eCommerce in Brazil

The Development of eCommerce in Brazil and its Impact on Indirect Taxation, Supply Chains and Logistics.

A thesis submitted to the Bucerius Master of Law and Business Program in partial fulfillment of the requirements for the award of the Master of Law and Business (“MLB”) Degree.

Ana Luiza de Siqueira Campos
July 24, 2015

14,412 words (excluding footnotes)
Supervisor 1: Prof. Dr. Stephan Wagner
Supervisor 2: Prof. Dr. José Eduardo Soares de Melo
“You’ve got to start with the customer experience and work back toward the technology – not the other way around.”

Steve Jobs
I have to thank my friends for all the support during this remarkable journey. A special thanks to my great P.A.D. Friends. I dedicate this work to my family, in special my parents, Denise Gonçalves de Siqueira Campos and Roberto de Siqueira Campos. They are the reason of every step taken.
# TABLE OF CONTENT

I. INTRODUCTION 1

II. THE ELECTRONIC WORLD AND ECOMMERCE 3
   II.1. A brief history of the Internet and eCommerce 3
   II.2. eCommerce 6

III. LOGISTICS AND SUPPLY CHAIN MANAGEMENT 11
   III.1. Theoretical concepts 12
   III.2. eCommerce and the e-Supply Chain 17
   III.3. Actual situation in Brazil: insights from a management interview 21

IV. TAXES 24
   IV.1. Origin of taxes 24
   IV.2. Concepts of Source and Permanent Establishment 26
   IV.3. The Brazilian Tax System 28
      IV.3.1. The Brazilian Constitution and Competent Jurisdiction (Taxing Power) 28
      IV.3.2. ICMS - The Brazilian VAT 31
      IV.3.3. ICMS in the Constitution 32
      IV.3.4. ICMS in the Supplementary Law 38
   IV.4. ICMS and the eCommerce 42

V. IMPACTS IN BRAZIL 49
   V.1. ICMS Tax Competition and eCommerce 50
   V.2. The Constitutional Amendment n. 87/2015 53

VI. CONCLUSION 56
<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADIN</td>
<td>Direct Unconstitutionally Action</td>
</tr>
<tr>
<td>AM</td>
<td>Amazonas State</td>
</tr>
<tr>
<td>B2B</td>
<td>Business-to-Business</td>
</tr>
<tr>
<td>B2C</td>
<td>Business-to-Consumers</td>
</tr>
<tr>
<td>B2G</td>
<td>Business-to-Government</td>
</tr>
<tr>
<td>C2C</td>
<td>Consumer-to-Consumer</td>
</tr>
<tr>
<td>CONFAZ</td>
<td>National Finance Policy Council</td>
</tr>
<tr>
<td>ERP</td>
<td>Enterprise Resource Planning</td>
</tr>
<tr>
<td>IBGE</td>
<td>Brazilian Institute of Geography and Statistics</td>
</tr>
<tr>
<td>ICF</td>
<td>Internet Commerce Firms</td>
</tr>
<tr>
<td>ICM</td>
<td>Tax on the Circulation of Goods</td>
</tr>
<tr>
<td>ICMS</td>
<td>Tax on Circulation of Goods and on Services of Interstate and Intermunicipal Transportation and Communication</td>
</tr>
<tr>
<td>ISP</td>
<td>Internet Service Providers</td>
</tr>
<tr>
<td>IVC</td>
<td>Tax on Sales and Consignment</td>
</tr>
<tr>
<td>L&amp;SCM</td>
<td>Logistics and Supply Chain Management</td>
</tr>
<tr>
<td>LC</td>
<td>Supplementary Law</td>
</tr>
<tr>
<td>NTC</td>
<td>National Tax Code</td>
</tr>
<tr>
<td>OECD</td>
<td>Organisation for Economic Co-operation and Development</td>
</tr>
<tr>
<td>SCM</td>
<td>Supply Chain Management</td>
</tr>
<tr>
<td>SEBRAE</td>
<td>Serviço Brasileiro de Apoio às Micro e Pequenas Empresas</td>
</tr>
<tr>
<td>SP</td>
<td>São Paulo State</td>
</tr>
<tr>
<td>USA</td>
<td>United States of America</td>
</tr>
<tr>
<td>VAT</td>
<td>Value Added Tax</td>
</tr>
</tbody>
</table>
I. INTRODUCTION

For many years, being in two places at the same time was impossible according to the law of physics. Nowadays, technology makes this not only possible, but real.

It is certainly true that humans lived in society and, therefore, traded goods even before writing was developed. Definitely, past generations could never have imagined that electronic commercial transactions would be possible.

Electronic Commerce – eCommerce - means, in a nutshell, the action of buying and selling merchandise by using electronic methods, such as the Internet.

The eCommerce and the Internet are considered the next great revolution after the Industrial Revolution, causing tremendous impacts on modern society.

The purpose of the present study is to analyse the impact of eCommerce both on Brazil’s logistics and supply chains and on Brazil’s Tax System.

This study is basically divided into three main parts: (i) eCommerce, (ii) Logistics and Supply Chain Management and (iii) indirect taxation in Brazil.

Firstly, the concepts and technological aspects of Internet and eCommerce will be examined, followed by an evaluation of the eCommerce market in Brazil, its growth and the different types of eCommerce transactions.

Secondly, this study will be focusing on how eCommerce has impacted the logistics and supply chains in Brazil by discussing whether the traditional concepts and paradigms of logistics and supply chain management can be applied to the eCommerce industry. This section will also be looking into the possibility of adopting a new supply chain model: the electronic supply chain.

Finally, since taxes are one of the cost drivers of management decisions, this study will be giving an overview of Brazil’s Tax System, with a focus on indirect taxation. It will be discussing whether the traditional taxation system can be applied to eCommerce companies and describing the impacts that eCommerce has already caused on the country’s legal system.
In short, this study is ultimately designed to understand how revolutionary eCommerce can be with regard to the main aspects of every business: Logistics and Supply Chain Management and Taxation.
II. THE ELECTRONIC WORLD AND ECOMMERCE

The act of trading is intrinsic to human behaviour. Commercial transactions have been conducted throughout the centuries, and the means and methods whereby they are conducted are improved each and every day.

There is no surprise that commerce through electronic devices came into being. Indeed, eCommerce is a direct result of the evolution of conventional commercial transactions.

Although the term ‘eCommerce’ is currently widely recognized, it is not totally clear how it works and how it impacts today’s society. Even less clear is the impact of eCommerce on taxation and on logistics and supply chain management\(^1\).

Therefore, it is crucial to comprehend how eCommerce works and, based on that, understand the role of taxation in the decision-making process as regards the logistics and supply chain.

II.1. A brief history of the Internet and eCommerce

We all use the Internet constantly on our computers, tablets and mobile phones. However, one rarely stops and asks how the Internet was created.

The Internet was originally a military technology. During the technology race in the so-called “Cold War”, one of the goals of the United States of America (USA) was to take the lead of technological advancement. This required a large number of scientists and, as a consequence, computers.

“In order to limit the number of computers requested, ARPA argued that scientist could ‘share a smaller number of computers if these computers were connected together by means of a data network’; and thus the first form of the Internet, known as ARPANet, came into being”\(^2\).

\(^1\)“Technology has created a ‘virtual world’ and a lack of understanding or acknowledgement of such an environment may effect imposition of ineffective taxing systems on eCommerce.” BARDOPoulos, Anne Michèle. eCommerce and the Effects of Technology on Taxation: Could VAT be the eTax Solution? Switzerland: Springer International Publishing, 2015, p. 39.
\(^2\)BARDOPoulos, op. cit., p. 40.
James K. Smith\textsuperscript{3} also defined what the Internet is:

“The Internet is a worldwide-connected network of computers. It is the world’s largest computer network, which is connected by regular phone lines, satellites, microwave links, and fiber optic cables. Computers connected to the Internet are able to communicate by using the same language or protocol. TCIP/IP, which stands for Transmission Control Protocol/Internet Protocol. Individuals currently use the Internet to send e-mail, to retrieve files (text, images, video, and sound) from other computers, to participate in online discussion groups, to use computers at different locations, to use the World Wide Web, and to make phone calls. The most popular element of the Internet is the World Wide Web.”

At present, Internet users are able to access websites that feature electronic pages with images, text and audio as well as communication tools such as instant messages, email and chat rooms\textsuperscript{4}.

There are primarily three types of websites: (i) those that serve as dissemination vehicles by featuring only messages and images; (ii) those that serve as channels of communication by receiving and sending requests and answers; and (iii) the so-called intelligent websites, which not only receive and send requests and answers, but are also able to build a relationship with users by interacting with them.\textsuperscript{5}

It is valid to point out that websites do not work in a completely independent manner. In other words, for the ‘Website kit’ to work, it has to contain: (i) the website itself, with its pages; (ii) the equipment where the website is hosted and (iii) the contents of the website.

Through the Internet, people from completely different places, who would otherwise never connect with each other, are now able to interact. It is based on this interaction is that eCommerce emerged.

In the present days, individuals living in Amazonas State, in northern Brazil, can acquire products made in Rio Grande do Sul, the southernmost state in Brazil, without having to cross the whole country (approximately 4.691km) to do so. It is not only the


acquisition itself that counts, but also the possibility of seeing images of the product, videos (if the case may be), technical information etc.\(^6\)

It is also important to distinguish a website from its server. A website, as previously mentioned, can be considered a collection of web pages (www files) while servers – **Internet Service Providers (ISP)** - are where website are hosted\(^7\).

José Eduardo Soares de Melo explains that a website is a computer file with instructions to be followed by a visiting computer. Melo also clarifies that there is a physical website, which is the equipment where the web pages with their elements are hosted. In addition, there is an intangible website, which corresponds to files and codified pages written in programming language\(^8\).

However, an ISP depends on physical equipment so that its location can be identified. Nonetheless, an ISP can be based in one or more different geographical locations. This is because, in the event that some of the tangible equipment fails or has technical issues, the websites that the ISP runs will still be working through other equipment, located in a completely different place.

“**Indeed, requisite for the proliferation of ‘web traffic’, ‘load balancing’ was developed as a technological solution to inordinately prolonged Internet response time**\(^9\).”

Therefore, although it may seem all the parts of a website are located in a single specific location, that is not entirely true\(^10\).

---

\(^6\) This phenomenon is not only occurring within the boarders of a certain country, but also worldwide. An example of these international eCommerce transactions happens though websites such as *Aliexpress.com*, which allow consumers located in Brazil to buy products from China, for example. “**The top five most used websites are AliExpress, eBay, Amazon.com, DealExtreme (dx.com) and MiniInTheBox, in this order. Of the 20 most frequently used websites, 12 are Chinese.**” Available at [http://img.ebit.com.br/webshoppers/pdf/webshoppers_english.pdf](http://img.ebit.com.br/webshoppers/pdf/webshoppers_english.pdf) [Accessed 6.7.2015].

\(^7\) “**An ISP (Internet service provider) is a company that provides individuals and other companies access to the Internet and other related services such as Web site building and virtual hosting. An ISP has the equipment and the telecommunication line access required to have a point-of-presence on the Internet for the geographic area served.**” Available at [http://searchwindevelopment.techtarget.com/definition/ISP](http://searchwindevelopment.techtarget.com/definition/ISP) [Accessed 30.6.2015].

\(^8\) MELO, José Eduardo Soares de. ICMS – Teoria e Prática. Electronic Book, 12th Edition. São Paulo: Dialética “**This is a new reality – ‘site’ – which is a computer file containing a series of instructions to be followed by the visiting computer (…)’.” **The physical ‘site’ consists of the set of equipment where the pages and all the digital elements composing them are stored (hosted). The intangible ‘site’ comprises the whole set of files and pages codified in programming language (logical “site”), its graphic visual presentation (virtual “site”), market features, design techniques, etc, (media “site”), in a precise explanation**”. [unofficial translation].

