



**THE IMPACT OF HUMAN CAPITAL ON SUPPLY CHAIN PERFORMANCE WHEN  
MEDIATED BY COST, QUALITY AND OUTSOURCING: THE CASE OF  
COMPANIES IN THE CAUCA VALLEY OF WESTERN COLOMBIA**

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## **Abstract**

The purpose of this paper is to determine the impact of key competitive drivers such as Quality, Cost, Human Capital and Outsourcing in the supply chain performance in Valle del Cauca firms. Demanding consumers and a dynamic market have challenge supply chain operatives, current research has shown that to survive this challenges firms need to focus on core business through competitive drivers and outsource the processes that do not present a competitive advantage for the organization. For the research, a design was made based on structural equation modeling (SEM) to test the hypothesis and relationships for small to medium enterprises (SME) and large organization (LO). Real data was taken using a custom survey successfully completed by 404 firms located in Valle del Cauca region, in Colombia.

**Keywords:** Competitive drives, cost, quality, human capital, outsourcing, supply chain performance.

**Topic(s):** Supply Chain Management, Logistic management and physical distribution

## **Resumen**

El propósito de este artículo es determinar el impacto de los factores competitivos, como lo son la calidad, el costo, el capital humano y la tercerización en el desarrollo de la cadena de suministros de las empresas del departamento del Valle del Cauca en Colombia. Los mercados actuales son dinámicos y los consumidores exigentes, lo cual ha creado retos en la cadena de suministros, estudios recientes han demostrado que para sobrevivir a estos desafíos las empresas necesitan enfocarse en su negocio principal a través de factores competitivos y tercerizando los procesos que no generan ventaja competitiva a la organización. Para este estudio se diseñó un modelo basado en ecuaciones estructurales que permite probar las hipótesis y las relaciones entre

pequeñas y medianas empresas y grandes organizaciones. La información fue tomada de una base de datos reales que se recolecto por medio de una encuesta satisfactoriamente realizada a 404 firmas localizadas en el Valle del Cauca.

**Palabras clave:** factores competitivos, costos, calidad, capital humano, tercerización, cadena de suministro

**Temas:** Cadena de suministro, Logística y distribución

## **Introduction**

The following message is to show the interest in assessing and how competitive priorities such as quality, cost and human capital influences supply chain performance, and whether outsourcing activities positively impacts firm performance and competitiveness. On dynamics and competitive markets firms must be at the forefront, therefore small and medium enterprises (SME) and large organizations (LO) implement value-adding strategies that build on key competitive drivers (Ferrer, Santa, & Almadani, 2013; Koufteros, Vonderembse, & Doll, 2002; Sha & Chen, 2008; Skinner, 1974).

Based on a review on extant literature on supply chain costs, quality, human capital, outsourcing practices, and firm performance, it is contend that a successful corporate strategy must be focus on drivers that provide competitive advantage, outsourcing is important to facilitate the effectiveness of such drivers because it handles secondary processes; and that effective deployment of these key drivers positively impacts supply chain performance.

To test the assertions given it was surveyed 404 respondents in job positions related to supply chain management or operations in SME and LO in the Valle del Cauca region, in Colombia. The structural equation modelling (SEM) analyses indicate that strategies based in human capital are essential to both, SME and LO, to ensure cost-effective and high quality, optimizing supply chain performance. Outsourcing is important to facilitate processes that are important to the operation, but not the essential ones. Other finding hint that supply chain outsourcing is relatively scarce in the Valle del Cauca region, which seems to oppose widespread international trends. Valle del Cauca's region has a strong reliance on in-house activities clearly hinders service effectiveness and subsequent competitiveness in an increasingly global business context. Overall, the evidence

suggests that, to gain a competitive edge in the global marketplace, Valle del Cauca region's firms should pay (a more) keen attention to the competitive dimensions addressed in this study.

## **Literature Review**

Firms are very complex and have many business dimensions, therefore managers need to identify key drivers and implement strategies according to competitive priorities (Sha & Chen, 2008; Skinner, 1974). Effective corporate strategies are the result of organizational capabilities and competencies, in firms that have solid competitive drivers. (Koufteros et al., 2002). Competitive drivers can be expressed in terms of low cost, quality and human capital, this study concentrates on the analysis of each one of them and the influence that have on supply chain performance directly or through the mediation of outsourcing practices in Valle del Cauca region.

## **Human Capital**

Human capital means educating and training individuals to increase their productivity (Rudiger, 2011). This is a part of business strategy and help the firms to gain a competitive advantage in a long term. (Narasimha, 2000).

