Logistics Performance: a Theoretical Conceptual Model for Small and Medium Enterprises

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ABSTRACT

This paper presents a theoretical conceptual model for evaluation of logistics performance for small and medium enterprises (SMEs). Based on recent theoretical developments, grounded in a survey of the most important literature in the field, it analyzes the impact of the logistics function on organizational performance. The three main models of logistics performance applied to SMEs inspire the model presented: Fugate et al (2010), Aramyan et al (2007) and Töyli et al (2008). The conceptual model developed in this work is built on three basic elements: organizational performance, competitive advantage and logistics performance, which are grounded in the dimensions of efficiency, effectiveness and service level.

Keywords: Logistics Performance, Organizational Performance, Competitive Advantage, Efficiency, effectiveness and SMEs.

JEL Classification: D21, D24, M10

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1. Introduction

In the present context of great business competition and an increasingly dynamic and globalized economy, companies need to find processes and management methods that enable the development of a more efficient organization with better results. This paradigm has been the subject of many studies, which focused their analysis on determination of the different effects and the importance of each for companies’ competitive success (Stock et al., 2000; Bañón and Sanchez, 2002 and Norek et al., 2007).

Logistics is increasingly playing an important role in everyday business, and becoming a major factor of differentiation in the market, as referred to by Bowersox et al. (2002) and Gunasekaran and Ngai (2003). In the current competitive climate there is strong pressure, on one hand, to operate in product and service differentiation, and on other hand, operate on the price factor allowing its reduction. As Melnyk et al. (2009) mention, logistics can manage these aspects, constituting a strategic or value-creation tool.

Thus, logistics in intra-organizational and inter-organizational functions is a prominent activity in companies, since this plays an important role in supply management, both internally and externally.

In the literature, various empirical studies, such as Ellinger et al. (2000), show that logistics is a strategic vector in companies’ organization and influences their performance, namely in terms of service quality and overall profitability. In parallel with its internal importance, logistics also has an impact on effectiveness and profitability, as mentioned by Mentzer et al. (2001) and Fugate et al. (2010). The management of logistics activities has become a valuable way of securing competitive advantage and improving organizational performance (Li et al., 2006).

Thus, based on this research field, this paper intends to take a theoretical approach to logistical and organizational performance in small and medium enterprises (SMEs). Given the multidimensional nature of the performance component, it aims to identify the key elements which, in terms of the logistic function, can contribute to improving the performance and competitiveness, as well the efficiency and effectiveness, of SMEs’ internal processes. For this purpose, the paper defines a research framework and
presents a conceptual model to analyze the influence of logistics performance on organizational performance.

The paper is organized as follows: the next section approaches the performance analysis with special emphasis on logistics performance, the third section reviews the conceptual models for assessment of the logistics performance of small and medium enterprises, the fourth section presents the performance logistics evaluation model and finally, the conclusions, limitations and suggestions for future research are in the fifth section.

2. Performance Evaluation

The theme of performance evaluation is not likely to be exhausted in the scientific community, and is a field of research that has received increasing attention from scholars in various fields of knowledge (Neely, 2002). In the search for higher levels of competitiveness, at the macro-economic level, the relationship between economic competitiveness and companies’ performance is studied, since the new paradigms of a country’s competitiveness are derived directly from the performance achieved by its business structure.

If at a macro level competitiveness is reflected in the performance of a given economy, at a micro level competitiveness is likely to be observed by the company’s market share. Thus, assessing company performance constitutes a very fruitful tool for the measurement and management of organizational objectives (Kuo and Chen, 2008;). Systems performance measurement must include orientation of the organization’s progress in order to achieve its objectives. Providing critical feedback on business strategies’ success allows not only shaping the behavior of managers with responsibility for developing competitive strategies, but also of those who implement them (employees), as mentioned by Fawcett and Cooper (1998).

An exact interpretation and the existence of measures for evaluating performance are key factors in businesses’ success. In the current competitive environment, it is essential that organizational leaders, at a given time, know what happened, why it happened and what can be improved in the future.

