

**Reengineering The Last Mile to Create Value for All Stakeholders.**

**Autores:**

**Elvia Fernanda Bernal Rodriguez**

**Félix Roberto Estrada Paz**

**William Alexander García Triana**

**Trabajo de Grado Para Optar al Título de Magister en Administración**

**Director:**

**Juan Pablo Mora Lopez**



Pontificia Universidad  
**JAVERIANA**  
Bogotá

**Pontificia Universidad Javeriana**  
**Facultad de Ciencias Económicas y Administrativa**

**October 2023**



Fernanda Bernal R

Felix R. Estrada

William A. García

## **TEACHING NOTE**

### **REENGINEERING THE LAST MILE TO CREATE VALUE FOR ALL STAKEHOLDERS**

#### **Section 1: Nature of The Case, Summary, And Key Components**

In 2017, DecorHome SAS, a top furniture and home accessories retailer in Colombia, needed to review the efficiency of its supply chain to execute its growth strategy based on e-commerce and fewer physical stores. Fernanda Bernal, the logistics and operations manager, identified an opportunity for improvement in the delivery type associated with e-commerce due to last-mile challenges and transportation industry opportunities. The furniture and home decor market is becoming increasingly competitive, with IKEA entering the Colombian market. The Covid-19 pandemic has increased sales volume and highlighted the importance of transportation and the supply network in profit margins. To address these challenges, Fernanda and her team identified feasible proposals using a Lean Start-up innovation methodology and talent management aligned with the company's strategy. The focus was on achieving a more significant competitive advantage through differentiation in the entire process of CX logistics.

#### **Section 2: Target audience, subject matter, and teaching objectives**

##### **Target Audience and Subject Matter**

This case is directed at MBA and EMBA students, aiming to use their general concepts of strategy, strategic planning, and market analytics, to define a short- and medium-term strategy and understand-aimed if a strategy fits a specific organization. This case can be used in Corporate Strategy and/or Strategic Planning and improvement of efficiency and cost optimizations.

In this business case, the main reach will be to analyze and understand the impact of strategic thinking in a successful company focused on efficiency, describing the general context and problematics associated with supply chain management and detailing the solutions behind a successful corporate strategy execution. The student should meticulously analyze the problematics, break down the important components, and observe how a successful mapping of barriers and inefficiencies can lead to a superb business plan.

This case requires the reader to have an advanced sense of analytics and strategic thinking; the student should be able to understand the case and its dynamics in addition to its current problematic solutions, and he or she should be able to define other possible solutions to be implemented in real-world scenarios aimed at understanding the level of risk to assume, results from varied strategies and other possible solutions.

## Learning Objectives

### Main Objectives

1. Analyze how a process with low capital investments can bring value, efficiencies, and service competitiveness in a sector as competitive as retail. [JPML1]

### Secondary Objectives

- a. Understand strategic planning and mapping as a tool to generate efficiency in an already successful company, anticipating market trends, and adapting to an ever-changing sector in an otherwise uncertain world.
- b. Recognize the importance of strategic planning and supply chain management inside an organization in Colombia and identify how a well-thought-out company strategy can lead to a successful outcome.
- c. Identify advantages and disadvantages of company growth, its dependence on supply chain management, and its financial leverage.

## Section 3. Case teaching strategy

Step	Class activities	Objectives	Time (Minutes)
1. Define the problem	Plenary Discussion	1,a,b,c	10
2. Preparing the stage	Plenary Discussion	1,a,c	10
3. Discussing the case	Create a discussion identifying possible mistakes and defining ways forward to understand the case.	1,a,c	15
4. Making decisions	In groups, to assume Fernanda Bernal's role to define an alternative solution.	1,a,b	15
5. Implementing Decisions	To explain the chosen solution, defining times and priorities at the moment of applying the solution	b	10
6. Closing the case	Summary of the lessons learned from the case	1,c	15
<b>TOTAL TIME</b>			<b>75</b>

### Step 1. Preparing the stage:

After the general context and initial feedback from students, the instructor can establish a discussion by focusing on the general case situation. The instructor should start with a 5W approach (who, what, where, when, and why), another methodology that can be useful is to generate questions about the general context, such as:

- What does the company do?
- What is the specific problem described?
- Who are the main people responsible for the problem?
- Why is the company facing the current situation?
- What do we know about the current company situation? including life cycle, key success factors, value proposition, general financial aspects, and SWOT analysis.
- What are the main competitors? What segments are being affected? Who are the main stakeholders?

After solving these questions, the instructor should be emphatic on identifying the initial problem scribed in step 2 in addition to identifying key factors associated with solutions to such problems and generating a dynamic that manages to describe possible and clear solutions. The instructor needs to create an ambiance critical for students to assume leadership during the discussion.

**Step 2. Defining the problem:** the instructor should have full knowledge of the case, he or she should initiate the discussion with questions focused on the main problem in the case, then continue

with questions aimed at key components and elements of the case, the instructor can utilize the board to be able to write down specific answers and have support through a PowerPoint presentation.

The key questions to guide the discussion should be the following:

- How can the last mile in distribution logistics contribute to the positioning and consolidation of a brand?
- How is the post-sale experience affected in the repurchase decision of the final customer in the retail sector?
- How can logistics contribute to creating value in the customer experience?
- How does a logistics process work in e-commerce?
- How does working with a 3PL or 4PL provider contribute to the overall responsiveness and flexibility of customer service?
- What impact does engagement have on the performance of a logistics team?

After the questions and answers portion of the class, the instructor can deep dive into the general problematic identification, with a next-step approach to analyzing the general essence of the case.

**Step 3. Discussing the case:** In this step, it is important to lead a discussion aimed at solving the general problem and identifying key aspects associated with the case, the instructor should be able to generate a discussion through different questions, that should not be associated with the closed answer but more inclined to answers that polarize the class, causing opinions to arise. Such questions can be supported by the following examples:

- With the conditions associated with the transportation sector in Colombia, what other options could Fernanda propose to her company to reduce delivery times and customer service?
- According to the retail market behaviors in the furniture and decoration sector, how does the warranty of merchandise affect the competitive scenario, including IKEA?
- How to formulate a strategy that finds a middle point between having competitive prices and maintaining high product quality?
- When couriers are limited to a few companies, without a differential model for the final client, what can you do to find leverage with smaller companies to increase local deliveries and quality?

#### **Step 4. Making decisions:**

To set the initial mood for this discussion, the instructor can start directly with general and specific objectives, opening a conversation based on key components and decision-making, the methodology of questions can be used to start a back-and-forth discussion of how the case was solved, and the factors that led to important decisions made during the case. Some of the recommended questions are the following:

- How can the key strategy for DecorHome have an equilibrium between cost-effectiveness and high quality?
- Is the initial strategy for the company thinking in a short, medium or long-term scenario?
- What indicators allow for the furniture and decoration sector help to improve delivery times and quality?
- Do you think that to solve the problems Fernanda faced a large investment was needed?
- What actions do you believe Fernanda should take? Please prioritize the problems DecorHome faced upon Fernanda's arrival. How would she go about solving each of these issues? Would she implement a single solution to tackle all the problems or opt for specific solutions for each one?

- Due to the uncertainty in the Colombian market and the constant change, why do you think strategic planning and mapping would generate efficiency even in an already successful company like Decor Home?
- How would you apply an agile model to the current model, and what impact would it have on cost reduction and buyback?
- What do you consider to be the pros and cons of company growth, due to early improvement in logistics?

#### **Step 5. Implementing decisions:**

This step should be aligned with the decision-making described in the step before focused on the implementation of decisions, here it is important to let the students converse and set opinions, the role of the instructor should be to help conduct the conversation and guide the students to eliminate knowledge gaps and generate initial conclusions. A great way to help support this activity is through questions such as:

- How can a company reinvent ways of working without risking financial results and sacrificing strategic objectives?
- If you were faced with Fernanda's position:
  - Would you try to negotiate with the current carriers to improve the cost and quality of delivery?
  - Would you improve the process of the current carriers?
  - Would you negotiate with one specific carrier or all of them?
  - What would you offer in return to make the negotiation attractive?
- Should Fernanda focus the Supply Chain strategy only on one point of the corporate strategy such as the growth of E-Commerce?
- Given the last mile challenges, what solution would you suggest if you were a board member to significantly impact customer preference for DecorHome?
- What possible solutions could Fernanda and her team had proposed?

