

MASTER
CIÊNCIAS EMPRESARIAIS

MASTER'S FINAL WORK
DISSERTATION

PERCEPTION OF PORTUGUESE COMPANIES ON LOGISTICS IN CHINA

GONÇALO ANDRÉ SIMÕES

JUNE - 2018

MASTER
CIÊNCIAS EMPRESARIAIS

MASTER'S FINAL WORK
DISSERTATION

PERCEPTION OF PORTUGUESE COMPANIES ON LOGISTICS IN CHINA

GONÇALO ANDRÉ SIMÕES

SUPERVISION:

PROF.^a DOUTORA MARIA FERNANDA PARGANA ILHÉU

JUNE - 2018

GLOSSARY

GDP – Gross Domestic Product.

LPI – Logistics Performance Index.

LSP – Logistics Service Providers.

MFW – Master's Final Work.

3PL – Third-Party Logistics.

RESUMO E PALAVRAS-CHAVE

Desde que se assumiu como a “Fábrica do Mundo” que a China ocupa uma posição de destaque na economia mundial. Hoje, o Governo Chinês e as empresas locais buscam reinventar-se, tornando-se na “Fábrica da China” e nos “Serviços do Mundo”, incentivando o consumo doméstico e promovendo o setor terciário. A China é, assim, um mercado em ebulição, pejado de oportunidades em toda a sua imensidão; um local de grandes desafios, mas que também encerra, potencialmente, grandes recompensas.

O setor logístico é um dos principais eixos de competitividade para a evolução do abastecimento de um mercado de consumo. Além disso, um bom desempenho logístico é quintessencial na atividade de uma empresa, podendo até ser uma fonte de vantagem competitiva; no reverso da medalha, um mau desempenho nesta área de atuação pode levar a insatisfação por parte de clientes e ao desperdício de oportunidades de negócio. Na sua pesquisa de 2006, Ilhéu apontou o sistema logístico e de distribuição chineses como um dos problemas das empresas portuguesas ao estabelecerem-se na China, entre outros. Esta questão, no entanto, desdobrava-se em vários eixos problemáticos, que passavam por, a título de exemplo, infraestruturas fracas e uma ausência generalizada de serviços de valor acrescentado. Tendo isto em conta, esta pesquisa visa compreender a perceção das empresas portuguesas sobre a logística chinesa e averiguar se esta ainda é considerada um problema.

Uma revisão de literatura que cobre o que é a logística, qual a evolução do sistema logístico chinês, e qual o impacto logístico do e-commerce na China foi apresentada. A partir disso, foi apresentado um modelo de análise que permite avaliar a perceção das empresas portuguesas sobre a logística na China, com base em três dimensões: “disponibilidade de serviços de valor-acrescentado em Fornecedores de Serviços Logísticos (FSLs)”, “eficiência de FSLs”, e a “adequação dos FSLs ao e-commerce”. Um questionário foi depois administrado a exportadores portugueses para a China para avaliar as suas perceções.

Os resultados obtidos oferecem duas conclusões principais: que as empresas portuguesas têm a perceção de que os serviços de valor acrescentado disponíveis na China são adequados para distribuir os seus produtos e que os FSLs são adequados para distribuir os seus produtos no mercado chinês de comércio eletrónico; no entanto, eles não consideram que os FSLs disponíveis para distribuir os seus produtos no mercado chinês são eficientes.

PALAVRAS-CHAVE: perceção dos exportadores portugueses; logística na China; fornecedores de serviços logísticos.

ABSTRACT AND KEYWORDS

Ever since it assumed the role of the “Factory of the World”, China occupies a relevant position in the world economy. Today, the Chinese Government and local companies seek to reinvent themselves, by transforming into the “Factory of China” and the “Services of the World”, encouraging domestic consumption and promoting the services sector. China is thus a budding market, filled with opportunities throughout all its immensity; a place of great challenges but that also potentially holds great rewards.

The logistics sector is one of the main competitiveness axes for a consumer market’s supply evolution. Moreover, good logistic performance is quintessential in a company’s activity, and may even be a source of competitive advantage; on the other hand, a poor performance in this area may lead to customer dissatisfaction and to the waste of business opportunities. In her 2006 research, Ilhéu signalled the Chinese logistics and distribution system as one of the several issues faced by Portuguese companies when seeking to operate in the Chinese market. This problem unfolds onto several problematic axes, including, for example, a general absence of value-added services among Logistics Service Providers (LSPs) and poor infrastructure. Taking this into account, this MFW aims to understand the perception of Portuguese companies on logistics in China.

A literature review covering what logistics is, how the Chinese logistics system has evolved, and the logistical impact of e-commerce in China is presented. Drawing from this, an analysis model that allows for the assessment of the perception of Portuguese companies on logistics in China was presented, based on three dimensions: “availability of value-added services in LSPs”, “efficiency of LSPs”, and “LSPs adequacy to e-commerce”. A questionnaire was then administered to Portuguese companies exporting to China to gauge their perceptions.

The results obtained offer two main conclusions: that Portuguese companies have the perception that the value-added services available in China are adequate to distributing their products there and that the LSPs are adequate for distributing their products on the Chinese e-commerce market, even though they do not consider that the LSPs available for distributing their products in the Chinese market are efficient.

KEYWORDS: perception of Portuguese exporters; logistics in China; logistics service providers.

TABLE OF CONTENTS

Glossary	i
Resumo e palavras-chave	ii
Abstract and Keywords	iii
Table of Contents.....	iv
Table of Figures.....	vi
Table of Tables	vi
Acknowledgments	vii
1. Introduction	1
1.1 Objectives of the Study.....	3
1.2 Work structure	3
2. Literature Review	4
2.1 Marketing Logistics.....	4
2.2 E-commerce logistics	7
2.3 China's Logistics	8
2.4 E-commerce in China	16
2.5 Portuguese companies' relations with the Chinese market	20
3. Conceptual Framework and research proposals	21
3.1 Conceptual Framework.....	21
3.2 Research Proposals	23
4. Research Methodology	24
4.1 Questionnaire.....	24
4.2 Sample Selection and Data Collection	25
5. Results	26
5.1 Sample Characterization.....	26

5.2 Testing the research proposals.....	27
5.2.1 Research proposal no. 1.....	27
5.2.2 Research proposal no. 2.....	28
5.2.3 Research proposal no. 3.....	29
6. Conclusions	30
7. Limitations and further research.....	31
References	34
Attachments	39
Attachment I – Questionnaire in English	39
Attachment II – Questionnaire in Portuguese.....	43
Attachment III – International Operations performed by considered respondent companies (number of companies choosing the option; companies could choose more than one.)	48

TABLE OF FIGURES

Figure 1 - Supply Chain Management (Kotler & Armstrong, 2012). 5

Figure 2 – Conceptual Framework 23

Figure 3 - Perception of value-added services of LSPs in China 27

Figure 4 - Perception of the efficiency of LSPs in China 28

Figure 5 - Perception of LSPs adequacy to e-commerce in China 29

TABLE OF TABLES

Table I - Dimensions and Indicators.....22

Table II - Sample Profile.....25

ACKNOWLEDGMENTS

I would like to start my acknowledgements by thanking my supervisor, Professor Fernanda Ilhéu, for all the availability, support and never-ending patience throughout her supervision of my master's final work.

I would like to thank my parents, sister and family for their support and for their persistent encouragement that ultimately pushed me to complete this research.

I would also like to thank Marta Spínola Aguiar for all the help and motivation she gave me throughout this process; had she not been there, this work might have never been finished.

I would like to thank Cláudia Ngwenya for her tireless support and patience in helping me construct a better, more readable text.

And finally, I would like to thank my friends and colleagues for their continued motivation and enthusiasm for supporting this work.

PERCEPTION OF PORTUGUESE COMPANIES ON LOGISTICS IN CHINA

By Gonçalo A. Simões

China has a flourishing market, filled with opportunities. Portuguese companies acknowledge this growth but point out that the Chinese logistics and distribution system is a problem when establishing a presence there. Hence, this research aims to understand the perception of Portuguese companies on logistics in China and to discover if this issue is still regarded as a problem.

1. INTRODUCTION

Being the 2nd biggest country in land area (The World Bank, 2016b) and with over 1,378 billion inhabitants (The World Bank, 2016a), China is an enormous market with numerous opportunities to be chased; its immense - and growing – internal market is, undoubtedly, a challenging one but from which great rewards might be obtained as well. In the recent past and ever since it assumed its role as the “Factory of the World”, China occupies a relevant position in the world economy. Today, the Chinese Government and local companies seek to reinvent themselves, by transforming into the “Factory of China” and the “Services of the World”, through promoting products and services with greater value-added processes taking place in China, hence encouraging domestic consumption and promoting the tertiary sector. The Chinese logistics sector is, however, unsuitable for the growing domestic market; China’s “*aged infrastructure (...), coupled with archaic handling equipment and the lack of qualified logistics personnel*” (M. Goh & Ling, 2003, p. 887, my ellipses) has been hampering this development.

Lean, Huang & Hong (2014, p.103) point out that a “*long-run relationship between logistics development and economic growth*” exists, thus making this obstacle in China a vital one to address and overcome. This obstacle is manifested by various other authors; Demurger (2001, apud Lean, Huang & Hong, 2014) defends that the uneven distribution of transport infrastructure was, at least partly, to blame for the regional inequality in China. Also, Taylor (2010, p. 668) points out that “*the creation of a Chinese nationwide market has been impeded by poor transportation infrastructure and provincial particularism*”. Addressing this particular concern, Taylor (2010, p. 668) stated that “*the creation of a domestic comprehensive inter-modal system has become a major objective of China’s Tenth and Eleventh Five Year Plans (2001-2005) and (2006-2010)*”. Easton (2003, apud Rahman & Wu, 2011, p.464) builds upon this notion, pointing out in his research that the Chinese government has “*invested heavily in the construction of logistics and transportation infrastructure, while domestic manufacturing companies also strived to develop new logistics competencies to provide better services and reduce operating costs*”. This subject is a hurdle in the Chinese economic development: its total logistics cost as a percentage of GDP, 18% in 2012 (Colliers International, 2013, p. 4), is more than double that of

Germany and the US (8%) – and even taking account the lower value put forth by the National Development and Reform Commission (14.9%), it is still almost “*double that of developed economies*” (Colliers International, 2013, p. 4). These logistics costs are explained by the existence of an inefficient logistical ecosystem, a result of the fragmentation of the market and uneven taxation between provinces and costly road tolls. In addition, the difficulties mount as one moves inland: a deficient infrastructure is in place, discouraging companies from doing business there. Regarding this issue, on an executive meeting of the State Council on the 5th of July 2017, Chinese Premier Li Keqiang stated that “*China's logistics costs are still on the higher end in the world*” (Xu, 2017) and that measures should be put in place to make the sector function better, thus aiding the real economy. He also pointed out that the logistics sector is strategically important for the further implementation of the market economy in China and that reducing costs and boosting efficiency should be the priorities for 2017. In order to achieve these goals, several economic policies were to be implemented: the betterment of road transportation, through the reduction of red tape and taxes, enhanced road management and the guarantee of improved services through law enforcement, as well as a plan to establish a series of logistics centres nationwide.

The logistics sector is one of the main competitiveness axes for a consumer market's supply evolution. Moreover, good logistic performance is quintessential in a company's activities, and may even be a source of competitive advantage. On the other hand, a poor performance in this area may lead to customer dissatisfaction and to the waste of business opportunities. In her 2006 research, Ilhéu's signalled the Chinese logistics and distribution system as one of the problems of Portuguese companies when establishing themselves in China, among others. This issue, however, unfolds onto several problematic axes, which included, for example, poor infrastructures and a general absence of value-added services. This is consubstantiated in an index developed by the World Bank, the Logistics Performance Index, where China's logistics were evaluated, in their 2016 survey, as the 27th best in the world. This index studies 160 countries and regions and compares them in several criteria to create a balanced indicator of a certain country's logistics performance. As a comparison, German logistics take the first place, by far, on this index.

Based on the points presented above, several research objectives were defined: whether Chinese logistics still weighed down the efficiency of China's domestic market; whether Chinese logistics had gone through an evolutionary process in the past eleven years; and, finally, whether the deficiency in value-added services was still an obstacle to entering the Chinese market for foreign companies.

