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## ACTIONS

### TO STRENGTHEN LOGISTICS IN CUBAN ENTERPRISES

#### ACCIONES PARA FORTALECER LA LOGÍSTICA EN LAS EMPRESAS CUBANAS

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## ABSTRACT

In the current international context, after the Covid-19 pandemic, companies develop in a highly competitive environment where the customer is increasingly demanding; and that is why they recognize the importance of carrying out an integrated management to ensure the products and services demanded by customers, in the quantity and with the required quality, in the ideal time, in the right place and at the lowest possible cost. The above is reflected in Cuban companies, some of which play a fundamental role in the commercialization of products in the country. The article aims to develop actions to strengthen logistics management in Cuban companies; all of which made it possible to demonstrate that competitiveness depends on the logistics efficiency of the supply chain. For the achievement of the research, the mixed approach was used, with the combination of quantitative and qualitative methods, in order to fulfill the proposed objective.

### Keywords:

Competitiveness, logistics, supply chain.

## RESUMEN

En el actual contexto internacional, luego de la pandemia de la Covid-19, las empresas se desarrollan en un ambiente altamente competitivo donde el cliente es cada vez más exigente; y es por ello que estas reconocen la importancia de realizar una gestión integrada que permita garantizar los productos y servicios demandados por los clientes, en la cantidad y con la calidad requeridas, en el plazo ideal, en el lugar adecuado y al menor costo posible. Lo expuesto anteriormente se refleja en las empresas cubanas, algunas juegan un papel fundamental en la comercialización de productos en el país. El artículo tiene por objetivo desarrollar acciones para fortalecer la gestión logística en las empresas cubanas; todo lo cual permitió demostrar que la competitividad depende de la eficiencia logística de la cadena de suministros. Para el logro de la investigación se utilizó el enfoque mixto, con la combinación de métodos cuantitativos y cualitativos, para así cumplir con el objetivo propuesto.

### Palabras clave:

Cadena de suministro, competitividad, logística.

## INTRODUCTION

Globalization is a phenomenon that affects the economy, developing a more complex market structure, which forces companies to seek alliances among themselves, and leads to the need for supply chains to be much more efficient and flexible to market changes. With the globalization of markets, Cuban companies have been involved in a highly competitive environment, and sometimes difficult to access, this requires that Cuba has greater preparation and better action in the management of logistics infrastructure, so it is important to apply the different tools of Industrial Engineering.

Consequently, the achievement of these precisions constitutes the main function of logistics, therefore it plays a fundamental role in customer satisfaction, but on the basis of compliance with the values shared in the company, without neglecting those of the customer; so it is necessary to take into account from the beginning of the logistics chain the value system, or rather the interests, needs, shortcomings and aspirations of all participants in the logistics process.

In the last two decades, new styles of business logistics management have been developed, mainly in the United States of America, Japan and some countries of the European Economic Community. Faced with new business challenges Latin America has not been oblivious to this phenomenon (Hurtado, 2019; Ulloa, 2020; Zapata et al., 2020; Balza & Cardona, 2020; García et al., 2021; Sánchez et al., 2021).

Globalization constitutes a phenomenon that affects the economy, developing a more complex market structure, which forces Cuban companies to seek alliances among themselves, and leads to the need for supply chains to be much more efficient and flexible to market change.

In accordance with the above, it is proposed as an objective: to develop actions to strengthen logistics management in Cuban companies; all of which made it possible to demonstrate that competitiveness depends on the logistics efficiency of the supply chain; according to the changing conditions of the environment, which in turn will contribute to increase business efficiency and effectiveness.

## METHODOLOGY

The research carried out is of a documentary nature according to the studies of Gómez (2010), so it is focused on the epistemic analysis of scientific literature specialized in the subject and some case studies, in order to develop and explain some actions to strengthen logistics management in Cuban companies. This methodology is supported by a series of strategic steps to guarantee a rigorous treatment of the topic. In the research, the mixed approach was used, with majority of the qualitative

approach; evidence of numerical, verbal, textual, visual, symbolic data was analyzed to understand these problems in business sciences. Among the theoretical methods, the analysis-synthesis was used for the epistemic study of the specialized literature consulted and among the empirical methods, the interview and participant observation were used in order to validate the actions proposed to fulfill the proposed objective.

