

ARTICLES

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THE IMPACT OF E-BOOKS ON THE BRAZILIAN PUBLISHING SUPPLY CHAIN: AN EXPLORATORY ANALYSIS

Impacto dos e-books na cadeia editorial brasileira: Uma análise exploratória

El impacto de los e-books en la cadena editorial brasileña: Un análisis exploratorio

ABSTRACT

This work aims to analyze the main effects of the emergence of electronic books within the context of the Brazilian publishing supply chain. Interviews with executives from publishing groups in the country have made it possible to identify that e-books still play a minor role in the publishing supply chain, and are more likely to thrive in specific book genres. Electronic books have not made this chain leaner. Since e-books did not replace physical books and instead coexisted with them, publishers were obliged to develop a new set of activities within the existing publishing supply chain. Disintermediation is one of the most striking features of this new production process. In order to adapt to this new scenario, the publishing sector needs to implement adjustments that extend beyond its typical operations, which also implies the need for a redefinition of resources and development of requisite competencies.

KEYWORDS | e-books, publishers, publishing supply chain, disintermediation, digitization.

RESUMO

Este trabalho tem como objetivo analisar os principais efeitos do surgimento dos livros eletrônicos na configuração da cadeia editorial brasileira. Entrevistas com executivos de grupos editoriais instalados no País permitiram identificar que os e-books ainda desempenham um papel secundário na cadeia editorial, tendo maiores chances de prosperar em alguns segmentos específicos de livros. Os livros eletrônicos não tornaram essa cadeia mais enxuta. Uma vez que os e-books não substituíram os livros físicos, mas passaram a coexistir com estes, coube às editoras desenvolver um novo conjunto de atividades dentro da cadeia editorial existente. A desintermediação é uma das características mais marcantes desse novo processo produtivo. Para se adequar a esse novo cenário, o setor editorial necessita de ajustes que vão além de suas operações, implicando também a redefinição dos recursos e competências que precisa desenvolver.

PALAVRAS-CHAVE | e-books, editoras, cadeia de suprimentos editorial, desintermediação, digitalização.

RESUMEN

Este trabajo tiene como objetivo analizar los principales efectos del surgimiento de los libros electrónicos en la configuración de la cadena editorial brasileña. Entrevistas con ejecutivos de grupos editoriales instalados en el país permitieron identificar que los e-books todavía desempeñan un papel secundario en la cadena editorial, y tienen mayores posibilidades de prosperar en algunos segmentos específicos de libros. Los libros electrónicos no debilitaron esta cadena. Puesto que los e-books no reemplazaron a los libros físicos, sino que pasaron a coexistir con estos, les correspondió a las editoras desarrollar un nuevo conjunto de actividades dentro de la cadena editorial existente. La desintermediación es una de las características más destacadas de este nuevo proceso productivo. Para adecuarse a este nuevo escenario, el sector editorial necesita ajustes que van más allá de sus operaciones, y que implican también la redefinición de los recursos y competencias que necesita desarrollar.

PALABRAS CLAVE | e-books, editorial, cadena editorial, desintermediación, digitalización.

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INTRODUCTION

Electronic books or e-books are becoming an increasingly viable and attractive source of culture and entertainment. Despite existing for over 20 years, e-books have become popular only from 2007 on, since the introduction of the Kindle, the first electronic reading device to achieve commercial success (Lin, Chou, & Huang, 2013). The introduction of Kindle and other reading devices with electronic paint displays (e-ink) renewed interest in digital reading (Tonkin, 2010), which went beyond just text. With the incorporation of video, audio, data, and other content, reading has transformed into a multimedia learning and cultural memory experience (Nálium & Bidarra, 2014).

In this new framework, e-books may assist the time-constrained reader by offering the convenience of buying the book of his or her choice from home, reading it anywhere on a mobile device, and not carrying any weight. With so much convenience added to other positive aspects (paper saving, exclusive devices, facilitated logistics distribution, the possibility of expansion, and lower prices), e-books have several technical advantages over printed books.

