E-Commerce: How Traditional Serra Gaúcha Carriers Adapted To Meet This Segment

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ABSTRACT
Changes in traditional business models provided by e-commerce have led to significant changes in the traditional logistics system. These changes deeply affected the processes and the way traditional carriers performed the logistics of their operations, once they faced different demands. The present study aimed to verify how the process of adaptation of the carriers happened, what were the results obtained and the impacts caused by the changes in the structures of these companies. For this, the methodology was based on a qualitative research, of exploratory nature carried out through a multiple case study. As a data collection instrument, an in-depth semi-structured interview was executed with the application of a basic questionnaire realized personally with the managers of the traditional transportation companies located in the Serra Gaúcha, region in Rio Grande do Sul, who attend e-commerce companies. It was evident in the results that the e-commerce caused significant changes in the processes and brought cultural changes including the form of customer service. These changes contributed to the improvement in the level of service of these companies, preparing them to meet the demands of this constantly growing segment.

KEYWORDS: logistics, e-commerce, transportation companies.

I. INTRODUCTION
The world is becoming a market without geographic barriers and the organizations are inserted in increasingly fierce and competitive environments (CAPACINO; BRITT, 1991; LANGLEY et al., 2005; SEMEIJN, 1995). This scenario allowed the products proliferation, caused by the breakdown of territorial limitations and also by the economic deregulation that marked the beginning of globalization. As product lifecycles became shorter and customers more demanding, a set of economic changes increased logistics complexity, which came to be seen no longer as a purely operational activity but as a strategic activity, a managerial tool and a potential source of competitive advantage (FLEURY; WANKE; FIGUEIREDO, 2000).

At this juncture, there were significant changes in the availability of information. This led to new transactional models, in which the Internet allowed access to a new type of market or segment called e-commerce, enabling companies to expand their logistics area and their operations (BOWERSOX, CLOSS and COOPER, 2006).

Given this immense organizational transformation provided by the availability of information, companies needed to be dynamic and able to respond quickly to changes in the market (TACHIZAWA; FARIA, 2004). In this aspect, logistical operations needed to align with the new customer segments in order to embrace new markets, with greater loyalty and profitable growth,
building the capacity to design, modify, configure, reconfigure and innovate in the processes to present customized logistics solutions (WANG & Lalwani, 2007).

In this scenario, Albertin (2001) points out that in Brazil e-commerce is already consolidated. E-commerce, in 2016, had a turnover of 49.7 billion and the outlook for 2017 will be a growth of 12% (E-BIT, 2017).

Another point in relation to e-commerce numbers is the migration of purchases from physical retail to e-commerce, a factor that contributes to the increase in sales. It is estimated that in 2017 e-commerce sales will account for about 4.3% of retail sales in Brazil, which in 2016 were 3.8%. (E-BIT, 2017)

Thus, the present study aimed to answer the following central question of the research: how did work the adaptation process of the traditional carriers to serve the e-commerce segment? To auxiliate this process, the general objective and the other specific objectives were defined:

- **General objective:**
  ✓ Check the changes of a traditional carrier to meet the e-commerce segment.

- **Specific objectives:**
  ✓ Identify the motivations that led these organizations to serve this market segment.
  ✓ Investigate adaptation processes.
  ✓ Verify the necessary changes resulting from these achieved outcomes and their organizational impacts.

## II. THEORETICAL REFERENCE LOGISTICS

Logistics in the mid-1950s was merely a functional activity within companies, and there was no concept or theory about it (BORSTERSOX AND CLOSS, 2004). In the course of its evolution, it was defined that logistics is the part of the supply chain that encompasses the planning, the control of the flow of storage of products/services and the flow of information, from the origin to the consumption, observing the attendance of the customer needs (FIGUEIREDO; WANKE; FLEURY, 2003; CSCMP, 2017). It is an activity that serves to offer customers products/services quickly, with low cost and which seeks satisfaction (KOBAYASHI, 2000). Therefore, it can be said that logistics refers to the management of business flows, responsible for shortening the distance between production and demand, that is, the main link between the product and final customer (PHILIPPE et al, 2000; BALLOU, 2001).