\(^9\) BARDOPOLOUS, op. cit., p. 44.

\(^10\) An example given by Anne Michèle Bardopoulos shows how complex a website can be is transcribed in the Annex A.
The conclusion is that the Internet is a complex system and by understanding it, it is possible to analyse the eCommerce itself.

II.2. eCommerce

Although there is no clear definition of eCommerce, “electronic commerce” comprehends not only the commercial intermediation of tangible or intangible goods, but also the contract itself and the execution of services in the electronic environment. eCommerce transactions involve data processing and transmission on websites, emails, chats, while delivery could be through traditional means or electronically\(^\text{11}\).

Based on this idea, it is possible to categorise eCommerce into two types: direct and indirect. Anne Michèle Bardopoulos explains the difference between them clearly:

“In the matter of these transaction categories, the eCommerce activities are further categorised into direct and indirect eCommerce. Defined briefly, indirect eCommerce is the ‘electronic ordering of tangible goods’, and direct eCommerce is the electronic ordering of intangible goods.”\(^\text{12}\)

In other words, direct eCommerce occurs only in an electronic/virtual environment: offering, acceptance, merchandise/service and delivery. In contrast, indirect eCommerce occurs partially in a virtual and partially in a physical environment: electronic offering and acceptance of tangible merchandise and delivery through traditional channels (physical movement of goods).

As this study shows, eCommerce is extremely important for today's commercial transactions, especially because it reduces the number of intermediaries\(^\text{13}\) and is available 24 hours per day. Most importantly, however, it adds value to the supply chain\(^\text{14}\) and poses challenges for taxation systems.

\(^{11}\) MINATO, op. cit., p. 13.

\(^{12}\) BARDOPoulos, op. cit., p. 64.

\(^{13}\) MINATO, op. cit., p. 14.

\(^{14}\) BARDOPoulos, op. cit., p. 65. “B2B eCommerce transactions make use of the Internet “to integrate the value added chain that can extend from the supplier of raw materials to the final consumer”. B2B ecommerce transactions represent the bulk of eCommerce. However, it is B2C eCommerce transactions, the retailing segment of eCommerce, that attracts disproportionately significant attention.”
The importance and dissemination of eCommerce in Brazil might be related to the fact that in 2011, as indicated by the Brazilian Institute of Geography and Statistics (IBGE), 77,700,000 people over 10 years of age had Internet access for 3 months.

This number corresponds to 46.5% of the total Brazilian population aged 10 or over. The study also indicates that the percentage of the population with Internet access had more than doubled since 2005 (20.9%)\(^15\).

According to WebShoppers\(^16\), an E-bit\(^17\) initiative, “Brazilian e-commerce registered R$ 35.8 billion in sales in 2014, which represents a 24% nominal growth, since the result was R$ 28.8 billion in 2013”.

Figures 01 – Online Sales in Billions of Reais

E-bit estimates eCommerce sales will amount to approximately R$43 billion in 2015. Two other aspects that indicate the exponential growth of eCommerce are the increase in the number of electronic orders and the increase in the number of eConsumers:


\(^{17}\) supra. E-Bit is a private institution that is “present in the Brazilian market since January 2000, E-bit has been accompanying the evolution of digital retail in the country since it began, becoming a reference on this topic. Through a sophisticated system that collects data directly with the online buyer, E-bit generates detailed information about e-commerce on a daily basis. On the website, E-bit (www.ebit.com.br) provides relevant information for consumers purchase decision-making, as well as offering products and services to retailers.”.
The data provided by E-bit show a steep rise in eCommerce retail sales, alongside a much higher increase in the number of eConsumers.

In fact, this growth can also be observed in Brazilian eCommerce revenues, as demonstrates the study conducted by SEBRAE\textsuperscript{18} (Figure 04)\textsuperscript{19}:

\textsuperscript{18} Serviço Brasileiro de Apoio às Micro e Pequenas Empresas.
Electronic commercial transactions are a different way of conducting typical commercial transactions, and can be classified as follows:

(i) **business-to-business (B2B)**: commercial or service transaction between two companies;

(ii) **business-to-consumers (B2C)**: commercial or service transaction between a company and the final consumer;

(iii) **business-to-Government (B2G)**: commercial or service transaction between private companies and Government institutions; and

(iv) **consumer-to-consumer (C2C)**: sales of goods between final consumers.

This study focuses more closely on **B2C transactions** since they pose the greatest challenge for taxation, as well as for the planning and organization of the logistics and eCommerce supply chain.

---

19 Available at [http://www.bibliotecas.sebrae.com.br/chronus/ARQUIVOS_CHRONUS/bds/bds.nsf/2096de03a773a320eb8ff17cda1290ac/$File/5001.pdf](http://www.bibliotecas.sebrae.com.br/chronus/ARQUIVOS_CHRONUS/bds/bds.nsf/2096de03a773a320eb8ff17cda1290ac/$File/5001.pdf) [Accessed 17.7.2015].
A point to consider is that there is no specific legal treatment for eCommerce contracts, which means that the general rule – the Brazilian Civil Code – applies to these contracts.

In the event that the website contains the elements required to enter into a contract, it will be considered a public offering, thus allowing the buyer to accept it and purchase the product (Articles 427 to 434 of the Civil Code).

Regarding the place where the contract is entered into, the Civil Code determines that it is where it has been proposed (Article 435). Nonetheless, in case of a public offering, it is the place where the company is located, which can be challenging in the case of eCommerce companies.

Identifying of where the eCommerce company is located is important not only for Consumer and Contract Law, but also for Tax Law. It is as important for planning the company’s logistics and supply chain as well.

Thus, this study will firstly clarify the concepts of logistics and supply chain management applied to the eCommerce industry and, afterwards, analyse how eCommerce can impact Brazil’s taxation system.
III. LOGISTICS AND SUPPLY CHAIN MANAGEMENT

It is a fact that logistics and supply chain management (L&SCM) has existed for years. It is crucial during war periods, as well as to build pyramids and even to fight hunger in Africa. In short, L&SCM is known as the ‘strategy’ used to find the best approach in a given (commercial or other) situation.

However, only recently have companies understood that, by introducing L&SCM, they can reduce unnecessary costs and boost business efficiency.

Vertical integration, where companies control their business by acquiring other companies upstream and downstream in the supply chain, is considered the first attempt to shape the structure of organizations. In other words, a company would own all the participants in the chain, from suppliers to distributors.

During this “era in which the vertically integrated structure was ubiquitous, inter-firm relationships were quite adversarial. Buyer and sellers typically operated in arm’s-length, independent relationships, competing for resources instead of engaging in cooperative efforts.” After some time, vertical integration shifted to a more collaborative approach, thus promoting trust within the supply chain.

The new approach is designed to continue managing the supply chain to reduce cost and gain competitive advantage, but without the burden of owning the companies that compose the chain.

Therefore, this new concept is intended to promote long-term partnerships and strategic alliances.

In 2002, Lisa R. Williams et al.,\(^{23}\), forecasted that “another form of supply chain management is on the horizon that provides another variation in inter-firm relationship philosophies – the e-supply chain”.

The main idea was that the “organizational structures of the future will possess the attributes of the electronic supply chain, where technology linkages tie many corporations and outsourced functions together, enabling low-cost partner switching and a high flexibility”\(^{24}\).

The goal of this study is to analyse the application of basic concepts of L&SCM, including the new proposal of an electronic supply chain, to the eCommerce business.

III.1. Theoretical concepts

According to Martin Christopher, logistics is understood as “the process of strategically managing the procurement, movement, and storage of materials, parts and finishing inventory (and the related information flows) through the organization and its marketing channels in such a way that current and future profitability are maximized through the cost-effective fulfilment of orders”\(^{25}\).

The purpose of adopting a logistics approach in a company is to create a guiding plan, or a framework, that shows the steps for products and information to flow.

Having established a logistics system, the management board shall seek to make the logistics process more effective, as well as create and add more value to it. This is also known as supply chain management (SCM).

According to Martin Christopher, “the focus of supply chain management is on cooperation and trust and the recognition that, properly managed, the ‘whole can be greater than the sum of its parts’”\(^{26}\).

---

\(^{23}\) WILLIAMS et al., op. cit.

\(^{24}\) WILLIAMS et al., op. cit.

\(^{25}\) CHRISTOPHER, op. cit., p. 4.

\(^{26}\) CHRISTOPHER, op. cit., p. 5.
Based on that, it is possible to define SCM as “the management of upstream and downstream relationships with suppliers and customers to deliver superior customer value at less cost to the supply chain as a whole”\(^{27}\).

In other words, the goal of SCM is to manage relationships among the elements of a chain (among companies) to achieve an outcome considered of higher value and more profitable.

An interesting comparison is that, just as the Internet is a global network created to connect scientists and computers to a common goal, SCM can also be seen as a network “of connected and interdependent organisations mutually and co-operatively working together to control, manage and improve the flow of materials and information from suppliers to end user”\(^{28}\).

It is also known that one of the challenges of L&SCM is to allow companies to gain competitive advantage, which is based on a function between value advantage and cost advantage.

One may also say that a successful company either has a high cost advantage (a low cost profile) or the company’s business has a value advantage, also known as a “plus”.

Usually, cost advantages are closely related to strong sales, and that approach is commonly used to gain competitive advantage. Notwithstanding, there are currently other ways to gain that advantage.

In modern society, the benefits associated with a product are just as essential as the product itself. There are different ways of adding value (value advantage) to a supply chain, such as providing a variety of products or adding services to them.

Martin Christopher proposes the following matrix to analyse a company’s options to create competitive advantage\(^ {29}\):

\(^{27}\) CHRISTOPHER, op. cit., p. 5.  
\(^{28}\) CHRISTOPHER, op. cit., p. 6.  
\(^{29}\) CHRISTOPHER, op. cit., p. 10.
The goal of every company is to reach the top right of the matrix, but that will depend on the logistics and supply chain decisions that the company makes. In other words, companies considered leaders are those that work hard on both aspects – value and cost advantage.

The role of L&SCM is to connect (i) the procurement process, (ii) the manufacturing process, (iii) the distribution process and (iv) the marketplace to provide consumers with high value-added products.

It should be noted that “value chain activities can be categorized into two types – primary activities (inbound logistics, operations, outbound logistics, marketing and sales, and service) and support activities (infra-structure, human resource management, technology development and procurement). These activities are integrating functions that cut across the traditional functions of the firm”, as shows the figure below.
The above figure shows Michael Porter’s thesis, which states that companies/organisations should pay a closer look to each activity in the supply chain and checks whether that provides competitive advantage.

If there is no competitive advantage, for instance, in the “outbound logistics function”, the company should consider outsourcing it and check whether that move generates the advantage that the company is seeking.

While the goal of SCM is to provide competitive advantage (value or/and cost advantage)30, “the mission of logistics management is to plan and co-ordinate all those activities necessary to achieve desired levels of delivered service and quality at lowest possible cost. Logistics must, therefore, be seen as the link between the marketplace and the supply base”.31

The issue at point is how these concepts of L&SCM apply to eCommerce companies and transactions. As previously mentioned, this field is evolving quickly: the methods used in war times are not the same as those used by companies during the Industry Revolution, which, in turn, might not be the same as those used by modern eCommerce companies.

Indeed, the model of adopting “strong brands backed up by large advertising budgets and aggressive selling”32 might not be the most appropriate for the present days. Creating value for final consumers is actually the main leverage that modern companies strive for in order to gain competitive advantage.

On the other hand, in the currently highly competitive market, where companies can easily find new suppliers with better quality, price or delivery terms, building long-term relationships and strategic alliances in the integrated supply chain might not be the best approach to gain competitive advantage.