The numbers seem to favor e-books. In 2016 alone, 9483 new e-book titles were launched in Brazil, and a total of 2,751,630 units were marketed (Censo do Livro Digital, 2017). The first year of the main international players' (e.g., Amazon, Apple, Google, and Kobo) operation in the country was marked by a steeper growth curve than that in the US market (Sabota, 2014). Moreover, evidence shows that the e-book market has consistently grown at an exponential rate in Brazil, belying the expectations from the sector (Cunha, 2016). However, the contribution of e-books to the total profits of the main publishing companies in the country is still insignificant (1.09% in 2016; Censo do Livro Digital, 2017).

Changes that affect all the links in a productive chain commonly accompany the introduction of modern technologies. The traditional modes of operation of each link must be reconsidered for an adjustment to this growing new market (Gilbert, 2015). New configurations emerge in the book supply chain, giving rise to the need for studies on their impact and management strategies.

Recently, academic research has expended significant effort to evaluate the potential of e-book adoption, as well as the mindset of their readers, by comparing the printed and digital versions of books (D'Ambra, Wilson, & Akter, 2013; Martin & Quan-Haase, 2013; Wang & Bai, 2016; Zhang & Kudva, 2014). However, few studies seek to understand the impact of e-books on the publishing chain. Some important exceptions are the

research studies conducted by Hua, Cheng & Wang (2011), Li, Lin, Xu & Swain (2015) and in the Brazilian sphere, by Mello, Nyko, Garavini & Zendrom (2016). However, these studies focus more on factors that affect the expansion of the publishing chain and are insufficient to fully understand the implications of the arrival of e-books on this chain.

To fill this gap, this study aims to evaluate the impact that the arrival of e-books has on the configuration of the publishing chain in Brazil. In specific terms, this study aims to: (I) present the current configuration of the publishing chain in Brazil, highlighting the main changes observed after the introduction of e-books on a commercial scale; (II) understand how the publishers structure their processes to meet the demands of the final consumer; (III) investigate the main trends in the Brazilian publishing industry; and (IV) point out the main adjustments needed for the sector to deal with the growing sales of e-books.