## DEVELOPMENT

Logistics management, from its integral approach, represents, in addition to an obligation, a business alternative to support the organization and its actors, so as to generate movements for the competitiveness of the set of companies and links in the supply chain (Rivera et al., 2016).

The relentless competition in global markets today after the COVID-19 pandemic, the introduction of products with very short life cycles and the demanding and growing expectations of customers, has driven industrial companies to invest in the improvement of the logistics system. The above, together with the rapid changes in technologies and innovative processes, which have influenced the growth of e-commerce, the changing interests and needs of customers and the digitization of processes, have motivated the continuous evolution of the management and administration of logistics systems. In this sense, the Supply Chain must reinvent its channels, which, although they have always been flexible, must adapt to new needs (Sánchez et al., 2021).

In this sense, the way is being paved for a new way of understanding logistics in a highly competitive space, not only nationally but also internationally. An aspect such as trade openness gave rise to a set of transformations in production and location decisions, driven by the commands of global competition, giving way to the restructuring of markets and the organization of production (Rivera et al., 2016; Ramírez et al., 2020; García et al., 2021; Campos et al., 2023).

Consequently, it comes about that to the extent that companies have become interdependent on existing goods and services in the market to perform their value-adding activities, most of them have developed extensive networks of suppliers and customers. For this, it is increasingly necessary to establish an efficient and effective supply chain management, which includes the following functions: transportation, warehousing, purchasing, inventories, production planning, personnel management, packaging and customer service, among others (Rivera et al., 2016).

At present, one of the most sought-after objectives for all companies is the achievement of efficiency, without neglecting quality standards and customer service, based on efficient logistics management. According to Campos

et al. (2023), the importance of logistics lies in the need to improve service to a customer, optimizing the marketing and transportation phase at the lowest possible cost; it revolves around the creation of value for the company's customers and suppliers, that is, internal and external customers. The value of logistics is expressed in time and place, and in its optimal and timely use.

In consequence, logistics should be considered as part of the supply chain, which contributes to establish its performance and adequate contribution to meet the needs of customers, based on collaborative and integrated processes with other actors in the chain (Rivera et al., 2016; Campos et al. 2023). One of the most complete definitions because it integrates the precise elements to conceive logistics management is the one argued by Ruano & Hernández (2003), they consider logistics as *"a system of strategic management of human resources and information, material, financial and return flows associated with the supply, production, distribution, storage and marketing of goods from suppliers to customers in order to meet the needs of the latter with quality and low cost as a source of competitive advantage in organizations"*. (p.10)

### Actions to strengthen logistics management in Cuban companies

Actions are provided in accordance with the changing conditions of the environment, which will contribute to increase efficiency, business effectiveness and generate money savings. For the elaboration of the actions, authors such as: Ruano & Hernández (2003); and Campos et al. (2023) were taken into account, being the following:

#### 1. Organization of the warehouse

The first key is organization, as a basic form of management, which must be well managed for the chain to function correctly. Companies need to analyze their organizational system in order to implement the necessary improvements. Some examples of these improvements are as follows:

- Stock control.
- Warehouse organization.
- Improving the distribution chain.

#### 2. Improved demand management

Demand management is one of the aspects that must work seamlessly in the company. It is necessary to find the perfect balance between supply and demand in order to be able to assure the users of the products in stock. How is this done? With good management and by strengthening the planning of all production, sales and distribution processes and the sustained improvement of the company's logistics services.

#### 3. Error analysis and how to improve them

Mistakes can be made in any department of the company. What is the key to eliminate them so that they do not happen again? It is recommended to carry out a thorough diagnosis, then analyze them, evaluate them to keep a record of what happened and proceed to find the solution. In this way, the same mistake will not be repeated twice.

#### 4. Merchandise tracking

Merchandise management is one of the actions that companies have to improve. On many occasions, warehouses have a large amount of stored products that are not being disposed of; this only leads to losses. Products can end up spoiling and not being sold. In addition, the warehouse space allocated to them could be used in other ways. That is why it is important not to have too many products: the merchandise and its constant evolution must be analyzed in order to avoid this.