Now a day enterprises invest a big amount of money and time in training their employees because they recognize that developing human talent is an intangible asset necessary for the growth and development of organizations (Jorgenson, 2010). Likewise, creating an organizational culture oriented in high quality and innovativeness provide the best productivity with lower costs. (Haslinda, 2009).

The aptitudes and abilities of the skilled workforce benefit the supply chain performance, helping the company to be more efficient in their processes. With trained workers, less time is required to execute a task, reprocessing is avoided and innovative ideas are opened.

The above in microeconomics is known as the learning curve, which relates knowledge and experience with the reduction of costs. (Pindyck, 2009).

The business training strategy need to be aligned within the mission, vision and the objectives of the organizations. By this way, it results efficiently to implement a strategy based on human capital. (Haslinda, 2009).

### **Quality-Based Strategy**

Quality is not just a product that has all the conditions for its good use and performance, it comprehends all the processes in the supply chain from manufacturing to customer satisfaction, creating a perfect synergy between parts. (Slack, 2006). Some authors argue that the quality must be "fitness for use" which means that the whole team shall attempt the products and services that fulfill the purpose which they are made for, without any problems (Mbohwa, 2014).

Quality-based strategy implies that the good and services have high standards at competitive prices, owing to globalization, the companies have lost bargaining power in the market and there is a greater rivalry among them. (Mbohwa, 2014). In order to maintain quality and be competitive, firms must focus on learning from their mistakes to do things right from the first time (Oakland, 2004).

The mediation of strategic practices such as outsourcing can improve quality. In this way firms can invest more time and resources in processes that generate a competitive advantage. Thereby a global quality is reached (Wang et al., 2004).

The performance of the supply chain is affected by quality through outsourcing being efficient in secondary processes and granting the firm to focus on production processes.

## **Supply Chain Performance**

The supply chain performance involves the join of organizations and individuals by the different ways they interact through services, products, finance, and information with the global target of having a positive impact in the final consumer. (John T, 2001).

Planning, tracking and having control of all activities is necessary to have a successful supply chain. Further, a quick response aid reduces inventory excess, costs and provide global quality in the products and services offered meanwhile the customer is satisfied (Soh, et al 2016). Although there is a basic model of the supply chain, each organization adapts it and molds it as part of its strategy, allowing it to generate a competitive advantage (Cheshmberah, et al 2011).

The supply chain must be measured and evaluated in order to plan the direction of the company will take and determine the actions to reach the objective. The measurement includes all components of the supply chain such as costs, quality, outsourcing, innovation, and skilled workforce (A. Gunasekaran, 2004).

The supply chain can be affected by external factors that the organization must consider in its business strategy. Underdeveloped countries have many difficulties in supply chain performance as a result of the incidence of insecurity and poor infrastructure (Banguero, 2013).

Firms are in a challenging business environment and for that reason they need to generate an innovative and systematic approach to survival and growth based on different strategies focus in their supply chain performance (Ferrer, Santa, Soosay, & Hyland, 2009).

## **Costs**

Supply Chain Cost (SCC) involves the order by handling, purchasing, stock handling, the transportation, production, inventory, packaging, materials holding, and order processing, (Sachan



et al.,2005; Byrne and Heavey, 2006) hence, all relevant costs in the supply chain of the company. (Pettersson and Segerstedt, 2013).

The research reveal that effective Supply Chain management creates opportunities to reduce costs while the net incomes and profits increases (Christopher and Gattorna, 2005; Pettersson and Segerstedt, 2013). Therefore, competitive advantage is achieved. (Su and Lei, 2008). The performance, design, and analysis of the supply chain should focus in the minimization of the costs of manufacturing, product life cycles and the globalization of market economies (Beamon, 1998).

In order to reduce costs, organizations must identify the appropriate way to measure the costs associated with the Supply Chain. The reduction in cost in the Supply Chain should be taken as a global purpose of the organization, not as an individual one, otherwise the effect can be harmful (Hosang and Bongju 2005). Accordingly, supply chain partners should understand the linkages between different value-adding and be capable to actively seek cost saving opportunities along the supply channels (Ballou, Gilbert, & Mukherjee, 2000).

### **Outsourcing**

A key component of supply chain management strategies is outsourcing, which means the assignment of some of the business activities from an internal source to an organization outside of the company (Lankford and Parsa, 1999). The outsourcing strategies have become an increasingly important component of firm success (Gottfredson et al., 2005). Manufacturing firms are increasing the use of outsourcing functions and processes related to the supply chain, including research and design, product development activities, product component manufacturing, product final assembly and distribution and logistics functions (Heikkila and Cordon, 2002).