Some studies in this area reported that the objectives of company performance evaluation can be of various kinds. In this connection, Thomas (2006) states that some of the main objectives of performance evaluation at the organizational level are helping
to clarify objectives, communicating priorities, monitoring organizational functioning and evaluating whether the organization is meeting the objectives outlined. Organizational performance is the result of performance at the sectorial level and, thus, the evaluation of logistics performance represents a component of organizational or business performance evaluation.

2.1. Logistic Performance

At the logistical level, the importance of analyzing performance was first shown in the work of Bowersox and Closs (1996), who reported that measurement of logistics performance consisted of a methodology for analyzing resources of the logistic function, and its main objectives were monitoring and control of the logistics operations.

After this initial step, analysis of logistics performance has become an important issue in the area of management science research, but despite this attention from researchers, there is little convergence both in terms of methods and in terms of results for its validity. As Robb et al. (2008) mention, since logistics deal with physical, informational and cash flow management, it is generally recognized as a major determinant of business performance, but practices particularly in terms of performance analysis, are still at the stage of being studied by professionals and academics.

In the literature, it is possible to identify a significant amount of work on the relationship between logistic performance and organizational performance, such as the work of Larson et al. (2007) who demonstrated that the performance of logistics activities can have an impact on organizational performance. Those authors, in a study conducted among business leaders on the impact of the perception of logistics performance on business results, found that a significant number of managers said that the perceived impact of logistics performance consisted of better performance in customer service, better inventory levels and optimization costs.

As logistics are increasingly expected to contribute to organizational performance, several studies have examined the influence of logistics performance operations and logistics management practices on overall company performance. Some authors, such as Zhou and Benton (2007) investigated the link between logistics management practices and distribution performance regarding reliability of service, and concluded that practices related to the distribution and sharing of information have a direct impact on
performance. Also Green et al. (2008), addressing the relationship between logistics practices and organizational performance in a large number of companies in the United States, concluded that logistic practices have a positive impact on business performance, namely in speed of delivery, the responsiveness and flexibility of delivery, and also influence marketing performance, which has a leverage effect on the average sales growth and business profitability.

Roth et al. (2008) investigated the antecedents and performance results of a set of leading global companies, concluding that information technology and logistics management contribute to increased sales and profitability. More precisely, information and communication technology increased sales and logistics management increased organizational profitability. Chow et al. (1994), who focus on analyzing the relationship between objectives, practices, skills and management performance in the supply chain, concluded that logistics practices influence logistics capabilities positively in terms of quality and service, operation distribution and efficiency.

### 2.2. Logistic Performance in SMEs

As described in the literature review, performance analysis is a relevant factor in everyday business, in which there is great complexity of business processes. The shorter life cycles of products and services, market globalization and the growing pressure to improve profitability are elements of increased complexity. Thus, the area of logistics performance and its contribution to organizational performance have been on the research agenda. According to Bhagwat and Sharma (2009), analysis of logistics performance is among the main challenges faced by today's companies. Other challenges include, for example, customer service, strategic partnerships, inventory management and logistics flow management, reducing cycle times and geographical coverage along with flexibility (Li et al., 2006). These challenges arise mostly from the decentralization of production systems, leading companies to move towards the development of basic skills and the need to implement efficient and effective management of logistic activities.

As referred to by Schramm-Klein and Morschett (2006), analysis of logistics performance is a strong current trend, which involves monitoring and planning in order to establish connections between the results of indicators and the firm, determining how well companies achieve strategic objectives as part of their definition and competitive
orientation (Gunasekaran and Kobu, 2007). However, despite this importance, one of the gaps identified in the literature on this subject is that most publications on Logistics or Supply Chain Management are outlined for, or targeted at large enterprises, with few publications discussing logistics in the SME context (Spillan et al., 2010).

Some authors mention that the way logistics have been implemented in SMEs consists of application of smaller versions of successful practices in large organizations, hoping the results will be the same in SMEs despite their more limited resources and less willingness to invest in equipment and infrastructure (Norek et al., 2007).