Another major challenge for new competitors or companies seeking to establish themselves in China is the transition to e-commerce. Cho, Ozment & Sink (2008, p. 337) affirm, in a very simple and accurate manner, that “*e-commerce requires a new logistics approach*”. Logistics plays a key role for the success of both purely e-commerce or traditional plus e-commerce companies and this conversion is oftentimes hard and sometimes tricky; on that note, Delfmann, Albers & Gehring (2002, p.203) conclude, from their study of Bretzke’s (2000) work, that what drives so many companies in e-commerce to fail “*can be in part accounted for by the neglect of logistics as a key factor of success*”.

1.1 Objectives of the Study

From the research questions posited earlier, three objectives for this research were defined:

1. To investigate the development of Chinese logistics in the past 12 years;
2. To investigate the perception of Portuguese companies on Chinese logistics, based on their efficiency and on the available value-added services;
3. To investigate the perception of Portuguese companies on the adequacy of Chinese logistics for e-commerce.

To address these objectives, a literature review was conducted. On a first stage, a definition of logistics and its ties with marketing are sought; on a second stage, the evolution of Chinese logistics and the hurdles still on the way to a country spanning market are analysed; lastly, the effect e-commerce will exert on Chinese logistics is explored. The empirical case are the Portuguese companies that work in the Chinese market and research their perceptions on the Chinese logistics system, and how it affects its access to the market, namely through e-commerce.

1.2 Work structure

In order to present a clear and coherent study, and to answer to the questions posited earlier, a brief introduction to the subject is presented in this chapter. In chapter 2, a comprehensive literature review is presented. After this, in chapter 3, a conceptual framework and the research proposals are described. In the following chapter, chapter 4, the methodology followed is presented, as well as how the questionnaire was structured, how the sample was selected, and how the collected data was processed. In chapter 5, the collected data is analysed and cross-checked with the theories examined in the literature review, thus allowing for conclusions to be drawn in chapter 6. Finally, limitations and further research are suggested in chapter 7.

2. LITERATURE REVIEW

2.1 *Marketing Logistics*

Marketing logistics is much more than transporting goods from one place to another, storing them or moving them along determined routes. From Kotler & Armstrong's (2012) perspective, modern marketing logistics is more than just managing trucks and warehouses – more than physical distribution; it requires a degree of planning, the implementation of a physical flow of goods, services, information, and its control, from its starting point to the point of consumption, engaging a customer's needs at a profit. It is a process several steps above and beyond finding cheap options to get products to customers – it is a method based on “*customer-centered logistics thinking, which starts with the marketplace and works backward to the factory or even sources of supply*” (Kotler & Armstrong, 2012, p. 357).

This change in method had tremendous ramifications, that Kotler & Armstrong (2012) point out. In the past, logistics' only worry was to make sure goods were being transported towards the consumer in an inexpensive way. Modern logistics have incorporated several other processes, such as inbound distribution (bringing in raw materials necessary for production), outbound distribution (delivering a product to its customers), and reverse distribution (returning unwanted or faulty products from either customers or resellers). This means that products are no longer just moved in one direction. Thus, supply chains became an intricate weave of differently-bound movements, as can be seen in fig. 1. These movements and their correct management become even more relevant in an e-commerce setting, as last mile logistics and the ease of returning defective products can make or break a customer's perception on how good a company's service is.

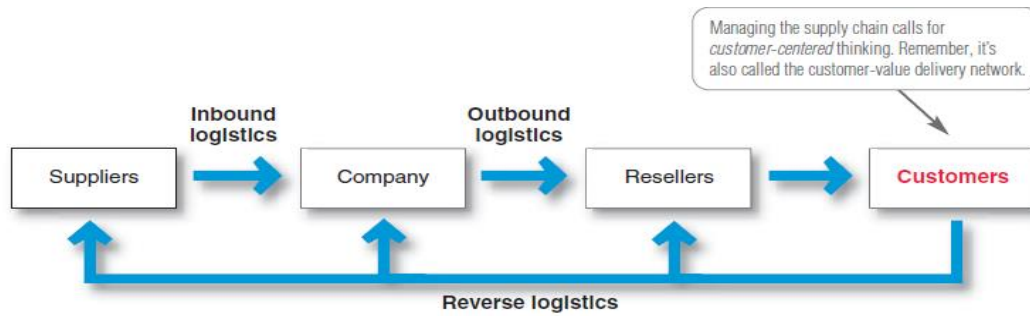


Figure 1 - Supply Chain Management (Kotler & Armstrong, 2012).

According to Mentzer, Stank & Esper (2008, p. 34), logistics consists of several “key elements: transportation network design and management; warehousing techniques including location, design, and management; materials handling management; system wide inventory management; order management and fulfilment; procurement; and customer service”. In addition, Kotler & Armstrong (2012, p. 360), affirm that the major logistics functions today “include warehousing, inventory management, transportation, and logistics information management”.

As stated before, logistics has come a long way from its initial concerns of moving goods from point A to point B or just storing them; it has grown to take over several other processes initially belonging to other company departments. One such example are responsibilities once under the helm of marketing or production; these, when logistics took on its place in an organization’s structure, “were transferred to, or co-managed with the logistics department” (Gimenez & Ventura, 2005, p. 22). Furthermore, Gimenez & Ventura (2005) discovered that these shared responsibilities or incorporation had a beneficial impact on the company areas originally responsible. Logistics thus assumes a new role as an integrative area within a company, amplifying the value produced by other areas within an organization. It completely departs from its original function of just being considered an area for supply chain management and total cost minimization (Morash, Dröge, & Vickery, 1996).

In a 1999 study, Stank, Daugherty & Ellinger (1999) note the fact that firms that are better integrated and more collaborative perform better logistics wise than less integrated firms. This is further corroborated by Morash, Dröge & Vickery (1996), as they point out that a company’s logistics performance greatly influences its marketing performance.

But this integration does not stop within the company. Many companies resort to LSPs or 3PLs to place products on the market, in order to mitigate the workload required to prepare such logistics activities and to focus on their core business. Kotler & Armstrong (2012) also point out that since a 3PL provider's main concern is getting a product to market, they are able to seek more efficient and cost-effective ways of doing so, have better knowledge and insights and are, therefore, naturally better adapted to navigating an ever increasingly complex logistics environment. In addition, 3PL partners can also be particularly useful for companies seeking to increase their global market coverage, as they easily gain access to already available distribution systems, covering multiple countries, regions or continents without having to endure the risks, costs and delays that come with setting up their private system (Kotler & Armstrong, 2012).

In response to this increasing outsourcing of logistics services by organizations, LSPs started differentiating their offers by adding an array of value-added services and new supply chain solutions (Shi, Zhang, Arthanari, Liu, & Cheng, 2016), offering services that go well beyond the previous logistics standard of transportation and warehousing and that have come to encompass services such as tagging, kitting, recycling, packaging or repairing (Rivera, Sheffi, & Knoppen, 2016). Among differentiating last mile logistics services, LSPs started offering loading, unloading, acknowledgment on proof of delivery, door-to-door service, and delivery against consignee copy, among others, as listed in a study on Indian LSPs by Dubey and Shah (2010).

Organizational perspective on the relevance of logistics has also come a long way from when it was not seen as a potential source of competitive or comparative advantage; the current understanding is that there is a mutually beneficial relation between a company's logistics capability and its performance (Cho et al., 2008). Currently, marketing logistics is considered "*an area of potentially high costs savings and improved customer satisfaction*" (Kotler & Armstrong, 2012, p. 367). This integration and the advantages brought by it are particularly relevant for a scenario where e-commerce is growing in a continuous, steady ascent in relevance. Since "*logistics plays a very important role in ensuring consumer loyalty*" (Ramanathan, 2010, p. 951) in e-commerce, the importance assigned to logistics within a company is bound to grow as well (Ramanathan, 2010).

However, logistics do not just impact organizations from within – how well a country’s logistics performs impacts a company from the outside. Logistics are “*central to the economic growth and competitiveness of countries, and the logistics sector is now recognized as one of the core pillars of economic development*” (Arvis et al., 2016, p. 1). Nevertheless, how well a country’s logistics performs is hard to understand but crucially important for area professionals or for companies seeking to enter new markets. Hence, to bring more knowledge to the table and to make comparisons easier between different countries, the World Bank developed the Logistics Performance Index (LPI).

The LPI is a metric that tries to demonstrate the experience of area professionals in a simple, comparable between countries, and summarised way the intricacies of supply chains. This Index seeks to gather knowledge from professionals working on that area on international logistics, asking for their opinion on eight random markets chosen from the “*most important export and import markets of the country where the respondent is located*” (Arvis et al., 2016, p. 55), and on the logistics of the country on which they work. For this research, we will focus on the international component of the LPI, an easy to understand and summarised gauge of “*logistics sector performance, combining data on six core performance components into a single aggregate measure*” (Arvis et al., 2016, p. 55). The combination of these six core components - efficiency of customs and border management clearance (customs); quality of trade and transport infrastructure (infrastructure); ease of arranging competitively priced shipments (international shipments); competence and quality of logistics services (logistics quality and competence); ability to track and trace consignments (tracking and tracing); frequency with which shipments reach consignees within scheduled or expected delivery times (timeliness) (Arvis et al., 2016, p. 55)– result in an easy to compare and understand measurement: the international LPI.

2.2 E-commerce logistics

Due to the growing relevance of e-commerce, opportunities and challenges abound. New settings and new channels require new frameworks and new strategies, and traditional players may find it harder to do business on an e-commerce environment or on a traditional plus e-commerce perspective; as Cho, Ozment & Sink (2008, p. 337) put

it, “*e-commerce requires a new logistics approach*”. Stressing the magnitude of these challenges, Delfmann, Albers & Gehring (2002, p. 203), based on a study by Bretzke (2000), point out that “*the failure of so many companies in e-commerce can be in part accounted for by the neglect of logistics as a key factor of success*”. From this perspective, two major changes demand answers and solutions: the question of last mile logistics, further explored ahead, which were mainly out of a company’s focus and that now, with e-commerce, become part of how a company is evaluated, even if its last mile logistics are provided by a third-party logistics provider (3PL); and, crucially, the “*substitution of long-term predetermined logistics flows through stable networks by physical flows through constantly- and fast-changing origin- and destination pairs*” (Delfmann et al., 2002, p. 214).

Keeping up with these pairs is no easy task and guaranteeing that response levels are adequate to them is one of the reasons why companies are increasingly resorting to logistics services providers (LSPs) or 3PLs to make sure that those logistics operations are being carried out smoothly without having to increase the workload on their logistics departments.

2.3 China’s Logistics

By the end of 1978, China’s centrally planned economy started to change in the direction of a more market-oriented economy. As Deng Xiaoping consolidated its power in China, the “Reform and Open-Door Policy” allowed for foreign and private investment to start conducting business in China, even if the Chinese Government did not allow for private investment to enter sectors, such as the energy or construction sectors, which were considered strategic and critical to the State. This opening up to foreign and private investment allowed China to begin assuming a greater relevance in the global economy. Furthermore, the reforms introduced to China’s economic system created the concept of Special Economic Zones (SEZs) within the country; places where different economic policies were tried out or applied and where there was greater flexibility from the governmental body managing the SEZ. These two advantages caught interest among foreign investment, using the special regulations within the SEZs to their advantage while utilizing it as a platform to do business with the country beyond the SEZ. Establishing these SEZs, however, contributed to improve China’s eastern coastal regions but

contributed even further to the fragmentation of the Chinese market, widening even further the gap between China's coastal region and its interior.

This polarization between China's coastal region and its hinterland is extremely important in understanding Chinese logistics, since the country represents an enormous tract of land holding both very efficient and developed infrastructures and hubs as well as very underdeveloped places, especially away from the eastern coastal region, where infrastructures are scarce, and the communities are mostly rural. Regarding policy changes, and in what concerns logistics, China was expected to do further alterations when they joined the World Trade Organization (WTO), removing the "*severe restrictions on foreign companies' distribution rights*" (Jiang, 2002, p. 187) as a first step towards completely eliminating "*the barriers to distribution and logistics services market entry*" (Jiang & Prater, 2002, p. 796). Notwithstanding all these reforms being in place, the former centrally-planned economy of China still influenced the economy, regardless of the willingness and desire to change.