30 CHRISTOPHER, op. cit., p. 17. “The supply chain is the network of organizations that are involved, through upstream and downstream linkages, in the different processes and activities that produce value in the form of products and services in the hands of the ultimate consumer”.
31 CHRISTOPHER, op. cit., p. 15.
32 CHRISTOPHER, op. cit., p. 29.
It is no different for eCommerce companies. Nonetheless, before analysing how L&SCM relates to eCommerce companies, we have to look into four concepts intrinsic to this analysis: Responsiveness, Reliability, Resilience and Relationships.

A company has a responsiveness approach when it meets all customer demands, such as short delivery terms, flexibility and customized solutions.

Another essential factor in efficient SCM is a company’s reliability. Uncertainty within the supply chain is what makes companies carry safety stocks, for example.

Uncertainty may be due to a lack of knowledge of customers’ demand for products or of logistics providers’ performance.

To improve reliability in the logistics process, a company must increase “pipeline visibility”. In other words, a company will be considered more reliable when it finds a way that helps it visualise downstream demand at the end of the chain.

“*Resilience refers to the ability of the supply chain to cope with unexpected disturbances*”.\(^{33}\) The instability of today’s market shows that cost reduction and service optimization should not be companies’ priorities. In fact, the new goal is to keep the supply chain stable in the face of market instabilities\(^{34}\).

Lastly, managing relationships within the supply chain may be considered one of the most important aspects of SCM. Creating strong supply/buyer relationships fosters innovation, reduces costs, improves quality and co-ordination with regard to requests, production and deliveries\(^{35}\).

Indeed, responsiveness, reliability, resilience and relationships are important elements of a supply chain. However, as previously mentioned, a company must be flexible to adapt to market demand in order to gain competitive advantage these days.

\(^{33}\) CHRISTOPHER, op. cit., p. 39.

\(^{34}\) CHRISTOPHER, op. cit., p. 39. “Resilient supply chain may not be the lowest-cost supply chains but they are more capable of coping with the uncertain business environment. Resilient supply chains have a number of characteristics, of which the most important is a business-wide recognition of where the supply chain is at its most vulnerable. Managing the critical nodes and links of a supply chain (...) becomes a key priority”.

\(^{35}\) CHRISTOPHER, op. cit., p. 40. “Supply chain management by definition is about the management of relationships across complex networks of companies that, whilst legally independent, are in reality interdependent. Successful supply chains will be those that are governed by a constant search for win-win solutions based upon mutuality and trust”.
Especially with regard to eCommerce, eConsumers are really sensitive to price changes and demanding with regard to the product and additional benefits. Therefore, they search actively for the best prices, as a consequence, the market is extremely competitive.

Companies have to adapt their L&SCM strategies to meet this need for flexibility and seek aggressively to reduce costs while maximizing benefits. Based on those requirements, a new L&SCM model is required: electronic logistics and supply chain management (e-Supply Chain).

III.2. eCommerce and the e-Supply Chain

As previously mentioned, in 2011, 77,700,000 people over age 10 had access to the Internet access for a period of 3 months in Brazil. Brazil’s eCommerce recorded R$35.8 billion in sales in 2014, alongside an increase to 61.6 million electronic consumers.

eCommerce transactions are known to be less expensive than conventional commerce transactions. One of the reasons for that difference is there are fewer intermediaries between the company and its consumer.

In other words, eCommerce transactions involve fewer steps than the logistics and supply chain of conventional commerce transactions, which has helped eCommerce companies achieve a cost advantage in comparison with traditional retailers.

Due to increased competition from eCommerce, traditional brick-and-mortar retailers opened online stores to ensure their survival in the market.

This eCommerce boom, not only in Brazil, but also worldwide, forces the Internet Commerce Firms (ICFs) to improve their L&SCM in order to maintain profitability.

A study by Elliot Rabinovich et al. (2006) highlights ICFs’ move to incorporate new service providers specializing in L&SCM. The reason for this movement is that these service providers not only provide logistics services, but also "enable ICFs to leverage
other distribution parties’ logistical resources and skills in order to fulfil their customer orders more effectively.”

The study also shows that the relationships between service providers and ICFs are “driven by their potential to (1) generate low transaction costs, (2) bundle complementary logistics services, and (3) expand the availability of those services across customers, vendors, and “last-mile” delivery companies.”

ICFs’ L&SCM decisions are usually based on (i) transactional cost theory or (ii) strategic network theory.

The transactional cost theory is normally adopted by traditional supply chains, which seek a “systematic, strategic coordination of the traditional business functions within a particular company and across business within the supply chain, for the purposes of improving the long-term performance of the individual companies and the supply chain as a whole.”

The proposal is to incorporate the transactional cost theory into the strategic network theory (“how to access offered by focal logistics service providers to networked governance structures shapes ICFs’ relationships with the providers”), thus creating a balance between the cost benefits related to traditional intra-company relationships and the structural benefits of traditional SCM.

This new supply chain method is called the electronic supply chain and was the object of a study by Lisa R. Williams et al. The comparison between the different types of supply chains is as follows:

37 RABINOVICH et al, op. cit. p. 662.
38 RABINOVICH et al, op. cit. p. 663. “Transactional cost theory focuses on an exchange between two parties (e.g., an ICF and a focal logistic service provider) as a discrete event that is valuable by itself, as it reflects the choice of the most efficient governance form and hence contributes to lower the exchange costs incurred by one of the parties, i.e., the ICF. Strategic network theory complements transaction cost theory because it considers the individual dyadic exchange collectively with other relational links that may accompany that exchange.”
39 WILLIAMS et al., op. cit., p. 704.
40 RABINOVICH et al, op. cit. p. 662.
41 WILLIAMS et al., op. cit., p. 705.
eCommerce arguably requires a more customized product, as well as an extremely adaptable, flexible and efficient supply chain.

The need for great flexibility to meet customers’ requirements puts in question the maintenance of long-term relationships and partnerships, a feature of the conventional supply chain. However, it is also known that returning completely to the arm’s length approach is not the best move, either.

In this regard, this study proposes adopting the electronic supply chain. The e-Supply Chain is designed as a circle, where corporations are “connected through information technology linkages from chains that rotate and re-link as needed to bring the available resources in contact with requests from stakeholders”.

According to the “The Electronic Supply Chain” study, “the inner ring, representing the focal organization, will rotate and spin to find the appropriate resource needed to answer the needs of the outer circle”\(^{42}\), as shown by the figure below.

---

\(^{42}\) WILLIAMS et al., op. cit., p. 708.
“The outer circle represents external relationships, suppliers, customers, environmentalists, etc. When the resource is found that matches the demands of external stakeholders a connection is made for as long as the need is met. When costs increase beyond a certain threshold, or sales expectations are not met, an uncoupling can be done so that a connection can be made with a more beneficial partner; this is the re-linking concept\textsuperscript{43}.

By adopting the e-Supply Chain model, companies reduce technology expenditures since they do not have to adopt different systems that connect different suppliers, transportation companies and customers.

They have more opportunities of making the best deals at any specific time, without suffering the consequences of the termination of a contract with a supplier. For instance, if, by any chance, a long-term supplier has problems providing a given product or there is an unforeseen delay, it is easy for the company to switch to a new supplier, without further complications.

In addition, having an e-Supply Chain model means having a focal service provider, thus leading to a drop of supply chain management costs and a change in the organizational culture.

\textsuperscript{43} WILLIAMS et al., op. cit., p. 709.
Therefore, adopting a focal service provider to coordinate the eCommerce supply chain, by introducing an e-Supply Chain model, might be the tight solution for today’s logistics and supply chain management.

It is important, however, to find out whether these theoretical concepts can be applied to Brazil’s eCommerce market.

III.3. Actual situation in Brazil: insights from a management interview

The advance of the Brazilian Supply Chain was highlighted in the 24th Brazilian Supply Chain and Logistics Symposium, and the results are that an improvement of 82% in “Organization/Capacitation” and 79% in Supply Chain Strategy\(^4\). The study concludes that eCommerce companies in Brazil should invest in two main aspects: (i) service level and (ii) chain visibility.

According to Fleury & Monteiro (2000) the main differences between the traditional logistics and supply chain and that imposed by eCommerce can be seen as follows\(^5\):

<table>
<thead>
<tr>
<th></th>
<th>Traditional Logistics</th>
<th>eCommerce Logistics</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Type of shipment</strong></td>
<td>Pallets</td>
<td>Small packages</td>
</tr>
<tr>
<td><strong>Customers</strong></td>
<td>Known</td>
<td>Unknown</td>
</tr>
<tr>
<td><strong>Push/Pull Demand</strong></td>
<td>Push</td>
<td>Pull</td>
</tr>
<tr>
<td><strong>Inventory flow</strong></td>
<td>One-way</td>
<td>Two-way</td>
</tr>
<tr>
<td><strong>Size of the order</strong></td>
<td>More than $1,000</td>
<td>Less than $100</td>
</tr>
<tr>
<td><strong>Destination of the orders</strong></td>
<td>Concentrated</td>
<td>Highly disperse</td>
</tr>
<tr>
<td><strong>Responsibility</strong></td>
<td>One link</td>
<td>Whole chain</td>
</tr>
<tr>
<td><strong>Demand</strong></td>
<td>Consistent</td>
<td>Uncertain</td>
</tr>
</tbody>
</table>

According to the information obtained from a management interview, there are approximately 130,000 eCommerce companies in Brazil. About 10 of those companies

---


are considered large corporations and control 70% of Brazil’s eCommerce market. The remaining 120,000 eCommerce companies are small or medium sized business.

While discussing the possibility to implement the e-Supply Chain method in Brazil with a focal provider, the expert position was that it is only feasible to those 10 large corporations, because their sales volume justify warrant having a focal service provider to ensure the stability and flexibility of their supply chains.

Therefore, it was pointed out that e-Supply Chain theory is considered too advanced for small and medium-sized companies and does not meet their logistics and supply chain needs.

Our findings indicate that currently in Brazil eCommerce companies have developed an intermediary model between the conventional supply chain model and the e-Supply Chain theory.

This intermediary method consists of the use of technological advancements to improve their supply chains. According to the interview, the downstream side of Brazilian eCommerce companies’ supply chains is based on long-term vertical partnerships (traditional supply chain) in three main steps: (i) an electronic platform, (ii) a back-office and ERP (Enterprise Resource Planning) and (iii) a warehouse and logistic provider.

The platform is the company’s website, where consumers can search for, choose and buy products (show window). After acquiring the product, the platform sends the information electronically to the back-office and ERP system.

The back-office and ERP system is responsible for managing eCommerce transaction internally. The system connects all the company’s internal systems; in other words, it connects all the traditional functions: Sales, Procurement, Production, Accounting, Customer Services, and Distribution.

Usually, large corporations also manage their own distribution and outbound logistics services. However, that is not possible for small and medium-sized eCommerce companies in Brazil. Therefore, these businesses have to connect their ERPs with the logistics and service provider’s systems.

According to the interview, it was also possible to verify that the system connection and communication is essential to maintain a real-time information system that provides
eCommerce companies with up-to-dated inventory data and informs it when merchandise leaves the warehouse. Newly developed technologies are being used to ensure the stability and flow of information, thus allowing systems to connect easily.

In addition to the insights about logistics and supply chain methods, it was confirmed that two of the major logistics challenges in Brazil are “last mile” delivery and reverse logistics, when the consumer returns the product.

This is because, Brazil is a continent-sized country and access to many areas is extremely difficult. Therefore, setting delivery deadlines correctly and making sure they are met is extremely important to gain and maintain customer satisfaction.

Based on that and because eCommerce companies depend on customer loyalty, choosing the location of a business and/or its storage facilities depends basically on local infrastructure.

Indeed, the infrastructure of the region weighs more in the decision of where to set up a small and medium-sized eCommerce company in Brazil than taxes, of utmost importance for any business.