Having outsourcing generates many advantages to the company, it allows to focus on activities retained in-house, offer financial flexibility, and provide access to capabilities not available internally like a scale up, expand globally, or focus on core competencies (Tsay et al. 2018). Global outsourcing is considered a critical element of low-cost strategies and in gaining access to innovative high-tech inputs, advanced services and software applications (Petersen, Prayer and Scannell, 2000; Li, Liu, Li, and Wu, 2008; Kshetri, 2007; Verwaal, Commandeur, and Verbeke, 2008).

The main goal of outsourcing in supply chains is to derive a competitive advantage, nevertheless it is not clear whether the outsourcing decisions of firms are always strategically aligned with their overall competitive strategy, for this reason it is necessary to evaluate the degree of congruence between a firm's outsourcing drivers and its competing priorities and later determine the impact of congruence on both supply chain performance and business performance. (Kroes and Ghosh, 2010).

## **Hypotheses**

According to the literature review, this paper argues that effective human capital is necessary to assure low costs and high quality. Outsourcing strategies contributes the effectiveness of competitive drivers, these drivers affect directly the performance of the supply chain, therefore, the firm's competitiveness. The research has eight hypotheses, presented below.

*H1: There is a positive relationship between human capital and a firm's quality strategy*

*H2: There is a positive relationship between human capital and a firm's cost strategy*

*H3: There is a positive relationship between human capital and a firm's outsourcing strategy*

*H4: There is a positive relationship between a firm's cost strategy and its outsourcing strategy*

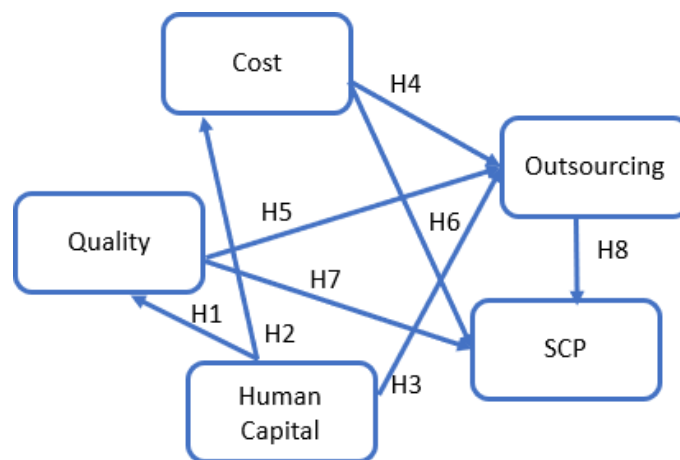
*H5: There is a positive relationship between a firm's quality strategy and its outsourcing strategy*

*H6: There is a positive relationship between a firm's cost strategy and the supply chain performance*

*H7: There is a positive relationship between a firm's quality strategy and the supply chain performance*

*H8: There is a positive relationship between a firm's outsourcing strategy and the supply chain performance*

Figure 1 corresponds to the Structural equation model, with the correlation of each driver.



**Figure 1.** Research model with hypotheses.

## **Research methods**

First, a survey was formulated with the most pertinent questions to test the hypothesis, the survey was submitted online to 600 multi-sectorial firms in the Valle del Cauca agro-industrial region, in Colombia. In other countries comparable and analogous studies considers the importance of a good strategy with the human capital to ensure more effectiveness in quality and costs (M. V. Ferrer & Santa, 2017). The survey was chosen as part of important research previously made and published about strategic supply chain management factors (Storer, M, Hyland , P, Ferrer M, Santa R, 2014) competitive drivers and outsourcing (Ferrer, M, Almadani, S, Santa, R, 2013) and supply chain relationships (Ferrer, M, Santa, R, Storer, M & Hyland P, 2011).

A five-point Likert-type scale, ranging from 1—strongly agree to 5—strongly disagree, was implemented to rate statements related to the operationalization of the model's variables. The response rate was 72.5%, which means that 435 of the 600 participants submitted their responses. 31 surveys were discarded due to inconsistencies or significant missing data. Finally, 404 surveys were usable, corresponding to 67.3% of the surveys that were sent. To design and establish the structural equation model's variables, the average mean values of the statements' ratings was used. The collected surveys were separated into two different groups, small to middle enterprises SME (N=167) and large organizations LO (N=237), with the purpose of understanding how competitive priorities relate to firm size.

