Characterization Of Domiciliaries In The Border Context

Marvin Vladimir Dávila Perez ¹, Nelson Javier Cely Calixto ², Javier Alfonso Cárdenas Gutiérrez ³

¹ Faculty of Business Sciences, Francisco de Paula Santander University Cúcuta, Colombia, https://orcid.org/0000-0002-6935-2413
² Faculty of Engineering, Francisco de Paula Santander University Cúcuta, Colombia, https://orcid.org/0000-0002-2083-6978
³ Faculty of Engineering, Francisco de Paula Santander University Cúcuta, Colombia, https://orcid: 0000-0002-9894-0177

Abstract

the delivery of last mile, or known What home delivery, is the delivery that is made in the last stage of the supply chain, where according to literature this is the process logistic plus expensive, less efficient and to which more attention is given in terms logistic. Already what should be deliver the product correct, in the place Right in the moment correct, for this is that they exist companies specialized in deliveries, express calls, courier companies or home delivery companies for the local context of the city San José de Cúcuta, the investigation was framed in a border context, where the methodology is based in the quantitative descriptive since the variables chosen in the Present study were quantified and characterized to address and know the context that is lived about delivery in the city.

Keywords: Delivery, Management logistics, characterization, border

Introduction

At the supply chain level, the delivery of the last mile, which is the terminal transportation in the shipment of products and merchandise, is the component plus expensive, more polluting and less efficient of everything the process logistic (Balcik, Beamon, & Smilowitz, 2008; Cárdenas, Beckers, & Vanelslander, 2017; Dablanc, Rouhier, & Lazarevic, 2018; Kiba-Janiak, 2017; Zheng, Morimoto, & Murayama, 2020), since is phase is considered the most crucial and difficult to control in the Commerce electronic since it requires that the delivery of the _ products correct in the place correct and in the moment correct; it is for that many _ trading companies _ mail and express companies consider that the delivery systems _ effective are a advantage competitive essential (Zheng et al., 2020), for which they have decided implement new solutions to _ problems mentioned above, so that it is addressed the bottlenecks _ _ wearing approaches as collection points for packages to neighboring homes, community _ guards, small shops, among others, providing the customers a flexible, convenient and comfortable way to receive packages; highlighting so the last mile is the final leg of a business-to-consumer delivery service through which the shipment is delivered to the recipient in the address of the addressee or a pickup. (Dablanc et al., 2018)

In Colombia they are very few companies that contextualize the international market and remain in the time, that is; predominate more companies _ medium and small (SMEs), because of the companies
constituted legally they are 95% are SMEs, most of them do not have labor Qualified, suitable personnel, administrators unaware, inadequate planning, unstructured processes and lack of direction strategy (Aristizábal, 2016), many of these companies are those of addresses, which they have grown up in the last years (Cárdenas et al., 2017) and has become in a new alternative in the cities of the country, so much so, that in the sector of restaurants and food chains, that given the impossibility of serving their customers in their spaces physical they have had to raid or strengthen their address channel (Bernal, 2020).

In addition, Adriana Bautista, administrator of Serviya Addresses, indicated that the products plus requested have been basic food basket and products pharmacists, emphasizing that home deliveries were up by 80% (Sifontes, 2020). This affirmation confirms that currently the sector is in increase latent and therefore becomes object of study for organization and not improvise the supplies, for this chains allied with companies As stated by "Geily Ocampo, manager of the Los Montes Supermarket, assured that the demand for homes it grew so much that they had to partner with Cúcuta Express to respond to the demand" (Sifontes, 2020).

as the large food suppliers, pharmacists, food, among others, need these services is done important achieve locate the domiciliary, since for organizations "The location is considered a variable of great importance strategic in distribution commercial" (García, 1999) That is why if it is about the need to have multiple locations or facilities, you must to do use of calculation models as is he method of the center of gravity or centroid (Ballou, 2004, p. 563), for such reason is that they must implement techniques efficient that seek maximize the productivity and effectiveness of order delivery to satisfy each of your customers (Vargas & Rife, 2015).