Nonetheless, our findings show that even those companies, cannot afford to overlook taxes since, owing to the growth of eCommerce in Brazil, the tax legislation had to adapt to this new reality.
IV. TAXES

IV.1. Origin of taxes

As Pearl Buck said: “If you want to understand today, you have to search yesterday”\(^46\). It is crucial to understand how taxes originated to comprehend our present taxation systems and be prepared for future developments\(^47\).

Throughout history, all nations —both present and past— have been responsible for maintaining a social organization and, consequently, needed resources. After all, taxes are “the dues that we pay for the privileges of membership in an organized society”\(^48\).

Research shows that the first society to impose taxes was Ancient Egypt and, apparently, taxation started alongside with writing. “Gunter Dreyer, the archaeologist who unearthed the tomb of King Scorpion I, observed that ‘writing emerged as an innovation because of economic necessity rather than from creative expressions of mankind’. ‘Economic necessity’ may here be defined as an exigent need for efficient tax collection as such was a major component in the development of writing!”\(^49\)

Through the centuries, nations have imposed different types of taxes and may also have dipped into “taxpayers’ pockets” abusively, which has raised the issues of the limits of the taxing power. Although it might be difficult to achieve the right balance between taxpayers’ rights and the need to levy taxes, one may say that modern societies are much closer to finding this balance, and the legitimate reason for imposing taxes —to maintain the state— is closer than ever to being re-established.

Sales and consumption tax are part of the history of indirect taxation. However, it was only after World War I, in Germany, that Dr. Wilhelm von Siemens, “devised a new

\(^{46}\) Available at [http://www.quotegarden.com/history.html](http://www.quotegarden.com/history.html) [Accessed 20.7.2015].

\(^{47}\) BARDOPULOS, op. cit. p. 22. “A review of the history of taxation and a synopsis of its development in ancient economies provides a foundation for the study and understanding of the reasons of the development of VAT. In turn, an understanding of the motivation for the implementation of a new taxing system in the twentieth century is essential to the argument for VAT as an effective taxing system”.

\(^{48}\) Roosevelt, Franklin D. Available at [http://thinkexist.com/quotation/taxes-after_all-are_the_dues_that_we_pay_for_the/173434.html](http://thinkexist.com/quotation/taxes-after_all-are_the_dues_that_we_pay_for_the/173434.html) [Accessed 20.7.2015].

\(^{49}\) BARDOPULOS, op. cit. p. 23.
tax system which is commonly referred to today as VAT [Value Added Tax]. It was deemed that a major flaw with the turnover taxes, was that they were ‘cascading’\textsuperscript{50}.

The “new” VAT was created precisely to provide resources for nations to develop and maintain societies organized, but without overtaxing taxpayers.

It was adopted by other nations as the years went by, thus avoiding a cumulative effect and allowing nations to obtain resources not solely from individuals’ properties and income.

The Brazilian Tax System introduced a tax on sales and consignment (IVC), levied upon each step of the commercial chain and also cumulative, in 1934. In 1965, the IVC was substituted by the tax on the circulation of goods (ICM).

Nowadays, Brazil also has a VAT system, but slightly different: the Tax on Circulation of Goods and on Services of Interstate and Intermunicipal Transportation and Communication – ICMS.

A peculiarity of Brazilian ICMS is that it is not a national tax, but a state tax; in other words, each state, subject to boundaries established by the Brazilian Constitution, can implement its own ICMS.

Nonetheless, ICMS is considered to have a national aspect insofar as not all commercial transactions are limited or restricted to a certain state or area.

To ensure this national aspect of ICMS, the Brazilian Constitution determines that it should be uniform in all states. Therefore, the Constitution granted competence to the Federal Senate to establish minimum and maximum rates, as will be further analysed below. It also determined that a supplementary law would set the basic rules for the tax and settle any conflicts of law that might arise.

That being said, it is necessary to explore the Brazilian Tax system, especially for the ones who are not familiar with, and understand its basic interpretation methods.

\textsuperscript{50} BARDOPoulos, op. cit. p. 25.
IV.2. Concepts of Source and Permanent Establishment

It is essential to bear in mind the concepts of source and permanent establishment to analyse the connection between eCommerce and taxation thoroughly.

Therefore, these concepts are important to understand how the basic taxation principles affect eCommerce and its logistics and supply chain decisions.

**Source**

The definition of sourced-base taxation has been the object of different theories. Some authors adopt the ‘benefit theory’, under “the country that furnished the majority of benefits pertinent to the generating income carries the cost of such benefits and should be entitled to exclusive taxation rights as compensation.”

Anne Michèle Bardopoulos while quoting Vogel explains that benefit theory, which is “source based taxation, proposes that “a jurisdiction’s right to tax rests on the totality of benefits and state services provided to taxpayers that interact with a country’. Vogel’s supporting argument to the benefit theory is that the ‘country of source that… provided most or all of the benefits relevant for the production of income and therefore incurred costs in providing… [such] benefits’ should be entitled to exclusive taxation rights with regard to such income as ‘compensation to the government’ for bearing the costs incurred.”

The other theory is known as the ‘entitlement theory’, which is connected with the geographical boundaries of a state. In other words, the entitlement theory holds that the state in which the income was generated has the right (is entitled) to claim the tax.

Finally, there is a third theory: ‘economic allegiance’, which says that:

“Economic allegiance to a State can be based on mere consumption or it can be based on business activities, including investments activities. To the extent economic allegiance is founded on consumption, residence would constitute a suitable criterion, but it could not be the only controlling principle. Where a person is economically bound not only to the state of his or her residence, but also to another state through business activities or by way of income arising in the other state, Schanz deems

---

51 BARDOPoulos, op. cit. p. 115.
52 BARDOPoulos, op. cit. p. 119.
53 BARDOPoulos, op. cit. p. 119.
the allegiance to this other state, the source state, to be more important than that to the state of emphasis. [Emphasis as added by Pinto]54.

Founded on "economic allegiance", the concept of “permanent establishment” was developed for taxation purposes and, in the case of VAT systems, is extremely relevant.

**Permanent Establishment**

‘Establishment’ is defined as “1. The act of establishing; the state or condition of being established. 2. An institution or place of business. 2. A group of people who are in power or who control or exercise great influence over something”55.

Although Brazil is not a contracting state of the OECD (Organisation for Economic Co-operation and Development) Model Convention with Respect to Taxes on Income and on Capital56, the definition of permanent establishment is accepted worldwide and worth analysing:

**“ARTICLE 5 PERMANENT ESTABLISHMENT**

1. For the purposes of this Convention, the term "permanent establishment" means a fixed place of business through which the business of an enterprise is wholly or partly carried on.
2. The term “permanent establishment” includes especially:
   a) a place of management;
   b) a branch;
   c) an office;
   d) a factory;
   e) a workshop, and
   f) a mine, an oil or gas well, a quarry or any other place of extraction of natural resources.”

“Permanent establishment, as analysed by Vogel, is a ‘rule [that] is designed to ensure that business activities will not be taxed by a State unless and until they have created significant economic bonds between the enterprise and that State”57.

Therefore, there must be a (i) place of business that is (ii) permanently based in a given state and where (iii) business is carried on for a company to be categorised as a permanent establishment in that state.

54 BARDOPOULOS, op. cit. p. 120.
57 BARDOPOULOS, op. cit., p. 121.
Grounded on the above definition, it is possible to argue that the concept of permanent establishment requires a physical presence in a given state, which allows the state to tax the income generated by that establishment.

According to José Eduardo Soares de Melo\(^5\), the establishment encompasses the complex of goods, tangible and intangible, which constitutes the tools of the merchant uses to run the business (commercial transaction). In other words, it is the place where commercial transactions are conducted.

As will be further analysed, below, Brazilian Tax Law, regarding Brazilian VAT, defines what elements a permanent establishment must have to be qualified as such.

The clear, objective definition of permanent establishment is essential to determine where to tax eCommerce transactions, as well as to analyse whether the traditional concept of permanent establishment is applicable to electronic transactions.

IV.3. The Brazilian Tax System

IV.3.1. The Brazilian Constitution and Competent Jurisdiction (Taxing Power)

Living in society, as previously mentioned, requires a certain level of organization. A fundamental law – the Constitution - is adopted to create the institutions of the government and set the duties and rights of each member of the society.

There are several types of Constitutions, such as (i) flexible, (ii) rigid, (iii) unwritten, (iv) general and (v) detailed Constitutions.

The Brazilian Constitution is considered to be rigid and detailed because it cannot be changed by ordinary forms of legislation and contains lengthy organization rules, such as the Brazilian Tax System.

\(^5\) MELO, op. cit. "Establishment is the whole set of material or immaterial goods comprising the instrument used by a business person to exercise a given business activity." (Oscar Barreto Filho, *Teoria do Estabelecimento Comercial*, Mas Limonad, São Paulo, 1966, p. 75)." [unofficial translation].
It is important to take into account that Brazil is a federation organized with different types of political entities: the Union, states, the Federal District and municipalities\(^{59}\).

José Eduardo Soares de Melo explains that the Brazilian Federation has the following legal orders: (a) the national order, which comprises the Country, characterized by its sovereignty; (b) centrals and regionals orders, represented by the Union, the states and the Federal District, each of which has specific competences granted by the Constitution\(^{60}\).

The Brazilian federation is characterized by (i) the coexistence of different legal systems in the same territory, (ii) the inexistence of a hierarchy between the political entities, (iii) political, financial and administrative autonomy\(^{61}\), and (iv) the distribution of powers and the indissolubility of the political entities\(^{62}\).

In order to guarantee the autonomy of each political entity, the Brazilian Constitution does not only grant competence to the Union, the states, the Federal District and municipalities (‘political entities’) to establish taxes, but also classifies and describes the abstract taxable event, as well as the limits of the taxing power of these political entities\(^{63}\).

\(^{59}\)“Article 1. The Federative Republic of Brazil, formed by the indissoluble union of the states and municipalities and of the federal district, is a legal democratic state and is founded on: (...)”


\(^{61}\)“Article 18. The political and administrative organization of the Federative Republic of Brazil comprises the Union, the states, the Federal District and the municipalities, all of them autonomous, as this constitution provides. (ca no. 15, 1996)”.

\(^{62}\)The scholar Geraldo Ataliba explains the basic characteristics of Brazilian federation: 1. Rigid Constitution scheme; 2. Proper constitutional power in the States; 3. Existence of Brazilian territory; 4. Existence of Brazilian People; 5. The powers are given by the constitution and are compatible with the distribution of competence jurisdiction; 6. Proportional representation of the will of the people of the States in the Union's legislative body, in addition to the representation of States, divided equally between that organ; 7. Constitutional court that assures a supremacy of the Brazilian Constitution. (ATALIBA, Geraldo. Federação. Revista de Direito Público, n. 81, jan/mar, 1987, pp. 172-181).

\(^{63}\)Roberto de Siqueira Campos explains that due to the fact that the constitution grants not only the tax power, but also design the structure of the tax itself, which cannot be contradict by the supplementary laws or even the ordinary laws: “While it grants states the power to set rules for ICMS, the Federal Constitution defines the scope of application of said tax. As a result, a supplementary law, or even an ordinary state law, may alter, neither upwards nor downwards, the parameters set by the Fundamental Law”. [unofficial translation] CAMPOS, Roberto de Siqueira. Pressupostos de incidência do ICMS na importação de Competência Tributária dos estados para Cobrança do ICMS na importação de mercadorias destinadas fisicamente a estabelecimento distinto do importador. Repertório de Jurisprudência - RJ 1: Tributário, Constitucional e Administrativo. São Paulo: IOB, n. 23, p. 604-592, 1998. Quinzenal.
Granting taxing power to different political entities strengthens Brazil’s federal system. Indeed, the political entities must have the means to be economically autonomous, since they are independent from each other, albeit subject to the Nation.