The model shown in figure 1 is confirmed by predicting the relationship between the model variables and the model's fit indices, to establish the confidence level. A confirmatory factor analysis (CFA) was applied to assess the relationships between the observed and continuous latent variables, and to determine the measurement model's overall fit (Cooksey, 2007; Hair, Black, & Babin, 2010). The factor loadings were estimated, by

confirming that items loaded on only one construct and correlated our latent constructs. Using Cronbach's alpha coefficient and the items-to- total correlation, internal consistency was assessed.

Goodness-of-fit indices (GFI) were calculated to support the model. The resulting indices (SME: CMIN/DF=2.945, probability=0.000; and LO: CMIN/DF=4.168, probability=0.000) are within the accepted criterion of CMIN/DF $\leq$ 5.0 (Wheaton, Muthen, Alwin, & Summers, 1977).

Marsh and Hocevar (1985) propose ratios as low as two or as high as five, Carmines and McIver (1981) recommend ratios in the range of 2:1 or 3:1, as an acceptable fit between the hypothetical model and the sample data. Bentler suggest that a comparative fit index (CFI) <0.9 is usually accepted as supportive of the model, which is the case in our hypothesized model (SME: CFI=0.915; LO: CFI=0.901). Finally, the baseline comparisons fit indices suggest that the hypothesized model fits the observed variance-covariance well, relative to the null or independence model (see Table 2).

**Table 1. Baseline comparison.**

Model	Small-to-Medium Enterprises (SME)					Large Organizations (LO)				
	NFI Delta 1	RFI Rho 1	IFI Delta 2	TLI Delta 2	CFI	NFI Delta 1	RFI Rho 1	IFI Delta 2	TLI Delta 2	CFI
Default	.880	.854	.916	.897	.915	.838	.810	.865	.841	.865
Saturated	1.000		1.000		1.000	1.000		1.000		1.000
Independent	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

## Results and Discussion

The structural equation modeling (SEM) results in the relationships between human capital (HC), quality strategy (QS), and cost strategy (CS) are resume in table 2 and Figure 2. There is a strong and positive relationship between SWF and the two types of strategy (QS:  $b=0.42$ ,  $p < 0.001$ ; and CS:  $b=0.39$ ,  $p < 0.001$ ), corroborating hypotheses H1 and H2.

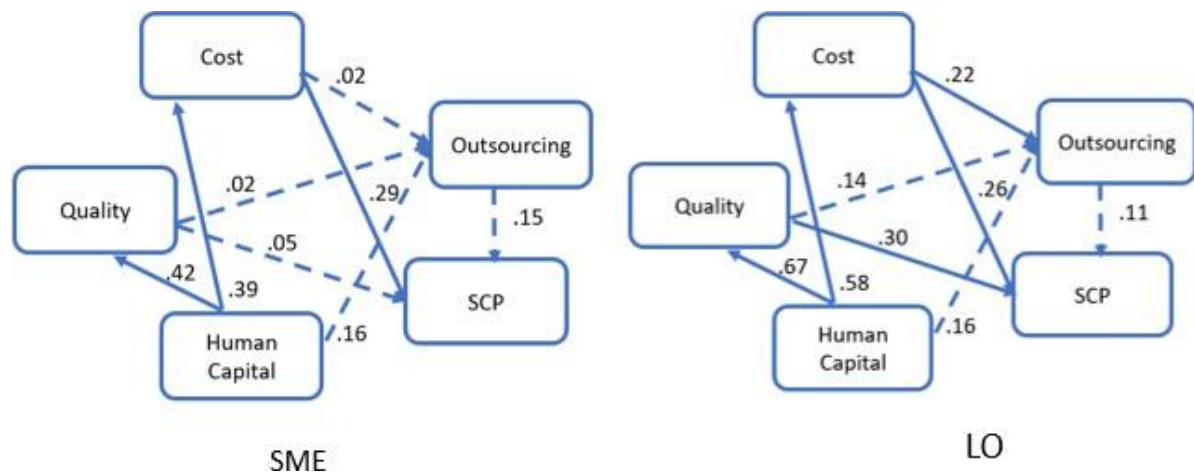
For LO the results were resembling to SME demonstrating a strong and positive relationship between HC and the two types of strategy (QS:  $b=0.58$ ,  $p < 0.001$ ; and CS:  $b=0.34$ ,  $p < 0.001$ ), thereby supporting hypotheses H1 and H2. The similar results between SME and LO indicates the importance of implementing good human resources practices to guarantee quality and cost management, regardless of firm size.