#### 5. Data processing

It is vital to have a good computer system that can analyze and generate large databases. In this way, it will be possible to get the most out of everything that customers communicate about the company. With this data, it will be possible to improve logistics by ordering the necessary products, improving shipments, among other things. From the studies of Sanchez et al. (2021), it is necessary to move towards paperless commercial logistics, prioritizing Excel systems, which will not only reduce the risks of contagion, but will also eliminate the inefficiencies mentioned above, since costs and transit times will be reduced, in addition to improving the necessary and vital transparency in these times and the traceability of processes. Therefore, in line with these authors, the growth of e-commerce makes possible the redesign of supply chains and the necessary operational changes in the logistics processes of storage and transportation.

#### 6. Risk plan

A risk plan is necessary for any business to be prepared for different inconveniences or problems that may arise in the logistics chain. Above all, risks that can generate losses. Anticipating is the only way that the company will not be harmed and appropriate actions can be taken. Below are some examples of problems that can occur in the company:

- Delay with a supplier: a good risk plan would be to have more than one, so it will be less of a problem if it fails.
- Theft of merchandise: having insurance is essential in case this happens. This is the only way to ensure that the company is not left with the losses and has to take care of everything.

- Damage arising during transport: to prevent this situation from being caused by the workers, the most important thing is to inform and train the staff properly. In the event that the fault is due to the poor state of the roads, the most advisable thing to do is to take precautions and try to avoid these areas or those areas that are under construction.
- Ensure all the necessary means to carry out the work processes, transfers and dispatches in warehouses and small warehouses.
- To have a protected system for the return of goods due to shrinkage returns, when necessary.

### 7. Brand integrated in the packaging

Many companies make the mistake of not giving importance to packaging. It is the business card every time one of the products reaches the end user and, therefore, special attention must be paid to it. Nowadays, customers value recyclable and even reusable materials. Keeping abreast of current trends, needs and aspirations of the external customer is one of the tasks for logistics to function properly.

### 8. Good suppliers

Having good suppliers is one of the keys for logistics to work, because if they fail, the entire supply chain is affected, since this is a strategic element used in business models, because as analyzed by Campos et al. (2023), among the factors that integrate the objective of the Supply Chain, are the quantity, quality, delivery times and cost as changing elements subject to the demands, requirements and needs of customers, who every day demand higher quality, for their satisfaction.

For this reason, the authors of this research consider that it is vital to pay special attention to the companies in which one trusts. The following variables must be taken into account to evaluate a good supplier.

- New suppliers to optimize the logistics service.
- Punctuality is necessary when it comes to deliveries.
- The quality of the raw material has to be high to get a good final product.
- The capacity to be able to reach the demand that the company asks for is transcendental.
- To have payment options that does not harm the company's accounts.
- Not to be very far from the headquarters of the company in question, so there will be no problems due to external agents.

### 9. Training of personnel

Another essential key for logistics to work is to invest in human capital, and there is only one way to do it: training.

To ensure that each employee, specialist or manager is aware of his or her functions and knows how to manage them with quality, this can only be achieved through comprehensive and developmental training. In addition, new technologies increasingly require constant training and retraining in order to achieve maximum efficiency in all departments of the company.

### 10. Modernization

The acquisition of new technologies is one of the best allies for companies today, because according to Zapata et al. (2020), they bring with them a constant generation of data transfer and faster and more secure information, which sustainably improves control processes and leads to decision making based on real data and a holistic knowledge of the operation, that is, investment in new technologies strengthens the improvement of logistics. This will result in:

- Greatly increase the productivity of the company.
- Cost reduction by improving plans and actions.
- The reduction of errors due to exclusively human factors.
- An increase in the effectiveness and quality of the delivery service.
- The collection of reliable and real-time data.

The development of logistics is one of the supports of the future of companies. Being efficient in this aspect allows covering an increasingly large and competitive market. To succeed, there is nothing better than partnering with a specialized company like Moldstock, which has an e-commerce logistics service.

### Logistics and transportation

Logistics management plays an important role in the success of a company. Supply chain processes are becoming increasingly complex due to rising customer expectations and last mile deliveries. With more demanding customers and a logistics process under pressure, maintaining high efficiency is the only way to guarantee customer demands without significantly increasing costs.