Before the economic reforms introduced by Deng Xiaoping and the Communist Party of China in 1978, the Chinese Central government or local authorities on their behalf were the sole providers of logistics and they "*rarely offered value-added logistics services*" (Powers, 2001 apud Rahman & Wu, 2011, p. 464). In addition, before Deng Xiaoping's "Reform and Open-Door Policy", China's production and distribution systems worked according to the will of the State, consolidated in the State Plan. This means that central planners would instruct factories on the quantity and type of items to produce, and that, once produced, were distributed along channels in China that unfolded in a three-tier system (Jiang & Prater, 2002). It was a very inefficient model, with no concern for the demand of a particular good, relying instead on a resource allocation perspective, mirroring its formation within a socialist mindset (Jiang & Prater, 2002), and "*ultimately, the constant intervention of the Chinese Government in almost all matters of resource allocation leads to the overall inefficiency of the social economy*" (Lin & Si, 2010, p. 577).

This three-tier system was used to "*control the flow of commodities*" (Luk (1998, p. 45); since "*the State Planning Commission set overall production goals for factories and collected the output from them*" (Luk, 1998, p. 46), this three-tiered system was used to

distribute and adapt the flow of goods originating from the quotas for production and distribution decreed by the Chinese central government. This system's first tier consisted of national distribution centers, in Tianjin, Shanghai and Guangzhou, directly managed by the Ministry of Commerce. From there, they would be distributed to the second and third tier centers, "*at both regional and local levels*" (Luk, 1998, p. 48).

These distribution centers served two main functions, suiting the original definition and concern of logistics: just storing and moving goods, physically, from the warehouse to a retailer, without adding value or performing any differentiated marketing activity (Luk, 1998). One example of this "*highly rigid, inefficient distribution network*" (Luk, 1998, p. 48) is that of foreign trade companies: they were the only ones allowed to import products but were forbidden from selling what they imported; instead, "*once an import entered the country, it was handed over to the appropriate distributor*" (Baldinger, 1998 apud Jiang & Prater, 2002, p. 784). Unable to address all the necessities of China's flourishing economy, this model began to be deconstructed and replaced by one more aligned with the need to keep a fast-paced and efficient flow of products.

To address this issue, in 1978, the Chinese central government sought to reform the sector, removing the imposed marketing channels of industrial goods, creating new circulation channels and improving operating methods (Luk, 1998). To do so, several policies were passed, with the Minister of Commerce stating that the objective of these policies was to, firstly, establish a new logistics system where state-owned distributors would coexist alongside private LSPs, secondly, to establish a new wholesale system with fewer intermediaries and, thirdly, to establish an in-depth and comprehensive network that could guarantee an easy flow of goods on a town, county, provincial or regional levels (Luk, 1998). Coupled with the Ten Regulations the State Council approved in 1984, this opened new possibilities for companies and organizations to enter new markets, select new distributors or new potential buyers (Luk, 1998). Nevertheless, at the onset of China's economic reform, "*infrastructure development lagged behind due to low government spending, decreased investment incentives of state-owned enterprises and weak capability of local government*" (Lin, 2001 apud Lean et al., 2014, p. 102). There was still a long way to cover to develop China's logistics sector and despite the reforms until then, the transport of goods among provinces was still inefficient and costly. That is why, in 1986, the current Chinese Prime Minister stressed the importance and the "*need*

for establishing horizontal connections/associations between enterprises across different industries and/or provinces” (Li Peng, 1988 apud Luk, 1998, p. 50), crucial to tear down “*bureaucratic and geographical barriers*” (Luk, 1998, p. 50). The logistics system thus created was based on the premise that producers had to supply the amount of goods required by their contract with the central government and had the freedom to decide whether they wanted to produce more and sell the excess in free markets of various provinces, according to the needs of the market (Luk, 1998). Even with these changes the Chinese government made to China’s logistics system, it still lies “*somewhere between a rigid planned structure and a free market system*” (Jiang & Prater, 2002, p. 785). Moreover, because of China’s size and its geographic differences, “*only the state had the resources to build and operate a costly, national distribution system*” (Jiang & Prater, 2002, p. 784); due to this, and in spite of the reforms, many suppliers still make use of the comprehensive and extensive network of this state-owned distribution system (Jiang & Prater, 2002), that still exists despite the layers between tiers having disappeared.

As aforementioned, the focus on logistics used to be based on the physical movement of goods and the definitive goal of each policy was to improve this flow and to diminish the costs of this sector. However, due to a “*lack of relevant experience and a well-developed legal system in China*” (Luk, 1998, p. 50), the government was blind to the problems that were starting to exist by virtue of these reforms. One of the direst problems, according to Luk (1998) was in the distribution sector; the author characterizes this issue by quoting Li Peng (1988, apud Luk, 1998, p. 51): “*many commercial enterprises, both state-owned and private, were actively engaging in the illegal resale of goods at exorbitant profit*”. When the Chinese central government came to know of these practices, caused by gaps in legislation and lack of control mechanisms (Li Peng, 1988 apud Luk, 1998) created during the still occurring transition from the central economic planning system to a socialist market economy, they found no other solution than to, in 1989, shift the focus of the economic reform to consolidating and rectifying their efforts (Luk, 1998). To achieve this goal, companies had to obtain several approvals in order to market their products; in addition, it also became mandatory that “*all local governments had to effectively regulate and monitor the prices for commodities though the price relaxation policy had been introduced*” (Luk, 1998, p. 51) among other approvals companies would have to obtain in order to market their products.

This corrective action was key in the development of China's economy as it was one of the key factors that gave momentum to the decision of going further along the Chinese path to a market economy. According to Luk (1998), the Third Plenary Session of the 14th Central Committee of the Chinese Communist Party in November 1993, decided on reforming the economy further. Soon thereafter, still in 1993, the Chinese government, on their "*Decision on Some Issues Concerning the Establishment of a Socialist Market Economic System*", crystallized the market mechanism as a "*fundamental factor in the disposition of resources under the State's macrolevel control*" (Luk, 1998, p. 52). Along with this change, various other reforms were implemented, such as allowing organizations to both import and export products and components (Luk, 1998). Consolidating this change, China joined the WTO in 2001 and lifted some of the limitations to foreign investment in logistics, thus allowing for the implementation of supply chain management systems in organizations (Spillan, McGinnis, Kara, & Liu Yi, 2013); in 2005, the final restrictions to the sector were eliminated. It is, however, relevant to point out that, at least in 2011 and despite these reforms and advances, "*due to the lack of adequate logistics infrastructure in China, the level of logistics functions performed by local manufacturers-cum-suppliers is generally below world standards*" (Rahman & Wu, 2011, p. 471).

Despite the reforms done by the Chinese Government to the logistics sector, there was another hurdle in the path towards good, reliable logistics spanning the entire country and the creation of a countrywide market: "*poor transportation infrastructure and provincial particularism*" (Taylor, 2010, p. 668); Demurger (2001, apud Lean, Huang & Hong, 2014) defends that the uneven distribution of transport infrastructure was, at least partly, to blame for the regional inequality in China. China's logistics had several issues: "*aged infrastructure (...), archaic handling equipment and the lack of qualified logistics personnel*" (M. Goh & Ling, 2003, p. 887, my ellipses). In an attempt to tackle these issues, this country-spanning transport system became one of the main goals of the Tenth (2001-05) and Eleventh (2006-10) Chinese Five Year Plans (Taylor, 2010). As a result, the Chinese Government made hefty investments in infrastructure for logistics and transportation, while local companies sought to develop new logistics capabilities, in order to "*provide better services and reduce operating costs*" (Rahman & Wu, 2011, p. 464).

Showcasing the importance of this issue, Lean, Huang & Hong (2014, p. 98) discovered that a “*long-run relationship between logistics development and economic growth*” exists. An example of this is the location of China’s main logistics clusters, located around first tier cities. According to Colliers International (2013), six main logistics clusters exist: Tongzhou and Shunyi Districts (Beijing); Songjiang and Pudong New Districts (Shanghai) and the Luogang and Huangpu Districts (Guangzhou). The location of these clusters is directly related to two reasons, high retail sales and developed infrastructure. The proximity to the coast or the eastern location that two of these three cities share also explain this clustering. Lack of suitable land to develop is, however, driving companies away from these locations. According to Colliers International (2013, p. 5), in Beijing and Shanghai “*most suitable land has already been developed*” and in the instances where this is not the case, its expensive cost is stopping LSPs from establishing themselves. In other cases, settling in another location can be an issue, since China’s inland is less developed and less urbanized, lagging “*behind eastern China*” (Colliers International, 2013, p. 3) and the infrastructure serving it is not as good as the one available in the eastern region. Even if ever “*since the late 1990s, the government has exerted a lot of effort to address this problem and has tried to develop transport infrastructure in Western and Central China*” (Lean et al., 2014, p. 102), this continues to be an obstacle for China beyond the eastern, coastal region.

As stated before, having good infrastructure in place helps boost the logistics sector and this sector, in turn, is connected to economic growth; hence, infrastructure development, in addition to the regional and national benefits it brings, is “*helpful for economic growth in lagged areas*” (Lean et al., 2014, p. 102). This view is corroborated by Mody and Wang (1997), who found that, from 1985 to 1989, building roadway infrastructures in coastal China amplified economic growth in the region; Demurger’s (2001) study also supports these findings, as he discovered that improving infrastructure conditions helped to economically advance 24 Chinese provinces, in the time between 1985 and 1998. This infrastructure advancement and the economic growth that flourishes alongside it are vital for the advancement of the Chinese interior, as it helps reduce *travel time and cost, increasing producers’ access to distant markets*” (Hong et al., 2011, apud Lean et al., 2014, p. 102).

Despite its importance, this infrastructural enhancement is a work in progress and is unable, as of yet, to answer local and foreign needs, thus demanding additional improvements. China is “*straining under the weight of its new economic growth: insufficient highways, ancient port facilities, and limited runways and airports*” (Daly & Cui, 2003, p. 236) all aid in making logistics in China costly and inefficient and render LSPs incapable of offering much more than, commonly, low-quality services. Finally, developing its infrastructure is just one of the steps that China needs to take to keep on improving its logistics system.

China’s logistics environment is still evolving. M.-F. Goh et al. (2010, p. 1) point out that “*fragmentation and intense competition highlight a market in which competitors offer similar and limited services*”. Spillan et al. (2013, p. 157) reinforce this notion by stating that in Chinese logistics there are various “*fragmented and uncoordinated logistical activities that need to be rationalized*”. On a study conducted by Daly & Cui (2003) in Qingdao, 15 people, ranging from members of the Qingdao municipal to marketing and logistics workers from local business, were interviewed and allowed the authors to reach the conclusion that “*transportation, while good in the general Qingdao area and along waterways, is a wide spread difficulty throughout the country*” (Daly & Cui, 2003, p. 239); also, one of the panellists pointed out that even though a great amount of transport companies were present in the area, “*no real third party providers*” (Daly & Cui, 2003, p. 239) existed. To address this problem, it is vital for China to let 3PL providers expand and grow in China as they are still laying their foundations (Rahman and Wu, 2011). Also, according to Hong and Liu (2007 apud Lean, Huang & Hong, 2014, p. 97), “*most of the logistics companies in China provide limited value-added service to customers and society*” but that must change and LSPs in China must start to encompass more logistics capabilities and knowledge, whether they are 3PL companies in their own right, whether they are, as is a common case, manufacturing companies performing the role of LSPs for their customers (Rahman & Wu, 2011) or whether they are “*small, nimble logistics firms can operate in a gray area of Chinese law*” (Jiang, 2002, p. 186), making use of the fact that logistics is not clearly regulated in China, in opposition to the distribution sector, which is. Finally, this enhancement of logistics in China will play a crucial role, taking into account the astounding growth of e-commerce in China.

Online retail sales have increased “*at a compounded average growth rate of 71,3% from 2009 to 2012*” (Colliers International, 2013, p. 3) and were predicted to hit, in 2015, two times the sales of 2012: 2,57 trillion RMB in 2015 in opposition to 1,32 trillion RMB in 2012. This is driving “*greater demand for logistics*” (Colliers International, 2013, p. 3) and creating the need for the appearance of more 3PL providers. In developed countries, 10-14% of the logistics market share belongs to 3PL providers, while in China they take only 7% of the market share (Goodman apud Colliers International, 2013). This number is, however, expected to grow to achieve 11% in 2016 (Goodman apud Colliers International, 2013).

E-commerce in China has been developing rapidly and, supported by the use of new software “*such as RFID, the logistics industry in China has experienced rapid development*” (Lean et al., 2014, p. 96). This development is due, in part, to the betterment of infrastructures and to the development of value-added services made available by logistics companies in China; PwC (2012) points out some of these as being shipment tracking, quality management, staff qualifications, just-in-time delivery, security standards, risk management, hygiene standards, and special storage.