Apart from this last point, another gap identified is the virtual absence of studies that specifically address logistics performance in SMEs, as it appears there is still no well-defined research agenda in this area of research. Despite this, the work of Halley and Guilhon (1997), Bagchi and Virum (2000), Koh et al. (2007) and Töyli et al. (2008) deserves special mention.

One of the first papers on this subject was the work by Halley and Guilhon (1997) who study logistics strategies in a set of small businesses in the vegetable sector. These authors ascertained that, due to growing awareness of organizational integration, logistics has become an important role in enterprises with centralized control and close management by managing partners.

The work by Bagchi and Virum (2000), conducted in a group of Norwegian SMEs, aiming to identify logistical competencies, concluded that despite the effort to develop these competencies and use them as a competitive lever, this is only possible according to two principles: performance evaluation and verification of that performance’s contribution to obtaining a competitive advantage. Another conclusion of this study is that these authors emphasize the importance of SMEs as a strategic pillar for development of smaller countries, where the business community is mainly composed of this type of business organization.

Koh et al. (2007) studied the relationship between logistics management practice and operational and business performance in a sample of SMEs producing metal products and equipment in Turkey. Despite the limitation of the study being confined to the city of Istanbul, the authors concluded that the practice of outsourcing and strategic collaboration does not have a direct impact on organizational performance, but can have a direct influence on SMEs’ operational performance.

Analyzing the importance of logistics performance in the financial performance of Finnish SMEs, Töyli et al. (2008) concluded that a high logistics performance is
associated with efficient operations, involving overall cost efficiency and high productivity of fixed assets. As the logistics performance of the group of companies observed was at a very elementary level, a statistically significant relationship was not found between logistics and financial performances. However, the authors emphasize that the level of service and efficiency of logistics costs are positively related, since firms with a high level of service had lower logistics costs.

In the work of Töyli et al. (2008), logistical and financial performance was operationalized through the use of multiple measures. Financial performance was measured through profitability and growth, as in the study by Delmar (1997) and Weinzierler et al. (1998). Thus, these investigators used as indicators of growth the average rate of turnover growth and the average rate of asset growth, for the same period. Profitability was measured by indicators such as average return on total assets, average return on capital and Earnings Before Interest and Taxes (EBIT). As conclusions of their work, the authors report that there was no large-scale observable pattern to indicate that firms with high logistics performance are more profitable and grow faster than the average of other companies. Overall, the results support the possibility of logistics not yet having emerged as a driver of large-scale competitiveness in Finnish SMEs.

3. CONCEPTUAL MODELS FOR EVALUATION OF PERFORMANCE LOGISTICS

In this section we present three models for logistics performance evaluation that are used to support the model presented in section 4. The first model, created by Fugate et al. (2010), puts emphasis on the dimensions of efficiency, effectiveness and differentiation of logistics activities as determinants of logistics performance. The second model, created by Aramyan et al. (2007), analyzes the supply chain of agri-food products, using efficiency, flexibility, responsiveness and food quality as determinants of logistic performance. The latest model, developed by Töyli et al. (2008), analyzes logistics performance as dependent on the efficiency of logistics costs, quality of logistics services and logistics performance.
3.1. LOGISTICS PERFORMANCE: DIMENSIONS OF FUGATE

Fugate et al. (2010) analyzed the relationship between logistics performance and organizational performance, stating that logistics performance is multidimensional and is a function of the resources used in logistics, according to outlined objectives and outcomes against competitors. In this context, the authors theorized that analysis of logistics performance should be based on evaluation of a set of dimensions of the activities carried out by the logistic function, which are namely, efficiency, effectiveness and differentiation, as shown in the following table:

Table 1 - Logistics Performance Dimensions of Fugate

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Efficiency</td>
<td>Mentzer and Konrad (1991), Griffis et al. (2004), Bobbitt (2004),</td>
</tr>
<tr>
<td></td>
<td>Seldin and Olhanger (2007).</td>
</tr>
<tr>
<td>Effectiveness</td>
<td>Mentzer and Konrad (1991), Griffis et al. (2004), Bobbitt (2004),</td>
</tr>
<tr>
<td></td>
<td>Seldin and Olhanger (2007).</td>
</tr>
<tr>
<td>Differentiation</td>
<td>Langley and Holcomb (1992), Bobbitt (2004), Flint et al. (2005),</td>
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<tr>
<td></td>
<td>Lambert et al. (2005)</td>
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</tbody>
</table>

Source: Fugate et al. (2010)

According to these authors, efficiency is a dimension related to the use of resources allocated to the logistic function, effectiveness can be defined as the extent to which objectives are achieved and differentiation is understood as the value that can be generated by the elements of customer service in relation to competitors.

In the opinion of Fugate et al. (2010), the better the quality of the joint work of human resource logistics, planning and implementation of solutions to customers’ requests, the lower the level of redundancies, conflicts and customer complaints, which increases efficiency levels due to responsiveness (less time), allows lower levels of waste and invested capital, and thus increases logistics efficiency and the likelihood of meeting deadlines.

In this context, Fugate et al. (2010), in carrying out empirical research to analyse the interrelationships between the different variables of logistic performance and their impact on organizational dimension, outlined the following conceptual model:
The conceptual design of the Fugate model consists of two levels of analysis. The central level, which represents the convergence of the model for analysis of the impact of logistics performance on organizational performance, where the authors seek to obtain the final result of the investigation. And at a previous level, it examines variables that form the constructs of logistic performance. This model has been tested and validated with a number of randomly selected large companies. These authors’ conclusions point to confirmation of a significant relationship between organizational performance and logistics performance.

The Fugate model refutes an argument at the center of controversy over the possible trade-off between the constructs underlying performance dimensions. Some authors have reflected on the relationship between business objectives and the concepts of efficiency and effectiveness. According to these authors, when defining a direction or a goal, business leaders should opt for one dimension, since it appears that performance progress in one dimension entails a step backwards in another.

Conversely, Fugate et al. (2010) find firms that choose to combine efficiency and effectiveness achieve better performance than their competitors who choose only one of these dimensions, which is in line with what is stated by Seldin and Olhanger (2007). This finding clarifies the condition that companies should not consider the dimensions of performance as antagonistic, but instead be able to achieve both simultaneously.

These authors also emphasize the fact that in addition to efficiency and effectiveness, the logistics function must also provide value added service to its customers to differentiate companies in today’s market. Thus, the main task is
conjugating the three constructs of logistics performance simultaneously and being innovative, since, as mentioned by Fugate et al. (2010), excellence in logistics is associated with better organizational performance.

3.2. ARAMYAN APPROACH

In order to understand performance in the agri-food supply chain, Aramyan et al. (2007) developed a conceptual framework to analyze logistics performance. The Aramyan model is based on a literature review of the main methodologies for analyzing performance and contains the specific features of an agri-food supply chain. The model structure is based on four categories of variables which, in the authors’ opinion, collect specific information about that industry. The model structure is as follows:

![Figure 2 - Aramyan Model](source: Aramyan et al. (2007)).

Based on these dimensions, Aramyan et al. (2007) theorized a conceptual framework for evaluation of logistics performance, which suggests dividing the analysis of logistics chain performance in four categories or clusters of indicators. The first category is, efficiency which, according to Lai et al. (2002), seeks to measure how resources are used. This category consists of a set of logistical process indicators, such as distribution costs, transaction or possession of stock. The second category, flexibility, supported in the literature by Bowersox and Closs (1996) and Beamon (1998), indicates the ability of the Performance Measurement System to respond to changes in the environment and exceptional customer orders. The third category, called responsiveness, according to Pearson and Olhager (2002), helps to promote what the customer wants in the shortest amount of time. Finally, quality, which is based on the framework by Lunning et al. (2002), represents the particular characteristics of the food supply chain, such as shelf life and product safety, among others.
The model proposed by Arayman et al. (2007) was applied to analysis of the performance chain of agri-food products from the Netherlands to Germany. The authors developed a Performance Measurement System, which consists of a set of key performance indicators that were split according to the model variables, as shown in Table 2:

