.
- Camisón, C. (2006). Estrategia y competitividad de la empresa española: un balance del periodo 1984-2004. *Claves de la Economía Mundial*, 6, 88-99.
- Chandler, A. (1962). *Strategy and structure: chapters in the history of the industrial enterprise*.
- Cimoli, M., Carlos Ferraz, J., & Primi, A. (2016). Science, technology and innovation policies in global open economies: reflections from Latin America and the Caribbean.
- de Freitas Saccol, A. L., Serafim, A. L., Hecktheuer, L. H., Medeiros, L. B., & Silva Jr, E. A. D. (2016). Food Safety in Feeding Services: A Requirement in Brazil. *Critical reviews in food science and nutrition*, 56(8), 1363-1369.
- Drucker, P. F. (1999). Knowledge-worker productivity: The biggest challenge. *California management review*, 41(2), 79-94.
- Encuesta de Desarrollo e Innovación Tecnológica EDIT. Departamento Administrativo Nacional de Estadística (DANE). 2015.
- Flynn, B. B. (1994). The relationship between quality management practices, infrastructure and fast product innovation. *Benchmarking for Quality Management & Technology*, 1(1), 48-64.
- Gutman, G. E., & Lavarello, P. (2007). *Biotecnología y desarrollo. Avances de la agrobiotecnología en Argentina y Brasil. Economía teoría y práctica*, (27).
- Han, J. K., Kim, N., & Srivastava, R. K. (1998). Market orientation and organizational performance: is

- innovation a missing link?. *The Journal of marketing*, 30-45.
- Hannan, M. T., & Freeman, J. (1977). The population ecology of organizations. *American journal of sociology*, 82(5), 929-964.
- Harrigan, K. R. (1988). Joint ventures and competitive strategy. *Strategic management journal*, 9(2), 141-158.
- Helfat, C. E., & Peteraf, M. A. (2003). The dynamic resource-based view: Capability lifecycles. *Strategic management journal*, 24(10), 997-1010.
- Hrebiniak, L. G., & Joyce, W. F. (1985). Organizational adaptation: Strategic choice and environmental determinism. *Administrative science quarterly*, 336-349.
- Hull, C. E., & Rothenberg, S. (2008). Firm performance: The interactions of corporate social performance with innovation and industry differentiation. *Strategic Management Journal*, 29(7), 781-789.
- Jacobs, C. D., & Heracleous, L. T. (2005). Answers for questions to come: reflective dialogue as an enabler of strategic innovation. *Journal of Organizational change management*, 18(4), 338-352.
- Markides, C. (1997). Strategic innovation. *Sloan management review*, 38(3).
- Meller, P., & Gana, J. (2016). Perspectives on Latin American Technological Innovation. In *Innovation and Inclusion in Latin America* (pp. 89-114). Palgrave Macmillan US.
- Statistical Office of the European Communities. (1997). *Oslo Manual: Proposed Guidelines for Collecting and Interpreting Technological Innovation Data*. OECD Publishing.
- Pfeffer, J., & Salancik, G. R. (2003). *The external control of organizations: A resource dependence perspective*. Stanford University Press.
- Pitt, M., & Clarke, K. (1999). Competing on competence: A knowledge perspective on the management of strategic innovation. *Technology*

Analysis & Strategic Management,
11(3), 301-316.

management journal, 5(2), 171-
180.

Porter, M. E. (1979). The structure within
industries and companies'
performance. The review of
economics and statistics, 214-227.

Porter, M. E. (1980). Industry structure
and competitive strategy: Keys to
profitability. Financial Analysts
Journal, 30-41.

Smith, K. G. GRIMM, eM, Y GANNON,
MJ (1992): Dynamics of
competitive Strategy.

Stieglitz, N., & Heine, K. (2007).
Innovations and the role of
complementarities in a strategic
theory of the firm. Strategic
Management Journal, 28(1), 1-15.

Teece, D. J., Pisano, G., & Shuen, A.
(1997). Dynamic capabilities and
strategic management. Strategic
management journal, 509-533.

Warren, K. (2002). Competitive strategy
dynamics. Chichester: Wiley.

Wernerfelt, B. (1984). A resource-based
view of the firm. Strategic