**Table 2.** Regression weights.

			Small-to-Medium Enterprises (SME)				Large Organizations (LO)			
			Estimate	S.E.	C.R.	P	Estimate	S.E.	C.R.	P
QS	<-	HC	.294	.056	5.302	***	.615	.064	9.668	***
CS	<-	HC	.381	.076	5.031	***	.366	.072	5.060	***
OS	<-	HC	-.282	.197	-1.434	.152	.226	.148	1.526	.127
OS	<-	CS	.025	.101	.249	.803	.288	.089	3.224	.001
OS	<-	QS	.039	.138	.279	.780	.177	.104	1.702	.089
SCP	<-	CS	.314	.090	3.487	***	.321	.084	3.846	***
SCP	<-	QS	.082	.120	.682	.495	.385	.087	4.405	***
SCP	<-	OS	.132	.072	1.832	.067	.107	.063	1.704	.088

Hypothesis H3 that is a positive effect of human capital on a firm's outsourcing strategy is rejected, neither for SME ( $b=-0.23$ , n.s.) nor for LO ( $b=0.16$ , n.s.). Hypothesis H4 that is a positive relationship between firm's costs and outsourcing strategy is rejected for SME ( $b=0.02$ , n.s.), nonetheless, for LO ( $b=0.22$ ,  $p < 0.005$ ), which means that large organization may reduce costs by outsourcing strategies, while small and medium enterprises do not find an advantage in

outsourcing for costs reduction. Firms that prioritize quality strategies will not tent to implement outsourcing initiatives, that's why Hypothesis H5 is rejected for both SME and LO. Hypothesis H6 is supported, for both SME ( $b=0.29$ ,  $p < 0.001$ ) and LO ( $b=0.26$ ,  $p < 0.001$ ), showing that there is a positive relationship between cost strategy and supply chain performance. Hypothesis H7 which suggest a positive relationship between quality strategy and firm performance, was rejected for SME ( $b=0.05$ , n.s.), however, for LO ( $b=0.30$ ,  $p < 0.001$ ) was supported. Finally, hypothesis H8, which means that firms will improve performance through the use of outsourcing practices, was rejected for both SME and LO. Figures 2, summarize the structural equation modeling results. The dotted line means that the hypothesis was rejected and the thick line means that the hypothesis was accepted because it represents a positive relationship with a great value of significance.



**Figure 2.** Structural model results for SME and LO.

## **Conclusion**

In the development of this research it was found that human capital strategies are necessary for an effective management strategy of quality and cost, thereby a positively impact will be achieved on the whole supply chain performance. Furthermore, these results hold for both SMEs and LOs. According with the literature review of human resources and on the results in this research the impact of human capital on firms is indirect on the supply chain performance. Therefore, an effective quality and cost strategies reach results in a direct way.

For LOs the relationship between competitive drivers and supply chain performance is stronger and significant than for SMEs. Hence, quality strategies have a substantial role in Los supply chain performance. However, cost strategies are essential for both SMEs and LOs to achieve competitiveness through superior supply chain performance. It is important to have in mind, that quality management strategies and other, similar quality-related systems could be expensive and only LOs can afford it.

Other interesting finding in the results of this investigation was the firm's preferences to outsourcing strategies. Opposing to international trends, the firms studied disagree with outsourcing strategies and practices to improve supply chain performance. Indeed, the relationship between cost strategy practices and outsourcing strategies holds only for large firms.

The SMEs decide to have outsourcing practices since they have less access to resources, know-how, capital and technologies than bigger companies. SMEs in Colombia take outsourcing base on a management team's skill level or a personal interest. In SMEs the team managers are more familiarizes and recognize the areas and activities which they have advantage and interest, therefore they can focus in them easily than LOs. In addition to the outsourcing decisions could be taken base on convenience, talent or interest than supporting the corporate strategy.



In Colombia the SMEs are in the process of establishing routines, therefore these companies have no competitive advantage compared to large organizations. Consequently, it is very difficult for them to establish which functions are essential to support the organization. Outsourcing decision for SMEs can be untimely and can destroy companies' capabilities. That's why many SMEs would be less likely to pursue outsourcing for the many reasons global SMEs do it.

To be internationally competitive the local companies should have a stronger alliance with third-party logistics (3PL) partners. 3PL practices which are system integration, cost reduction, service levels and access to a variety of specialized resources provide benefits that are very important to compete in a globalized marketplace. However, these practices are scarce in the region analyzed. Factors like limitations in financial or human resources or organizational culture and general culture, could be interfering in more proactive outsourcing strategies, especially among SMEs. This study shows that creation of firm value is indirect.