#### **Step 6. Closing the case:**

The last stage of this step is aligned with a general closure of the case, it should be centered on lessons learned and takeaways. It is sometimes useful to have a technical and theoretical approach from the instructor in the specific cases where it may be needed. The instructor should transmit assurance and experience in addition to general subject knowledge.

### **Section 4. Case analysis**

#### **Step 1. Defining the challenge:**

The main challenge faced by DecorHome was that the delivery times for the end customer were not competitive in the market and the quality of service at the time of delivery was poor because the transportation companies did not have the proper procedures to make a satisfactory delivery to the end customer, for example leaving the packages at the gate, packages in poor condition, not waiting for the customer for delivery and others.

In addition to this, the cost of freight was not competitive in the market and the quality of delivery was not in line with the cost of the service.

These problems of delivery time and delivery quality generated a high volume of returns, lost products, and opportunities in the repurchase by the customer and all this translated into lost sales and lost net income for the company, its reputation, and positioning.

To get a better understanding of the case and a greater context of the problem, the following are suggested readings to enrich the discussion of the case and the lessons learned from it:

1. Core Curriculum Operations Management SUPPLY CHAIN MANAGEMENT Roy D. Shapiro. Harvard Business, 2013.
2. Value Chains Versus Supply Chains. Andrew Feller, Dr. Dann Shunk, and Dr. Tom Callarman. BPTrends, 2006.
3. "Designing a Crossdocking Network: A Literature Review" de D. B. Simmons et al.
4. Designing and Managing the Supply Chain, 3rd, David Simchi-Levi, Philip Kaminsky, Edith Simchi-Levi, 2007.
5. "Crossdocking: A Literature Review and Insights for the Future" de R. M. Frazelle.

## **Step 2: Understanding the scenario.**

The last mile challenges and Transportation Industry Opportunities Improvement

Making an efficient last-mile distribution in Colombia is a challenge not only logistically but also financially, based on the fact that transportation represents 37% of the logistics cost of the trade sector, and the overall logistics cost represents 12.6% (Exhibit 1), Another challenge in achieving an efficient last mile is the mobility in the hectic metropolitan areas in Colombia, such as Bogota, Medellin, Barranquilla, Pereira, Bucaramanga, Cartagena, and Cali which concentrate approximately 71% of the deliveries as can be seen in (Exhibit 2), the deterioration of the roads in addition to a traffic flow that overpasses the driving capacity can generate 44% of the delays in deliveries (Exhibit 3).

A nationwide analysis shows that the average, in hours spent, for delivery of domestic shipments to rural areas is approximately 72 hours, shipments to departmental capitals take about 40 hours, shipments to Medellin, Cali, Barranquilla, Bucaramanga, and Cartagena take 31 hours, and domestic shipments to Bogota take 27 hours; Regarding domestic shipments, freight forwarders spend an average of 21 hours for shipments to Bogotá; 30 hours for Medellín, Cali, Barranquilla, Cartagena, and Bucaramanga, 27 hours for other departmental capitals and 24 hours for remote rural areas. According to the analytics of Colombia's Ministry of Technologies and Communications (Exhibit 4), this information does not discriminate by type or size of products, including oversize products such as sofas, modular, etc., the average delivery time in major cities can be from 48 to 72 hours locally and nationally from 96 to 120 hours as seen through the benchmarking of purchase pages of competitors such as Falabella, Home Center or Muebles Jamar.

At the same time, as mentioned by Malcolm Gladwell in his book<sup>1</sup> one of the main drivers of the growth of E-commerce is the need for immediacy of the final consumer, and when we talk about immediacy, we have to talk about the transportation industry, but unfortunately in Colombia, especially for the metropolitan areas the efficiency of the logistics chain the transportation industry is directly related to its weakest link, especially for the retail sector to which DecorHome belongs. It is worth noting that more than 43% of the companies outsource their transportation operation (Exhibit 5), making it much more complex to govern the quality of service in deliveries and the loyalty of the fleet to implement training plans and service protocols in line with the company's value promise, additionally, reaching more rural populations was much more complex with transportation companies such as postal operators better known as "paqueteras", which have 76% of the coverage in these areas (Exhibit 6), but are not highly dependent on service quality.

The main objective of these postal operators is to generate deliveries focused on reaching the customer's front door, the customer in turn has the task of moving his/her order and transporting it to its exact desired location, making this extremely difficult and uncomfortable for oversize produce,

---

<sup>1</sup> Blink: The Power of Thinking Without Thinking-Malcolm Gladwell-2013

which is about 80% of the portfolio of DecorHome, creating a transportation model that was not suitable for this operation.

The transportation of (PAQUETERAS) carrier's, market could be considered an oligopoly with only five major companies (Coordinadora (Azules), Envía ( Rojos ), Servientrega (Verdes), DHL-Fedex-Deprisa, Velotax - Interrrapidisimo), some of these with powerhouse support from foreign companies controlling the market.

Another mode of transportation in the furniture and decoration market is "dedicated delivery", with vehicles equipped to go door to door and deliver in a more personalized way to reach the final customer, this mode only has a coverage of about 36% (Exhibit 7), because it is used more heavily for local shipments and destinations such as Bogota-Bogota, Cali-Cali Etc. because the costs of leaving from a main hub to other national destinations would make it very inefficient and costly.

### **Step 3. Identify and evaluate the options:**

For this case 3 possible solutions were presented by Fernanda and her team, although these solutions could be presented separately, they could also be done all at the same time; in this case, the challenge was to find the balance point that would present the best solution at the lowest cost, in the fastest time, generating the least trauma for the company:

#### **1. Increasing the resupply quantities to stores outside Bogota so that when the product was shipped to the final customer it would leave from the nearest destination.**

This solution presented a major challenge in terms of logistics and work for the logistics staff but had great pros such as the following:

##### **Pros**

- Improved stock in existing stores outside of Bogota, thus improving availability without increasing working capital.
- Reduction in delivery times.
- Reduction in the cost of leasing the distribution center in Bogota.

##### **Cons**

- In case the sales forecasts in those cities were not correct, in many cases the product would have to be returned to Bogota or shipped to another city, which would increase costs and the probability of damaging the product during transportation.

#### **2. Decreasing end-customer tariffs by assuming differential operating expenses or product margin.**

##### **Pro**

- This decision would decrease end-customer transportation tariffs and increase customer preference to purchase Decor Home products since the final selling price would decrease, which would generate increased sales.

##### **Cons**

- Since transportation costs would be reduced because DecorHome would assume part of the cost of transportation, this would directly affect the company's profit margins.
- This process requires precision, and any error means an extra cost for the company impacting the profit.

### **3. Implementing a pure Cross-Docking figure, leveraging on the warehouses of Stand-Alone format stores.**

#### **Pros**

- More competitive costs through consolidation of warehouse supply and delivery of products to end customers.
- Reduced delivery time and reduction in damaged products during handling and transportation.
- Improved customer experience in the receipt of goods.

#### **Cons**

- Due to the precision of the Just in time process it does not have contingencies for errors or unexpected situations and is not flexible to them, which causes high costs when facing an unexpected situation in the logistics chain such as damages on the road, mechanical damages in a truck, protests, etc., that would finally cause a severe non-compliance to the customer.

#### **Step 4. Closure**

Then we recommend the teacher use the following methodologies, these methodologies can be used individually and even together to deepen the understanding of the case for the students, the order mentioned below does not imply an order of relevance, they are written as independent ideas but they can be mixed.