This shows how the Brazilian Constitution centralizes a great deal of power on the Union although the country is a federation. In spite of this centralized control, one of the main problems of the Brazilian federation is the wide wealth gap between the states, which can threaten the maintenance of the federation.

Brazil is comprised of 26 states and 5,564 municipalities\(^64\); thus, avoiding the wealth gap in a continent-sized country is a continuous struggle, which is why the Brazilian Constitution distributes competences, including the power to levy taxes, homogeneously.

As regards the Tax System, the Constitution lays down the basic rules for taxation and grants a given political entity the power to describe abstract taxable events in detail, by following material, temporal, spatial, personal and quantitative criteria.

The criteria adopted by the political entity are the elements of the taxable event, which determine (i) what the tax obligation is, (ii) when it occurs, (iii) where it occurs, (iv) what parties are related to it and (v) how much it is.

It should be noted that an abstract taxable event is one and indivisible and that it is a hypothetical legislative description of a fact, that, in the event of their criteria occurrence in the phenomenal world, it will be vested with legal force and is the birth of the tax obligation (triggering event).

Abstract taxable events are segregated into criteria only for the purposes of theoretical studies and for the correct interpretation of the hypothesis. Hence, the conceptual function of each criterion will be briefly analysed to create a common ground for understanding the analysis of the Brazilian tax system\(^65\).

\(^64\) IBGE. Available at http://www12.senado.leg.br/noticias/entenda-o-assunto/municipios-brasileiros [Accessed 1.7.2015].

The material criterion is the core element of the taxable event. Once established, it is considered the grounds for the tax obligations. Simply put, the material criterion is identified by a verb followed by its complement

The material criterion needs, in order to occur in the phenomenal world, two main coordinates: the temporal criterion and the spatial criterion.

The temporal criterion determines when that the tax obligation will occur, whereas the spatial criterion establishes where the taxable event will occur.

With respect to the personal criterion, every taxable event has a creditor and a debtor, also known as tax authority and taxpayer respectively. The abstract taxable event rule will also indicate those parties, allowing the interpret to identify which party plays which role.

Finally, the quantitative criterion allows the legislator to set the guidelines to determine the economic value to be taxed, as well as the amount to be passed on to the public coffers.

The correct identification and interpretation of the criteria for the abstract taxable event are essential for an accurate analysis of practical cases and extremely relevant for the purposes of this study.

IV.3.2. ICMS - The Brazilian VAT

At present, taxes are normally divided into two basic categories: (i) direct taxes and (ii) indirect taxes.

Direct taxes, as the name may already indicate, are those that the individual has to pay directly to the tax authorities. “A direct tax is presumed to be borne by the person upon who it is assessed and not ‘passed on’ to some other person.”

---


67 BARDOPoulos, op. cit. p. 150. “Alan Schenk provided the following comparative explanation of the two types of tax categories: ‘A direct tax is one that is assessed upon the property, business or income of the individual who is to pay the tax. Conversely indirect taxes are taxes that are levied upon commodities before they reach the consumer who ultimately pay[s] the taxes as part of the market price of the commodity.’”.

68 BLACK’S LAW DICTIONARY, op. cit.
In contrast, indirect taxes are not levied upon individual’s property or his/her income; the indirect taxes are related to the acts of consumption and acquisition. Therefore, they are levied upon goods and services consumed by the individuals in a society. “An indirect tax is often presumed to be partly or wholly passed on from the nominal taxpayer to another person”\textsuperscript{69}.

For the purpose of this study, the indirect taxes are going to be closely analysed, more precisely the Brazilian indirect tax levied on sales of goods – ICMS.

Although all VAT systems have the same fundamental principles, the aim of this study is to analyse how eCommerce has impacted the Brazilian tax system with regard to ICMS.

**IV.3.3. ICMS in the Constitution**

As mentioned above in topic V.3.1, the Brazilian Constitution establishes the archetype of ICMS as follows\textsuperscript{70}:

\textbf{“Article 155. The states and the Federal District shall have the competence to institute taxes on: (...)”}

\textit{II – transactions relating to the circulation of goods and to the rendering of interstate and intermunicipal transportation services and services of communication, even when such transactions and renderings begin abroad; (...)”}

The ICMS can be levied on \textit{(i)} transactions relating to the circulation of goods, \textit{(ii)} rendering of interstate and intermunicipal transportation services and \textit{(iii)} on communication services.

Despite the multiple hypotheses on which ICMS can be levied and owing to the main focus of this study namely, the connection between ICMS, eCommerce and its L&SCM, the first abstract taxable event that describes the commercial hypothesis will be the object of this analysis: \textit{transactions relating to the circulation of goods}. Therefore, the other three hypotheses will not be subject to the present study.

\textsuperscript{69} \textit{BLACK’S LAW DICTIONARY}, op. cit.
\textsuperscript{70} Available at http://www.stf.jus.br/repositorio/cms/portalStfInternacional/portalStfSobreCorte_en_us/anexo/constituicao_ingles_3ed2010.pdf [Accessed on 19.7.2015]
Main characteristics

In order to fully comprehend the hypothesis of ICMS in commercial transactions, it is crucial to understand the meaning of the terms that compose the abstract taxable event.

The official translation of Article 155 of Brazilian Constitution uses the term “goods”, which means “things that are produced to be sold”\(^{71}\), also known as merchandise.

“Merchandise” is the actual term used by the original Portuguese version of the Constitution and, although the Constitution does not provide an explicit definition of ‘merchandise’, it is considered the formal term for goods\(^{72}\).

Therefore, as Roberto de Siqueira Campos\(^{73}\) explains, goods can only be considered merchandise in connection with a commercial transaction. When goods are not subject to a transaction that changes their ownership, they cannot be considered merchandise, but only property.

That being understood, in relation to ICMS, it is clear that a transaction involving merchandise is, and can only be, a commercial transaction that transfers the ownership of merchandise from one person to another.

According to Black’s Law Dictionary, the term transaction means: “1. The act or an instance of conducting business or other dealings. 2. Something performed or carried out; a business agreement or exchange. 3. Any activity involving two or more persons.”\(^{74}\) In the same sense, the Oxford Dictionary defines transaction as: “a piece of business that is done between people, especially an act of buying or selling”\(^{75}\).

---


\(^{72}\) Roberto de Siqueira Campos clarifies that without an explicit definition by the Constitution, the term merchandise should be interpret as it is commonly used: “There being no express reference to the concept of merchandise, the constitutional provisions should be construed and applied in accordance with the connotation the term has in the sense in which it is normally used. In other words, the ordinary sense of “merchandise” should be sought, (…)”. [unofficial translation] CAMPOS, Roberto de Siqueira, loc. cit. 61.

\(^{73}\) “This simple, unpretentious analysis is enough to show chattels, in the case of ICMS, may never be taken into account for taxation purposes unless, and only if, they can be considered merchandise under the law. Chattels may only be tax when their ownership is transferred by reason of their owner’s death or donation.” [unofficial translation]. - CAMPOS, Roberto de Siqueira. Não incidência de ICMS nas importações amparadas em Contratos de Arrendamento Mercantil. Repertório de Jurisprudência - RJ 1: Tributário, Constitucional e Administrativo, São Paulo: IOB, n. 5, p.91-86, 1994. Quinzenal.

\(^{74}\) BLACK’S LAW DICTIONARY, op. cit.

\(^{75}\) Oxford Advanced Learner’s Dictionary, op. cit.
'Transaction', therefore, refers to the legal act that binds two or more parties in relation to an obligation. This legal obligation is related to the ‘circulation of goods’.

One may consider that the term circulation reflects any geographical movement of the goods. However, as clarified above, the interpretation of the wording has to be related with the context.

Considering that ‘transaction’ is understood as a legal act that binds two or more parties into a common obligation, whose object is merchandise, the term circulation cannot be interpreted out of context; thus, the proper interpretation is that circulation corresponds to the transfer of the ownership of the goods from one party to the other.

Therefore, the term “circulation” has to be interpreted from a legal and commercial point of view and, for that reason, it means the legal transfer of ownership of goods.

The Federal Supreme Court ruled in Precedent 573 that it does not constitute an ICMS triggering event, the physical output of machinery, utensils and implements under the contract of loan for use.

The analysis of the meaning of the terms that institute the ICMS is frequently debated at Brazilian Courts. The Supreme Federal Court has recently decided (RE 540.829) with widespread repercussions, that ICMS will only be levied upon the entrance of imported goods or merchandise, if there is a fact that proves the circulation of goods, which is characterized by the transfer of its ownership.

In conclusion, the ICMS abstract taxable event corresponds to a legally bidding act (transaction) that transfers the ownership (circulation) of merchandise (goods) from one party to the other.

76 The only meaning that can be applied to the term “transaction” according to Roberto de Siqueira Campos is a legal transaction: “The transaction to which the constitutional text refers is not the physical circulation of goods, nor does it have any other connotation other than that of a legal transaction intended to transfer the ownership of chattels, through an act of business.” [unofficial translation] CAMPOS, loc. cit. 71.

77 “... the focus of the taxation hypothesis was and still is that the ‘transaction’ is intended to transfer ownership of chattels to third parties as an act of business, for valuable consideration, performed by the business person habitually or for profit.” [unofficial translation] CAMPOS, loc. cit., 71.


Other characteristics

Besides the concepts involving the ICMS abstract taxable event, there are others aspects of ICMS that should be analysed.

The Brazilian Constitution also defines that ICMS should not be cumulative. In other words, the tax due in each transaction concerning the circulation of goods shall be compensated by the amount of tax that was charged in the previous transactions (Article 155, paragraph 2, I\(^{80}\)).

It is relevant to mention that the possibility of offsetting the amount of tax charged previously only exists when the commercial transaction is between two taxpayers. In other words, the non-cumulative system shall only be applied if it is a business-to-business (B2B) transaction and that both parties involved are subject to ICMS.

Referable to the fact that ICMS is an indirect tax, when a commercial transaction occurs between a company (taxpayer) and a final consumer (non-taxpayer), offsetting is not possible and the final consumer will bear the tax.

Brazil being a federation and the political entities being independent, commercial transactions can occur internally within the state area or it could be an interstate transaction.

According to the Brazilian Constitution, the Federal Senate is responsible for establishing the rates that shall be applied to interstate sale transactions (Article 155, Paragraph 2, IV\(^{81}\)).

Although the States are free to fix their own rates, there are some limits that should be respected, such as uniformity and non-discrimination regarding the nature of goods or by reason of their origin or destination\(^{82}\).

\(^{80}\) “Article 155(...) Paragraph 2. The tax established in item II shall observe the following:
I – it shall be non-cumulative, and the tax due in each transaction concerning the circulation of goods or rendering of services shall be compensated by the amount charged in the previous transactions by the same or by another state or by the federal District;”

\(^{81}\) “Article 155 (...) Paragraph 2:(...) IV – a resolution of the federal senate, on the initiative of the president of the Republic or of one-third of the Senators, approved by the absolute majority of its members, shall establish the rates that apply to interstate and export transactions and rendering of services.”

\(^{82}\) “Article 152. The states, the federal district and the municipalities are forbidden to establish a tax difference between goods and services of any nature, by reason of their origin or destination.”
Likewise, the Constitution prohibits the reduction by the States of the internal rates lower than the rate established for interstate transactions.

However, due to economic inequalities between the states, the Constitution accepts an exception, which is when the states and the Federal District jointly deliberate that tax exemptions, incentives and benefits shall be granted to a certain state.

In spite of this strict approach to tax benefits, Brazilian Tax System seeks to guarantee uniformity among the member states as determined by the Constitution. Unfortunately this goal has yet to be achieved due to the so-called the Brazilian Tax Competition.

Tax Competition, according to Carlo Pinto, is “referred to as the lowering of the tax burden in order to improve a country’s economy and welfare by increasing the competitiveness of domestic business and/or attracting foreign investment”

In Brazil's case, tax competition involves the ICMS tax and the 26 states and the Federal District and usually occurs in interstate commercial transactions.