At the beginning of the new millennium, the world underwent immense and rapid transformations, demanding of the companies understanding about this new reality and an adaptive capacity. Society became knowledgeable: with the information, the global competition set aside the boundaries and changed the profile of the customer; also changed the competitiveness of new products and new services. To the products remained less life cycle and a greater search for technology (KOBAYASHI, 2000). In this sense, the business started to be defined globally, forcing organizations to think globally about their strategies (PHILIPPE et al, 2000). To stand out, organizations needed to reorganize and logistics became fundamental in this new context (KOBAYASHI, 2000).

Thus, the management of logistics operations has become a challenge for modern corporations, since there is a range of functions linked to logistics and their contingentes (BOURLAKIS; MELEWAR, 2011).

Due to the complexity of handling competition, the need for a better logistics performance was triggered (FLEURY, 2000). Therefore, in order to have an efficient and effective treatment of a company's products and services, through its logistics operations, it is necessary to have the capacity to handle numerous products, distribution centers and large investments in order to make these operations viable. At the same time, it is also necessary to have the responsibility of minimizing costs, improving customer services and gaining competitive advantage (BOURLAKIS; MELEWAR, 2011).

In other words, logistical management provided greater flexibility and speed of response to the client, aiming at reducing costs and bringing companies competitiveness, which contributed to the increase of the service level provided to the client. (FLEURY; WANKE; FIGUEIREDO, 2000).

Parallel to this, the business models suffered changes from the availability of information brought by the Internet, mainly due to the expansion of electronic commerce. This led to the growth of deliveries and the increase of the types of demand and pushed the logistics beyond its traditional models, with more regional options and with greater concern to the customer service and its new necessities, as the service delivery and lead time (MONAHAN; HU, 2017).

Accordingly, e-commerce completely changed the traditional model of purchases made by the consumer, which forced traditional carriers to adapt, leaving aside the transport of boxes and pallets in large volume to attend this new consumer, in a more customized way. E-commerce shopping style called push-to-pull promoted a structural shift in transportation and supply chain, changing the
management of the way products flow, choosing active locations and creating technology needs for effective inventory control and traceability of products (MONAHAN; HU, 2017).

Thus, there was a need for operational practices different from other businesses, focusing on the product, its flow, its different processing, which is fractionated, and requires greater control in the execution of transportation. In this segment, the customer has greater expectations regarding delivery, demanding an agile, almost immediate delivery, forcing the transport companies to have a more dynamic and efficient planning than in the traditional logistics that worked with the transfer of large lots (ARAUJO et al., 2013, NOVAES, 2015).

Therefore, the carriers started to deal with the spraying of products; the lack of borders, which requires them to be more punctual in terms of service; the ability of a good door to door service; flexibility; and effective management in the face of this new reality. And they imposed on them the competence to offer more than a basic transportation service (FLEURY; WANKE; FIGUEIREDO, 2000).

**E-COMMERCE**

Many phenomena contributed to the emergence of e-commerce, but the internet was undoubtedly a phenomenon that revolutionized and opened the frontiers to the information brought by globalization. The Internet began in the midst of the Cold War in the late 1960s, when it was created to connect a computer network and thus facilitate the exchange of information. With the success of the tool, the technologies were perfected until the creation of the WWW (World Wide Web), which was a protocol for an Internet distribution system to be used by a group of researchers, which was later presented as a new marketing and communication resource and that contributed to the insertion of companies within the world of internet. The reflection of this spread of the use of computers with Internet access around the world has profoundly altered the way in which the products were sold in the traditional business model, mainly because it changed the way in which the sale was made and consequently changed the profile of the consumer. (Reedy, Schullo and Zimmerman, 2001, MENDES, 2013)

E-commerce enabled this new business model with totally different and much more complex characteristics to the relations in the traditional business and caused immense changes in the business environment. (MENDES, 2013)

According to Albertin (2001), e-commerce is the realization of the entire value chain of business processes in the electronic environment with the aid of communication and information technologies, in order to attend to business. For Reedy, Schullo and Zimmerman (2001), e-commerce can be defined in a simpler way as a system of purchasing and collecting information online, through a network of personal computers, where electronic marketing resources are the means for efficient and effective execution of e-commerce which is the end result.