1. Group discussion session: The teacher can organize a session in which students are split into small groups to discuss and analyze the solutions proposed by Fernanda and her team. Each group can share their perspectives, identify the strengths and weaknesses of the solutions, and discuss the practical and theoretical issues involved in the decisions made.
2. Moderated discussion: The teacher can pose key questions related to the challenges presented in the case and the proposed solutions. Students can engage in a structured debate, advocating different approaches or alternative solutions. This will help students to critically evaluate the decisions made and develop critical thinking and analytical skills.
3. Cost-benefit analysis: The teacher can ask students to conduct a cost-benefit analysis of the solutions implemented by Fernanda. Students should consider both monetary costs and expected benefits, such as reduced lead times, warranties and transportation costs. This will enable them to evaluate the effectiveness of the solutions and understand how strategic decisions can impact various aspects of supply chain performance.
4. Individual reflection: The teacher can assign each student an individual reflection task in which they critically analyze the case, identify lessons learned as well as propose additional recommendations or alternatives. This will foster students' autonomy and independent thinking, as well as their ability to apply theoretical concepts to practical situations.
5. Group presentations: The teacher may ask students to form groups and prepare presentations on specific topics related to the case, such as agile implementation, strategic supplier alignment or Lean Startup innovation process. Each group can explore the assigned topic in detail, summarize best practices and present additional recommendations.



For a better understanding, learning, and resolution process of this case, it is recommended to consider the following readings:

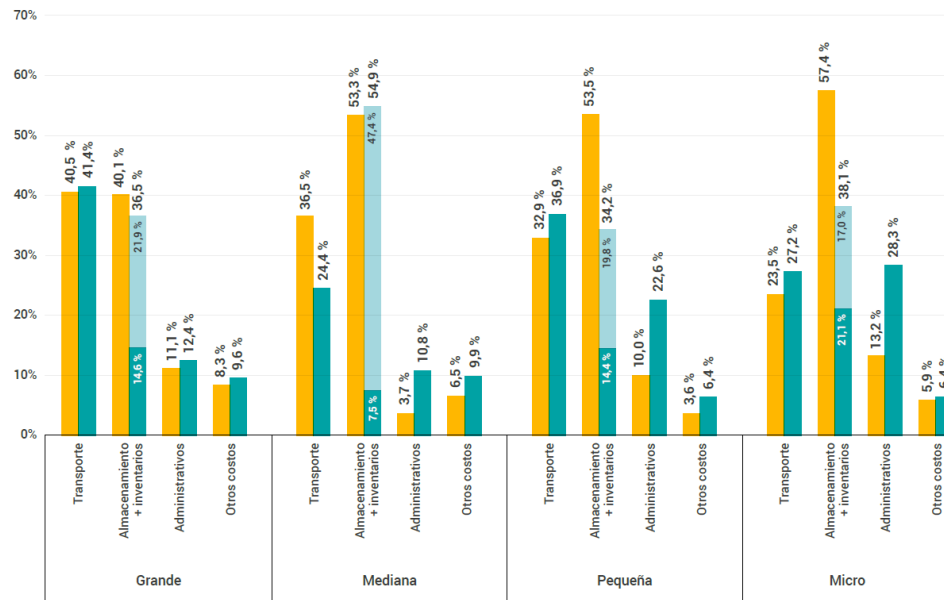
1. "The Last Mile Delivery Challenge: Giving Customers What They Want" by Forbes
2. Last-mile e-commerce significance and challenges in delivery operations By FarEye, October 13, 2022
3. Restructuring of Logistics Processes: Case Study of Cross-Docking Operations at Warehouse AZ1 of Grupo Luís Simões, Maria Silva Pereira, Department of Engineering and Management, Instituto Superior Técnico

## Exhibit 1<sup>2</sup>

Figura 2-5 Componentes del costo logístico por tamaños de empresa

● ENL 2018 ● ENL 2020

Fuente: DNP – ENL 2018 y 2020



## Exhibit 2<sup>3</sup>

Ciudad	Muestreo Entregas	Pareto
Bogotá, D.c.	3.493	37%
Medellín	1.408	15%
Cali	565	6%
Bucaramanga	353	4%
Barranquilla	308	3%
Cartagena De Indias	300	3%
Pereira	238	3%
Envigado	225	2%
Manizalez	217	2%
Armenia	168	2%
Ibagué	166	2%
Rionegro	151	2%
Floridablanca	125	1%
Pasto	105	1%
Yopal	93	1%
Sabaneta	87	1%
Cúcuta	83	1%
Neiva	79	1%
Bello	75	1%
Villavicencio	73	1%
Santa Marta	68	1%
Cajicá	64	1%
Itagüí	59	1%
Sincelejo	53	1%
La Estrella	50	1%
Otros	777	8%
<b>Total general</b>	<b>9.383</b>	<b>100%</b>

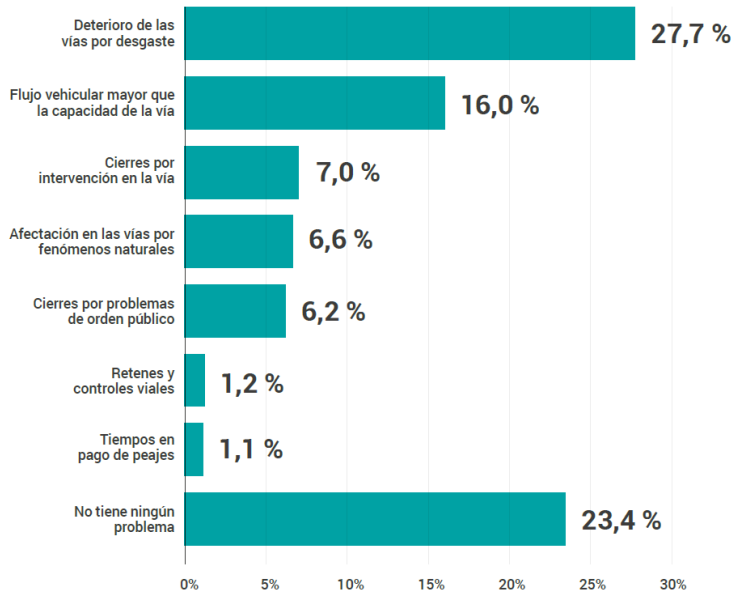
<sup>2</sup> Encuesta Nacional Logística 2020, Departamento Nacional de Planeación, Dirección de Infraestructura y Energía Sostenible, COLOMBIA.

<sup>3</sup> 2023 DecorHome Sources

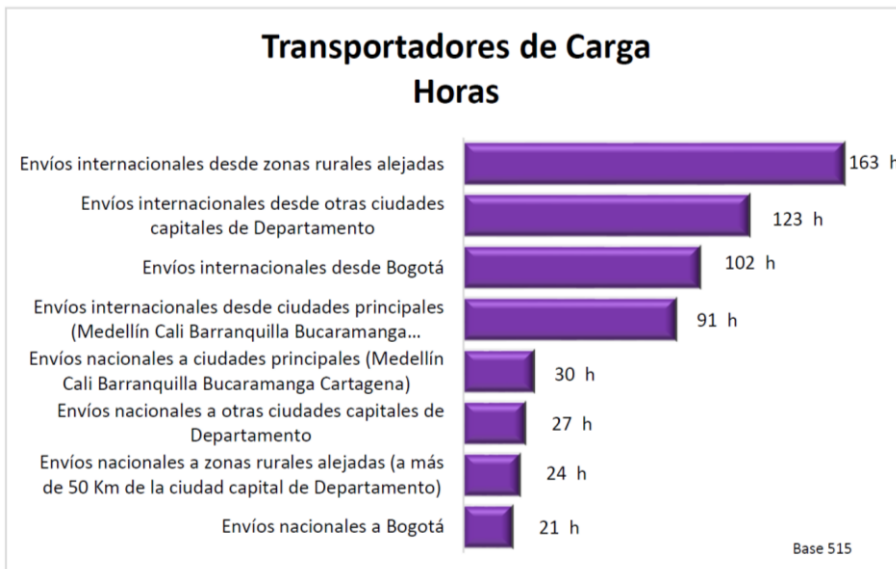
### Exhibit 3<sup>4</sup>

Figura 2-18 Problemáticas que más afectan el nivel de servicio en los trayectos recorridos por las empresas

Fuente: DNP – ENL 2018 y 2020



### Exhibit 4<sup>5</sup>



Fuente: Encuesta logística – última milla (U.T. TelBroad – Interlat)

<sup>4</sup> Encuesta Nacional Logística 2020, Departamento Nacional de Planeación, Dirección de Infraestructura y Energía Sostenible, COLOMBIA.