This issue will be further discussed in this study when it addresses the impacts of eCommerce on the ICMS legislation and tax competition issues, as well as the possibility of granting exemptions, incentives and benefits to the states, and the rules that apply to these situations.

Before analysing the rules for interstate operations, it is worth noting that, until April 2015, the Brazilian Constitution adopted the origin principle to determine which state should receive the tax. In other words, the tax in an interstate commercial transaction is due to the state of origin and not to the state of destination.

With regard to interstate transactions, until April 2015, the Brazilian Constitution had different rules to determine whether or not the recipient, as the final consumer, located in another state was considered a taxpayer:

---

83 “Article 4. The international relations of the Federative Republic of Brazil are governed by the following principles: (...) V – equality among the states;”
“Article 155 (…)

VII – the following shall be adopted for transactions and rendering of goods and services to end-users located in another state:

a) the interstate rate, when it is incumbent upon the recipient to pay that tax;

b) the internal rate, when it is not incumbent upon the recipient to pay that tax,”

If an interstate commercial transaction is a B2B transaction and the recipient is both the final consumer and an ICMS taxpayer, the ICMS rate that should be applied is the interstate rate.

On the other hand, if it is a B2B or B2C transaction and the recipient is the final consumer, but not an ICMS taxpayer, the rate that should be applied is the internal rate of the origin state.

Following the above rule, the Constitution establishes that in case of an interstate transaction in which the recipient is both a final consumer and ICMS taxpayer, “the tax corresponding to the difference between the internal and the interstate rate shall be attributed to the state where the recipient is located” (item VII).

The above mentioned would occur, for example, when ICMS taxpayer ‘A’ located in São Paulo State, sells merchandise to another ICMS taxpayer ‘B’ in Rio de Janeiro State, which is the final consumer.

In the example above, São Paulo State’s coffers will receive the ICMS calculated based on an interstate rate (12%) and the Rio de Janeiro State’s coffer will receive the difference between the state’s internal rate (18%) and the interstate rate (12%).

On the other hand, if the commercial transaction is made between an ICMS taxpayer ‘A’ located in São Paulo State with a final consumer, but not taxpayer, in Rio de Janeiro State, the law presumes that transaction occurred internally in São Paulo State.

The reason is that the tax authorities would not be able to control this commercial transaction, because they cannot monitor each transaction in which a final consumer is involved.
An example would be if a citizen residing in Rio de Janeiro goes to São Paulo and buys a computer and brings it to Rio de Janeiro. This might be a simple example, but it still is an interstate commercial transaction that would in theory be subject to an interstate rate, but the tax authorities could not monitor it.

Therefore, when doing an interstate commercial transaction to a final consumer that is not an ICMS taxpayer, the Constitution determined that the transaction should be presumed to be internal, applying therefore the internal ICMS rate.

However, on April 16, 2015, the Constitutional Amendment n. 87/2015 was published, modifying the content of the aforementioned legal provisions (items VII and VIII, Paragraph 2, Article 155). This amendment to the Constitution is closely related to the topic of this study and will be further analysed when the impacts that eCommerce on taxation are discussed.

That being said, it is almost impossible for a Constitution to cover each and every subject that needs regulation, and this is why the Brazilian Constitution establishes that a supplementary law shall regulate, among other aspects, “the definition of taxes and their types, as well as, regarding the taxes specified in this Constitution, the definition of the respective taxable events, assessment bases and taxpayers”\(^\text{85}\).

With regard to ICMS, the Constitution determines that the supplementary law should, among others, \((i)\) define its taxpayers, \((ii)\) establish, for purposes of collection of the tax and definition of the responsible establishment, the location of the transactions concerning the circulation of goods and the rendering of services and \((iii)\) regulate the manner in which, through deliberation by the states and the Federal District, tax exemptions, incentives and benefits shall be granted and revoked\(^\text{86}\).

Being described the ICMS constitutional archetype and in order to fully understand its systematic, it is also necessary to briefly analyse ICMS supplementary law.

**IV.3.4. ICMS in the Supplementary Law**

The Brazilian Constitution not only is rigid in relation to the tax division of competences (taxing power) among the political entities, but also determines how such competence shall be exercised.

---

85 Article 146 of the Brazilian Constitution.
86 Article 155 of the Brazilian Constitution.
For this reason, the Constitution has reserved several matters involving the exercise of the tax power to be regulated by the supplementary legislators and, consequently, prevented the ordinary legislator from developing taxes that are not covered previously on the Constitution and on the supplementary law.

The function of the supplementary law is to define general rules intended to harmonize or even standardize, on a nationwide perspective, several essential elements for the creation of taxes by the states.

It should be noted that supplementary law is only intended to confirm of the guidelines set by the Constitution; it does not create new laws, nor does it innovate the legal system, but simply clarifies or develops the rules adopted by the Brazilian Constitution.

Before discussing the specific ICMS supplementary law, it is worth noting the National Tax Code (NTC)\(^{87}\), a supplementary law, that defines the concepts of tax obligation, triggering event, taxpayer, tax authority and tax domicile.

The tax obligation commences with the occurrence of the triggering event that has as objective the payment of taxes to the public coffers (Article 113, paragraph 1). The triggering event, according to the NTC, is the situation defined in the law that is necessary and sufficient to create a tax obligation (Article 114).

With regard to the tax authority and the taxpayer, the NTC defines, respectively, as the person that has the competence to enforce the fulfilment of the tax obligation; and the person who is obliged to pay the taxes and that has a personal and direct relation to the situation that triggers the taxable event (Articles 119 to 123).

Finally, the NTC defines as tax domicile, when not chosen by the taxpayer (section 127):

(i) as for the individuals, their habitual residence, or, being this uncertain or unknown, the habitual centre of his activities; and

\(^{87}\) Available in Portuguese at [http://www.planalto.gov.br/ccivil_03/leis/L5172.htm](http://www.planalto.gov.br/ccivil_03/leis/L5172.htm) [Accessed 2.7.2015].
(ii) for legal entities governed by private law or sole proprietorships, the place of its registered office, or in relation to the acts or facts that give rise to the obligation of each establishment.

It is relevant to have a clear understanding of the aforementioned concepts, because the ICMS supplementary law and also the ICMS ordinaries laws will again define them in a more specific way.

Understanding those concepts with a systematic method is relevant to make it possible to comprehend the logic behind the taxation of eCommerce transactions as well as the impact that it causes in its L&SCM.

That being said, the supplementary law (LC) that regulates the ICMS is LC n. 87/1996\(^{88}\), which defines and explains each aspect and criteria of ICMS.

It is beyond the goal of this study to explain every aspect of the ICMS laws, but the essential ones that in the end will help analysing and understanding the connection among the ICMS, eCommerce transactions and its logistics and supply chain.

Therefore, this study explores the supplementary law where it regulates the material, personal, spatial and temporal criteria, due to the fact that they are critical for construing the logic of this study.

The quantitative criterion is extremely important for defining the amount of tax that is due and also to provide to the transaction an economic value. Nonetheless, since almost all commercial transactions have a value, this study will presume that all the transactions have an actual economic value and, therefore, this criterion will not be deeply explored.

That being stated, with regard to ICMS abstract taxable event (Article 1), the LC n. 87/96 repeats the exact same wording of the Brazilian Constitution. Article 2 of the mentioned supplementary law basically divides and specifies the hypotheses contained in the abstract taxable event.

With regard to the personal criteria, LC n. 87/95 defines who qualifies as an ICMS taxpayer. According to its Article 4, any person or entity that, habitually or with an amount

that characterizes a commercial intention, carries out transactions relating to the circulation of goods, even though the operations and the benefits begins overseas.

LC 87/96 jointly with the Brazilian Constitution seeks to set the basic parameters in order to identify the parties related to a circulation of goods transaction. However, both definitions are general and difficult to specify in a hypothetical situation. One may wonder, for example, how ‘habitually’ should be understood: on a daily, weekly or monthly basis?

The same questions might also be raised with regard to what should ‘amount’ and ‘commercial intent’ means. These parameters are hard to define and this uncertainty creates instability for taxpayers and tax authorities, which is the reason why usually the ordinary laws that effectively creates the tax determines in a more specific way what qualities should one have to be classified as a taxpayer.

The clear definition of what exactly is a taxpayer is particularly relevant for the purposes of eCommerce, due to the fact that, as previously mention, it can happen that in a certain eCommerce transaction one may not be able to identify its parties.

An example of this situation would be the known website eBay. “eBay, one of the few companies to survive the dot com era, was founded in 1995 and still operates today primarily out of its initial geographical location, San Jose, California, USA. However, the company’s physical location is irrelevant to the eBay business structure as there is no physical eBay store as the entire service exists on-line within the ‘virtual world’. eBay may equated to, or defined, as a ‘virtual marketplace’ allowing eMERCHANTS, located anywhere in the world, who have registered with eBay to trade within this ‘virtual world’. eBay now operates from several cities across the world. eBay’s virtual business structure allows “all aspects of business other than the delivery of bought and sold items themselves” to be handled through the eBay website. This operating system is upheld in eBay’s mission statement whereby “eBay’s mission is to provide a global trading platform where practically anyone can trade practically anything”\(^8^9\).

Another criterion crucial for the development of this study is the spatial criterion. The supplementary law, with regard to commercial transactions of goods, define nine different hypotheses where the place of the transaction could occur (Article 11). The relevant ones, with focus on this study are:

\(^8^9\) BARDOPoulos, op. cit., pp. 51 and 52.
(i) the establishment in which it can be found, at the time of occurrence of the triggering event; and

(ii) the establishment that transfers the property of merchandise, or the title that represents it, that were purchased in the country and that has not pass through the mentioned establishment.

Another point that should take into account in connection to the determination of the establishment is the temporal criterion. LC 87/96 determines a list of moments when the taxable event can be triggered (Article 12).

The relevant ones that should be considered for this study are: (i) the output of merchandise from the taxpayer establishment, even though the destination is another establishment of the same owner; (ii) the transmission to third parties of merchandise deposited in warehouse or closed warehouse, located in the state of the sender; and (iii) the transmission of ownership of goods, or title that represents it, when the goods have not been carried over by the seller’s establishment.

Therefore, based on the rules established in the supplementary law, it is possible to acknowledge that in commercial transactions, ICMS is due to the state where the establishment that promotes the output of merchandise is located.

In the event that merchandise is stored in a warehouse, the triggering event will be considered occurred in the establishment that transfers the ownership of such merchandise.

Having this ICMS coordinates in mind, the analysis of the taxation of eCommerce by ICMS would be possible and to visualise possible conflicts and difficulties that tax authorities and the taxpayers should encounter.

IV.4. ICMS and the eCommerce

Modern technology has made it possible for companies to conduct commercial transactions without having a physical store. Websites such as ‘Amazon.com’, ‘eBay’ or ‘iTunes’ do not have a physical place such as a store, but that has not prevented those companies from creating ‘online’ or ‘virtual’ stores that enable commercial transactions.
The development and improvement of eCommerce have put in question the ability of taxation to adapt to this new reality. This is because it is almost impossible to separate taxation from physical places.

As previously demonstrated, the determination of the jurisdiction, the competent tax authorities and the identification of the parties in a tax obligation depend on a nexus between the taxpayer and a geographic location.

With regard to ICMS legislation, as before mentioned, it is important to note that the supplementary law uses constantly the term ‘establishment’. Understanding the meaning and importance of the term ‘establishment’, especially for eCommerce transactions, is critical for determining where the tax event was triggered and to whom the tax must be paid.

The Brazilian Civil Code states that an establishment consists of all complex goods organized, necessary to run the company\(^\text{90}\).

In the same sense, the LC 87/96 defines establishment as the local, private or public, built or not, own or from third parties, where individuals or companies engaged in activities on a temporary or permanent basis, as well as where goods are stored\(^\text{91}\).