Indeed, to effectively improve supply chain performance firms must combine synergistically strategies of quality and cost with outsourcing and in this way may be compensating the lack of other resources or capabilities.

Certainly, the key drivers studied are not the only ones affecting the performance of the supply chain. Complementary and future studies could examine and cultural or regional specificities that better explain the competitive drivers (or lack of them) amongst our local firms. Local firms probably will have difficulties to obtain quality information related to 3PL's best practices. Consequently, they will ignore the benefits of smart outsourcing strategies in terms of risk reduction and risk sharing, the value of effective partnerships and free resources that can be invest in the core business strategies.

The contribution of this paper to literature is threefold. First by exploring the relationship between predictors and outcomes of supply chain performance through outsourcing. Secondly by showing a broad explanation of key competitive drivers, and the needs of the region in order for managers to make decisions regarding effective strategies. Finally, this research contributes by creating and proposing a quantitative approach that helps to fill the numerical void common to many studies on competitiveness.

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## Investigación sobre los factores que impactan la competitividad en las cadenas de suministros

### **ACUERDO DE CONFIDENCIALIDAD**

- Toda la información proporcionada será tratada con estricta confidencialidad.
- Las respuestas serán agregadas y analizadas usando métodos estadísticos avanzados y utilizadas para examinar los temas de investigación.
- En ningún momento la información será divulgada a terceros en su forma desagregada.
- Usted puede retirarse en cualquier momento.
- Los estándares éticos pertinentes fueron utilizados por los investigadores en la construcción de este proyecto de investigación.

Estimado participante,

La Universidad Icesi y la Escuela Militar de Aviación Marco Fidel Suarez, están dirigiendo este estudio basado en la determinación de los factores que impactan la competitividad en las cadenas de suministros de las empresas colombianas en diferentes sectores económicos.

Para apoyar la investigación, requerimos de la opinión de funcionarios de diferentes niveles en la organización que están involucrados en el manejo de la cadena de suministros, por ejemplo, administradores, gerentes, ingenieros, desarrolladores y personal general administrativo.

Los resultados de la investigación serán usados para construir la teoría, los modelos y optimizar la forma en que las empresas colombianas aplican los factores que impactan la competitividad en las cadenas de suministros.

La confidencialidad de este cuestionario es segura. Bajo ninguna circunstancia su nombre o el nombre de la institución para la cual usted trabaja, aparecerá en publicaciones asociadas con esta investigación. Además, la participación en esta investigación no afecta su empleo en ninguna manera.

Si los tópicos o temas presentados en esta investigación son de su interés, por favor solicite al investigador principal del proyecto una copia de los resultados o las publicaciones.

Gracias por su tiempo y colaboración.

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# Investigación sobre los factores que impactan la competitividad en las cadenas de suministros

**Sección A - Perfil de la Compañía y del encuestado**

1. Cuál de las siguientes clasificaciones de la industria describe mejor su negocio (seleccione una):

Manufactura	<input type="checkbox"/>	Alta tecnología	<input type="checkbox"/>
Cuidado de la salud	<input type="checkbox"/>	Comercio al por menor	<input type="checkbox"/>
Agrícola	<input type="checkbox"/>	Gobierno	<input type="checkbox"/>
Productos químicos	<input type="checkbox"/>	Transporte	<input type="checkbox"/>
Minería, minerales, metales primarios	<input type="checkbox"/>	Petróleo y gas	<input type="checkbox"/>
Aeroespacial	<input type="checkbox"/>	Alimentos y bebidas	<input type="checkbox"/>
Textil	<input type="checkbox"/>	Papel y productos relacionados	<input type="checkbox"/>
Construcción	<input type="checkbox"/>	Automotor	<input type="checkbox"/>
Banca y servicios	<input type="checkbox"/>	Otro	<input type="checkbox"/>

2. Número total de empleados actuales de tiempo completo y parcial:

1-100	<input type="checkbox"/>
101-250	<input type="checkbox"/>
251 +	<input type="checkbox"/>

3. Clasificación de la empresa:

Microempresa	<input type="checkbox"/>
Pequeña	<input type="checkbox"/>
Mediana	<input type="checkbox"/>
Grande	<input type="checkbox"/>

4. Formación profesional:

Ingeniería	<input type="checkbox"/>	Contabilidad	<input type="checkbox"/>
Administración	<input type="checkbox"/>	Mercadeo	<input type="checkbox"/>
Informática	<input type="checkbox"/>	Finanzas	<input type="checkbox"/>
Ciencias de la salud	<input type="checkbox"/>		



Otro, especifique:

5. Su área de responsabilidad:

Ingeniería	<input type="checkbox"/>	Contabilidad	<input type="checkbox"/>
Administración	<input type="checkbox"/>	Mercadeo	<input type="checkbox"/>
Informática	<input type="checkbox"/>	Finanzas	<input type="checkbox"/>
Gerencia	<input type="checkbox"/>	Trabajos generales	<input type="checkbox"/>
Producción	<input type="checkbox"/>	Gerencia de proyectos	<input type="checkbox"/>
Otro. Especifique:			

¿Su empresa tiene alguna persona que se encarga de administrar la mayoría de las actividades dentro de la cadena de suministros, por ejemplo, director de cadena de suministros o un cargo similar?