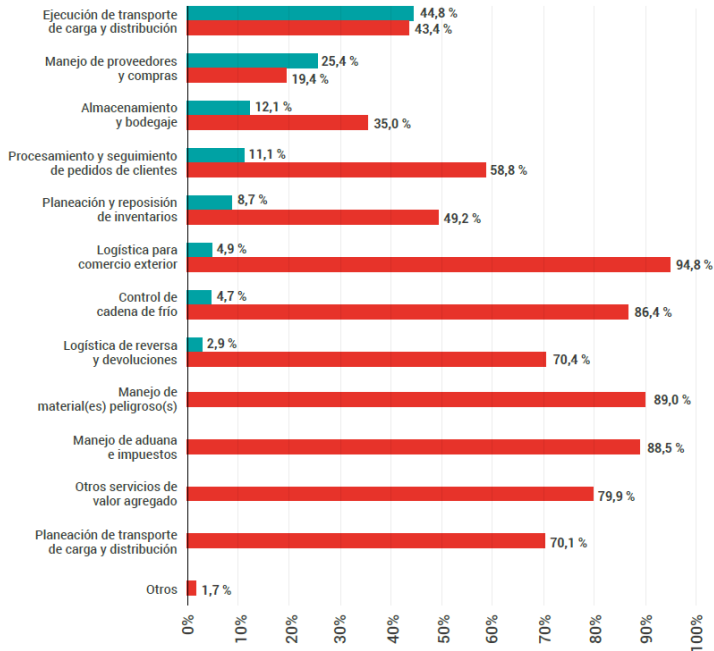
<sup>5</sup> Estudio Sobre Logística Última Milla, Ministerio de Tecnologías de la Información y las Comunicaciones, diciembre de 2021.

## Exhibit 5<sup>6</sup>

Figura 3-1 Porcentaje de empresas que tercerizan servicios logísticos

ENL 2018 ENL 2020

Fuente: DNP – ENL 2018 y 2020



## Exhibit 6<sup>7</sup>

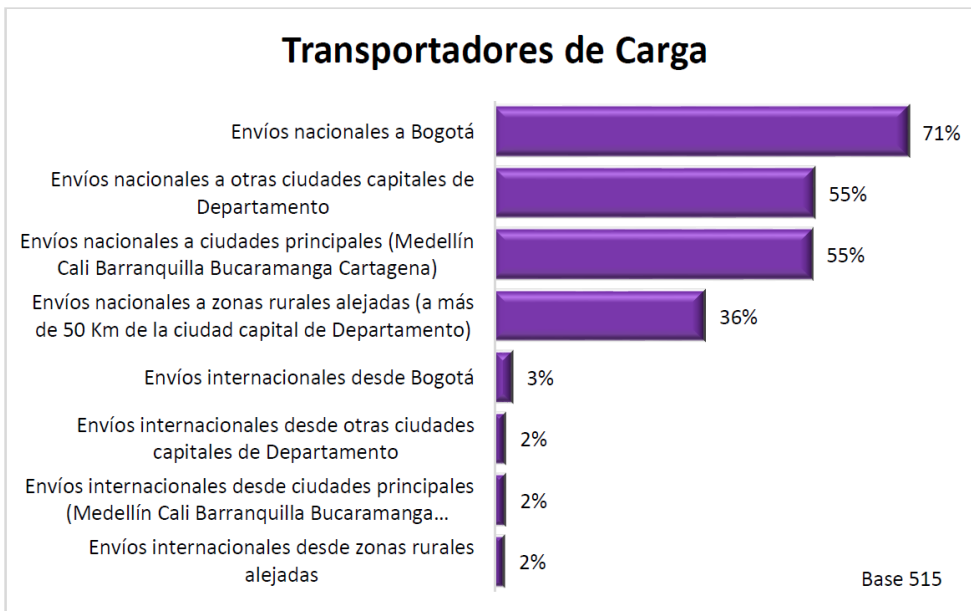


Fuente: Encuesta logística – última milla (U.T. TelBroad – Interlat)

<sup>6</sup> Encuesta Nacional Logística 2020, Departamento Nacional de Planeación, Dirección de Infraestructura y Energía Sostenible, COLOMBIA.

<sup>7</sup> Estudio Sobre Logística Última Milla, Ministerio de Tecnologías de la Información y las Comunicaciones, diciembre de 2021

**Exhibit 7<sup>8</sup>**



Fuente: Encuesta logística – última milla (U.T. TelBroad – Interlat)

<sup>8</sup> Estudio Sobre Logística Última Milla, Ministerio de Tecnologías de la Información y las Comunicaciones, diciembre de 2021.

Fernanda Bernal R

Felix R. Estrada

William A. García

## **Reengineering the last mile to create value for all stakeholders. (A)**

*“How can logistics and distribution networks determine the success of a corporate strategy?”*

*-Fernanda Supply Chain Manager, January 2019, talk with her team*

In 2017 DecorHome SAS one of the top 5 retailers in the furniture decoration sector in Colombia was facing the development of a strategy of growth for the next 3 years, that mainly was based on 2 key points, first E-commerce which accounts for 3% participation in total sales and had the opportunity to get more participation like in the market the average was around of the 17% of de net sales, and secondly a new kind of store with less foot square meters which means more efficient cost. To execute this strategy the company considered that one of the main supports that had to review was the efficiency of the supply chain area, which had three delivery types, a national delivery strategy for national coverage, local home delivery, and an exclusive courier focus on delivery from retail stores to the client's home.

When Fernanda Bernal joined DecorHome in 2017, a furniture and home accessories retail company [after coming from a massive consumption retail business, as a logistics and operations manager, she never anticipated that such a renowned company in Colombia had a delivery promise that was not competitive in the furniture and accessory market. Two weeks after her onboarding in DecorHome, Fernanda identified One of the bigger opportunities for improvement in the delivery type associated with E-Commerce due to all processes of logistic post-sales being inefficient, which was related to the late deliveries due to oversize packages being left last in route, misuse and poor handling of packages resulting in damages to merchandise, lost and difficulties in package handling by clients due to these being left in entrances of their gated communities in addition to high transportation costs for clients associated with charges linked to volume of packages instead of trajectories or standard fees.

### **Furniture Decoration Sector and Decorhome.**

DecorHome is a company in the Colombian furniture and home accessories sector, with more than 20 years of experience providing furniture and decoration products for home and office use, currently comprised a team of 450 collaborators, with a presence in Colombia's main cities through its 14 flagship stores and E-commerce, with annual sales of 33 million dollars, and has had a main distribution center (CEDI) in the municipality of Funza, in the department of Cundinamarca, 24.8 km from the city of Bogota, this municipality is responsible for the location of more than 80% of the main logistics parks in Colombia, where 90% of the massive dispatches of trade in general originate and had a promise of delivery to the final customer with a time above the market average (120 hours Local and 240 hours National), in addition the level of compliance with this promise was 75.6% (Exhibit 1).

In 1995 three visionaries wanted to bring a high-quality design experience to the furniture sector, so they decided to seek business opportunities in our neighboring country Venezuela, where they founded HomeFurniture Venezuela. After six years of operations, the business was reengineered with the administrative management of the current president of the board of DecorHome Colombia, to expand and create a new brand that would have unique qualities in the market and that would facilitate penetration in Colombia. Thus, DecorHome was founded on July 20, 2002, in Bogota. In this shopping environment, the customer could have a shopping experience through the senses, with a proposal of design and quality according to the trends of the world, at a fair price, and best of all, with immediate availability. Aligned with this value proposition, the company defined a business mission: "Surprise our customers with an integral proposal of interior design, with accessible products, contemporary design, and a high dose of innovation".

The Covid-19 pandemic also had a huge impact on the furniture and home décor market, increasing the volume of sales associated with people of all cultures taking refuge in their homes, triggered by the very essence of survival, regardless of generations and backgrounds; this exponentially triggered the mass consumption of new home furniture, focused on supplying unmet needs, such as desks, office chairs for home office and educational scenarios, more comfortable spaces of terraces, family rooms, etc.