In the world, electronic commerce was diffused in 1995 with the opening of Amazon.com, which opened its first virtual store offering the purchase of books online with the proposal to promote the convenience of choosing the preferred product amid a range of offers, with ease of delivery and without the need of the physical store (Reedy; Schullo; Zimmerman, 2001).

In Brazil, e-commerce began to emerge in the early 2000s, when American e-commerce companies began looking at other markets outside the United States and began looking at Brazil as a potential consumer (MENDES, 2013). Since then, Brazil has been increasing its numbers related to Internet connectivity and the number of buyers who use e-commerce to purchase products. In 2001, Brazil had around 12 million people connected to the Internet, representing 7.6% of the country's population. As of 2016, this number increased to 102 million connected people, representing 58% of the Brazilian population using the Internet. (E-BIT, 2017; Federal, 2016).

These figures on the number of people connected express the reality of Brazilian e-commerce, which is moving against other sectors of the economy. Since its inception, it continues to evolve, according to the chart below and shows the evolution of e-commerce until 2016 (Graph 1). In 2016, e-commerce earned 44.4 billion, with a nominal growth of 7.4% compared to 2015, when it registered 41.3 billion; a nominal growth of 12% is forecast for 2017, reaching a turnover of 49.7 billion. (E-BIT, 2017)
Another important fact about the numbers of e-commerce in Brazil is the growth in the number of e-consumers (people who buy through the internet), shown in Chart 2. (E-BIT, 2017)

Faced with this scenario of expansion, companies started to be interested in e-commerce because this represented an increase in the competitiveness of companies on a global scale and the emergence of e-commerce allowed businesses to innovate and offer new products and services, all this increased by lower costs. However, what most boosted this business model was the possibility of diversifying the ways of creating value, changing the traditional way of doing business. (ANDRADE; SILVA; REBECA, 2015)

The impact of e-commerce on the business environment is often addressed as it has proven changes in the competitive strategies of companies that need to change their processes to follow this new reality.

Logistics, in turn, has become even more relevant since it is considered the backbone of e-commerce and its operations. This attribution given to logistics made it one of the main responsible for the success of e-commerce and provoked a greater stimulus to it. The success of e-commerce has brought a new contingent to logistics providers, opening the door to a much more competitive market with totally different demands. (DELFMANN; ALBERS; GEHRING, 2002)

Without doubt the growth of e-commerce will continue to impact logistics needs, since the insertion of new technologies, be it information or processes, will require new strategies and generate new demands.

To keep up with and even overcome the adoption of effective logistics by competitors, companies will need to continuously research the technology market and incorporate a strategy with faster experimentation responses in the planning of the scenarios proposed by e-commerce. (DELFMANN; ALBERS; GEHRING, 2002)
LOGISTICS X E-COMMERCE

E-commerce has been one of the biggest drivers of logistics evolution due to the proliferation of its markets and platforms, thus generating new demands for logistics services. On the other hand, these demands have generated numerous challenges, in which the efficiency and effectiveness of logistics systems have become a critical factor for the success of e-commerce. Among the major challenges involving the integration of trade and logistics are pricing of logistics services, determination of inventory decisions, how to carry out transportation, and how to use common protocols for all be shared and thus improve the profitability and efficiency of market responses. (XU; HUANG, 2017)

Another challenge is that although logistics facilitate the efficiency of the products circulation and customer service in e-commerce, the difference between e-commerce and logistics is becoming very large, since the logistics systems are still incomplete and the levels of coordination and infrastructure are still weak. The growth rates of e-commerce and the increase rate in logistics development also do not go together, leaving the logistics a step behind in the evolution of this market. (WANG; QI; HUI, 2017)

The expectation is that global B2C e-commerce businesses will reach 2.356 trillion dollars by 2018. Faced with this, it is imperative to be aware of these phenomena, given the great influence that e-commerce has on logistics, increasing the needs and logistic demands and providing an improvement in the status of the logistics industry and its technologies involved (SCHÖDER; DING; CAMPOS, 2016; WANG; QI; HUI, 2017).