Note that Brazilian Legal System is one, and the definitions above do not contradict, but complement each other and provide the necessary details for taxation purposes.

In the event that is impossible to determine the commercial establishment, it is considered as such the place that has made the transaction or where the goods were found.

Indeed, Brazilian law considers the notion of establishment to be connected with a physical location where the business of the company is being held, or where the transaction occurred or where merchandise is located.

This connection between the concept of permanent establishment and a physical place complicates the taxation of eCommerce commercial transactions.

---


\(^{91}\) Article 11, paragraph 3, Supplementary Law n. 87/96.
As before demonstrated, electronic commercial transactions can be divided basically into two categories: (i) **direct eCommerce** (entirely virtual - where merchandise is intangible such as software, games, books, etc.) and (ii) **indirect eCommerce** (partially virtual, partially physical - where the transaction is actually virtual, but merchandise is tangible and need to be delivered physically).

For the second category, it is possible to apply, to some extent, the concept of ‘establishment’ due to the fact that merchandise needs to be stored in a certain place.

José Eduardo Soares de Melo explains the possibility of finding an establishment for tangible merchandise that are sold through websites. According to the scholar, it is possible to identify from where merchandise left in order to be delivered to its buyer.92

However, in the case of merchandise stored in a warehouse, the law considers the establishment that promotes the transfer of ownership of the goods, which, in this case, is usually not the warehouse. In fact, the establishment that owns merchandise is the one that should be responsible for paying ICMS to the state where it is located.

In a nutshell, the analysis of the ICMS legislation allows the interpreter to construe two main possibilities for determining the establishment and the competent state to which the ICMS should be paid.

The first one is place where the company runs its business and where merchandise can be found; the ICMS is due to the state where the establishment that promotes the output of merchandise is located.

The second one is in the event that merchandise is stored in a warehouse (not in the company’s establishment) the triggering event will be considered occurred in the establishment that transfers the ownership of merchandise – the company’s establishment and not the warehouse.

---

92 MELO, loc. cit. 8, pp. 28-29. “Although ‘site’ may imply a far-reaching presence when business transactions are concerned, when a given sale is closed, the fact is that merchandise is a physical good in a specific physical location, distinct from the ‘site’ itself.” Even though the ICMS taxable event occurs when a business transaction is conducted, it is undeniable that the physical act – in the case, for example, the departure of merchandise – must always occur in a physical (not virtual) environment; thus, it is imperative that such act be controlled (incoming/outgoing goods, inventories) to ensure the tax obligation is complied with.” [unofficial translation].
Based on those two main hypotheses, the remaining question is how would they be applied in case of a direct and an indirect eCommerce transaction. Therefore, hypothetical examples should be analysed:

**Indirect eCommerce**

The three simple but effective examples below show the possibilities of ICMS application and how eCommerce can impact the distribution of revenue within the states.

Assuming there is an eCommerce Company “Books&Music Company” that sells physical books and music albums in CDs. In the first example, this company is registered and has establishment in the State of Amazonia (AM).

In this situation, although the company does not have a physical store, but only the online store available at “Books&Music Company” website, it has in its registered address a warehouse where it stores the books and the CDs and the main office, where the business is ran.

An “individual A” that also lives in Amazonia State enters the “Books&Music Company” website on his/her computer and buys one book or one music album.

“Books&Music Company” will issue an invoice where it will charge the internal ICMS rate of 17%, which will be collected by Amazonas State (tax authority).

The second example would be the same transaction, but “Books&Music Company” is registered and is established in São Paulo State (SP). The “Individual A” is still a resident of Amazonas State (AM).

---

93 It is important to clarify that, according to the Brazil’s Constitution, books are not subject to ICMS (tax exemption). However, just for academic purposes and for the present examples, the sale of books will be considered subject to ICMS.
As previously mentioned, the Brazilian Constitution, until April 2015, determined that in an interstate commercial transaction, where the recipient is a final consumer and not ICMS taxpayer, it should be applied the SP internal ICMS rate.

Comparing the above two examples, it is possible to visualise that the place of business or where the establishment of the company is located is responsible to determine to where and at which rate ICMS should be paid.

In the third example, “Books&Music Company” has its establishment in São Paulo State (SP) and sells the book or music album to an “individual A” located in Amazonas State (AM).

The difference here is that “Books&Music Company” had stored the books and CDs in a warehouse located in AM. Although there are discussions about it, the deposit of merchandise in a third party warehouse is not considered, according to the law, a commercial transaction, not being, therefore, subject to ICMS.
In this case, although merchandise is located in AM, the triggering event will be considered occurred in the establishment that transfers the ownership of merchandise: the company's establishment. Therefore, the internal rate of SP is applied for the same reasons in the second example.

In the two last examples it is possible to acknowledge that although the company located in SP generates income from the market located in AM, the state which receives the correspondent tax is not AM but SP, due to the fact that Brazilian Constitution chose the origin principle.

Additionally, it is possible to understand how relevant is to have a clear identification of the establishment and where merchandise is stored. Therefore, in the above cases, it is possible to determine the taxation, due to the fact that is possible to identify where merchandise is and where the company has its permanent establishment.

However, if the company, being a virtual eCommerce company, does not have a permanent establishment and maintain its goods in a warehouse, the tax authorities would not be able to identify which state has the right to tax this transaction.

This question is even more evident with regard to the direct eCommerce.

**Direct eCommerce**

In direct eCommerce merchandise is intangible; it is not possible to identify where it is located or stored. Using the same roles above, “Books&Music Company” is not a Brazilian company and does not have a permanent establishment in Brazil.

An “Individual A” located in AM enters the website of the company and buys an eBook or the virtual music album, which are downloaded to his/her computer. In this example is not possible to tax these commercial transactions, based on the origin taxation principle adopted by Brazilian Constitution.

Even if “Books&Music Company” was a Brazilian company, since it is an online store, in theory it does not require to have a fixed establishment, which will make impossible for the tax authorities to identify the place of business (See example in Annex A).
Identifying where the eBook or the files of the music album is located is also a challenge, due to the fact that they can be stored in more than one server located in different places around the world, so the identification from where merchandise left is impractical.

In addition to the direct eCommerce transactions, it is important to mention that even if the identification of the company's establishment was possible, the commercial transactions could not be subject to ICMS, due to the fact that one of the requirements imposed by the Constitution is not fulfilled: *merchandise*.

The reason for the above mentioned is that the National Tax Code establishes in its Article 110 that the tax law cannot change the definition, content and range of concepts of private law used, expressed or implied, by the Constitution to define or limit tax powers.

When Brazil's Constitution came into force, the concept of merchandise established by the private law was related to a tangible object. Therefore, the eBook and the intangible music album cannot be considered merchandise, thus, not subject to ICMS.

In conclusion, it is possible to acknowledge that:

(i) in case of indirect electronic transaction, it is possible for the tax authorities to tax those operations, although some difficulties would occur in the event that merchandise's output occurs in a warehouse and the transaction is celebrated by a virtual company, without a physical establishment (permanent establishment); and

(ii) in case of direct eCommerce transaction, the challenge remains because of the difficulty of identifying the place where the goods output happened, due to the fact that the digital products could be stored in different ISP, located in different regions (even in other countries) and that a virtual company could not have a physical establishment (permanent establishment) as well as that the object of the transactions, in theory, could not be considered merchandise.
V. IMPACTS IN BRAZIL

Many factors such as labour costs, distance to consumer markets, real estate advantages, technological development of the area, logistics facilities and others take part in the decision process to where to set up a business.

According to a research made by SEBRAE\textsuperscript{94} the region that has more eCommerce companies are the south (Sul – 20\%) and south-east (Sudeste – 63.3\%) regions of the country (Figure 09).

\textbf{Figure 09: Headquarters of eCommerce per region}

\begin{center}
\includegraphics[width=\textwidth]{ecommerce_map.png}
\end{center}

\textit{Source: Primeira Pesquisa Nacional do Varejo Online Sebrae-Ecommerce Brasil 2014}

This concentration of eCommerce companies in the South and Southeast Regions is due to the developed infrastructures and the concentration of the consumer market in these regions (Figure 10):
It is also well known that the cost of taxes is one of the factors that companies take into consideration, especially with regard to where invest and in Brazil, which State grants the best tax benefits.

As explained in this study, Brazil is a country where tax competition between the States is constant. The grant of benefits in a disorganized way, with the attempt to reduce the material differences between the States, causes more loss for the States, business and citizens that were imaginable. Indeed, the tax competition in Brazil is distorting the economy development and equality principles determined by the Constitution.

As a matter of fact, it is not illegal to grant tax benefits as long as the State follows the procedural rules in order to do so. Unfortunately, that is not what is currently occurring in Brazil and the granting of illegal tax benefits does not fulfil the main reason why it is permitted: to reduce the regional inequalities and to develop the nation.

Therefore, it is important to understand how is the systematic of granting legal ICMS benefits in Brazil.

V.1. ICMS Tax Competition and eCommerce

The Brazilian Constitution determines that the procedures for granting ICMS exemptions, incentives or benefits should be established by a supplementary law.
Since the promulgation of 1988 Brazilian Constitution, the legislative has not created such law, thus, it remains in force the supplementary law n. 24 of 1975, which was constitutionally accepted (Article 34, paragraph 8, Act of the Constitutional Transitional Provisions).

The supplementary law n. 24/1975 establishes that ICMS benefits can be granted if approved by the National Finance Policy Council (CONFAZ). According to CONFAZ regulations, the decisions have to be (i) unanimous by the states and Federal District representatives when granting tax incentives, exemptions or benefits and (ii) four fifths of the present in the event of revoking them\(^{95}\).

In other words, for a State to be authorized to grant a tax benefit, incentive or exemption, it has to be approved unanimously by all the states, in order to maintain the autonomy and equality of the states.

However, this policy makes it difficult for some states to attract investments without tax benefits. By issuing illegal ICMS incentives, the state generates risks not only for its own, but also for the taxpayers that benefits from it. The benefit can be questioned by other state in the Federal Supreme Court. When it is declared unconstitutional, the state that granted the illegal benefit would have to pay or charge the taxpayers back, which could result in the decrease in private investment, in addition to multiple legal actions from the taxpayers.

Besides the risk of having to pay back to the state, the taxpayers, when engaging in an interstate commercial transaction, may face the invalidation of the rightful credit (non-cumulative principle), because the “injured” state will not recognize it due to the fact that it does not correspond to a real tax payment to the other state that granted the illegal benefit.

Moreover, the illegal benefit could generate revenue for the state only for a short-term period. Afterwards, it will actually increase the amount of taxes that should have been collected and was not. In fact, *Instituto Brasileiro de Planejamento Tributário* (Brazilian Tax Planning Institute) estimates that the amount of taxes that was declared unconstitutional corresponds to R$ 250 billion\(^{96}\).

\(^{95}\) Important to mention that even if a State representative was not present at the meeting, the State can still blocks the tax benefit granting or repeal by not ratifying the tax agreement (article 37 of the CONFAZ regulation).

\(^{96}\) MINATO, op. cit., p. 79.
The above description is known as the classic ICMS tax competition in Brazil, which has the goal to draw in private investments through the grant of tax incentives.

Nevertheless, when analysing the electronic commerce, the term “tax competition” relates to the taxation imposed by the states on the entry of merchandise in their territory that were sold through the Internet.

As previously observed, the Brazilian Constitution adopted the origin principle in order to establish which state should receive ICMS. Due to the fact that most eCommerce transactions are B2C and taking into consideration the growth of eCommerce in Brazil and the growth of interstate commercial transactions, this commercial evolution caused also the increase of the economy disequilibrium between the origin and destination states also to grow considerably.