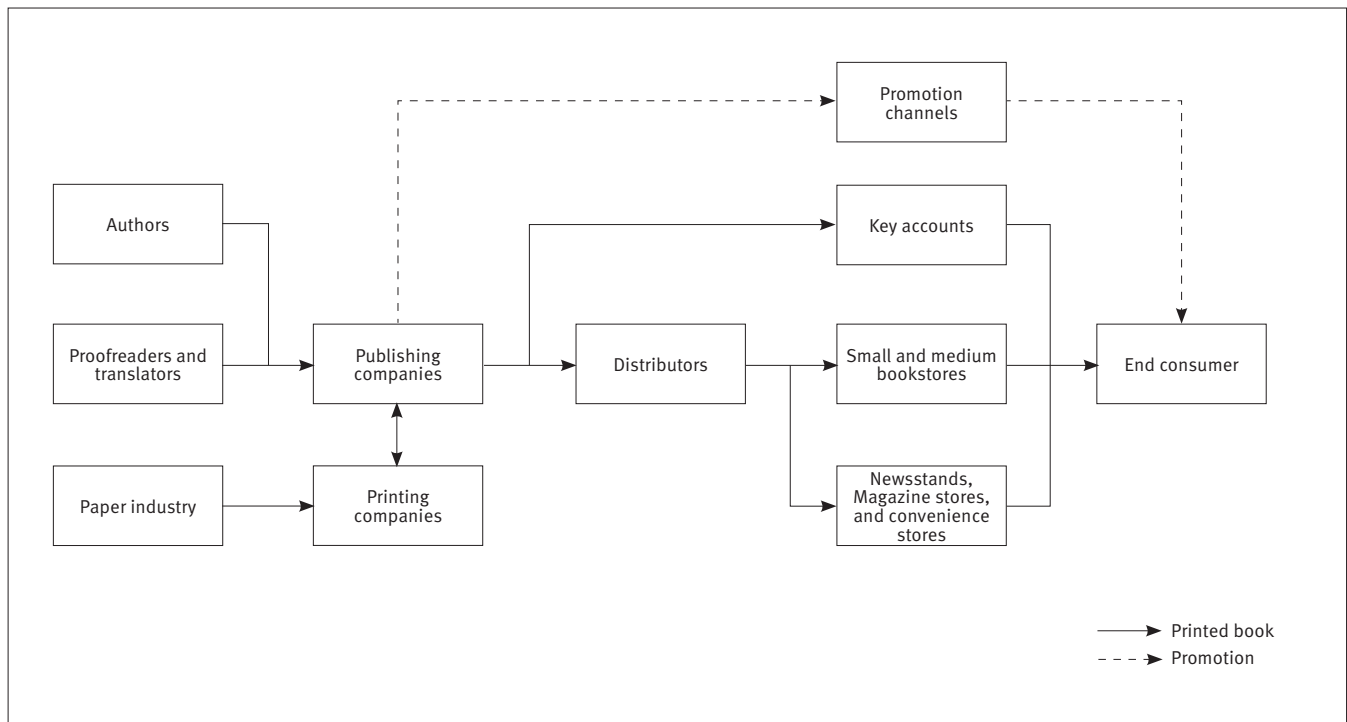
This study is organized as follows. After the introduction, a literature review is presented, where the book supply chain is described and discussed. This is followed by a description of the Brazilian publishing industry, and other scenarios that relate to this sector. The study methodology is subsequently described. Finally, the results of this study are presented, along with its implications and concluding remarks.

THEORETICAL FRAMEWORK

The Brazilian publishing chain

The book production chain is composed of several companies in the authorial, publishing, graphic, paper industry, distribution, bookselling and library sectors (Earp & Kornis, 2005; Mello et al., 2016). Figure 1 was prepared from Ramos (2013), who describes a chain where an authorial work passes on to proofreaders after being approved by the publishing company and (eventually) translators, for the printing process to begin. The printing process is carried out by printing companies, with the main supplier being the paper industry. After the books are printed, the publishing houses send out the books directly, often to key accounts (large bookstores). They may use the distributors to forward books to small and medium-sized bookstores and other sales outlets (newsstands, magazine stores, etc.). It is up to the bookstores and other sales outlets to sell and deliver the book to the final consumer. The publishing companies are responsible for promotion, by engaging the proper promotional channels. This strategy is very similar to that described by Shaver & Shaver (2003), Earp & Kornis (2005) and Fonseca (2013).

Figure 1. The book publishing chain



Source: Based on Ramos (2013).

The publishing company is one of the main links in this chain, because it determines the book cover price (Svaldi, 2010). The publishing company works as a kind of finance company throughout the production cycle of the book. When the rights to a project are acquired, the company pays for the author's rights and covers the publishing costs of translation, revision, printing, paper, etcetera. Being close to the final consumer, the bookstores are the main channel of book sales and often operate on a payroll-linked model (Lazzazari, 2012).

More recently, the Brazilian publishing chain has faced a new set of opportunities and challenges. One of the most striking changes in this new chain configuration is disintermediation (Caputo, 2012), that is, a reduction in the number of middlemen in the transactions and flow of information. This may lead to direct transactions between producer and consumer (Marszalek, 2016). Disintermediation began to occur in the publishing sector after the arrival of e-books, which do not require printing or physical distribution. On the one hand, book digitalization may reduce publishing costs and push up demand (Mello, 2004; Silva, 2013). On the other, it enables authors to bypass publishing companies, thereby freeing themselves (Walfog & Reimers, 2015).