It is necessary to clarify that the best way to satisfy the customer is through marketing studies of the different locations to know the different and real needs of customers; but this is not done, so sales are not generated and too many expenses are incurred in transportation, among others for the return of unsold goods. Therefore, companies should consider the integration of innovative technologies and solutions to optimize the logistics performance of their business, which translates into operational efficiency, cost reduction, shorter delivery times and greater customer satisfaction.

In this order of ideas, although most consumers are not even aware of it, the logistics sector is responsible for essential activities within any company, being one of the most important areas, with the potential to impact an entire society. With the constant evolutions of the market and the change of paradigms in this area, consumers' expectations are increasingly higher, demanding, on the part of companies, improvements in delivery time, reliability, cost and control of their transactions.

The larger the company, the more processes are involved in its management, that is, the more complex its logistics, which requires more time, attention and care in its management. But that does not mean that the fact that small companies have simpler processes means that they do not need to worry about logistics. On the contrary, any company that intends to grow can and should pay attention to this sector from the beginning. In this way, they will always be one step ahead, anticipating the needs for improvements required by their expansion, which can generate a much more linear growth, avoiding breaks imposed by physical and operational constraints related to increased demands.

Therefore, below, we present other practical actions to improve a company's logistics, based on the authors' experience, as follows:

### 1. Proper tracking of goods

A very important step in the logistics chain is merchandise management. Having items in excess and idle for too long, besides causing losses by compromising storage space, which could be occupied by other products, they also take the risk of wearing out, increasing the loss. Similarly, shortages of inputs can also mean losses by compromising the production line, causing delays in deliveries.

Therefore, the ideal is to maintain a balance, defining the necessary quantity of each product based on a strategic analysis according to the demand forecast, always monitoring market trends to foresee the next movements.

### 2. Establish and monitor performance indicators

The best way to know if the company is doing well is to analyze its performance indicators, also known as Key Performance Indicators, or simply KPIs. KPIs are metrics used to measure and evaluate the performance of a company's most important processes, allowing to identify the positive aspects and those that need improvement. There are hundreds of different indicators, but it is recommended to analyze those that are most relevant to the company, depending on the activity developed.

Some examples of indicators are:

#### 3. Delivery time

4. Number of deliveries
5. Cost per item produced
6. Product quality
7. Loss rate
8. Customer satisfaction

### 3. Invest in technology to optimize processes

As a company grows, its processes automatically increase, until there comes a point where human capacity alone can no longer cope with the large number of demands. At this point, investment in technology is indispensable and decisive for the company to continue growing. This measure allows the automation of processes, which guarantees several advantages, such as:

- Increased productivity
- Cost reduction
- Reduction in the incidence of errors
- Increased quality of service
- Reliable data collection for effective decision making

In addition to organizing and optimizing bureaucratic and operational processes, technology allows professionals to assume more strategic functions oriented to the development and competitiveness of the company; among the main technological solutions, the following can be mentioned:

- WMS - Warehouse Management System

By integrating the supply chain, the WMS manages and automates all the logistics processes that take place in a warehouse or distribution center.

- TMS - Transportation Management System

Focused on transportation management, the TMS allows controlling the entire operation in an integrated way, providing improvements in the quality and productivity of the entire distribution process through logistics automation.

- Geolocation APIs

APIs are sets of protocols that are integrated into applications or platforms to carry out certain processes. A geolocation API is an extension and many companies choose this technology to add new possibilities to the system they already use. For example, geolocation APIs, such as those that are part of Google Maps, offer a wide variety of solutions, in addition to their maps, the integration also offers solutions such as:

- Improved address input and validation
- Asset tracking
- Optimization of fleet processes, from product pickup to delivery

- Provides fast and reliable routing
- Keeps customers informed with real-time monitoring

#### 4. Establish solid partnerships with good suppliers

Considering that the production or activity depends directly on inputs supplied by third parties, it is essential to be able to count on responsible and reliable suppliers. However, finding the right suppliers that meet the expectations and production needs of a company may not be an easy task; therefore, when having good suppliers, it is recommended to establish relationships based on the organizational values of both companies, so that all interests are satisfied. Among the main factors to be evaluated when choosing a supplier, the following are recommended:

- Timeliness of delivery
- Geographical location
- Quality of raw materials
- Cost-benefit ratio
- Payment terms
- Ability to supply the company's production demand

#### 5. Make the most of the data generated in the day-to-day running of the company.

We are living through the fourth Industrial Revolution, with the emergence of Industry 4.0 which, through automation technology, is completely changing the way we produce and consume. Every day, IT systems designed to optimize companies' logistics processes, such as TMS, WMS and OMS, generate a big amount of data, which is not always put to good use.

Taking advantage of the most of this data can undoubtedly contribute greatly to improving a company's logistics, through the *Supply Chain Analytics* concept, a real trend in the market, capable of boosting the operating margin of any company.

#### 6. Having a risk management plan

When talking about risk management in logistics it is referred to strategies aimed at dealing with any type of situation that threatens the operation of the production process, which can generate losses, some examples are:

- Delay in the delivery of inputs by the supplier.
- Cargo theft
- Damage to products during transportation
- Accidents caused by poor road conditions
- Anticipating these types of situations by developing specific action plans to deal with each of them is essential to reduce losses.

In the case of the examples cited above, possible strategies to avoid or cope as best as possible with the risks posed could be:

- Establish partnerships with more than one supplier, always looking for trusted professionals.
- Secure the cargo
- Train employees for the proper execution of their functions.
- Consider restricted areas on the operation routes

In short, for the execution of all the above, we suggest, based on the experience of the authors, certain actions to improve and strengthen logistics in a company:

**1. Analyze current processes:** It is important to conduct a detailed analysis of current logistics processes to identify possible areas for improvement.

**2. Establish clear objectives:** Define specific and measurable objectives to improve the efficiency and effectiveness of logistics. It is recommended to establish a point of contact, that is, assign a specific point of contact for each customer so that they can communicate directly with someone who is familiar with their case, but always prioritizing the values discussed here.

**3. Implement technology:** Technology can help automate processes, improve visibility and coordination in the supply chain, as already discussed, it is recommended to use technological tools such as email, text messages and mobile applications to keep customers informed about the status of their shipments constantly and securely.

**4. Improve communication:** Clear and effective communication between different departments and suppliers is essential to improve logistics, based on the values discussed in the research. It is advisable to provide accurate and up-to-date information; ensure that the information provided to customers is accurate and up to date, including the estimated delivery date and any problems that may arise. But it is suggested to train staff in technical and leadership skills to improve logistics management and management skills.

**5. Reduce costs:** Seek opportunities to reduce transportation, warehousing and material handling costs.

**6. Offer tracking options:** Provide online tracking options so that customers can track their shipments in real time.

**7. Be proactive:** Anticipate problems and communicate with customers before problems arise, based on respect for values and taking into account the customer's subjective value system.

**8. Establish a clear customer service policy:** Establish a clear customer service policy that includes procedures for handling complaints and problems while respecting

prevailing values and seeking to eliminate any anti-values that arise.

**7. Evaluate performance:** Establish performance indicators and regularly measure progress in logistics improvement.

Therefore, the researchers of this article have argued that the performance and competitiveness of Cuban companies depends on the efficiency and effectiveness of logistics processes, and this has an impact on the interaction and satisfaction of customers and suppliers.

## CONCLUSIONS

From what has been presented in the article, the importance of strengthening logistics in Cuban companies is highlighted as an element to be taken into account in the competitiveness of companies, since this is a factor that ultimately has an impact on the price of products. It is of great importance for companies to develop tools and propose mechanisms to develop efficient plans to reduce costs and satisfy the needs of customers and mitigate the negative impacts that may occur in logistics.

It is concluded that in order for Cuban companies, with a forward-looking and strategic vision, to achieve an optimal replenishment of the trade system, it is necessary to apply what is presented here, which, in the authors' opinion, would favor a timely, stable, effective and efficient supply and the fulfillment of their income plans, so it is vital to redesign the supply chain. It is necessary to strengthen relationships with internal and external customers on the basis, strengthening and consolidation of organizational values.

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