Therefore, states such as Ceará, Mato Grosso, Bahia and Piauí issued laws that charged the ICMS on the entrance of the goods when the buyer is a non-taxpayer final consumer. Important to mention that these laws did not respect the constitutional provisions, at that time, being therefore unconstitutional.

Beyond these unconstitutional legislations, 17 states agreed on the Protocol n. 21/2011, which determines that the states are allowed to impose the ICMS when the entrance in their territory of merchandise that was acquired by a non-taxpayer final consumer through the Internet, telemarketing or even showroom. Note that the Protocol determines that the ICMS will be charged even if the state of origin did not agree to the terms of the protocol.

Protocol n. 21/2011 goes against the constitutional provisions that determined that the ICMS is due to the state of origin, in case of an interstate transaction with a non-taxpayer and final consumer.

Moreover, the Protocol also goes against constitutional principles such as the principle of equality, strict legality, the federal pact principle, legal security, prohibition to discriminate due to origin or destiny of merchandise, prohibition of double taxation and others.

Clearly the Protocol n. 21/2011 was not the proper solution for eCommerce taxation and the inequality between the states and therefore it could not continue to be
valid, which is why on September 17, 2014 it was declared unconstitutional by the Federal Supreme Court\textsuperscript{97}.

Based on that decision, it is possible to identify that the main point is that the Protocol could never rule differently from the Constitution, which determines that in case of an interstate commercial transaction that has as destiny a non-taxpayer final consumer, the origin internal tax rate should apply and the payment is due to the origin state.

In other words, the state of destination will only receive part of the ICMS when the interstate commercial transaction is between ICMS taxpayers. It is crystal clear that any law or regulation that goes against this Constitutional provision is invalid and unconstitutional.

The impact of eCommerce on the Brazilian legal system is evident and even more present by the recent amendment into Brazilian Constitution.

V.2. The Constitutional Amendment n. 87/2015

On April 16, 2015 the Constitutional Amendment n. 87/2015\textsuperscript{98} was approved, modifying the items VII and VIII of paragraph 2 of Article 155. A comparison between the old and new provision are extremely relevant:

<table>
<thead>
<tr>
<th>Old provision</th>
<th>New provision</th>
</tr>
</thead>
<tbody>
<tr>
<td>VII – the following shall be adopted for transactions and rendering of goods and services to end-users located in another state: a) the interstate rate, when it is incumbent upon the recipient to pay that tax; b) the internal rate, when it is not incumbent upon the recipient to pay that tax; VIII – in the case of subitem a of the preceding item, the tax corresponding</td>
<td>VII – in the transactions of goods and rendering of services to end-users, whether or not taxpayers, the interstate rate shall be adopted and the tax corresponding to the difference between the internal and the interstate rate shall be attributed to the state where the recipient is located; VIII – the payment the tax difference between the internal and the interstate</td>
</tr>
</tbody>
</table>

\textsuperscript{97} Direct Unconstitutionally Action (ADIN) n. 4.628.
\textsuperscript{98} Production of effect 90 days from April 17, 2015.
to the difference between the internal and the interstate rate shall be attributed to the state where the recipient is located; rate mentioned in item VII shall be incumbent upon:

a) the recipient, when the recipient is a taxpayer;
b) to the sender, when the recipient is not a taxpayer.

Although the new provision is under a transitional period, it is clear that the constitutional legislative opted to shift the taxation method: instead of maintaining the origin principle, it adopted partially the destination principle.

In other words, the state of origin will not keep the whole amount of tax levied upon an interstate transaction with a final consumer (non-taxpayer); the ICMS will be shared between the two states.

It is considered to be a fundamental impact in taxation system, especially with regard to the amount of taxes that some states would stop collecting and the amount of taxes that others would start gaining.

In this sense, the constitutional amendment determined a transitional period, which determines that the difference between the interstate rate and the internal rate would be divided between the origin and destination state with the following proportions: (i) for the year 2015: 20% for the state of destination and 80% for the state of origin; (ii) for the year 2016: 40% for the state of destination and 60% for the state of origin; (iii) for the year 2017: 60% for the state of destination and 40% for the state of origin; (iv) for the year 2018: 80% for the state of destination and 20% for the state of origin; and (v) from the year 2019 on: 100% for the state of destination;

The amendment to the Constitution was a necessary measure in order to “fight” not only the tax competition between the states, but also the inequality between them. In fact, the impacts of eCommerce on taxation were actually the reasoning for the proposal to amend the Constitution.

Adopting partially the destination principle system will certainly cause a better distribution of income within the state, although it would increase the bureaucracy for the
private companies, due to the fact that they are going to be responsible for paying the ICMS to the origin and destination states.

Sharing the tax income with the origin and destination states is definitely an excellent step towards establishing a more fare taxation, aiming the equality between the states. However, it still does not solve the problem for totally virtual eCommerce transactions.

This is because ICMS tax is intrinsic linked with the necessity of a permanent establishment and tangible goods to be considered merchandise. Thus, the main questions are still unanswered: Where is the establishment of a totally virtual eCommerce company? Where are the virtual goods stored? How to characterize those goods as merchandise? The futures laws that will certainly be issued in order to regulate the eCommerce market shall answer these questions.

This bird’s eye view of the history of eCommerce and indirect taxation in Brazil definitely allows concluding that the Brazilian Tax System is trying to catch up with the evolution and improvements of technology. The question is whether it will ever reach them.
VI. CONCLUSION

In Brazil, eCommerce recorded R$35.8 billion in sales in 2014 and it is expected to reach R$43.0 billion in 2015. The numbers of consumers also increased from 51.3 million in 2013 to 61.6 million in 2014. It is clear that eCommerce in Brazil is in an exponential growth.

This grow associated with a continental-sized country such as Brazil requires a very structured logistics plan as well as a stable supply chain for any type of business, but especially for eCommerce companies.

The goal of the present study is to analyse the impacts of the eCommerce on Brazil's logistics and supply chains as well as on Brazil's taxation system.

It analyses the traditional concepts of vertical and partnership supply chain models and verified the possibility of those concepts to be applied to eCommerce companies. Thorough the analysis of a new supply chain method proposal – e-Supply Chain – as well as through the insights from a management interview, it was possible to conclude that the use of a focal service provider that enables the supply chain to be more flexible and easily adaptable to changes is only feasible for large corporations in Brazil.

According to the results, small and medium-sized eCommerce companies do not have the sufficient number of sales that justify the implementation of the e-Supply Chain system. Nevertheless, a middle term supply chain method was adopted, which permits these companies to integrate their systems to the logistics provider, allowing the flow of information to be as quick and easy as possible.

Another conclusion of this study is that for those small and medium-sized companies, ICMS plays an important role, but not significant enough for changing the location of the establishment. For those companies it is more relevant the infrastructure developed in a certain region (warehouses, transportation…) as well as being closer to the target market.

Furthermore, it is possible to acknowledge the substantial impact that eCommerce had on Brazil’s indirect taxation system. The illegal grant of ICMS benefits as well as the
unconstitutional collection of ICMS on the entry of the goods in the destination state territory (Protocol 21/2011) was responsible to install the so-called “electronic tax competition”.

One may say that the eCommerce was the last straw in order to change Brazil’s Constitution. In fact, this is considered the great impact that eCommerce has caused: the constitutional change of the taxation method: from the origin to the destination principle.

Nonetheless, the greater issue still unresolved: the need of a physical permanent establishment to establish the taxation system that should be applied to an electronic commercial transaction. This lack of flexibility of the legal system will disable the tax authorities to collect the ICMS that should be levied upon each commercial transaction that is made electronically.

It is clear that the tax law is reaching out to the new technological developments. The question is if it will reach them and without causing another tax competition.

eCommerce companies in Brazil should always keep in perspective that technological advancements are extremely relevant for their business. However, all this technological innovations would not generate any positive results if the country does not improve its logistics system (more specifically the “last mile” delivery and the reverse logistics) as well as its indirect taxation system.
BIBLIOGRAPHY

Primary Sources

Statutes


Cases


Secondary Sources

Books and Articles


Electronic Sources


ROOSEVELT, Franklin D. Available at http://thinkexist.com/quotation/taxes-after_all-are_the_dues_that_we_pay_for_the/173434.html [Accessed 20.7.2015]


TECH TARGET. Available at http://searchwindevelopment.techtarget.com/definition/ISP [Accessed 30.6.2015]

ANNEX A


"Illustrative Example Alpha
Purchasing a Movie from Amazon.com

Pre-Load Balancing

Kosta, an Internet user, wishes to purchase a movie from Amazon.com. Kosta enters the address www.amazon.com and is taken to the Amazon Web site Home Page hosted on an ISP in California, USA. Prior to ‘load balancing’, the entire Web site, inclusive of all Web pages, would have been hosted on this ISP in California.

Pos-Load Balancing

With the introduction of ‘load balancing’, the technological solutions to ‘web traffic’ congestion, multiple ISPs located in several geographical locations may be used by Amazon.com to facilitate the acquisition of a single DVD. Thus, Kost’s single DVD electronic purchase transaction may possibly be routed as follows:

1. Kosta, who resides in Cape Town, South Africa enters the Web site address www.amazon.com in search of movies. Kosta is taken to the ‘Amazon Home Page’ which may be hosted on an ISP in California, USA.

2. Kosta selects ‘movies’ and is taken to another Web page that lists all the available ‘movies’. This Web page may be hosted on an ISP in Berlin, Germany.

3. Next, Kosta selects the ‘movie’ he wishes to purchase, and is taken to a third Web page containing details for a chosen ‘movie’. This Web page may be hosted on an ISP in New Yourk, USA.

4. Next, Kosta will select “Pay Now”, and this takes Kosta to yet another Web page requesting the user’s credit card details. This Web page may be hosted on an ISP in London, United Kindom.

[Note: If Amazon uses PayPal for the payment transaction, this will add a third party to the transaction which may entail the use of additional ISPs.]

5. After Kosta’s credit card details have been entered, Kosta selects “Proceed” for the payment to be authorised and finalised. This payment confirmation occurs as follows:

(i) Amazon connects to its bank in Switzerland, where the Swiss bank proceeds with the payment confirmation and finalisation. The Swiss bank uses an ISP hosted in Switzerland.

(ii) In order to authorise payment, the Swiss bank connects to Kosta’s local bank, e.g. Investec. Investec in turn will confirm that the customer has sufficient funds and, in doing so, Investec’s ISP will be used which is hosted in Johannesburg, South Africa.
(iii) Once authorisation has been granted, Investec will connect back to the Swiss bank relaying the relevant information, and the Swiss bank will turn relay back to the Amazon Web page, hosted in New York, USA, which will then allow Amazon to proceed to the final Web page of the transaction – the ‘movie’ downloading Web page.

6. The ‘movie’ downloading Web page may be hosted on an ISP located in Hong Kong. Once Kosta selects “Downloading” application is then shifted over to Kosta’s ISPs, which are located in Cape Town, South Africa and Paris, France. At the commencement of the transaction it cannot be predicted which ISP of Kosta’s will be utilised.

Furthermore, the route used in the example above will not necessarily be the route used each time a user wishes to purchase a ‘movie’ from Amazon. For example, if Michèle, who, for argument’s sake, also resides in Cape Town, South Africa, logs onto Amazon.com and acquires the exact same movie as Kosta at the exact same time, Michèle may be re-routed to the ‘available movies’ page hosted on an ISP in Dublin, Ireland if the ‘Web traffic’ is too great for the ISP in Berlin, Germany.

Throughout the entire transaction, both Kosta and Michèle may have been under the impression that they had each accessed Amazon.com located in America and that they had each been connected to a single ISP located in the USA. Whereas, in actual fact, each single transaction may have been routed through multiple ISPs situated in several diverse countries.

(It may be argued that the quantity of ISPs utilized within this example is excessive, however this ‘excessive’ quantity has been used to illustrate that such a network connection and structure can exist.)