Finally, this disintermediation is also observed as the authors become less dependent on publishing companies. This

gives them the opportunity to market their books independently, whether through direct sales via websites, or direct negotiations with retailers who sell digital books; this is known as self-publishing (Brooks & Fitz, 2015; Matulionyte, Pato, McIntyre, & Gleadhill, 2017).

The digital age: The emergence of the e-book

There is a broad range of definitions for what is known as an e-book, electronic book, or digital book. These cover the literal conversion of printed books through page scanning or PDF file creation, to complex digital books that cannot be converted into a printed form (Earp & Kornis, 2005; Vassiliou & Rowley, 2008).

In 2013, there was an impressive increase of 225% in digital book revenues, compared to those in 2012 (Rodrigues, 2014). In addition, digital books were expected to account for 10–15% of the revenues of publishing companies in Brazil and other Latin American countries (Bookwire, 2015). However, digital books accounted for only 1.09% of the turnover of the Brazilian publishing sector in 2016 (Censo do Livro Digital, 2017). The Digital Book Census (Censo do Livro Digital, 2017) was conducted through a partnership between the Economics Research Institute

Foundation (Fundação Instituto de Pesquisas Econômicas; FINE) and institutions representing the publishing sector, and showed that of the 794 publishing companies investigated, only 294 (37%) produce and market digital content. In a global context, Brazil—despite its economic size—has little relevance in the e-book market, wherein only six countries account for 67% of the global sales (Wischenbart, 2017).

Some of the factors responsible for the small size of this market are: (i) the limited number of e-books made available for sale; (ii) the high price, which is almost always close to, or even higher than, that of the printed book; (iii) there are few e-reader options with a competitive cost-benefit ratio; and (iv) the limitations imposed by publishing companies and bookstores on e-books (Nicolau & Virginio, 2012; Rao, Tripathi, & Kumar, 2016). Incompatibility between the different reading platforms, strict copyright control, and the lack of integration among content suppliers also seem to contribute to this poor performance (Chao & Lu, 2011; Chimenti, Nogueira & Salgado, 2009; Parry & Kawakami, 2017). This phenomenon is not restricted to the Brazilian market. Recent economic crises, such as those that occurred in Brazil and Mexico, have also contributed to reducing the dynamism of this market in the past few years (Wischenbart, 2017).

Another factor that also affects the e-book market in Brazil is the difficulty faced by small bookstores while they attempt to modernize. They face barriers, such as the high investment required to enter and remain in the digital market and the acquisition of e-books. Another issue would be related to adapting their management systems for the electronic commerce of e-books. Many bookstores do not have the maintenance budget or in-house developers, and end up using outsourced companies and professionals, leading to high implementation and integration costs.

Finally, piracy is also a major issue faced by the sector globally (Botelho & Scamuzza, 2012). In the United States alone, publishing companies are estimated to lose USD 315 million in book sales because of piracy (Digimarc, 2017). As a countermeasure, publishing companies have been using Digital Rights Management (DRM), a digital content encryption method to prevent the sharing of unlimited copies of e-books. However, there are several easy-to-use software packages, available on the Internet, used to “unlock” the DRM protection. In addition, this protection has brought some undesired effects, especially restrictions on the legitimate use of the product or license. This may reduce interest in the consumption or acquisition of digital media, especially books, among many consumers (Maxim & Maxim, 2012; Sun, Easley & Kim, Taylor & Smith, 2016).

METHODOLOGY

This study aims to understand the impact of the e-books on the dynamics and configuration of the Brazilian publishing chain. Therefore, a qualitative approach was considered more appropriate. This approach is fundamentally interpretative in nature (Cresswell, 2007), and fits the scope and objectives of this study because it offers the possibility of explaining or understanding a phenomenon, a process, or a combination of these (Marconi & Lakatos, 2009). It also describes a certain phenomenon, characterizing its occurrence, and relating it to other factors (Casarin & Casarin, 2011).