The above conditions and factors positioned DecorHome in a place of opportunity for market growth, mainly in E-commerce (Exhibit 2). In addition to market development, the growth in disposable income among the urban population is driving the home furnishing industry, where consumers are now willing to pay for premium products at a cost proportionate to quality and service. This furniture and décor boom described not only positively impacted DecorHome, but also impacted its competitors, including Homecenter, Falabella, Jamar, and Muebles y Accesorios among others.

By 2021 the company's transportation expense budget represented 0.83% of net sales and represented the third most significant cost item after payroll and warehousing costs. Since 2017 the transportation line item had grown at an average annual rate of 32%, not considering the outlier year of 2020 (Exhibit 3). This confirms that transportation and the supply network in general play a determining role in profit margins, competitiveness, and continuity for companies in the sector.

It is worth mentioning that furniture and home decor had become a necessity to consumers, mainly because families are becoming smaller and composed of various profiles including young students, travelers, and citizens of the world who frequently changed their furniture based primarily on market trends or spaces adaptable to specific needs, including home office and others. The biggest threat to all competitors in this industry is IKEA (Swedish multinational) which is the number one player worldwide in the furniture and home decoration sector announced its entry into the Colombian market, not only increasing the competitive market in the aspect of price and product portfolio but also after-sales service including but not limited to the last mile.

### ***The last mile challenges and Transportation Industry Opportunities Improvement***

Making an efficient last-mile distribution in Colombia is a challenge not only logistically but also financially, based on the fact that transportation represents 37% of the logistics cost of the trade sector, and the overall logistics cost represents 12.6% (Exhibit 4). Another challenge in achieving an efficient last mile is the mobility in the hectic metropolitan areas in Colombia, such as Bogota, Medellin, Barranquilla, Pereira, Bucaramanga, Cartagena, and Cali which concentrate approximately 71% of the deliveries as can be seen in (Exhibit 5), the deterioration of the roads in addition to a traffic flow that overpasses the driving capacity can generate 44% of the delays in deliveries (Exhibit 6).

A nationwide analysis shows that the average, in hours spent, for delivery of domestic shipments to rural areas is approximately 72 hours, shipments to departmental capitals take about 40 hours, shipments to Medellin, Cali, Barranquilla, Bucaramanga, and Cartagena take 31 hours, and domestic shipments to Bogota take 27 hours.

Regarding domestic shipments, freight forwarders spend an average of 21 hours for shipments to Bogotá; 30 hours for Medellin, Cali, Barranquilla, Cartagena, and Bucaramanga, 27 hours for other

departmental capitals, and 24 hours for remote rural areas. According to the analytics of Colombia's Ministry of Technologies and Communications (Exhibit 7), this information does not discriminate by type or size of products, including oversized products such as sofas, modular, etc., the average delivery time in major cities can be from 48 to 72 hours locally and nationally from 96 to 120 hours as seen through the benchmarking of purchase pages of competitors such as Falabella, Homecenter or Muebles Jamar.

On the other hand, one of the main drivers of the growth of E-commerce is the need for immediacy of the final consumer, and when we talk about immediacy we have to talk about the transportation industry, but unfortunately in Colombia, especially for the metropolitan areas the efficiency of the logistics chain the transportation industry is directly related to its weakest link, especially for the retail sector to which DecorHome belongs. It is worth noting that more than 43% of the companies outsource their transportation operation (Exhibit 8), making it much more complex to govern the quality of service in deliveries and the loyalty of the fleet to implement training plans and service protocols in line with the company's value promise.

Additionally, reaching more rural populations was much more complex with transportation companies such as postal operators better known as "paqueteras", which have 76% of the coverage in these areas (Exhibit 9), but are not highly dependent on service quality. It is worth mentioning that this carrier sector ( Paqueteras) could be considered an oligopoly with only five leading companies (Coordinadora (Azules), Envía ( Rojos ), Servientrega (Verdes), DHL-Fedex-Deprisa, Velotax - Interrapidísimo), some of these with powerhouse support from foreign companies controlling the market. The main objective of these carriers is to generate deliveries focused on reaching the customer's front door, the customer, in turn, has the task of moving his/her order and transporting it to its exact desired location, making this extremely difficult and uncomfortable for oversized produce, which is about 80% of the portfolio of DecorHome, creating a transportation model that was not suitable for this operation.

Another mode of transportation in the furniture and decoration market is "dedicated delivery", with vehicles equipped to go door to door and deliver in a more personalized way to reach the final customer, this mode only has a coverage of about 36% (Exhibit 10), because it is used more heavily for local shipments and destinations such as Bogota-Bogota, Cali-Cali Etc. because the costs of leaving from a main hub to other national destinations would make it very inefficient and costly.

### ***The challenge of making the last mile more competitive***

Fernanda had a great challenge at hand, with a clear need to shorten delivery times, but at the same time be efficient in the costs associated with logistics, focused on having competitive customer transportation rates. Due to extensive market analysis, she was able to identify an added value that would mark a difference for the DecorHome strategy. This was aligned with ensuring the fulfillment of the strategy focused on E-commerce, which led her to evaluate the impact of efficiencies in time, costs, and distribution networks, so that she could achieve a greater competitive advantage in the market through a differentiation in the entire process of CX (customer experience) logistics, both in terms of price and quality and thus achieve the preference of consumers.

In the search for tools that would allow her to achieve her objectives, Fernanda had the opportunity to have access to a study conducted by Oracle<sup>9</sup> in the retail and E-commerce segment regarding what consumers expect, more than 53% of them stated that their decision to repurchase a brand or establishment depends on the speed with which it delivers, which led her to question much more about where she should focus her management plans.

By the end of 2018, Fernanda made her respective tour of all the DecorHome stores, starting with the large format stores such as the stand-alone stores located in the main cities of Colombia; the company had 8 stand-alone format stores, of which, two were located in Cali, two in Medellín and one in Barranquilla, apart from the 3 mall stores that had just opened when Fernanda was on tour.

---

<sup>9</sup> <https://www.oracle.com/co/news/announcement/retail-holiday-consumer-research-2022-10-26/>



During her visits to one of the stores in Medellin, Fernanda witnessed a customer who purchased the E-commerce channel, and was very displeased with the delivery times the company offered; this customer was requesting not only to be refunded for the money paid for final transportation but to have the product picked up immediately not only due to extremely late delivery but also associated with a terrible product condition. The Client approached Fernanda and described the problem related to the product (sofa) delivery, (with an estimated price of 4 million Colombian pesos, equivalent to 833 USD), which had an initial delivery time of approximately 15 days, that was in addition left on his front door.

The customer was obligated to carry the sofa up to the fifth floor of his apartment, thanks to the help of the building's security team, because it did not fit in the elevator. After the order was delivered to the customer's apartment and later after removed by the company, he realized that it had sustained damage to one of the sides of the armrests; this damage was probably caused by the transportation company, as it looked like the product had been dragged through a rough surface such as asphalt.

Fernanda, who was witnessing the event unfold, decided to return the money to the customer, instructed her logistics team to immediately pick up the damaged sofa, and apologized personally to the customer. This event left Fernanda quite perplexed, because if this was a random case that she happened to witness. What else could be happening, and what other cases were unfolding without her being able to detect them?

She immediately asked her team for the company's data related to deliveries, noticing that the main reason for returns was associated with damage or complaints linked to transportation. Regarding calls, the main reason was customers asking for the location of their orders (Exhibit 11). Upon Fernanda's return to the main offices in Bogota, she met with her team, including Logistics Analyst Juan Camilo Cardona, where she proceeded to a session of outdoor and across brainstorming methodology, and focused on finding ideas that will lead to improving the customer experience at the highest level.