With this growth in e-commerce use and bearing in mind the aforementioned issue that China’s hinterland is lagging behind the developed east coast, both in services and in infrastructure, two points must be approached: geographical dispersion and coverage. An online store is remarkably closer than a brick-and-mortar one and far more accessible. Nevertheless, despite removing middlemen from the distribution chain, it also increases an organization’s difficulty in distributing their products. Some of the results originating from this increase in addresses to which products need to be delivered, as buyers are no longer consolidated in just one address, like a retailer, are that, as Delfmann, Albers & Gehring (2002, p. 215) highlight, “*fluctuating geographical distances and greater dispersion of buyer and customer favour those LSPs of this type [standardizing and/or bundling LSPs] who operate an extensive network in order to be able to cover all city-pairs required by their potential customers*”. The adaptability and plasticity required for this new logistical paradigm could not be more distant from the tightly-contained, clearly-defined and structured past of Chinese logistics; to adapt may be an arduous task but a necessary one. Delfmann, Albers & Gehring (2002, p. 214) state that e-commerce requires LSPS to “*offer a more flexible transport system in order to serve fast-changing*

customers”; Goh *et al.* (2010, p. 7) go beyond that statement to specify that potential leaders in Chinese logistics “*will offer new, value added services based on existing capabilities to match customers’ increasing demands and capture market opportunities*”, using the new tools made available by Information Technology as a comparative advantage in comparison to other providers (Goh *et al.*, 2010).

When contrasted with “*manufacturing, logistics generates lower tax revenues for a city and creates limited employment opportunities. Municipal governments generally prefer a high-tech facility with hundreds of workers and taxable goods to a 20.000 square meter warehouse with 20 workers*” (Colliers International, 2013, p. 5). Despite having the backing of central government, this backing has not yet trickled down to lower-level government, such as municipal ones, mainly because they would prefer to support more tax-worthy and job-generating industries. This offers an explanation for the difficulties enmeshing the obtainment of land in second tier cities, even when undeveloped land exists plentifully. *Guanxi* plays an important role here, as Colliers International (2013, p. 6) states that this land acquirement “*process is strongly relationship driven and having a team that can work with local officials is sometimes the key to securing a plot*”. Lin & Si (2010, p. 576), drawing from studies by Peng & Luo (2000) and Wu & Choi (2004), take this argument one step further, claiming that “*Chinese organizations of all kinds find themselves forced to invest in “guanxi” cultivation with the government to maintain the social connections necessary for their survival*”, which points towards the strain that not having favourable *guanxi* can exert on companies and its importance in the making – or breaking – of a company’s presence in China. This is one of the main issues afflicting the development of Chinese logistics and contributing to the market fragmentation patent there – as Jiang & Prater (2002, p. 787) assert, “*beyond the geographic size and unbalanced development, the political/legal barriers are the most powerful forces that separate China’s distribution market*”.

2.4 E-commerce in China

“*China became the second largest internet market and the biggest mobile phone market in the world in 2002*” (Wong, Yen, & Fang, 2004, p. 68). Wong, Yen & Fang

(2004) were basing their analysis on the latest report by the China Internet Network Information Center (CNNIC) at the time, the “*Survey Report on Internet Development in China*” of January 2003, a survey that stated that China had reached, in December 2002, 59.1 million Internet users; a number that shies in comparison to the latest data presented by the (CNNIC, 2017), the 39th Statistical Report on Internet Development in China (January 2017), which points towards 731 million Internet users and 695 million mobile Internet users by the end of December 2016. In almost 15 years, the number of Internet users in China grew to more than ten times their original size. The distribution of these users, however, resembles the clustering of logistics across major cities covered earlier; Wong, Yen & Fang (2004) point out that, in 2002, the northern, eastern and southern regions of China accounted for over 70% of the total number of Internet users, closely resembling the uneven and contrasting development of China’s coast and hinterland. In 2016, the Internet penetration in rural areas still lagged well behind the urban penetration rate; according to the 39th Statistical Report on Internet Development in China, published by the CNNIC in January 2017, the Internet penetration rate in urban areas was of 72,6%, while in rural areas it was 45,2 percentage points below that, at 27,4%. However, this uneven distribution of Internet users can be considered as positive news for e-commerce players, since less geographical coverage is required for delivering goods bought online. According to Wang (2012, p. 291), “*among Internet users in China, 27,9% have online shopping experience, and this percentage increases in big cities such as Shanghai (45,2%), Beijing (38,9%), and Guangzhou (31,9%)*” and it is worth noting that, since his study, these numbers have risen again: in the most recent CNNIC report, in December 2016, 63,8% of Internet users shopped online and mobile shoppers now comprised 63,4% of the total mobile Internet users. The development of this market has been hampered due to several factors; Ma, Meng & Xiao (2010) point them out with a comparison to the rise of the e-commerce market in the USA, stressing that the fast acceptance of e-commerce in countries like the USA was due to “*several pre-existing conditions: a long history of catalogue marketing that helped the fast acceptance of virtual transactions, a high rate of internet penetration, a mature credit payment system, and the presence of efficient delivery services*” (Ma et al., 2010, p. 136), none of which has been well established in China. While the issue of Internet penetration has already been discussed here, the other issues have not.

Accepting virtual transactions has been a challenge in China, especially because “*Chinese have long favored face-to-face transaction because they help to build trust, which is in turn a precursor to successful business relationships*” (Ma et al., 2010, p. 136). The question of trust is quintessential in e-commerce in China and is addressed by Wang (2012, p. 293), which points out that “*75% of users consider the trustworthiness of the seller the most important factor in an online transaction, whereas only 16% perceive price as a major concern*”. Hence, trust is one of the main factors weighing in on one’s decision of buying online. Moreover, and directly relevant, is the existence of swift *guanxi*. Swift *guanxi* between a buyer and a seller is outlined with the following dimensions by Ou, Pavlou & Davison (2014, p. 224): “*mutual understanding, reciprocal favors, and relationship harmony*”. Their study shows that swift *guanxi* is an “*important step toward converting one-time buyers into repeat buyers*”, and placing it as a “*significant predictor of buyers’ actual repurchases over time*” (Ou et al., 2014, p. 224). It surfaces therefore as a dimension of trust, an incentive to customer loyalty that was previously reserved to, as Ma, Meng & Xiao (2010) put it, face-to-face transactions.

The credit payment system issue is one that is disappearing. While in 2010, Wang noted that in “*the 2008 CNNIC survey, 71% of online customers noted that they had used online electronic payment methods*”, many still relied on “*traditional «cash on delivery» methods*” (Wang, 2012, p. 293). However, according to the 39th Statistical Report on Internet Development in China by the CNNIC, online and mobile payment users continue to grow year after year. From December 2015 to December 2016, online payment users increased by 14%, reaching 64,9% of Internet users; also, in the same period of time, mobile online payment users grew by 31,2%, reaching 67,2% of Internet users (CNNIC, 2017). It is, therefore, an issue that is being addressed and that will most likely disappear given time.

Finally, one of the major issues with e-commerce has been logistics-related, since “*shipping products to customers represents a practical concern for online retailers and shoppers. In many areas in China, commercial couriers simply do not reach far enough. Shipping usually is costly, takes a long time, and applies to only limited service areas*” (Wang, 2012, p. 293). Additionally, Delfmann, Albers & Gehring (2002, p. 214, my ellipses) point out that “*the most obvious and frequently mentioned characteristic of e-marketplaces is the rise of short-term, spot-based transactions with a varying and great*

number of different suppliers. (...) LSPs fulfilling logistics for electronic marketplaces have to offer a more flexible transport system in order to serve fast-changing customers”. E-commerce consumers have different requirements and offering a good logistical service to the consumer is a natural step in ensuring relationship harmony and, thus, in leading to the conversion of a customer into a repeat buyer, as above-mentioned. To achieve this, offering better and more flexible logistics services and focusing on improving the last mile logistics experience for the consumer not only aids in this conversion but is also counted upon beforehand from the seller; offering this services and making sure that this experience is as smooth and pleasurable as possible may also function as a detractor for customers, to prevent them from switching to another of the immense number of sellers at one’s disposal online. So, *“delivery service is critical to maintaining buyer/seller relationships; most leading firms recognize and acknowledge the contribution of logistics-driven customer service. Consistently, top rate delivery service can gain preferred status for a supplier”* (Stank et al., 1999, p. 12). This delivery is a requisite that, consistently, *“many studies show that customers consider the logistics performance as an important factor of E-commerce, especially the last mile distribution”* (Yu, Wang, Zhong, & Huang, 2016, p. 182); they back up this argument by stipulating that companies that have a self-supporting *“logistics team such as JingDong, Lowes and Amazon, they provide really good logistics service experience to customers, and the rates of customer satisfaction of these companies are high”* (Yu et al., 2016, p. 182). Hence, one conclusion can be drawn: last mile logistics holds much more importance for e-commerce than it holds for brick-and-mortar commerce. This can be explained because, in brick-and-mortar commerce, last mile logistics were assured by the buyer; the seller side’s only concern was to get the goods to retailer, where they could be bought in person by a buyer who would then proceed to move the bought goods to their destination. With e-commerce, the retailer is no longer the only middleman between buyers and the organizations selling a product; there is room for an increasingly direct relation between companies and consumers – a true shift in the buyer-seller balance. What e-commerce brought to the table, among other things, was that consumers seek more flexibility, making the products they bought come to them instead of going out to buy them; also, these are, usually, smaller orders, when compared to retailing orders. Summing this, Delfmann, Albers & Gehring (2002, p.211) point out that this has *“major implications, as decentralized and*

uncoordinated logistics activities (from individual customers) are transformed into potentially bundled goods flows, which are at least to a certain extent controlled by the supplier side, leaving room for sophisticated planning and design of effective logistics systems". The need for this sophisticated planning, as put forth by Delfmann, Albers & Gehring, works as an opportunity for 3PL providers as well. Companies that require an extensive or comprehensive network in a fast manner may turn to 3PL providers to access such a network; also, companies that seek to enter new regions without having to plan and implement a logistics network there may turn to 3PL providers already operating there and use theirs. If these networks grow large and comprehensive enough, 3PL providers may even use them as a comparative advantage in relation to other logistics providers. To conclude, Delfmann, Albers & Gehring (2002, p.213) affirm that *"in order to participate in e-commerce, companies will have to seek new logistical solutions. Pure e-commerce players will, in the worst case, have to focus on logistics as well as on marketing; offline players will have to build a second logistical infrastructure when participating in e-commerce"*.

2.5 Portuguese companies' relations with the Chinese market

According to Ilhéu (2006), Portuguese companies recognize the importance of the Chinese market and tend to *"strongly agree in a consensual manner that the Chinese market has a significant dimension for their products, is growing very fast and is significant for their companies, even if it is not becoming important in their business portfolio"* (Ilhéu, 2006, p. 41). As China further assumes its role as an economic powerhouse, it is only natural that an increasing number of companies focus their attention on its immense domestic market, weighing in on a number of still unexplored or untapped opportunities in China. According to Ilhéu's (2006, p. 37) study, it is worth noting that *"Portuguese exports to China are in their majority done directly, not depending on intermediaries and allowing business owners to better know the market and define their strategy"*. However, Portuguese companies recognized several problems in Ilhéu's (2006, p. 124) study, such as a *"fragmented market, poor market infrastructures, mainly distribution, and great competition"*. Furthermore, distribution is one of the *"most*

difficult aspects of selling in the Chinese market” (Ilhéu, 2006, p. 124) for Portuguese companies. In addition, a very important notion arises from Ilhéu’s (2006, p. 37) study: *“the diversity of experience [of Portuguese companies] is limited and concentrated on few activities in the Chinese market”*, originating the notion that *“lack of information and lack of experimental knowledge are the factors that condition a greater commitment of Portuguese companies in the Chinese market”* (Ilhéu, 2006, p. 146).

This lack of information and experimental knowledge explains the fact that despite recognizing the importance of the Chinese market, both presently and in the future, Portuguese companies are not willing, today, to commit further with China’s enormous domestic market. As Johanson and Wiedersheim-Paul (1975) assert, due to not knowing foreign markets and since there is an underlying desire on a company’s part to elude uncertainty, most firms start obtaining foreign exposure to neighboring countries or to countries that are *“comparatively well-known and similar with regard to business practices”* (Johanson & Wiedersheim-Paul, 1975, p. 306). This model is facing some criticism, with companies that are “born global” challenging this model for internationalisation; however, the majority of companies in Portugal are more traditional and were not born global and, therefore, the Uppsala model offers an explanation for the hesitancy of Portuguese companies in further committing to China: as a foreign and both culturally and geographically distant country and factoring in Ilhéu’s (2006, p. 64) findings that *“companies consider that the information they have on the Chinese market is not sufficient and conditions a greater bet in this market, in terms of resource commitment”*, it is easily understandable why China is not garnering more attention from Portuguese investors.