The case study is one of the main research strategies within the qualitative field, especially with regard to operations management (Ketokivi & Choi, 2014). In some studies, the quantitative approach is used equally well to describe phenomena that are not yet fully understood (Meredith, 1998). Case studies are a recommended strategy when one seeks to understand the general circumstances under which a contemporary event, such as the rise of e-books, affects reality (Yin, 2014).

After the research strategy was established, the Brazilian publishing chain was defined as the study unit by following Yin (2014). However, to understand the dynamics that have been occurring in this chain, instead of considering all its links, this research focused only on companies; in other words, the ones responsible for establishing rules, contacting consumers, and placing the products in the chain (Seuring & Müller, 2008). In the case of the publishing business, this role is predominantly that of the publishing companies.

The publishing companies comprising this study were selected according to a convenience criterion; thus, given the difficulty of accessing professionals in this branch, only those who could effectively contribute to the research question—a necessary condition in case studies—were selected (Cresswell, 2007; Miles, Huberman, & Saldaña, 2013; Stuart, McCutcheon, Handfield, McLachlin & Samson, 2002). To conduct the verification, research briefings that explain the purpose and main themes of the research were provided to the companies at the time of first contact. Then, the parties were informed of the conditions required to proceed to data collection during the clarification talks. If research requirements were met, data collection was finally scheduled. Four publishing companies, whose real names were omitted, were chosen: a large-sized one (publishing company A) and three small and medium-sized ones (publishing companies B, C, and D).

Interviews were considered the most appropriate data collection procedure to obtain the necessary information. This

was done by first preparing a semi-structured interview protocol to extract the visions and opinions of the participants, preceded by a header and an opening statement to identify the interview. The questions were prepared, grouped, and ranked according to the objectives established for the study, following Josselson (2013). A scheme of the sector's chain, with e-books as a part of the chain, was added to complement the protocol. This was done with the aim of validating it, as well as collecting information that would enable a better understanding of the dynamics between the links.

Four interviews were carried out from October to November 2014, one with each representative of the four publishing companies selected. The interviews were conducted by the authors of the study themselves; of these, three were in person and the fourth was by e-mail—a strategy that has the disadvantage of limiting the expression and perception of the parties (Cresswell, 2007).

The interviews focused exclusively on the people holding executive positions (presidents, directors, and managers) and considered the most appropriate to meet the research objectives. To support the “open” characteristic of the semi-structured design, press interviews were conducted to ensure flexibility for discussion of other themes that were not anticipated. Exhibit 1 shows the interviewees' job positions, the instrument used for data collection, and other information.

Exhibit 1. Description of the interviews conducted

Publishing company	Interviewee's job position	Date	Data collection instrument
Publishing company A	Manager	November 11, 2014	Recorder
Publishing company B	President	October 28, 2014	Recorder
Publishing company C	President	October 11 and 18, 2014	Recorder
Publishing company D	Director	October 6, 2014	E-mail

The data were analyzed and interpreted after data collection. First, the recordings were transcribed. After being transcribed and consolidated, interviews were pre-analyzed by reading the entire material to organize and systematize the idea, making them analyzable (Bardin, 2006). The objective is, thus, to extract from the recordings a general sense of the information and assess its global meaning (Cresswell, 2007).

The next stage, the detailed analysis of the collected material, consisted of “codification, categorization, and quantification”, seeking a separation between the material

obtained and the response provided to each objective (Bardin, 2006). In this study, the codification, understood as the organization of materials into groups before assigning them some meaning (Rossman & Rallis, 1998), was guided by a process suggested by Tesch (1990).

After the first reading of the interviews, a list containing the key topics was created. After that, a second reading helped to establish an association between the topics and sections from the interviews, leading to the emergence of new topics. After investigating all the topics, possible redundancies or similarities among topics were assessed to narrow them down to a definitive category list. The end of this process resulted in the following seven categories or codes: self-publication, supply chain, value chain, demand, disintermediation, just-in-time, trends. These categories were used to organize the information obtained from the interviews: the sections emphasized during the re-reading process were tabulated, and assigned the categories with which they were associated.