III. METHODOLOGY

The research developed in this study, regarding nature, was characterized as applied, since this type of research generates information aimed at solving specific problems. This study intends to use the data in a way that can be applied to the interested parties and that they can appreciate all the aspects involved, making possible a contribution to other companies. (GERHARDT; SILVEIRA, 2009)

Regarding the approach, it was characterized as a qualitative exploratory research and was carried out through a multiple case study. Qualitative research is appropriate for exploratory phases, which allows the researcher to verify the expectations and the reality of the interviewees and allows a more in-depth interpretation of the facts or phenomena. (DENZIN; LINCOLN, 2000; ROESCH, 2005). The exploratory character of qualitative research has the objective of capturing the individuals opinions in an unpretentious way, only aiming to realize the relation between the ideas of the research subjects to the phenomenon (VIRGILITO, 2010).

The multiple case study was used to achieve the objectives of the present study. For Yin (2010), the case study is an empirical analysis of a contemporary phenomenon and its context. In this study we analyzed the traditional transport companies that started to work with the e-commerce segment, companies located in the Serra Gaúcha, in the state of Rio Grande do Sul; this delimitation occurs due to the size of this universe, as well as restricted access to companies. As subjects of this research, the representatives of the company were chosen, limiting them to the owners, managers of the commercial and financial area, since it is understood that these subjects have the necessary information to contribute to this study.

As an instrument of data collection, a field survey was carried out. According to Marconi and Lakatos (2010), the data collection is the stage of research in which the application of the instruments and techniques elaborated aiming to collect the expected data begins. Field research is the observation of facts and phenomena with the purpose of finding an answer, a hypothesis that is sought to prove or also to discover new phenomena or their relationships. (MARCONI, LAKATOS, 2010).

Through field research it was possible to get closer to the reality of these carriers transformation. Therefore, a semi-structured interview was elaborated by the author. For Marconi and Lakatos (2010), the interview is a procedure used in social research and it is a face-to-face conversation, conducted in a methodical way, and which enables the necessary information to be obtained. The interview was semi-structured, containing structured elements and a pre-established script that sought a parameter in obtaining the subjects’ answers, as well as having unstructured elements that allow for greater interaction and even resulting in information that has gone unnoticed or even missing in the structure prior to the interview.

As the only means of data collection, the interview was conducted directly with the subjects chosen in each company and lasted a maximum of one hour, since it was understood that it was sufficient time to follow the proposed script and not lose details that could help the objectives of the present study.

This information collection route has ascertained the following characteristics of the companies: turnover, advantages and disadvantages of working in the segment, if there was a change in structural competencies and how the change process was designed and the strategic point of view of the change to evaluate whether this change
transformation added value and whether the segment has become strategic for companies.

IV. SEARCH RESULTS

The present research aimed to study four carriers from Serra Gaúcha that serve the e-commerce segment with the purpose of verifying how these carriers behaved in an attempt to enter this new segment.

As a criterion for determining the size of these companies, the National Development Bank (BNDES) data were used as standard, according to Table 1, which classifies them according to the Gross Operating Revenue (ROB) of the companies or according to the annual income of clients individuals.

Table 1 – Size classification

<table>
<thead>
<tr>
<th>SIZE CLASSIFICATION</th>
<th>ANNUAL GROSS OPERATING REVENUE OR ANNUAL INCOME</th>
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<tbody>
<tr>
<td>MICRO ENTERPRISE</td>
<td>Less than or equal to R$ 360 thousands</td>
</tr>
<tr>
<td>SMALL BUSINESS</td>
<td>Greater than R$ 360 thousands and less or equal to R$ 3.6 millions</td>
</tr>
<tr>
<td>MEDIUM COMPANY</td>
<td>Greater than R$ 3.6 millions and less or equal to R$ 300 millions</td>
</tr>
<tr>
<td>BIG COMPANY</td>
<td>Greater than R$ 300 millions</td>
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Source: BNDES (2017)

The first company, called COMPANY A, which is considered to be large, has its headquarters located in Farroupilha (RS) and is a traditional company in the market, with 42 years of experience, specialized in fractional loads. Nowadays, it has 68 national units for service in the states of Rio Grande do Sul, Santa Catarina, Paraná and São Paulo and two more units in Argentina.