3. CONCEPTUAL FRAMEWORK AND RESEARCH PROPOSALS

3.1 Conceptual Framework

In the past chapter, a comprehensive literature review was put forth to address the objectives of this MFW. Therefore, based on the previous chapter and considering the objectives defined for this research, several indicators were considered relevant for this assessment, shown in the following table (Table I). It is noteworthy that there is a lack of

academic work covering the availability of value-added services in LSPs; hence, the indicators presented in Table I regarding this dimension are based on a study done by the consulting firm PricewaterhouseCoopers in 2012.

Dimensions	Indicators	Sources
Availability of value-added services in LSPs	Shipment tracking; Quality management; Staff qualifications; Just-in-time delivery; Security standards; Risk management; Hygiene standards; Special storage;	<ul style="list-style-type: none"> • PwC (2012);
Efficiency of LSPs	Customs; Infrastructure; International shipments; Logistics quality and competence; Tracking and tracing; Timeliness;	<ul style="list-style-type: none"> • Arvis <i>et al.</i> (2016);
LSPs adequacy to e-commerce	Flexible transport systems; Geographical extension/coverage by Logistics Services Providers; Logistics Service Providers' network density; Cost; Last mile logistics; Use of RFID; Quality of delivery service.	<ul style="list-style-type: none"> • Delfmann, Albers & Gehring (2002); • Wang (2012); • Daly & Cui (2003); • Lean, Huang & Hong (2014); • Stank, Daugherty & Ellinger (1999); • Yu <i>et al.</i> (2016).

Table II – Dimensions and Indicators

Based on the previously shown dimensions and indicators, a conceptual framework was defined (figure 2):

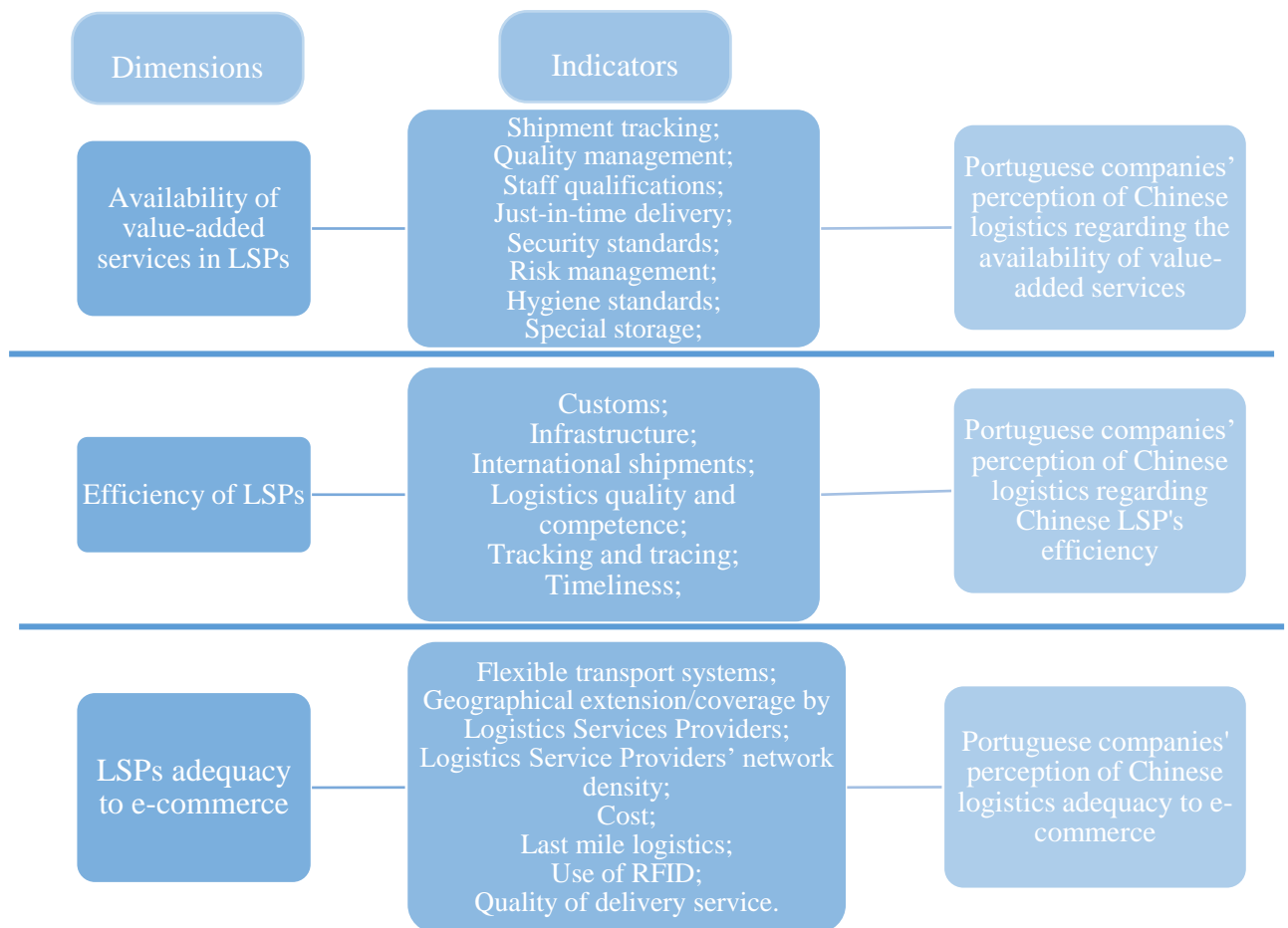


Figure 2 – Conceptual Framework

Through the analysis of the dimensions presented in the analysis model, three dimensions were defined, representing an aggregate result of the positive or negative perception of each of their dimensions. These dimensions – Availability of value-added services in LSPs, Efficiency of LSPs, and LSPs adequacy to e-commerce – allow for the perception of Portuguese companies on Chinese logistics to be assessed.

3.2 Research Proposals

With three dimensions, along with several indicators, defined in the previous chapter, three research proposals were put forth to be assessed:

1. Do Portuguese companies have the perception that value-added services are available in the Chinese market for Portuguese companies to use for distributing their products, such as shipment tracking, quality

management, qualified staff, just-in-time delivery, security standards in place, risk management, hygiene standards taken into account or special storage?

2. Do Portuguese companies have the perception that the LSPs available for distributing their products in the Chinese market are efficient?
3. Do Portuguese companies have the perception that, in China, LSPs are adequate for distributing their products on the Chinese e-commerce market?

4. RESEARCH METHODOLOGY

In order to ascertain if the research proposals posited in the previous chapter were valid, a quantitative methodology was chosen. There are several advantages that arise from using a questionnaire when collecting data, such as a reduction in answer variation and an increase in the standardisation of answers; these advantages, in turn, translate into an increase in regard to the ease of data analysis.

4.1 Questionnaire

A questionnaire was designed in English and Portuguese, in order to increase the respondents understanding of what was being asked and to avoid hypothetical *nuances* or losses in meaning arising from the primarily Portuguese speaking respondents answering a questionnaire in English. This questionnaire characterizes the respondent, the company the respondent is responding for and, finally, assesses their perception on the issues stated in the research proposals through the use of three 5-point Likert scales to address each of the indicators established on Figure 2, chapter 3.1.

The questionnaire structure was designed based on the analysis model presented in figure 2 and divided into four sections: Section I is composed of 5 questions characterizing the respondent; Section II has 8 questions and characterizes the responding company; Section III assesses the respondent company's perception on the availability of value-added services and efficiency of LSPs in China; Section IV addresses respondent company's perception on the LSPs adequacy to e-commerce in China. Sections III and

IV consist of three sets of dimensions (two sets on Section III and one on Section IV) disposed on a 5-point Likert scale. The surveys can be found in the Attachments section, as Attachment I (English version) and Attachment II (Portuguese translation). The results of this survey were then analysed on *IBM SPSS Statistics Subscription*.

4.2 Sample Selection and Data Collection

This empirical study was performed regarding the universe of Portuguese firms that export to China. It is worth noting that some of the inquired companies may be subsidiaries of foreign countries but are considered Portuguese since they are officially registered with the Portuguese State. The listing of these companies was created based on two different databases from AICEP (Portuguese International Trade and Investment Agency): the first was a list of the 100 largest Portuguese exporters to China, and the second one was a listing of all Portuguese suppliers that were either interested in or exporting to China. The two databases were compared to rule out duplicates before sending the questionnaire and to remove companies without contact information. The sample profile is defined in the table below, Table II.

Target Population	Portuguese firms that export to the Chinese market
Universe	Portuguese firms that export to the Chinese market according to the databases made available (1094)
Sampling frame	Target population with e-mail (1086)
Number of completed questionnaires and response rate	95 (8,75%)
Method of sample selection	Non-probability sampling
Databases	AICEP (Portuguese International Trade and Investment Agency)

Table II - Sample Profile

Data was collected through an online questionnaire conducted among the study population, made available to potential respondents on a Qualtrics platform, both in Portuguese and English, and sent to them via e-mail. A brief introduction in the e-mail body explained the purpose of the research and thanked for the cooperation of all participants, asking for the questionnaire to be filled out by decision-makers or logistics-related personnel. The questionnaire was made available for one month, between March and April of 2018 and several reminders were sent to the study population during that time, in order to incentivize responses and in an effort to maximize the response rate. 95 responses were collected (8,75%) but only 23 of those were considered for this study: the 23 that responded affirmatively to the questionnaire's 9th question, that asked if their company exported, manufactured, assembled or produced products in China. The quantitative data analysis was supported by *IBM SPSS Statistics Subscription*.

5. RESULTS

5.1 Sample Characterization

The results from the sample characterization reveal that an overwhelming majority of the companies (82,6%) classify themselves as international (exporting with a strategy adapted to each external market); the other companies classify themselves as global (using a global strategy) (17,4%). The analysis of the respondent company's dimensions reflects the fact that most companies in Portugal are SMEs (99,9%, according to INE & PORDATA, 2016), as SMEs were by far the largest respondents (86,9%). As for these 23 companies' international operations, the two most common ones are direct imports (43,5%) and direct exports (91,3%). It is important to point out that all the considered respondents from micro, small and large companies perform direct exports (100% each); the only exception is in medium companies, where only 60% perform direct exports. Indirect exports, however, only amounted to 21,7% of the choices, with 17% of the micro companies choosing this option and 44% of the small ones. It is also worth pointing out that only 4,3% of the considered respondents performed investment related international operations and that this option was only selected by small companies. More detailed information on the international operations performed by these companies are shown in Attachment III.

From the 23 companies accepted as respondents, 26,1% works directly with one or more logistical service providers in China, with 50% working with just one provider, 33,3% working with 3 providers and 16,7% working with 5 providers. Most of these companies have been distributing products in China for more than a year (95,7%): for less than 1 year – 4,3%; 1 to 3 years – 43,5%; 3 to 5 years – 17,4%; over 5 years – 34,8%. Even so, despite this commitment to the Chinese market, the percentage taken by this market in these company's total business volume is generally low, with 69,6% of these companies stating that it only amounts to less than 5% and only 8,7% of the companies describing their total business volume in this market as over 50%.