Once organized, the data finally enabled the interpretation and presentation of the results. A narrative approach was adopted to convey the results of the analysis, seeking to establish a connection among themes. This narrative was matched with the bibliographic references, seeking a validation of the models proposed in theory. This process culminated with arriving at the main theoretical and practical implications of this research, described in the final observations on this study.

ANALYSIS OF RESULTS

The results are presented according to their relation to the specific objectives. The configuration of the Brazilian publishing chain is first presented and discussed; then, the process of meeting market demand is investigated. Finally, the latent trends in the publishing business are presented and the impacts of the recent technologies on the publishing chain are described.

Configuration of the Brazilian publishing chain

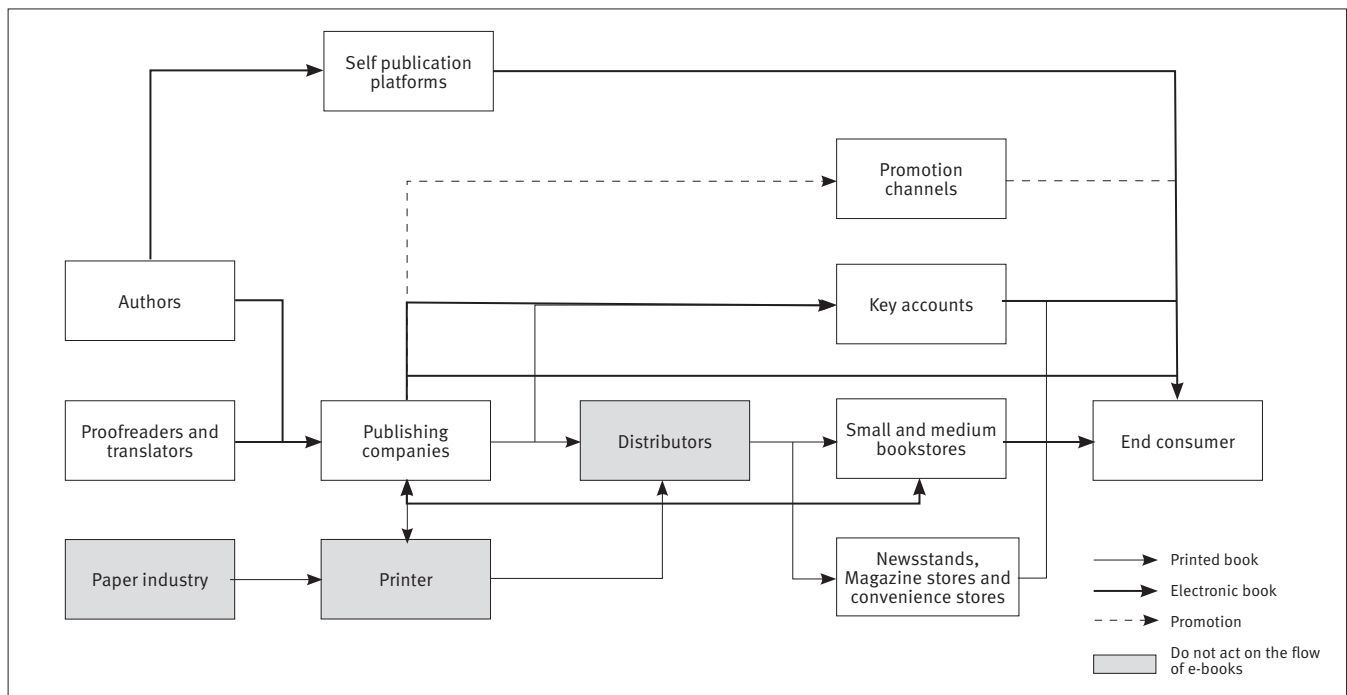
The interviews with the publishing companies enabled the mapping of a supply chain that incorporates both printed and e-books (Figure 2). In the publishing chain, as Vendrell-Herrero, Bustinza, Parry, and Georgantzis (2016) observed in their study of other sectors, the process of dematerialization of physical products caused major changes in how firms are located in the chain; this is owing to the reduced production and transport costs, and because of the ways in which companies are beginning

to relate to customers. In the following paragraphs, a brief description of this chain is presented.