<table>
<thead>
<tr>
<th>Categories</th>
<th>Definition</th>
<th>Key Indicators</th>
<th>Authors</th>
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<tbody>
<tr>
<td>Efficiency</td>
<td>Seeks to measure how resources are used, consisting of financial metrics framework.</td>
<td>Production costs; Distribution costs; Transaction cost; Results; Return on investment.</td>
<td>Bowersox &amp; Closs (1996); Beamon (1998, 1999); Gunasekaran et al. (2001); Lai et al. (2002).</td>
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<tr>
<td>Flexibility</td>
<td>Indicates the degree to which the supply chain responds to changes in the environment and to customer requests.</td>
<td>Customer satisfaction; Volume flexibility; Delivery Flexibility; Exceptional orders.</td>
<td>Bowersox &amp; Closs (1996); Beamon (1998, 1999); Gunasekaran et al. (2001); Lai et al. (2002).</td>
</tr>
<tr>
<td>Responsiveness</td>
<td>Assesses the ability to respond to customers and helps to promote product requirements in a short time cycle.</td>
<td>Service level; Delays in orders; Response time to customer; Complaints and shipping errors.</td>
<td>Bowersox &amp; Closs (1996); Beamon (1998, 1999); Gunasekaran et al. (2001); Lai et al. (2002).</td>
</tr>
<tr>
<td>Quality</td>
<td>Evaluates aspects of sensory property, shelf-life, safety, production and marketing.</td>
<td>Product quality; Process quality.</td>
<td>Beamon (1999); Lunnig et al. (2002); Van der Spiegel (2006)</td>
</tr>
</tbody>
</table>

Source: Aramyan et al. (2007).

The empirical part of this investigation resorted to a data collection instrument where it was possible to identify the importance of the elements of the logistics chain attached to each of the indicators.

Based on the results obtained, a Performance Measurement System was developed for the specific logistics of the agri-food production chain, finding that the most relevant indicators to evaluate logistics performance were related to costs, results (profit), customer satisfaction, delivery time and product quality. Some indicators, although perceived as important, such as delivery flexibility and marketing indicators were not measured by the elements of the supply chain, the main reason being the difficulty in quantifying these metrics. As a conclusion it is noted that the model presented and performance analysis framework allow implementation in a supply chain or in a particular organization.
3.3. TÖYLI PERFORMANCE APPROACH

Another major approach is that of Töyli et al. (2008), who study the logistics performance of Finnish SMEs and analyze the relationship between this performance and company performance in financial terms. These authors concluded that high logistics performance is associated with efficient and consistent operations, involving overall cost efficiency and high productivity of fixed assets.

The conceptualization of Töyli et al. (2008) arises due to the fact that, despite logistical performance and financial performance having been studied, their relationship constitutes a research gap, because it has not been subjected to empirical studies, especially in the field of SMEs. For these authors, this area is an exploratory field due to the consensus that good logistics performance has an impact on a company’s results. It allows the reduction of costs, increased income and efficient use of investments in assets.

An interesting argument relating logistics performance with financial performance is given when the authors mention that logistics performance will have a positive effect on share price in the capital market, due to the direct effects related to optimizing costs and gross operating profit, as set by Christopher and Ryals (1999).

According to Töyli et al. (2008), logistics performance is understood as a multidimensional construct, including cost efficiency, as outlined in the conclusions of some researchers, such as Beamon (1999) and Chow et al. (1994), service quality, mentioned by Fawcett and Cooper (1998) and operational performance metrics identified in the work of Gunasekaran et al. (2004) and Yusuf et al. (2004). The authors identify the following dimensions of logistics performance:

**Figure 3 – Töyli Logistic performance dimensions**

![Logistic Performance Diagram]

Source: Töyli et al. (2008)
According to Töyli et al. (2008), logistic performance includes three components: (1) the service level that aims to characterize the service quality for logistics clients, the level of perfect orders and the duration of the cycle; (2) operational metrics that characterize the logistics performance based on time, including stock rotation and average payment and receipt; (3) the level of logistics costs that characterize the efficiency of logistics operations.