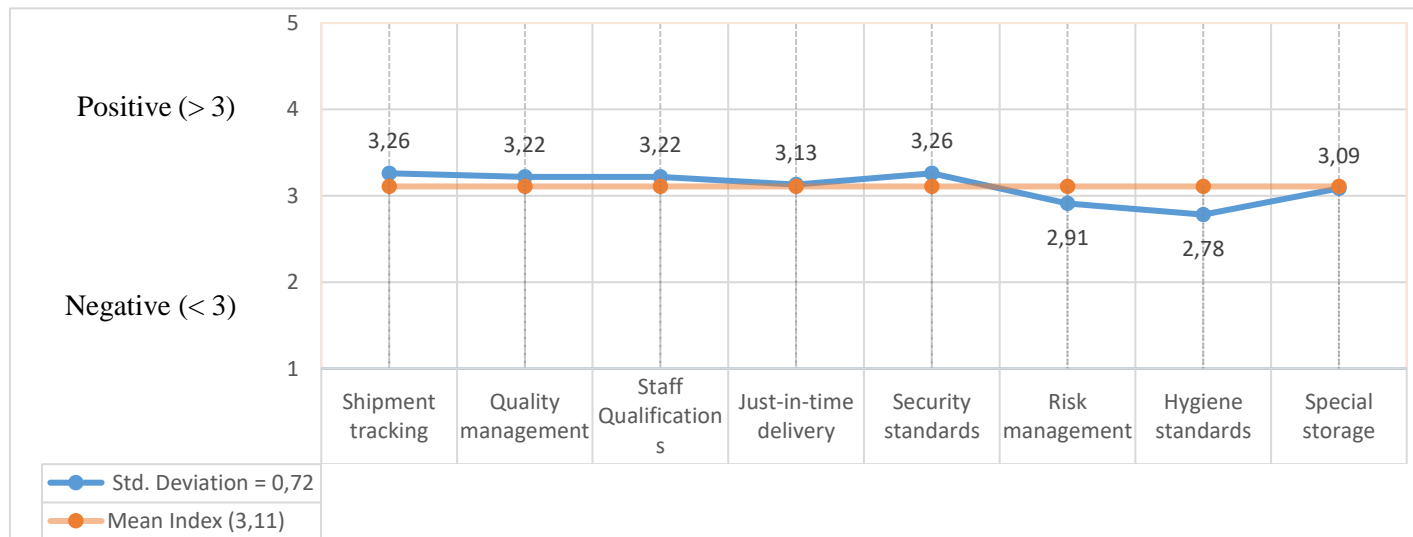
5.2 Testing the research proposals

5.2.1 Research proposal no. 1

The first research proposal seeks to understand if Portuguese companies have the perception that value-added services were available for distributing their products in the Chinese market. To assess this, Section III's question 13 was used to gauge the respondent companies' perception on the availability of the aforementioned value-added services.

The results were average, with most being close to the neutral value (3). The items registering the best scores are related to the availability of shipment tracking (3,26) and security standards (3,26) while the lowest scored was related to hygiene standards being taken into account (2,78). The results for the mean of each of the Likert-scale items used to measure the perception of Portuguese companies regarding the first research proposal are presented in figure 3 below.

Figure 3 - Perception of value-added services of LSPs in China



These results show that the perception of Portuguese companies is that they slightly agree with the availability of most of the value-added services detailed in the research proposal currently under analysis, while slightly disagreeing with the availability of risk management services and of the application of hygiene standards.

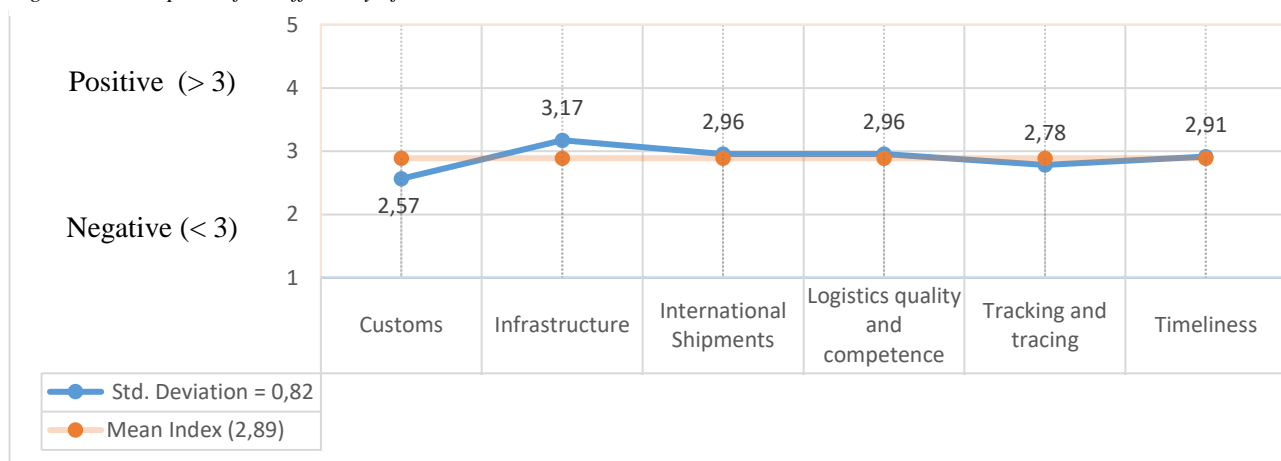
Overall, the mean score obtained from the sum of the items is 3,11, reflecting, on a 5-point Likert scale, how close to being neutral the answers were; they also reveal, however, that Portuguese companies slightly agree that value-added services are available for distributing their products in the Chinese market.

5.2.2 Research proposal no. 2

The second research proposal aims to explore if Portuguese companies have the perception that the LSPs available for distributing their products in the Chinese market are efficient. To assess this, Section III's question 14 was used to measure the respondent companies' perception on the efficiency of these LSPs.

The results were mostly negative although very close to the neutral value of the 5-point Likert scale (3). One item, Customs, stands out with the lowest score (2,57), indicating that Portuguese companies tend to agree that Chinese customs are inefficient. The results for the mean of each of the remaining items can be seen on figure 4 below.

Figure 4 - Perception of the efficiency of LSPs in China



These results show that Portuguese companies slightly perceive the LSPs available for distributing their products in the Chinese market as inefficient, despite considering Chinese infrastructure as efficient.

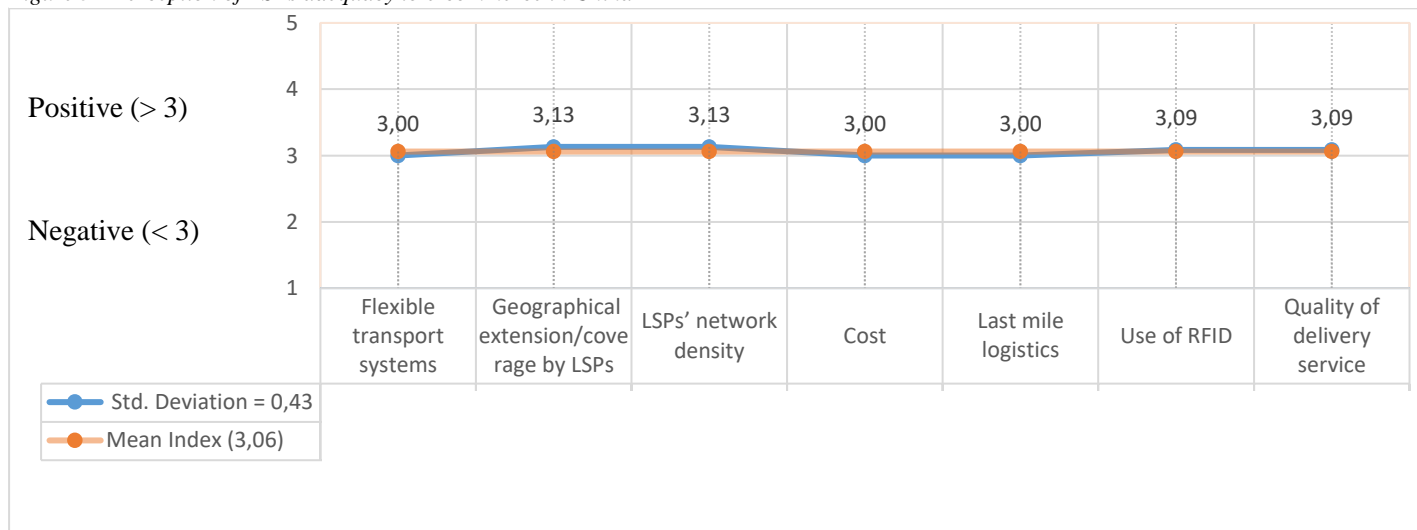
Overall, the mean score obtained from the sum of the items is 2,89, a value that, albeit being on the negative side of a 5-point Likert scale, is very close to the barrier between negative and positive. Nevertheless, these results show that Portuguese companies tend to slightly disagree that the LSPs available for distributing their products in the Chinese market are efficient.

5.2.3 Research proposal no. 3

The third research proposal seeks to comprehend if Portuguese companies have the perception that, in China, LSPs are adequate for distributing their products on the Chinese e-commerce market. To assess this, Section IV's question 15 was used to measure the respondent companies' perception on the adequacy for e-commerce of the LSPs used to distribute their products in China.

The results were markedly neutral, with the means of several items measured falling right on the “Neither agree nor disagree” option that marks neutrality. The results for the mean of each of the Likert-scale items used to measure the perception of Portuguese companies on the adequacy for e-commerce of the LSPs used to distribute their products in China are presented in figure 5 below.

Figure 5 - Perception of LSPs adequacy to e-commerce in China



These results show that Portuguese companies tend to neither agree nor disagree on the adequacy of these LSPs for distributing their products on the Chinese e-commerce market. They do slightly agree that the geographical extension/coverage by LSPs, LSPs' network density, their use of RFID, and the quality of delivery service are adequate for distributing their products on the Chinese e-commerce market.

Overall, the mean score obtained from the sum of the items is 3,06, which reflects, on a 5-point Likert scale, how close to neutrality these answers were. Despite this, this value shows that Portuguese companies slightly agree that, in China, LSPs are adequate for distributing their products on the Chinese e-commerce market.

6. CONCLUSIONS

In chapter 1.1, three objectives for this research were established: to identify the development of Chinese logistics in the past 12 years, to identify the perception of Portuguese companies on Chinese logistics, based on available value-added services and efficiency, and to identify the perception of Portuguese companies on the adequacy of Chinese logistics for e-commerce.

In order to respond to the first of these objectives, a literature review was done, focusing on the evolution of the Chinese logistics system and on the obstacles still cluttering the path towards a Chinese nation-spanning market, as well as on the logistical impact of e-commerce in China. It was found that, despite reformist efforts by the Chinese Central Government to evolve from an inefficient and rigid network, crumbling under the pressing necessity and demand for a more efficient and agile flow of goods, logistics services provided were, generally, below par in relation to world standards, mainly due to the lack of adequate infrastructure. In addition to this, development of much needed infrastructure for logistics was mainly focused on China's eastern region, where most of the major logistics clusters are located, while the central and western regions lagged behind in this development, with all the associated negative consequences, such as a lesser economic growth. To address this, the Chinese government invested in the creation of logistics-supporting infrastructure, to meet economic demand, but were met with unsupportive municipal governments and intense competition and protectiveness among

provinces. And even then, other issues still afflict the Chinese logistics sector, with it being a greatly fragmented and very competitive market, lacking rationalization and systematization, and with its' providers not adding much value to their customers. E-commerce brought an even greater challenge to the table for a sector still breaking away from its initial rigidity, as geographical distances that need to be covered efficiently increase and there is a greater dispersion between buyers and sellers, requiring Logistics Service Providers that are more agile and flexible while covering a greater, sometimes inter-provincial, area.

To address the second and third purposes of this research, a conceptual framework was presented, defining three dimensions – availability of value-added services in LSPs, efficiency of LSPs, and LSPs adequacy to e-commerce – aiming at understanding the perception of Portuguese companies on Chinese logistics and of their adequacy to e-commerce. After careful evaluation of these three dimensions, through a survey aimed at Portuguese firms that export to the Chinese market, the results offer two main conclusions: that Portuguese companies tend to agree that value-added services are available for distributing their products in the Chinese market and that, in China, LSPs are adequate for distributing their products on the Chinese e-commerce market; that Portuguese companies tend to disagree that the available for distributing their products in the Chinese market are efficient.

The averageness of the answers, however, hovering around “3 – Neither agree nor disagree” on a 5-point Likert scale, are in line with what was found during the literature review – that the logistics sector in China is still under development and in its early stages, with providers mostly assuring little value-added services, focusing on just the physical movement and distribution of goods, and with several issues troubling the sector in terms of agility, flexibility, and efficiency. The averageness of the answers was not considered to be a result of Portuguese companies having little knowledge of the Chinese market, since 95,7% of the respondents have been distributing products in China for more than a year, and with more than half (52,2%) having done so for 3 years or more.