Figure 2 is based on the interviews conducted with the representatives, and shows an overlap between printed and e-book flows; thus, it complements a model originally proposed

by Ramos (2013). Therefore, there was no simplification in the publishing chain, since e-books did not replace printed books (Carreiro, 2010). E-books have created a new market. The publishing chain had to adapt to respond to the demand of both printed books and e-books.

Figure 2. Productivity chain of the book incorporating electronic books



Source: Updated by the authors from Ramos (2013).

The interviews confirmed the focal role of publishing companies in the publishing chain, wherein the publisher assumes the role of a “market agent,” intermediating the relationships between authors and the succeeding links in the chain. As one of the interviewees reports,

there is a business called a production chain; without the publisher, it does not work. This publisher [...] is doing the entire process from within the chain. He contacts the author; he is the one who conducts the production process. After that, he needs the marketing channel, which may be a bookstore or a distributor; later, he needs retail, which are the sales outlets.

Two main changes took place with the emergence of e-books: a broad disintermediation and the expansion of sales channels. Regarding disintermediation, it can be concluded

that the introduction of self-publication eliminates several intermediaries between the author and the final consumer. This relationship is managed only by self-publishing platforms. E-books also eliminated the distributors' work because they can be directly supplied to the bookstores by the publishing company. The paper industry, printing companies, and distributors do not interfere in the e-books chain, as evidenced in the figure; however they are still a part of the printed book chain.

As for the sales channels, there is the possibility of publishing companies selling e-books directly; however, the traditional channels (bookstores) are also used to sell e-books through their respective websites.

The situation observed in the Brazilian publishing chain resembles that reported by Ho, Wang & Cheng (2011) for the American market, where the technological advance brought by e-books did not necessarily represent the disappearance of the existing links in the chain. However, the links had to undergo transformations to adapt to the advances.

The interviews also enabled an understanding—albeit partial—of the relationship between some links in the chain. For instance, in the shopping process, some of the larger publishing companies source the paper that will be used in book production. The responsibility for reducing production costs is usually that of printing companies. Others, such as publishing company B, carry out in-house some activities, such as layout and proofreading, which can be easily carried out by third parties.

The books may follow any of the following three paths after the graphic process—the most critical within the publishing chain—is completed (Julianelli, 2013): (1) the printer can send the book to the publishing company in case it works with stock; (2) the material may be sent directly to the distributor, which is a more common occurrence but tends to change with the growth of online sales; or (3) the bookstores receive the material directly from the printer.

The transport stage is one of the main financial bottlenecks. Publishing company C, for example, reduces costs by managing the deliveries to the main distribution centers of key accounts on its own. These are bookstores such as Saraiva, Cultura, and Martins Fontes, and publishing companies reduce costs by concentrating all receipts in a single storage center. However, this process changes when books that are past their peak sales are ordered online. The publishing company becomes responsible for producing them immediately and delivering them within the prescribed time. Such orders directly and negatively affect the production and transport costs, as reported by the Publishing company D.

The interviewees still consider the self-publication platforms a very restricted niche, without a representative market to date, although e-books provide a low-risk format for self-publishing, owing to low fixed costs, absence of stock, and ease of meeting demand (Gilbert, 2015).

All the publishing companies use multiple sales channels. They can either sell directly to the final consumer via the Internet and book release events, or, through their main source of revenue—the key accounts.