The team led by Fernanda was composed of 6 people, among which there was a diversity of gender, cultures, and professions, with engineers, administrators, economists, and professionals in foreign trade, but none of them had specific or robust knowledge of the transportation industry or E-commerce. Fortunately, by the beginning of 2018, Fernanda had implemented the talent management methodology aligned with the company's strategy, through which she had very mapped the skills of each of her collaborators and how to raise the performance of her team, this very leveraged the concept and methodology of talent management of SERVANT LIDER<sup>10</sup> this allowed her team to have necessary engagement aligned with their goals and those of the company, to address the challenges they faced as an area and as a structural part of the company's strategy.

Finally, after several working sessions based on a Lean Start-up<sup>11</sup> innovation methodology, which is based on the proposal of several ideas and testing as soon as possible with the minimum viable processes or prototypes so that actions can be taken to improve the plan to have the best version of the final proposal. Fernanda and her team identified several proposals that were duly structured and supported in their feasibility to present to DecorHome's board of directors.

### **What's next?**

Fernanda had before her the great challenge of leading the company to raise the level of service competitively, the retail and home décor industry landscape had changed after COVID 19 and a strategy that could be disruptive and agile to implement was required; Should Fernanda focus the Supply Chain strategy only on one of the points of the corporate strategy such as the growth of E-commerce? or have to redefine all strategy from scratch

---




<sup>10</sup> Copyright © 1998 James C. Hunter, The Servant

<sup>11</sup> Copyright © 2011 Eric Ries, The Lean Startup: How Today's Entrepreneurs Use Continuous Innovation to Create Radically Successful Businesses

## Exhibit 1<sup>12</sup>

**Tabla 2-3 Índice de calidad en logística por actividades económicas**

Fuente: DNP – ENL 2018 y 2020

		Pedidos sin daños	Pedidos completos en cantidad	Pedidos con documentación perfecta	Pedidos a tiempo	Pedido perfecto
 <b>Promedio nacional</b>	ENL 2020	92,5 %	93,7 %	90,2 %	95,4 %	74,6 %
	ENL 2018	93,6 %	94,7 %	94,1 %	90,4 %	75,4 %
 <b>Agropecuaria</b>	ENL 2020	91,0 %	92,3 %	93,0 %	90,1 %	70,3 %
	ENL 2018	90,7 %	96,9 %	96,5 %	96,5 %	79,8 %
 <b>Comercio</b>	ENL 2020	92,7 %	93,4 %	96,4 %	90,5 %	75,6 %
	ENL 2018	93,5 %	94,3 %	89,7 %	89,7 %	74,3 %

## Exhibit 2<sup>13</sup>

Año	2017	2018	2019	2020	2021	2022
Sales E-commerce	5.297.728.854	6.615.569.689	9.261.797.564	25.232.970.070	19.401.523.354	17.852.770.960
Net Sales Company	90.339.565.869	98.648.003.536	115.567.930.133	90.788.926.971	146.124.576.364	151.388.579.050
% Web	5,9%	6,7%	8,0%	27,8%	13,3%	11,8%
Year variation		25%	40%	172%	-23%	-8%

## Exhibit 3<sup>14</sup>

	2017	2019	2020	2021
Transportation Cost	5.502.567.789	7.613.073.391	7.796.695.206	9.801.987.160
Variation		38%	2%	26%

<sup>12</sup>Copyright © 2020, Encuesta Nacional Logística 2020, Departamento Nacional de Planeación, Dirección de Infraestructura y Energía Sostenible, COLOMBIA.

<sup>13</sup> 2023 DecorHome Sources

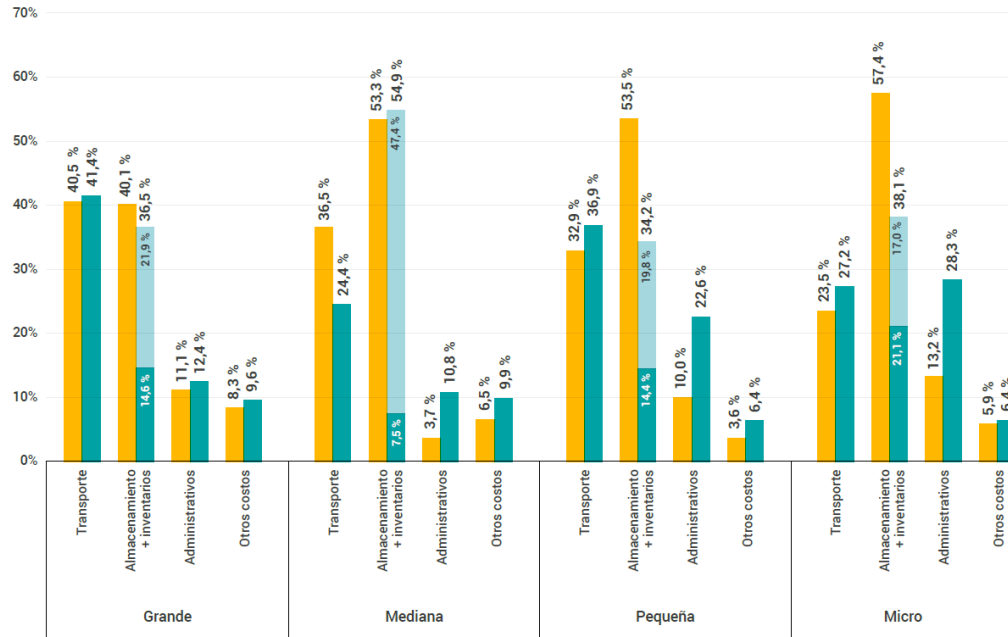
<sup>14</sup> 2023 DecorHome Sources

## Exhibit 4<sup>15</sup>

Figura 2-5 Componentes del costo logístico por tamaños de empresa

● ENL 2018 ● ENL 2020

Fuente: DNP – ENL 2018 y 2020



## Exhibit 5<sup>16</sup>

Ciudad	Muestreo Entregas	Pareto
Bogotá, D.c.	3.493	37%
Medellín	1.408	15%
Cali	565	6%
Bucaramanga	353	4%
Barranquilla	308	3%
Cartagena De Indias	300	3%
Pereira	238	3%
Envigado	225	2%
Manizales	217	2%
Armenia	168	2%
Ibagué	166	2%
Rionegro	151	2%
Floridablanca	125	1%
Pasto	105	1%
Yopal	93	1%
Sabaneta	87	1%
Cúcuta	83	1%
Neiva	79	1%
Bello	75	1%
Villavicencio	73	1%
Santa Marta	68	1%
Cajicá	64	1%
Itagüí	59	1%
Sincelejo	53	1%
La Estrella	50	1%
Otros	777	8%
<b>Total general</b>	<b>9.383</b>	<b>100%</b>

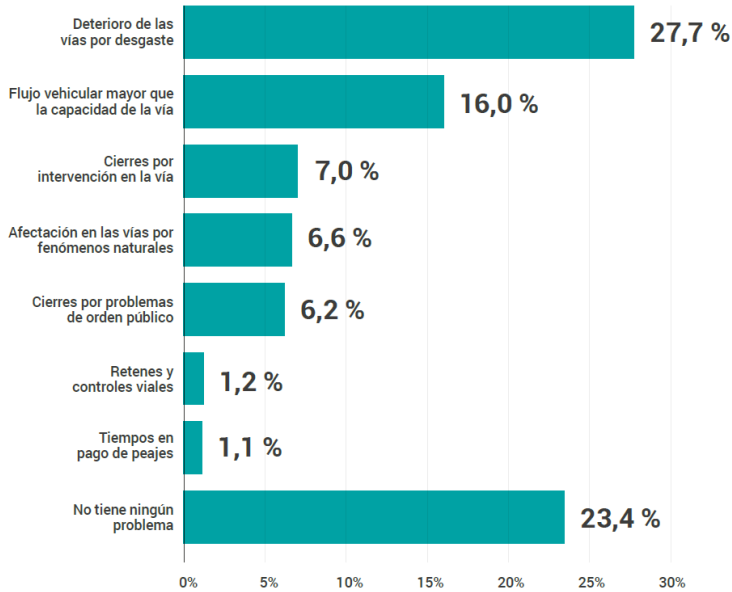
<sup>15</sup> Encuesta Nacional Logística 2020, Departamento Nacional de Planeación, Dirección de Infraestructura y Energía Sostenible, COLOMBIA.