The second company, called COMPANY B, is located in Garibaldi, where is the company headquarters, and has 4 subsidiaries; it has been in the market for 12 years and is considered a medium-sized company. It works with fractional loads attending the states of the Federal District, Goiás, Tocantins, Paraná, Rio Grande do Sul and Santa Catarina.

Still, the organization called COMPANY C has its only unit in Caxias do Sul, where it has been operating for 15 years. Considered medium-sized, it serves the whole of Brazil and has tradition in fractional and non-fractional loads.

And, finally, the company called COMPANY D, which can be considered small and has been in the market for 9 years. Serves the whole of Brazil and counts on the network of independent franchises specialized in e-commerce and fractional cargo.

Identification of the Motivations that led companies to act in the segment

Several aspects were relevant for these companies to enter this new segment. Table 2 shows the main motivations reported by respondents explaining why these companies decided to enter e-commerce.

Table 2 - Motivations that led companies to operate in e-commerce

<table>
<thead>
<tr>
<th>Motivations</th>
<th>Empirical evidence on the motivations that led these companies to work with e-commerce</th>
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</table>
| Ascendent Market             | Respondents stated that e-commerce is the future of transactions and, in turn, organizations need to be attentive and prepared to this new segment, mainly in the technological aspect, as the interviewee B pointed out:  
 [...] attending e-commerce is a natural way for carriers and we understand that we need to be inserted into it right away, updating ourselves every day so as not to be surprised in the future. (Interviewee B)  
 Accordingly, respondent C commented:  
 [...] e-commerce will be the future of commercial transactions and therefore working with this segment will be a consequence for the carriers, since all are still going to work, but for that some things still need to change. (Interviewee C) |
<table>
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<tr>
<th>Use of the Structure</th>
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</table>
| On the other hand, interviewee A mentioned:  

[...] we want to continue investing in e-commerce to take advantage of the structure we already have and the knowledge already acquired to aggregate our delivery network with e-commerce, since it does not require greater changes in our structures and processes than already performed. And the growing market brings us good prospects of increasing demand and billing without the need for more investments. (Interviewee A) |

<table>
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<tr>
<th>Increase in turnover and decrease in seasonality</th>
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</table>
| It was evidenced that there is an understanding of all respondents regarding the responsibility that e-commerce had in increasing the volume of business of the companies and its collaboration so that the companies maintained their balanced billing the whole year, since they reduced the problems with the seasonality of certain segments.  

The interviewees of companies A and B pointed out that there was a decrease in seasonality, since the loads that their companies transported provided periods with low freight and consequent low revenues, and e-commerce contributed significantly so that companies could maintain the balance of their throughout the year. |

<table>
<thead>
<tr>
<th>Competitive differential</th>
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</table>
| And finally,  

[...] the great advantage is financial, for this type of delivery, in which the partners seek well-structured and well-qualified companies, avoiding problems and difficulties and this values the company that can charge more for the service, allowing profit margins of e-commerce to be greater than the other segments, contributing to an increase in our level of service to this much more demanding market. (Interviewee B)  

In this sense, Interviewee D complemented:  

[...] in our case, we gain from the volume of charge that e-commerce moves and because it is our business card with the individual, our efficiency often opens doors to other types of customers and businesses. (Interviewee D) |

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Source: Elaborated by the author based on the informations collected.

ADAPTATION PROCESS SURVEY

When deciding to incorporate the e-commerce segment into its activities many changes occurred and the interviewees were faced with different situations. It was a remarkable situation for companies to face the contingencies that were presented to them.  