One of the main conclusions to retain in this approach is that to analyze the relationship between logistic and financial performance, we must first examine separately the performance constructs, starting with analysis of financial performance, followed by analysis of logistics performance. Töyli et al. (2008) propose a research framework that includes the following elements:

<table>
<thead>
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<th>Table 3- Töyli Framework Dimensions</th>
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<tr>
<td><strong>Constructs</strong></td>
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<tr>
<td>Elements of logistical profile identified in previous studies</td>
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<tr>
<td>Logistics Performance</td>
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<tr>
<td>Financial Performance</td>
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</table>

Source: Töyli et al. (2008)

In the framework proposed by Töyli et al. (2008), analysis of SMEs’ logistics performance consists of three dimensions: the elements of logistical profile, logistics performance and financial performance. It should be noted that despite being an methodological analysis that fills a gap in the SME context, it has the disadvantage of not yet having been validated for these companies.
4. CONCEPTUAL MODEL

According to previous models, we assume that logistics performance is influenced by factors such as: effectiveness, efficiency, differentiation, flexibility, responsiveness, quality, operational metrics, service level and logistics costs. As can be inferred, all these factors can affect logistics performance and performance at the organizational level. From the factors mentioned earlier, the most important ones must be isolated in order to understand the relationship of each with logistics performance.

Based on the literature review, a model is proposed which integrates the following variables as determinants of logistic analysis of Organizational Performance: Logistics Performance, Competitive Advantage and Organizational Performance. Despite the relevance of other factors in explaining logistics performance, the model isolates these variables based on the assumptions present in studies conducted on this topic, as presented in the following table:

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Logistic Performance</td>
<td>Fugate et al. (2010); Green et al. (2008); Töyli et al. (2008); Schramm-Klein and Morschett (2006); Sang and Marlow (2005).</td>
</tr>
<tr>
<td>Organizational Performance</td>
<td>Fugate et al. (2010); Green et al., (2008), Schramm-Klein and Morschett (2006); Aramyan et al. (2007); Töyli et al. (2008);Kim (2006); Yang (2012).</td>
</tr>
</tbody>
</table>

The focal point of the development of the conceptual framework is based on the fact that good performance of the logistic function provides a good level of organizational performance, which can be achieved by market competitiveness. Thus, logistics performance is assumed to be a determinant of organizational profitability because good performance of logistics activities is associated with efficient operations and reduced costs, and leads to high asset productivity (Yang, 2012).

In terms of competitiveness, we find there has been growing interest among researchers in the fact that logistics can be a key factor in achieving competitive advantage in the market (Carranza et al. 2002). The literature is consensual, regarding logistics activities having a positive competitive impact on the company, because they
allow development of key determinants for market positioning with better levels of efficiency, cost reduction and differentiation of customer service.

In general, organizational performance is defined as return or profitability, sales growth and increased market share, which is the result of the products and services marketed and a consequence of the processes used by companies (Akgün et al. 2009). In this conceptual framework we point out that if logistic performance reflects the company's performance with regard to the ability to distribute products and services in the right quantity at the right time to its customers (Green et al., 2008), performance organization is the reason for the performance, including its ability in terms of profitability and investment return, when compared to their competitors (Green et al., 2004; Green et al., 2008).

Based on these three components, an explanatory conceptual model is developed for the analysis of logistics performance and its contribution to organizational performance in small and medium enterprises. The basis for preparing this model is the fact that the cumulative evidence from the literature reveals that performance is a multidimensional construct that can be characterized by multiple perspectives (Gunasekaran et al., 2001).