For the previous reasons described, the initiative is taken to search for solutions efficient since after the review it was not found literature describing how are you the sector and the messaging system in the city; for which it is proposed to make a diagnosis on the operation of said system and the development of a location system for delivery in the city of San José de Cúcuta through engineering techniques.

Method

According to the type of research chosen influences in which one investigation begins What exploratory, descriptive, correlational or explanatory: the state of knowledge in the research topic revealed by the review of the literature and the approach than the investigator pretend give her study (Hernández Sampieri, Fernández Collado, & Baptista Lucio, 1997).

Having in bill the objectives raised for the Present work, research will be of type descriptive, given that "the studies descriptive looking for specify the properties important people, groups, communities or any other phenomenon whatever submitted to analysis" (Hernández Sampieri et al., 1997), within what is mentioned What scope is specified as described the problem to propose a solution that suits the system.

Population and sample

The population is the group that encompasses everyone the items whose characteristic or characteristics that are intended study: said of another way, is the entire set to which we want describe or what is needed establish conclusions (Salazar & Del Castillo, 2018), the which it will be the homes that are scattered throughout the city as well as know the exact number of households make part of the characterization and diagnosis, it will not be considered a show initial for the investigation, this will be calculated during the development of the proposal.
**Instruments or techniques for collecting information.**

Primary sources. As source primary will be collected information directly from the source with surveys closed, you are will be applied a companies, users and homes that have incidence in the system. In East case, the means used to collect the information for this project and their respective analysis was the interview which is defined as "an technique based in a dialogue or conversation "face to face”, between the interviewer and the interviewed about a topic previously determined, so way that the interviewer can get the information required” (Arias, 2012, p. 73), which was made to the system actors, that is the domiciliary, since the officials of these Business They stated that they could not to share information of the services that are performed in the city to carry out the project. **Secondary sources.** will have in bill entity reports government, reports found on subscription basis supplied by the Eduardo Cote Lamus Library, as well as papers that provide information about the object of study of the present work; In addition, it was consulted information relevant addresses in the city and establishments to which which ones come to perform these services, consulted in web pages, repositories institutional, databases scientific, projects that have been done related to the subject and books on logistics and macro location relevant to the problem of the project.

Instruments. for the development of the information gathering was used the interview, which was made to some addresses of the companies in the city, which allowed know the panorama of the system and said actors

**Information analysis.**

For the data analysis will be used the Microsoft Excel 2019 program, which is the program to tabulate and perform the treatment of information for your respective analysis, it is also necessary use the Google Maps tool, to raise the maps that are necessary and georeference station points and possible sensitive order points.

**Analysis of research information**

In the investigation, a diagnosis was made of the current situation of the activity of the domiciliary in the city of San José de Cúcuta through the information supplied by the Secretary of Health of the city San José de Cúcuta, which was obtained through characterization that said organism performed a beginnings of the Covid 19 pandemic, to grant permissions circulation specials in the city

Number of households in the city. From the information supplied by the Ministry of Health, a count of the companies was carried out registered in the city, which were classified and quantified as shown in table 2.

**Table 1. Companies homes in the city of Cúcuta**

<table>
<thead>
<tr>
<th>Name Company Name</th>
<th>domiciliary</th>
<th>operators</th>
</tr>
</thead>
<tbody>
<tr>
<td>I already served homes</td>
<td>77</td>
<td>5</td>
</tr>
<tr>
<td>Maya Addresses New Company</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Express addresses Avenida</td>
<td>30</td>
<td>3</td>
</tr>
<tr>
<td>ATH Address Delivery amount</td>
<td>30</td>
<td>2</td>
</tr>
<tr>
<td>ABC express addresses</td>
<td>twenty</td>
<td>1</td>
</tr>
<tr>
<td>Home deliveries, insurance</td>
<td>12</td>
<td>1</td>
</tr>
<tr>
<td>Homes Torcoroma</td>
<td>12</td>
<td>1</td>
</tr>
<tr>
<td>Golden service Cúcuta express</td>
<td>70</td>
<td></td>
</tr>
</tbody>
</table>
A total of 23 companies with 636 homes attached to the different companies were found according to the documented and analyzed information, in addition, you can see those that have operators for better customer service, also, 3 companies stand out that have a greater number or equal to 70 homes at your service, which are Servi Ya, golden service Cúcuta express and homes Angel as shown in figure 1.