7. LIMITATIONS AND FURTHER RESEARCH

There are no easily available up to date and comprehensive lists of Portuguese firms distributing in China, with the available samples being scarce and outdated or too broad and unreliable, thus rendering the quality of information on the target population poor. The most comprehensive public lists available to the wider public were the ones used, provided by AICEP. Even though one was focused on exporters to China, the other was much broader, aggregated based on each company's internationalisation strategy – stating the countries in which a company is interested regardless of having an actual presence, exports, or business in that country. This leads companies listed on that database to choose all countries as being part of their internationalisation strategy, in order to be found more easily by potential foreign buyers, and thus increasing sample size without actually having an interest on, exporting and distributing to, or otherwise working with a given country. Also, some coverage errors were found while processing the available information: duplication of companies and missing elements such as e-mail addresses or other means of contact were among them. Also, since there are no easily available comprehensive public listings of exporting companies to China from Portugal, it was impossible to establish comparisons and ascertain if there were exporting companies that were undiscovered and thus left out of the analysed sample.

Regarding the survey, two further questions are advised in characterizing the respondents: what their function in the company is and how many years of experience they have. These questions would be useful for ruling out respondents that do not work directly on the subject under study or stratify the perceptions based on experience. Additionally, Section I's questions 1 through 4 have no use in regard to the objectives of this study and can therefore be eliminated. Lastly, in relation to the survey, a lack of a less-than on the "5 to 10%" option and a greater-than sign on the "10 to 50%" option on Section II's question 12 could induce errors on behalf of the respondent. The options should be corrected to ">5% to 10%" and ">10% to 50%" to avoid confusion.

Other limitations, related to the very nature of the research type arose: questionnaires were sent by e-mail and e-mails with hyperlinks from unknown addresses, regardless of the explanation of the research process provided in the e-mail text, are often considered spam or phishing. Also, since all questionnaires were self-administered, the researcher was not able to encourage the completion of the questionnaire when respondents deemed it too long, and the lack of face-to-face time with respondents made it harder, if not

impossible, for respondents to ask questions about the research when in doubt about a certain topic. Lastly, since the response rate from considered respondents came in below 5% (2,12%) on a rather small sampling frame (1086 companies), the conclusions drawn from the analysis of questionnaire responses might not reflect the reality of the entire population.

To conclude, further research is advised, using a database listing all Portuguese companies that export to China, serving as a guarantee that the entire target population was being studied. To increase response rate, increasing the availability of the questionnaire from one month to a longer amount of time, and complementing the distribution of the questionnaire via e-mail with phone calls or face-to-face administration of the questionnaire, is advisable. Finally, further research using target populations from different countries could yield interesting results and allow for a benchmark and comparisons to be done.

REFERENCES

- Arvis, J.-F., Saslavsky, D., Ojala, L., Shepherd, B., Busch, C., Raj, A., & Naula, T. (2016). *Connecting to Compete: Trade Logistics in the Global Economy*. World Bank. Retrieved from <http://lpi.worldbank.org/international/global>
- Cho, J. J., Ozment, J., & Sink, H. (2008). Logistics capability, logistics outsourcing and firm performance in an e-commerce market. *International Journal of Physical Distribution & Logistics Management*, 38(5), 336–359. <https://doi.org/10.1108/09600030810882825>
- CNNIC. (2017). *The 39th Statistical Report on Internet Development in China*. Retrieved from <http://www1.cnnic.cn/IDR/ReportDownloads/201302/P020130221391269963814.pdf>
- Colliers International. (2013). *Logistics Property in China - A Look at an Evolving Market*.
- Daly, S. P., & Cui, L. X. (2003). E-logistics in China: basic problems, manageable concerns and intractable solutions. *Industrial Marketing Management*, 32(3), 235–242. [https://doi.org/10.1016/S0019-8501\(02\)00267-5](https://doi.org/10.1016/S0019-8501(02)00267-5)
- Delfmann, W., Albers, S., & Gehring, M. (2002). The impact of electronic commerce on logistics service providers. *International Journal of Physical Distribution & Logistics Management*, 32(3), 203–222. <https://doi.org/10.1108/09600030210426539>
- Démurger, S. (2001). Infrastructure Development and Economic Growth: An Explanation for Regional Disparities in China? *Journal of Comparative Economics*, 29(1), 95–117. <https://doi.org/10.1006/jcec.2000.1693>
- Dubey, P. K., & Shah, J. (2010). Moving up the Value Chain : Impact of Strategic Attributes and Value Added Services on Logistics Service Provider in India. *International Journal of Business Insights and Transformation*, 3(2), 79–91.
- Gimenez, C., & Ventura, E. (2005). Logistics-production, logistics-marketing and external integration: Their impact on performance. *International Journal of*

- Operations & Production Management*, 25(1), 20–38.
<https://doi.org/http://dx.doi.org/10.1108/01443570510572222>
- Goh, M.-F., Wang, T., Gan, C. W., Li, J., & Yu, Z. (2010). China 2015: Transportation and Logistics Strategies. *A.T. Kearney*. Retrieved from http://www.atkearney.com/images/global/pdf/China_2015.pdf
- Goh, M., & Ling, C. (2003). Logistics development in China. *International Journal of Physical Distribution & Logistics Management*, 33(10), 886–917.
<https://doi.org/10.1108/09600030310508708>
- Ilhéu, F. (2006). *A internacionalização das empresas portuguesas e a China*. Lisbon: Edições Almedina SA.
- INE, & PORDATA. (2016). Small and Medium companies in % of the company total: total and by dimension. Retrieved June 2, 2018, from <https://www.pordata.pt/Portugal/Pequenas+e+médias+empresas+em+percentagem+do+total+de+empresas+total+e+por+dimensão-2859>
- Jiang, B. (2002). How international firms are coping with supply chain issues in China. *Supply Chain Management: An International Journal*, 7(4), 184–188.
<https://doi.org/10.1108/13598540210438926>
- Jiang, B., & Prater, E. (2002). Distribution and logistics development in China. *International Journal of Physical Distribution & Logistics Management*, 32(9), 783–798. <https://doi.org/10.1108/09600030210452459>
- Johanson, J., & Wiedersheim-Paul, F. (1975). THE INTERNATIONALIZATION OF THE FIRM? FOUR SWEDISH CASES. *Journal of Management Studies*, 12(3), 305–323. <https://doi.org/10.1111/j.1467-6486.1975.tb00514.x>
- Kotler, P., & Armstrong, G. (2012). *Principles of Marketing* (14th ed.). New Jersey: Prentice Hall.
- Lean, H. H., Huang, W., & Hong, J. (2014). Logistics and economic development: Experience from China. *Transport Policy*, 32, 96–104.
<https://doi.org/10.1016/j.tranpol.2014.01.003>
- Lin, J., & Si, S. X. (2010). Can guanxi be a problem? Contexts, ties, and some unfavorable

- consequences of social capital in China. *Asia Pacific Journal of Management*, 27(3), 561–581. <https://doi.org/10.1007/s10490-010-9198-4>
- Luk, S. T. K. (1998). Structural changes in China's distribution system. *International Journal of Physical Distribution & Logistics Management*, 28(1), 44–67. <https://doi.org/10.1108/09600039810205953>
- Ma, H., Meng, C., & Xiao, J. (2010). The development strategy of electronic commerce in China: New perspective and policy implications. *Journal of Science and Technology Policy in China*, 1(2), 135–147. <https://doi.org/10.1108/17585521011059875>
- Mentzer, J. T., Stank, T. P., & Esper, T. L. (2008). SUPPLY CHAIN MANAGEMENT AND ITS RELATIONSHIP TO LOGISTICS, MARKETING, PRODUCTION, AND OPERATIONS MANAGEMENT. *Journal of Business Logistics*, 29(1), 31–46. <https://doi.org/10.1002/j.2158-1592.2008.tb00067.x>
- Mody, A., & Wang, F.-Y. (1997). Explaining Industrial Growth in Coastal China: Economic Reforms ... and What Else? *The World Bank Economic Review*, 11(2), 293–325. <https://doi.org/10.1093/wber/11.2.293>
- Morash, E. A., Dröge, C., & Vickery, S. (1996). Boundary spanning interfaces between logistics, production, marketing and new product development. *International Journal of Physical Distribution & Logistics Management*, 26(8), 43–62.
- Ou, C. X., Pavlou, P. A., & Davison, R. M. (2014). Swift Guanxi in Online Marketplaces: the Role of Computer-Mediated Communication Technologies 1. *MIS Quarterly*, 38(1), 209–230. <https://doi.org/10.1016/j.jbusres.2010.04.007>
- PwC. (2012). Logistics in China: An All-inclusive Market?
- Rahman, S., & Wu, Y. J. (2011). Logistics outsourcing in China: the manufacturer-cum-supplier perspective. *Supply Chain Management: An International Journal*, 16(6), 462–473. <https://doi.org/10.1108/13598541111171156>
- Ramanathan, R. (2010). The moderating roles of risk and efficiency on the relationship between logistics performance and customer loyalty in e-commerce. *Transportation Research Part E: Logistics and Transportation Review*, 46(6), 950–962. <https://doi.org/10.1016/j.tre.2010.02.002>

- Rivera, L., Sheffi, Y., & Knoppen, D. (2016). Logistics clusters: The impact of further agglomeration, training and firm size on collaboration and value added services. *International Journal of Production Economics*, 179, 285–294. <https://doi.org/10.1016/j.ijpe.2016.05.018>
- Shi, Y., Zhang, A., Arthanari, T., Liu, Y., & Cheng, T. C. E. C. E. (2016). Third-party purchase: An empirical study of third-party logistics providers in China. *International Journal of Production Economics*, 171, 189–200. <https://doi.org/10.1016/j.ijpe.2015.08.028>
- Spillan, J. E., McGinnis, M. A., Kara, A., & Liu Yi, G. (2013). A comparison of the effect of logistic strategy and logistics integration on firm competitiveness in the USA and China. *The International Journal of Logistics Management*, 24(2), 153–179. <https://doi.org/10.1108/IJLM-06-2012-0045>
- Stank, T. P., Daugherty, P. J., & Ellinger, A. E. (1999). Marketing/Logistics Integration and Firm Performance. *The International Journal of Logistics Management*, 10(1), 11–24. <https://doi.org/http://dx.doi.org/10.1108/MRR-09-2015-0216>
- Taylor, R. (2010). China's Developing Infrastructure: The Impact of Globalisation. *Transition Studies Review*, 17(4), 668–685. <https://doi.org/10.1007/s11300-010-0182-y>
- The World Bank. (2016a). Chinese Population. Retrieved from <https://data.worldbank.org/indicator/SP.POP.TOTL?locations=CN>
- The World Bank. (2016b). Land Area, Sq. Km. Retrieved from https://data.worldbank.org/indicator/AG.LND.TOTL.K2?view=chart&year_high_desc=true
- Wang, X. (2012). Foreign direct investment and innovation in China's e-commerce sector. *Journal of Asian Economics*, 23(3), 288–301. <https://doi.org/10.1016/j.asieco.2010.11.007>
- Wong, X., Yen, D. C., & Fang, X. (2004). E-commerce development in China and its implication for business. *Asia Pacific Journal of Marketing and Logistics*, 16(3), 68–83. <https://doi.org/10.1108/13555850410765230>
- Xu, W. (2017). China plans further cuts in logistics costs. Retrieved November 25, 2018,

from

http://english.gov.cn/premier/news/2017/07/05/content_281475712584452.htm

Yu, Y., Wang, X., Zhong, R. Y., & Huang, G. Q. (2016). E-commerce Logistics in Supply Chain Management: Practice Perspective. *Procedia CIRP*, 52, 179–185. <https://doi.org/10.1016/j.procir.2016.08.002>

ATTACHMENTS

Attachment I – Questionnaire in English

QUESTIONNAIRE

Introduction

This survey was developed for the writing process of a master's degree dissertation at the Instituto Superior de Economia e Gestão (ISEG) to evaluate the perception of Portuguese companies on Chinese logistics value-added services and on the adequacy of Chinese logistics for distributing products on the Chinese e-commerce market. There are no right or wrong answers. Your participation on this survey is very important, and the anonymity of your answers is guaranteed, since the results will only be treated in an aggregate. Thank you very much for your availability.