Initially, the barriers faced came from doubts on how to start, on how the process itself was and what it needed different from the other already traditional segments within the companies. In his report, interviewee B clearly showed his initial doubts:  

[...] we had the difficulty of knowing how it was going to be done [...] and we learned only after we started, the biggest difficulty was managing the information needed to serve my clients, how to organize the structure to meet that demand. (INTERVIEWER B)  

After facing the tangle of doubts about the segment and its logistic demands, the process of adaptation followed, in which many processes needed changes, such as: technological order with the low on time of the products or their logistic processing with the need of new labeling insertion, new ways of tracking merchandise and storage, representing a total change in their already established routines. In addition to the changes in processes, a profound cultural change within companies was also necessary, as it was a segment that required changes in the behavior of the employees in relation to the handling of the goods inside the companies and the final customer service, which was now no longer just the industry, but individuals with expectations directly related to the product. Regarding this, the interviewee C reported:  

[...] Initially it was very laborious, because everything is different, especially the way we deliver the merchandise [...] in the e-commerce we enter the client's house, we often have to help them load and even perform some kind of installation, then imagine how difficult it is for that
old developer used to the industries to take a completely different approach than he is accustomed to. [...] make him understand that now besides the name of the carrier there is a partner of the company also exposed to this service. (INTERVIEWER C)

On the other hand, Interviewee B added:

[...] we even had to change the profile of the people we hired from then on, as it required a greater ability to deal with the customer, which was not a necessity for us until then. (INTERVIEWER B)

As a result, the interviewee A points out that:

[...] the whole change generated animosity in the beginning, because at first there was an increase in the bureaucratic routine of notes and transportation knowledge, including an adaptation or even change of management and control system and this initially generated problems [...] As these processes were absorbed and began to be part of the process things have changed. [...] but it took a lot of control. (INTERVIEWED)

Therefore, to meet the segment, companies had to develop numerous skills, most of which had to change the whole culture about the delivery process in this segment. The need for greater control of the merchandise was perceived, since e-commerce demanded more information about the progress of the delivery process, since the customer has access to the status of the product online. There was also a concern with the logistic design to meet the deadlines that are differentiated in e-commerce. The improvement of reverse logistics was necessary, because in e-commerce this is a latent demand. As found by the interviewee B:

[...] there was an understanding on the part of the company that this new segment has more requirements [...] the product needs to have a better presentation, the box must not be dented or dirty, for example, and the deliveryman also needs to have a differentiated attitude, it is more than just the name of our company that we were representing, it was our client’s name, and this generated greater responsibilities. (INTERVIEWER B)

Consequently:

[...] the procedures became differentiated ... we could no longer treat it as a normal procedure, since e-commerce required us greater adaptability, agility, control. (INTERVIEWED)

CHANGES AND THEIR ORGANIZATIONAL IMPACTS

In order to adapt to the segment, the companies needed to make several adjustments, the organizational impacts were numerous. Initially, financial resources were needed to create new cargo control programs, new ways to label merchandise, purchase or software developments to better manage this new process. These investments in technology represented the largest investments made by companies when they decided to enter the segment. Some companies have acquired technology later, others have already prepared themselves before, but this was undoubtedly the destination of the greatest resources invested. Another important investment was made in training for it is necessary to meet the requirements of e-commerce and its new approaches, whether for adaptation of human capital to this new reality. Purchase of vehicles and expansion of physical space was also pointed out as necessary investments especially due to the need brought by the increase in e-commerce demand.

Thus, according to Table 3, it was identified how the changes impacted these organizations.

Table 3 - Changes and organizational impacts

<table>
<thead>
<tr>
<th>Changes and organizational impacts</th>
<th>Empirical Evidence on Organizational Changes and Impacts</th>
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<tbody>
<tr>
<td>Technology</td>
<td>As mentioned earlier, the technology is very representative in the success that these companies obtained. It was a facilitator and provided agility to the processes, control of goods in real time and all, without exception, took these knowledge, systems, processes to the other segments they serve. Systems have been planned and created in the process, telephony equipment with image capture was acquired, to perform the low on time. [...] we planned customer needs and went to find a technology supplier who could</td>
</tr>
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</table>
| Training | In the face of all the changes that carriers have undergone to attend the segment, from cultural and technological changes, training was fundamental for the implantation of new ideas, systems and routines. Training the human resources to absorb these changes was necessary at all stages of the adaptation process. Interviewee B mentioned:

[...] we had to develop training for our team [...] to make this our new culture adapt itself to this new way of working, to use it as a tool to execute the service. [...] we began to train our employees on how the process would be from receipt to delivery of the goods and their respective processes [...] we trained the approach to the customer, who is now a natural person and to make people understand that there is a expectation of delivery of the merchandise. (INTERVIEWER B)