SÍ	<input type="checkbox"/>
NO	<input type="checkbox"/>

8. ¿A qué nivel de la compañía se encuentra el funcionario de más alto rango que se encarga de gestionar las actividades dentro de la cadena de suministros?

Director ejecutivo	<input type="checkbox"/>	Vicepresidente ejecutivo	<input type="checkbox"/>
Personal corporativo	<input type="checkbox"/>	Director	<input type="checkbox"/>
Otro (especificar)	<input type="checkbox"/>	Gerente	<input type="checkbox"/>

Sección A - Prácticas de la cadena de suministros					
Indique en una escala de 1 a 5, sabiendo que 1 es una baja calificación o completamente en desacuerdo y cinco es la mayor calificación o completamente de acuerdo, que tan relevante es para su empresa la siguiente pregunta:	Completamente en desacuerdo	En desacuerdo	Ni de acuerdo ni en desacuerdo	De acuerdo	Completamente de acuerdo
	1	2	3	4	5
¿Qué tan críticos son los siguientes factores de competitividad?					

Las relaciones de cooperación se han vuelto frecuentes en nuestra industria.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Las relaciones de cooperación han llegado a ser frecuente en los negocios en general.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Las relaciones de cooperación son la estructura organizacional del futuro.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Un componente de la estrategia de nuestra compañía es contraer alianzas estratégicas.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
La compañía está constantemente identificando oportunidades de hacer alianzas con los miembros de su cadena de suministros.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
La negociación de las relaciones de alianzas en la cadena de suministros de la compañía es una habilidad que necesitamos desarrollar.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
La implementación de alianzas en la cadena de suministros de la compañía es un componente de la planeación estratégica.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<b>Sección B - Variables competitivas</b>					
Indique en una escala de 1 a 5, sabiendo que 1 es una baja calificación o completamente en desacuerdo y cinco es la mayor calificación o completamente de acuerdo, que tan relevante es para su empresa la siguiente pregunta:	Completamente en desacuerdo	En desacuerdo	Ni de acuerdo ni en desacuerdo	De acuerdo	Completamente de acuerdo
	1	2	3	4	5
<b>Innovación</b>					
Rápido desarrollo de nuevos productos.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Desarrollo frecuente de productos.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Primer participante en un nuevo mercado.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Nuevos productos novedosos.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Uso de últimas tecnologías.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Diferenciación en la tecnología de los productos de los competidores.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Calidad</b>					
Alta conformidad de los productos finales en las especificaciones de diseño.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Excelente rendimiento del producto.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fiabilidad superior del producto.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Rápida resolución de quejas/consultas de los clientes.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ofrece una calidad constante.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Producto de alta durabilidad.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Indique en una escala de 1 a 5, sabiendo que 1 es una baja calificación o completamente en desacuerdo y cinco es la mayor calificación o completamente de acuerdo, que tan relevante es para su empresa la siguiente pregunta:	Completamente en desacuerdo	En desacuerdo	Ni de acuerdo ni en desacuerdo	De acuerdo	Completamente de acuerdo
	1	2	3	4	5
¿Qué tan críticos son los siguientes factores de competitividad?					
<b>Costo</b>					
Maximizar la utilización de la capacidad.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Aumentar la productividad laboral.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Minimizar los costos de producción.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Minimizar los costos de inventario.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Minimizar los costos de distribución.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Eliminación de desperdicios.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Flexibilidad</b>					
Hacer ajustes rápidos de capacidad.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Hacer ajustes en las entregas para cumplir con los requisitos de los clientes.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ofrecer gran número de características del producto.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ofrecer productos personalizados.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ofrecer un gran surtido del producto.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ajustar los procesos de producción para permitir la fabricación de nuevos productos.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Velocidad</b>					
Minimizar los tiempos de configuración.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Minimizar los tiempos de entrega de producción.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Minimizar los plazos de entrega al cliente.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<p>Indique en una escala de 1 a 5, sabiendo que 1 es una baja calificación o completamente en desacuerdo y cinco es la mayor calificación o completamente de acuerdo, que tan relevante es para su empresa la siguiente pregunta:</p> <p>¿Qué tan críticos son los siguientes factores de competitividad?</p>	Completamente en desacuerdo	En desacuerdo	Ni de acuerdo ni en desacuerdo	De acuerdo	Completamente de acuerdo