<sup>16</sup> 2023 DecorHome Sources

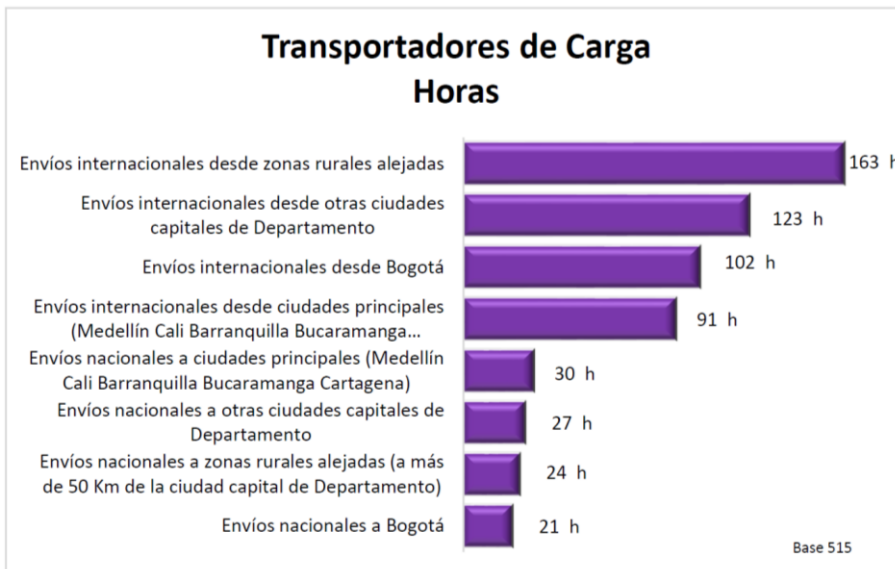
## Exhibit 6<sup>17</sup>

Figura 2-18 Problemáticas que más afectan el nivel de servicio en los trayectos recorridos por las empresas

Fuente: DNP – ENL 2018 y 2020



## Exhibit 7<sup>18</sup>



Fuente: Encuesta logística – última milla (U.T. TelBroad – Interlat)

<sup>17</sup> Encuesta Nacional Logística 2020, Departamento Nacional de Planeación, Dirección de Infraestructura y Energía Sostenible, COLOMBIA.

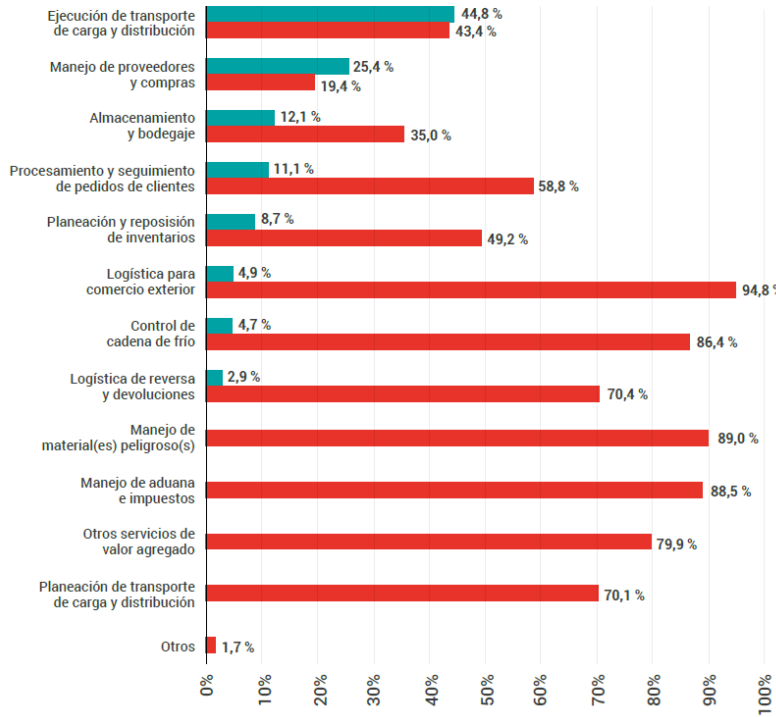
<sup>18</sup> Estudio Sobre Logística Última Milla, Ministerio de Tecnologías de la Información y las Comunicaciones, diciembre de 2021

## Exhibit 8<sup>19</sup>

Figura 3-1 Porcentaje de empresas que tercerizan servicios logísticos

ENL 2018 ENL 2020

Fuente: DNP – ENL 2018 y 2020



## Exhibit 9<sup>20</sup>

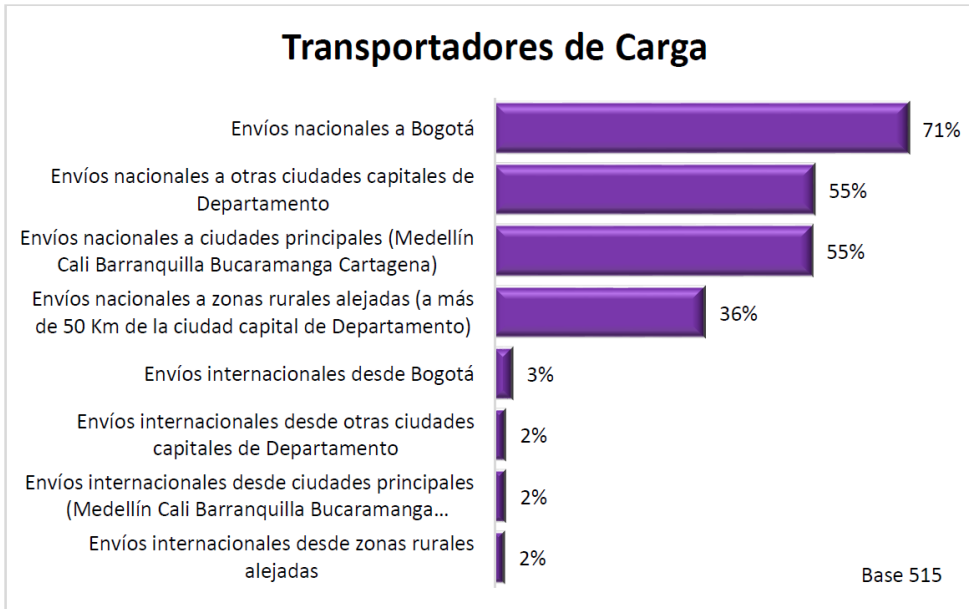


Fuente: Encuesta logística – última milla (U.T. TelBroad – Interlat)

<sup>19</sup> Encuesta Nacional Logística 2020, Departamento Nacional de Planeación, Dirección de Infraestructura y Energía Sostenible, COLOMBIA.

<sup>20</sup> Estudio Sobre Logística Última Milla, Ministerio de Tecnologías de la Información y las Comunicaciones, diciembre de 2021

**Exhibit 10<sup>21</sup>**



Fuente: Encuesta logística – última milla (U.T. TelBroad – Interlat)

**Exhibit 11<sup>22</sup>**

Tipo de tarea	Acumulado 2018	Acumulado 2019	Variación
Garantía	1409	1512	7%
Incumplimiento	183	184	1%
Transporte	102	153	50%
Otros Servicios	502	1010	101%
Quejas por mal servicio	242	531	119%
<b>Total</b>	<b>2438</b>	<b>3390</b>	<b>39%</b>

<sup>21</sup> Estudio Sobre Logística Última Milla, Ministerio de Tecnologías de la Información y las Comunicaciones, diciembre de 2021

<sup>22</sup> 2023 DecorHome Sources

Fernanda Bernal R

Felix R. Estrada

William A. García

## **Reengineering the last mile to create value for all stakeholders. (B)**

### ***The problems and proposals***

The main problems which directly affected the quality of CX LOGISTICS that Fernanda had identified were:

1. High returns due to transportation damages
2. Delivery times to cities other than Bogota of up to 15 days of waiting time.
3. High freight rates online, that were not competitive with the market.