The interviewee C added:

[...] we train our deliverers to deliver a different, personalized delivery [...] now we often enter the customer's home, we must be very careful and not only deliver as we are accustomed to do in other segments. (INTERVIEWER C)

For the interviewee D,

(...) we started to adopt the online low, we had to buy more modern phones with internet access and that were compatible with the system we use. It was necessary to conduct training and have a lot of control and patience, because the internet did not always work or else the system was congested and they had to keep in mind that as soon as possible they had to cancel, that process was very important in the routine. (INTERVIEWER D) |

| Expansion of qualification and framework | The demand of the segment, according to all the interviewees, did not require the creation of positions within the carriers, but there was an increase in the number of hirings due to the increase in demand from the turnover. The most relevant aspect in these new hirings is that the interviewees started to demand a higher professional qualification, to hire people with greater adaptive capacity, with good communication and that present a level of reliability on their conduct.

The interviewees A, B and C stated that starting to hire more qualified people was an initial concern due to the demands of this market and they worried about who they could "put" inside the customer's house.

For activities related to e-commerce, respondents reported extensions in the tracking, SAC and delivery sectors. |

| Changes in management form | Regarding the changes in management form, it was pointed out that:

[...] management improved on a whole, because e-commerce required higher qualification in delivering orders and so I had to increase control at this stage, improve the handling of the merchandise and approach to the customer. This made it possible to have more control of the steps and agility in the information if something went wrong. (INTERVIEWER A)

Complement the interviewee B: |
there was a need to change our management style [...] our difficulty was information management [...] we needed to have more agility and a different customer behavior and for this we needed to increase control and to know more the market, to anticipate. Work to be prepared to meet this segment and what may arise as demand. (INTERVIEWER B)

And this has resulted in a new behavior that has contributed to making the company more capable, increasing its level of service in all segments and valuing its company that has been able to charge more for the service provided.

Leading:

 [...] the need to be aligned with the purpose of the franchise, making our processes need to have the technology and agility that the process needed, coupled with a lot of control and training, improved internal information management, enabling us to better understand our processes and be more effective. (INTERVIEWER D)

V. CONCLUSIONS

The present study had as general objective to perform an analysis of how the process of adaptation of the carriers occurred to attend the e-commerce and it was possible to perceive initially the lack of knowledge that the companies had regarding the operation and the demand that the segment would bring to their processes. This was the main obstacle faced when they started to insert e-commerce in their companies. As a result, they needed to understand and develop new processes, manage the information needed for the process, and develop technology that would meet demand.

Another essential aspect was the cultural change within the companies, forcing them to have a new perception regarding merchandise handling, tracking, among other processes and especially in relation to customer service. There was an understanding that the form needed to serve customers should be totally different, since it was no longer an industry with predefined hours, but an individual with different schedules, different needs and, especially, with expectations.

This understanding was very important, since the expectation that the carrier had to sustain was no longer only relative to its service, but rather that of its client who contracted the transportation service. Changing this scenario was initially a great difficulty, but with training and control it was possible to use this as a contribution to make the level of service better and adopted in all segments.

The present study found that there is a latent desire of all companies to continue betting and investing in e-commerce, but there is a need pointed out by the interviewed companies of changes in legislation and in the relation shipper-transporter to make the relationship more healthy, and to ensure the success of Brazilian e-commerce with regard to transportation and reverse logistics.

Accordingly, e-commerce represented a satisfactory option to diversify the delivery network within these companies, presenting profitability above the other segments and allowing companies to balance billing, since e-commerce decreases the seasonality of deliveries. Given the growth prospects of Brazilian e-commerce, whether in number of clients or turnover, there is a consistent business opportunity for companies wishing to invest in the segment.

Regarding the limitations, this research presents as a limitation the non generalization of the data due to not attending all the companies of the sector that attend the segment studied in the present research.

In relation to future research, it can be carried out observing other factors such as regional aspects, economic scenario and legislation, deepening in this sense the most substantial differences. Another aspect for future analysis may be the quality of services rendered, customer satisfaction, the company's image in the market, involving aspects of credibility, trust and relationship with the customer.

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