**Figure 1. Companies homes in the city of Cúcuta**

Additional can be show that approximately 50% of the residences in the city are linked to only 4 companies, which shows the positioning of certain delivery companies in the city.
Figure 4. Residential locations

Orders. According to the testimony of the staff interviewed there is a great variety of orders being placed such as paperwork, carry out payments, carry orders from a place a other, distribution of company products, meals, beverages, products, pharmacists, among others. Also it was not possible meet exact information of the places or locations of services and the quantity or products that are transported in these because the companies consider that this information is private.

Hours. Companies surveyed claim that most of them have Schedule since early morning hours until 10:00 PM in East case companies they work from 7:00 AM to 10:00 PM, for other part they assure that some Business cover the schedule night with some of their mobiles.

In As for peak hours, these occur between the hours of 7:00 PM to 10:00 PM on weekends, where the majority of orders are food and drinks, alcoholic.

locations strategic. Initially the companies surveyed they affirmed have their locations strategic for some places strategic empirical located near shops where perform their services as are the downtown areas of the city, Casa China restaurant, Malecón, Centro, Colsag and Caobos.

Figure 2. Companies homes in the city of Cúcuta relationship number of workers for company.
Logistics of orders and deliveries. The people surveyed stated in an empirical and simple way that there are two ways for the logistics of customer service, this start where the customer contact the company’s radio operator, the order information is taken and sent to the available address or more nearby, it goes to the place where must pick up or order the package and taken to the customer. The second is that the customer contact the address, this receives the information, goes to collect or request the package and taken to the customer.

In East case a flowchart was made details of the activities carried out in East customer service process as shown below.

**Figure 4. Customer service logistics**

![Flowchart of Customer Service Logistics](http://www.webology.org)
Figure 5. Care logistics 

Conventions. According to the surveys made companies Yeah have Some agreements with restaurants, bars, food companies or shipments in the city Home security. Residents of the city state that they do not feel safe, since some areas of the city feel exposed to robberies or robberies, also sometimes they suspect on requests for services that may be for the purpose of tending a home trap which according to Armesto-Pineda et al., (2020), in cucuta in its streets it is evident the theft of motorcycles and their users, which is not alien to the homes in the city.
conclusions

The characterization of the operation of the system of home and/or delivery services in the city of San José de Cúcuta, allowed get a perspective plus clear in how much operation, number of companies, schedules, processes and in some way some aspects of this service. What employment and how task facilitator for your clients. it was achieved show that the parking in strategic delivery areas in the city, they do not have location studies _ strategies for customer service, do not have a defined way of distributing schedules _ labor neither a customer service logistics _ standardized, which reflects some deficiencies within the companies that are dedicated a East exercise studied. the investigation made a diagram of how works the process so that, based on this, the activities and operations to be carried out for the good customer service and achieve _ satisfy the delivery market.

It was found that in the city of San José de Cúcuta there are a total of 23 companies with 636 homes. according to the information collected, which work in the hours from 7:00 AM to 10:00 PM to perform delivery services for objects, merchandise or purchases _ in the different establishments city commercials. It is recommended to administrative offices of the domicile companies of the city adopt any of the proposals proposed for the improvement of its service and aspects internal of the companies, since as it was demonstrated, these do not possess or have conducted a study strategic for the bays or stations of their mobiles, which was the central theme of this project.

It is recommended promote a study for the logistics of drug delivery to homes, the which was determined to be a study plus complex the which is due perform in greater detail to achieve get a better and optimized service for the client. Se recommends Create a schedule for the _ mobile in each one of the different working days, this in order to avoid monotony labor and that the households and improve their conditions labor in as for schedules.

References


http://www.webology.org