After Fernanda and her team finished the Ideation phase, this was the result that was obtained:

1. Increasing the resupply quantities to stores outside Bogotá so that when the product was shipped to the final customer it would leave from the nearest destination.
2. Decreasing end-customer tariffs by assuming differential operating expenses or product margin.
3. Implementing a pure Cross-Docking figure, leveraging on the warehouses of Stand-Alone format stores.

After careful consideration and team deliberation, a rate reduction was ruled out since the company could not sacrifice EBITA, so a decision was made to increase the inventory policy and to have more immediately available products for end customers in all regions, and at the same time, another decision was made to make a “pilot strategy” in the city of Medellin, since it was the second largest city associated with several deliveries dispatched directly from Bogota.

### ***The competitive advantage of Cross-Docking (piloting an idea)***

Fernanda called her logistics partner Andres Coronado, the account manager of the home delivery carrier (as Door-to-Door transportation delivery companies are called), and told him about this idea, which could also increase the volume of participation in the distribution of cargo that they were currently maneuvering; the rules were simple -there could not be a price increase in the delivery rates to the customers, and the first-mile freight or better from the distribution center (CEDI) to the platform in Medellin (Bodega Alone stand in Medellin) should be more competitive than the current supplier in that road corridor.

After analysis and careful consideration, Andres agreed to the new model, designing a process flow chart (Exhibit 1) between the two work teams (DecorHome Logistics Team and the Transport Company's team).

At the end of 2019, the success of the Medellin pilot quickly transformed it into the company's last-mile distribution model, generating an average initial delivery decrease of 96 to 48 hours, a reduction of 50%, there was also an impact in the reduction of immediate warranties associated with bumps and tears and a decrease in calls from customers asking about the status of the product and a reduction in transportation costs of 29% (Exhibit 2).

Fernanda was very pleased by the results of her delivery model and was on track to expand in other regions, up until the Pandemic of Covid-19 impacted the world, leaving her expansion to the region of Cali and Barranquilla at a standstill. This global pandemic greatly impacted the closure of physical stores and limited customer interactions, these left managers questioning how they were going to stay afloat. This huge threat was an opportunity in disguise for e-commerce, which quickly became the perfect sales platform when the home office was on a surge, customers required desks, and ergonomic chairs to work from home, furniture to put the televisions that were not previously in use, etc.

It was then that the project became more relevant since all the stores of the stand-alone format became logistics platforms to perform Cross-Docking, making costs efficient and optimizing delivery times, and delivering a greater value proposition to the end customer in terms of quality of service and competitiveness of freight rates.

Innovation can be considered a risky activity, nevertheless, the DecorHome case put a spotlight on the idea that sometimes the risk is worth taking, Fernanda during her time at the company and even at the initial onboarding, had the mindset that Innovation does not always mean creating new products, but can be accomplished through better, faster, more profitable and higher quality processes, without necessarily investing huge amounts of money.

The process of innovating in this case can be perceived as arduous and painstaking, Fernanda's Leverage was to be able to think in a disruptive way, this was a key piece of the strategy, and as mentioned above, the carrier transportation sector is very challenging to manage competitively., Given this situation Fernanda sought out a strategy where her purpose was to think outside the box, paving the way for improvements in service, time reduction, and profitability of DecorHome.

### **Final comments**

While the proposal to implement a Crossdocking platform was very successful in the case of DECORHOME, the opportunities for efficiencies and for raising the level of customer service remained important and were still on the table, which invites to question whether Fernanda should have explored the second option so that customers would perceive more added value in relation to differentiation of shipping costs for example, or whether the feasibility of locating more logistics platforms in more areas of the country, through logistics operators such as 3PLs, could be studied, or whether the operational capacity of the main distribution center should be expanded and strengthened in order to centralize all dispatches from a single location.



Exhibit 1<sup>23</sup>

ENTREGA DE PEDIDOS LOC REGIONAL MEDELLIN

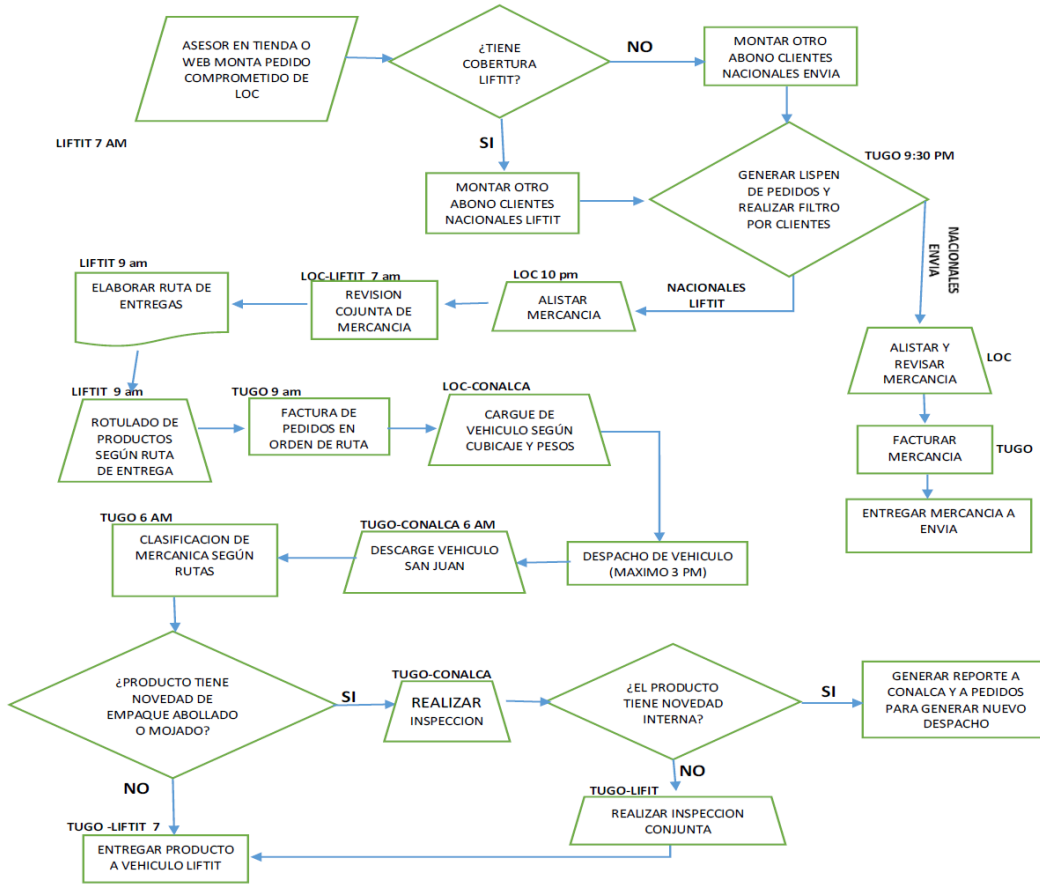


Exhibit 2<sup>24</sup>

	4/02/2019	5/02/2019	6/02/2019	7/02/2019	8/02/2019	9/02/2019	10/02/2019	11/02/2019	12/02/2019	13/02/2019	Acumulado
FLETE PAQUETERA	788.268	\$ 1.385.285	\$ 1.239.752	\$ 1.003.944	\$ 1.584.110	\$ 1.399.776	\$ 1.765.097	\$ 1.476.664	\$ 1.555.148	937.158	\$ 13.135.203
FLETE POR CROSS-DOCKING	\$ 566.129	\$ 905.806	\$ 830.323	\$ 603.871	\$ 1.170.000	\$ 1.170.000	\$ 1.170.000	\$ 1.170.000	\$ 1.170.000	\$ 603.871	\$ 9.360.000
AHORRO O PERDIDA	\$ 222.139	\$ 479.479	\$ 409.429	\$ 400.073	\$ 414.110	\$ 229.776	\$ 595.097	\$ 306.664	\$ 385.148	\$ 333.287	\$ 3.775.203
% AHORRO	-28%	-35%	-33%	-40%	-26%	-16%	-34%	-21%	-25%	-36%	-29%

<sup>23</sup> 2023 DecorHome Sources

<sup>24</sup> 2023 DecorHome Sources