Section I

Social characterization

- | | | |
|------------------------|--|--|
| 1. Age | <input type="checkbox"/> 18-25; | <input type="checkbox"/> 2 nd school cycle (6 th grade); |
| | <input type="checkbox"/> 26-35; | <input type="checkbox"/> 3 rd school cycle (9 th grade); |
| | <input type="checkbox"/> 36-45; | <input type="checkbox"/> Secondary studies (12 th grade); |
| | <input type="checkbox"/> 46-55; | <input type="checkbox"/> Undergraduate studies; |
| | <input type="checkbox"/> 55-64; | <input type="checkbox"/> Post-graduate studies; |
| | <input type="checkbox"/> 65 or more; | <input type="checkbox"/> Master's; |
| 2. Gender | <input type="checkbox"/> Male | <input type="checkbox"/> Doctorate; |
| | <input type="checkbox"/> Female | <input type="checkbox"/> Other. _____ |
| 3. Academic background | <input type="checkbox"/> 1 st school cycle (4 th grade); | 4. Profession
_____ |

Section II

Company characterization

5. What is your company's dimension?
- Microcompany (less than 10 employees, annual billing is inferior to 2 million euros);
 - Small company (10-49 employees, annual billing inferior or equal to 10 million euros);
 - Medium company (50-249 employees, annual billing inferior or equal to 50 million euros);

- Large company (250 or more employees, annual billing over 50 million euros).
6. How would you classify your company?
- Domestic (no exports);
- International (exporting with a strategy adapted to each external market);
- Global (global strategy);
7. What is your company's activity sector?
-

8. What international operations does your company perform? (You may choose more than one)

Imports	direct	
	indirect	
Exports	direct	
	indirect	
Industry	subcontracting	
	production	
Licensing		
Investments	100% capital / wholly-owned	
	joint-venture	
	mergers & acquisitions	
	International tenders	
Construction	local hiring	
	construction, exploration and transference	
Others		

9. Does your company export to or manufacture, assemble or otherwise produce products in China?
- Yes
- No

(If you answered No, the questionnaire ends here. Thank you very much for the time you spent answering.)

10. Do you work directly with one or more logistics service provider(s) in China?

- Yes. How many? _____
- No

11. How long has your company been distributing products in China?

- Less than 1 year;
- 1 to 3 years;
- 3 to 5 years;
- Over 5 years;

12. What is the percentage of the Chinese market in your company's total business volume?

- <5%
- 5 a 10%
- 10 a 50%
- >50%

Section III

Efficiency and availability of value-added services in Logistics Service Providers

13) In regard to the availability of value-added services in logistics service providers for distributing products on the Chinese market, please specify your degree of agreement with the following statements.

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree
	1	2	3	4	5
The shipment tracking available in China is adequate to distributing products in the Chinese market.					
The quality of the logistics service providers' management available in China is adequate to distributing products in the Chinese market.					
The qualifications of the logistical service providers' staff available in China are adequate to distributing products in the Chinese market.					
The availability of just-in-time delivery in China is adequate to distributing products in the Chinese market.					
The security standards in place in China is adequate to distributing products in the Chinese market.					

Risk management mechanisms available in China are adequate to distributing products in the Chinese market.					
The hygiene standards in place in China is adequate to distributing products in the Chinese market.					
The availability of special storage in China is adequate to distributing products in the Chinese market.					

14) In regard to the efficiency of logistics service providers for distributing products on the Chinese market, please specify your degree of agreement with the following statements.

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree
	1	2	3	4	5
Chinese customs are efficient in processing products for distribution in the Chinese market.					
Chinese infrastructure is adequate for distributing products in the Chinese market.					
The processing of international shipments is efficient for the distribution of products in the Chinese market.					
Logistics service providers are qualified and competent.					
The tracking and tracing services available in China are efficient when distributing products in the Chinese market.					
Logistics service providers perform their tasks in a timely manner.					

Section IV

Logistics Service Providers adequacy to e-commerce

15) *In regard to the adequacy of logistics service providers for distributing products on the Chinese e-commerce market, please specify your degree of agreement with the following statements.*

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree
	1	2	3	4	5
The flexible transport systems available in China are adequate for distributing products on the Chinese e-commerce market.					
Geographical extension / coverage is adequate for distributing products on the Chinese e-commerce market.					
The network density of logistics service providers is adequate for distributing products on the Chinese e-commerce market.					
The costs are adequate for distributing products on the Chinese e-commerce market.					
The last mile logistics are adequate for distributing products on the Chinese e-commerce market.					
The use of RFID is adequate for distributing products on the Chinese e-commerce market.					
The delivery service quality is adequate for distributing products on the Chinese e-commerce market.					

Attachment II – Questionnaire in Portuguese

QUESTIONÁRIO

Introdução

Este questionário foi desenvolvido no âmbito da realização de uma dissertação de mestrado no Instituto Superior de Economia e Gestão (ISEG), para avaliar a percepção das empresas portuguesas sobre os serviços de valor acrescentado na logística chinesa e sobre a adequação dos fornecedores de serviços logísticos para a distribuição de produtos no mercado chinês de e-commerce (comércio eletrónico). Não existem respostas certas ou erradas. A sua participação neste questionário é muito importante,

sendo garantido o anonimato das suas respostas, já que os resultados serão tratados como um agregado. Muito obrigado pela sua disponibilidade.

Secção I

Caracterização social

- | | |
|--|--|
| <p>1. Idade</p> <p><input type="checkbox"/> 18-25;</p> <p><input type="checkbox"/> 26-35;</p> <p><input type="checkbox"/> 36-45;</p> <p><input type="checkbox"/> 46-55;</p> <p><input type="checkbox"/> 55-64;</p> <p><input type="checkbox"/> 65 ou mais;</p> <p>2. Sexo</p> <p><input type="checkbox"/> Masculino;</p> <p><input type="checkbox"/> Feminino.</p> <p>3. Habilitações académicas</p> <p><input type="checkbox"/> 1º ciclo do ensino básico (4º ano);</p> | <p><input type="checkbox"/> 2º ciclo do Ensino básico (6º ano);</p> <p><input type="checkbox"/> 3º ciclo do Ensino básico (9º ano);</p> <p><input type="checkbox"/> Ensino secundário concluído (12º ano);</p> <p><input type="checkbox"/> Licenciatura;</p> <p><input type="checkbox"/> Pós-graduação;</p> <p><input type="checkbox"/> Mestrado;</p> <p><input type="checkbox"/> Doutoramento;</p> <p><input type="checkbox"/> Outro. _____</p> <p>4. Profissão
_____</p> |
|--|--|

Secção II

Caracterização da empresa

5. Qual é a dimensão da empresa?
- Microempresa (menos de 10 empregados, faturação anual inferior a 2 milhões de euros);
- Pequena empresa (10-49 empregados, faturação anual inferior ou igual a 10 milhões de euros);
- Média empresa (50-249 empregados, faturação anual inferior ou igual a 50 milhões de euros);
- Grande empresa (250 ou mais empregados, faturação anual superior a 50 milhões de euros).
6. Como classifica a sua empresa?
- Doméstica (sem exportações);
- Internacional (exportações com estratégia adaptada para cada mercado externo);
- Global (estratégia global).
7. Qual é o sector de actividade da sua empresa?

8. Que operações internacionais realizam? (Pode escolher mais que uma opção)

Importação	direta	
	indireta	
Exportação	direta	
	indireta	
Indústria	subcontratação	
	Produção	
Licenciamento		
Investimento	100% capital	
	joint-venture	
	fusões e aquisições	
	concursos internacionais	
Construção	contratação local	
	construção, exploração e transferência	
Outras		

9. A sua empresa exporta para, manufatura, monta ou, de qualquer outra forma, produz produtos na China?

- Sim
 Não

(Se respondeu não, o questionário termina aqui. Muito obrigado pelo tempo despendido a responder.)

10. Trabalha diretamente com um ou mais fornecedores de serviços logísticos na China?

- Sim. Quantos? _____
 Não

11. Há quanto tempo é que a sua empresa distribui produtos na China?

- Menos de 1 ano;
 1 a 3 anos;
 3 a 5 anos;
 Mais de 5 anos.

12. Qual é a percentagem do mercado chinês no volume de negócios total da sua empresa?

- <5%
 5 a 10%
 10 a 50%

>50%

Secção III

Eficiência e disponibilidade de serviços de valor-acrescentado de Fornecedores de Serviços Logísticos

13) *Em relação à disponibilidade de serviços de valor acrescentado de fornecedores de serviços logísticos para a distribuição de produtos no mercado chinês, por favor especifique o seu grau de concordância com as seguintes afirmações.*

	Discordo completamente	Discordo	Nem concordo nem discordo	Concordo	Concordo completamente
	1	2	3	4	5
O seguimento de remessas disponível na China é adequado à distribuição de produtos no mercado chinês.					
A qualidade da gestão disponível nos fornecedores de serviços logísticos na China é adequada à distribuição de produtos no mercado chinês.					
As qualificações do staff dos fornecedores de serviços logísticos disponíveis na China são adequadas à distribuição de produtos no mercado chinês.					
A disponibilidade de entregas <i>just-in-time</i> na China é adequada à distribuição de produtos no mercado chinês.					
Os <i>standards</i> de segurança em vigor na China são adequados à distribuição de produtos no mercado chinês.					
Os mecanismos de gestão do risco disponíveis na China são adequados à distribuição de produtos no mercado chinês.					
Os <i>standards</i> de higiene em vigor na China são adequados à distribuição de produtos no mercado chinês.					
A disponibilidade de locais de armazenamento especiais na China é adequada à distribuição de produtos no mercado chinês.					

14) *Em relação à eficiência dos fornecedores de serviços logísticos para a distribuição de produtos no mercado chinês, por favor especifique o seu nível de concordância com as seguintes afirmações.*

	Discordo completamente	Discordo	Nem concordo nem discordo	Concordo	Concordo completamente
	1	2	3	4	5
Os serviços de alfândega chineses são eficientes a processar produtos para a sua distribuição no mercado chinês.					
As infraestruturas chinesas são adequadas para distribuir produtos no mercado chinês.					
O processamento de remessas internacionais é para a distribuição de produtos no mercado chinês é eficiente.					
Os fornecedores de serviços logísticos são qualificados e competentes.					
Os serviços de localização e seguimento disponíveis na China são eficientes aquando da distribuição de produtos no mercado chinês.					
Os fornecedores de serviços logísticos realizam as suas tarefas a tempo.					

Secção IV

Adequação dos Fornecedores de Serviços Logísticos ao *e-commerce* (comércio eletrónico)

15) *Em relação à adequação dos fornecedores de serviços logísticos para a distribuição de produtos no mercado chinês de e-commerce (comércio eletrónico), por favor especifique o seu grau de concordância com as seguintes afirmações.*

	Discordo completamente	Discordo	Nem concordo nem discordo	Concordo	Concordo completamente
	1	2	3	4	5
Os sistemas flexíveis de transporte disponíveis na China são adequados para a distribuição de produtos no mercado chinês de <i>e-commerce</i> (comércio eletrónico).					

A extensão/ cobertura geográfica é adequada para a distribuição de produtos no mercado chinês de <i>e-commerce</i> (comércio eletrónico).					
A densidade da rede dos fornecedores de serviços logísticos é adequada para a distribuição de produtos no mercado chinês de <i>e-commerce</i> (comércio eletrónico).					
Os custos para a distribuição de produtos no mercado chinês de <i>e-commerce</i> (comércio eletrónico) são adequados.					
A logística de <i>last mile</i> é adequada para a distribuição de produtos no mercado de <i>e-commerce</i> (comércio eletrónico) chinês.					
A utilização de identificação por radiofrequência (RFID) é adequada para a distribuição de produtos no mercado chinês de <i>e-commerce</i> (comércio eletrónico).					
A qualidade do serviço de entrega é adequada para a distribuição de produtos no mercado chinês de <i>e-commerce</i> (comércio eletrónico).					

Attachment III – International Operations performed by considered respondent companies (number of companies choosing the option; companies could choose more than one.)

		Microcompany (less than 10 employees, annual billing is inferior to 2 million euros)	Small company (10-49 employees, annual billing inferior or equal to 10 million euros)	Medium company (50-249 employees, annual billing inferior or equal to 50 million euros)	Large company (250 or more employees, annual billing over 50 million euros).
Company dimension of the considered respondents (%)		26%	39%	22%	13%
Imports	Direct	3	2	3	2
	Indirect	0	0	0	0

Exports	Direct	6	9	3	3
	Indirect	1	4	0	0
Industry	Subcontracting	0	0	1	0
	Production	0	0	3	1
Licensing		0	0	0	0
Investments	100% capital / wholly-owned	0	0	0	0
	Joint-venture	0	1	0	0
	Mergers & acquisitions	0	1	0	0
	International tenders	0	1	0	0
Construction	Local hiring	0	0	0	0
	Construction, exploration and transference	0	0	0	0
Others		0	0	0	0