Some authors suggest that performance can be defined as the efficiency and effectiveness of logistics activity performance (Mentzer and Konrad, 1991 and Fugate et al, 2010). In addition to these two components, good performance is related to how the logistics function meets customers’ requirements, namely the level of service (Töyli et al. 2008). Based on this reasoning, logistics performance is a first order dimension, which is defined by efficiency (how resources are used), effectiveness (degree of compliance with the goals set) and service level attached to logistics activities. These components represent the second order dimension in logistics performance.

The second model construct is competitive advantage, since it assumes that logistics performance produces higher levels of competitiveness, providing key differentiating factors in the market (Li et al., 2006). Competitiveness is the development of core competencies, which are used to obtain competitive advantages, meaning good performance in market share and business margins (Porter, 1996 and Stank et al. 2001).

If the initial part of the model concerns the dimensions of logistics performance and competitiveness, the model output will be organizational performance, which reflects how a company achieves business objectives and goals regarding its budget and
financial management. Thus, based on the variables described in the previous section, we propose a conceptual model, whose main objective is to analyze the impact of logistics performance on the performance of small and medium enterprises.

This model is based on the assumption found in the literature, that there is a positive correlation between logistics performance and organizational performance. The conceptual model can be represented by the following figure:

**Figure 4 – Conceptual Model**

The model presented is the result of adaptation of the models by Fugate et al. (2010) and Aramyan et al. (2007), and the framework developed for this line of research by Töyli et al. (2008). Finally, it is pointed out that the model constructs must be operationalized through the perception and size of each of the constructs in the specific environment of SMEs.

5. Conclusions

In a highly competitive environment where companies are faced with intense competition, lack of resources and unfavorable economic conditions, performance analysis combined with a culture of competitiveness are assumed to be crucial factors for survival and business success.

In a highly competitive market for customers and resources, logistics plays an important role, given the availability of products or services to customers, and promotes higher levels of efficiency and effectiveness in carrying out activities, leading to better results (Fugate et al. 2010). Thus, in recent years a considerable number of publications have recognized the importance of logistics and supply chain management for business performance. However, this relationship has been studied in a scenario of large
enterprises and supply chain management, with few studies on the direct relationship between the logistic function and organizational performance, at the SME level.

The central objective of this study is to define a conceptual theoretical framework for analysis of performance logistics and its impact on competitiveness and business performance. To that end, a broad bibliographical review found three approaches in the line of this work. The Fugate et al. (2010) approach, considering a number of large companies; the Aramyan et al. (2007) approach, developed for agro-industrial products and the Töyli et al. (2008) approach with a set of Finnish SMEs.

These studies were found to present limitations regarding the objectives defined in this study. The Fugate et al. (2010) study is restricted to large industrial companies, which does not allow us to draw reliable conclusions for SMEs, where opportunities and resources are more limited. The Aramyan et al. (2007) model is developed taking into account the specific characteristics of the agro-food industry, with short life periods, food safety and product quality. The Töyli et al. (2008) approach is unique, because it was developed for the analysis of logistics performance in SMEs. However, they point out the disadvantage of lack of validation before moving on to the empirical application. These conclusions underscore the central importance of the investigations carried out by the authors, but also alert us to the fact the assumptions are not comprehensive, suggesting that performance analysis can be enhanced with the introduction of other explanatory variables or consideration of new interactions between existing variables.

With this backdrop, based on the literature review, a conceptual framework was developed, with three axes of analysis: (1) logistical performance, defined as the degree of efficiency, effectiveness and level of service associated with logistics activities; (2) Competitive Advantage, which is perception of the logistics value compared to other companies in the market; and, (3) business performance which, in addition to representing the organization’s efficiency and effectiveness, represents the company’s profitability and wealth for its stakeholders.

The major limitation of this study is not testing the theoretical model presented. Since this work is essentially theoretical, it makes an exhaustive bibliographic review of the field, but lacks practical application that allows the model to be tested in real situations with SMEs. This is a suggestion for future research, which we intend to carry out in the near future.
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