	1	2	3	4	5
Rápida introducción de nuevos productos.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Minimizar los tiempos del ciclo de desarrollo del producto.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Aumentar la rotación de inventarios.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Capaz de ofrecer un producto o servicio en la frecuencia y el tiempo esperado por los clientes o usuarios.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<b>Mano de obra calificada</b>					
Trabajadores de logística capacitados.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Trabajadores ingeniosos de primera línea.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Gerentes de cadena de suministros con experiencia.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Trabajadores orientados al cliente.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Disponibilidad de trabajadores de logística subcontratados.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Buen número de trabajadores logísticos expertos.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Sección C - Inhibidores de la tercerización o externalización (outsourcing)					
Indique en una escala de 1 a 5, sabiendo que 1 es una baja calificación o completamente en desacuerdo y cinco es la mayor calificación o completamente de acuerdo, que tan relevante son para su empresa de acuerdo a la siguiente pregunta:  ¿Cuáles son las razones para no tercerizar la logística?	Completamente en desacuerdo	En desacuerdo	Nide acuerdo ni en desacuerdo	De acuerdo	Completamente de acuerdo
	1	2	3	4	5
El control de la función tercerizada o externalizada se disminuiría.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Los compromisos a nivel de servicio no serían realizados.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
No se experimentarían reducciones en costos.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Las capacidades locales de la logística tercerizada necesitan mejoras.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
La logística es demasiado importante para tercerizarla.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
La filosofía corporativa excluye el uso de provisiones logísticas externalizadas.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Los factores relacionados con la seguridad del envío.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Nosotros tenemos mejor experiencia logística que los proveedores locales de logística.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Incapacidad de los proveedores de logística tercerizada para establecer relaciones significativas y confiables.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
La logística es la competencia central para nuestra compañía.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Nuestra compañía externalizó previamente la logística, pero decidió no continuar.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Es demasiado difícil integrar nuestros sistemas de información, con los sistemas de logística tercerizada.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<b>Sección D - Negocios y mejoramiento de la cadena de suministros.</b>					
Indique en una escala de 1 a 5, sabiendo que 1 es una baja calificación o completamente en desacuerdo y cinco es la mayor calificación o completamente de acuerdo, que tan relevante son para su empresa las siguientes declaraciones:	Completamente en desacuerdo	En desacuerdo	Ni de acuerdo ni en desacuerdo	De acuerdo	Completamente de acuerdo
	1	2	3	4	5
<b>El desempeño de la cadena de suministros en los últimos dos (2) años:</b>					
La compañía ha reducido los tiempos de entrega.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
La compañía ha reducido los costos de inventario.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
La compañía ha reducido los costos de adquisición o aprovisionamiento.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
La compañía ha reducido los índices de rechazo de los clientes.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
La compañía ha mejorado el desempeño de las entregas puntuales.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
La compañía ha reducido los plazos de fabricación.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
La compañía ha reducido los plazos de suministros (pedidos, abastecimiento de materias primas).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>El desempeño del negocio en los últimos dos (2) años:</b>					
La compañía ha incrementado los márgenes de beneficio.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
La compañía ha mantenido precios competitivos para los productos.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
La compañía ha incrementado el volumen de ventas.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
La compañía ha incrementado el retorno a la inversión.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
La compañía ha incrementado la participación de mercado.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Si desea hacer comentarios generales, por favor escríbalos aquí:


*Agradeceríamos si pudiera hacer referencia a tres nombres de personas que puedan estar interesados en participar en este proyecto de investigación:*

<b>Nombre de contacto</b>
<b>Nombre de la compañía</b>
<b>Numero celular del contacto</b>
<b>Correo electrónico del contacto</b>

<b>Nombre de contacto</b>
<b>Nombre de la compañía</b>
<b>Numero celular del contacto</b>
<b>Correo electrónico del contacto</b>



<b>Nombre de contacto</b>
<b>Nombre de la compañía</b>
<b>Numero celular del contacto</b>
<b>Correo electrónico del contacto</b>

**Muchas gracias por brindar su tiempo y asistencia en esta investigación. Apreciamos mucho su colaboración.**