Responding to the demand in the publishing chain

Books, like films and music, are products whose demand is very difficult to predict (Caves, 2002), and this may have a slight impact on the results of the companies. As one of the interviewees pointed out, “it is our publisher’s mistake when he produces an excessive number of books. Unsold books are a financial loss. [...] If a publisher does not size up the market, he will incur losses and go out of business.” All the interviewees pointed out the clear intention of the publishing companies to adapt

the chain to their immediate needs and leverage trends with market dominance potential. For this reason, all the publishing companies interviewed have adapted to the production of e-books, while seeking to establish a leaner supply chain.

As to the ability to respond to new forms of demands, the real purpose of the publishing companies interviewed is to achieve “just-in-time” operations by establishing a rigid demand and maintaining the least level of stock, thus leading to a reduction in expenses. However, this production model is still far from the reality of publishing companies, who work with a hybrid model: push-based production during book introduction and growth stage followed by pull-based production in the decline stage.

The successful implementation of just-in-time requires efficient demand planning, something that is very complex in the book market. To predict demand in the book introduction stage, publishing company C uses quantitative and qualitative criteria, considering factors such as the book theme, the author’s potential, and the publisher’s feeling. This makes this scenario even more complex and difficult to manage. The number of copies to be printed out in the subsequent editions varies considerably, depending on the first market research results.

After the book sales decline, the production of large-volume editions is replaced by pull-based production, which is achieved through a print-on-demand process; this makes it possible to print a small number of books without much financial impacts on the publishing company. This is because the development costs (diagram, illustrations, formatting, and proofreading) are already calculated when the large editions of a book are marketed. This model is adopted especially when the copy becomes part of the “long tail” (Anderson, 2006), that is, books that do not have a large demand, but sporadic orders.

Trends in the publishing sector

The respondents from publishing companies A and C have stated that they joined the e-books production partly owing to pressure from their authors and the market. However, the publishers themselves pointed out that e-book sales are still meaningless. Publishing company D stated that such a low relevance can be linked to the low dissemination of e-readers in the current market, given the broad possibility of reading e-books on other platforms, such as cell phones and tablets. Precarious infrastructure, expensive and restricted internet, and bureaucracy also hinder the growth of this book style.

According to the interviewees, e-books would have a greater chance of success in the textbook segment, converging with the views of Jamali, Nicholas, and Rowland (2009) and Mello (2012).

Some of the reasons are the comfort of transporting e-books and the age of the target audience, who are more adaptable to changes and modern technologies. Furthermore, the dynamics of the textbook market, characterized by high speed in knowledge updates, makes the adoption of e-books much more convenient, fast, and financially viable. On the other hand, other segments of the publishing market, such as the religion segment, are extremely resistant to adopting e-books.

There does not seem to be a downward trend in the controversial matter of e-book prices. The interviewees argue that e-books do not have such smaller production costs. Skills change to produce e-books, as do inputs. That said, some costs do not change, such as the authors' compensation. As described by the interviewee of the publishing company C,

there is no deposit, but there is a data center. This data center [...] must have equipment, energy, excellent professionals. What is more, a professional who takes care of a data center earns ten times as much as a professional who tends to a warehouse. Business insurance for a data center is costlier than the insurance of a warehouse. The manpower required to convert and produce content is much more expensive.

Publishers point out that the e-book release process follows the same steps as a printed book, until the time when the printing process begins. At that time, e-book production really tends to be less costly, but not enough to generate a large price difference between them. Book pricing, whether electronic or digital, must be done cautiously, since book covers with prices that are too low culminate in an image risk to the author.

The interviewees also report that the establishment of online bookstores has significantly changed the role of two major links in the publishing chain: the distributors and physical bookstores. This is a trend that has also been observed by Maxim & Maxim (2012). Pressured by the competition, online bookstores have been trying to reduce their prices by directly negotiating with publishing companies, bypassing the distributors' interference in the process of acquiring copies. Many consumers have begun to use physical bookstores as a place for browsing through the books of their interest before proceeding to acquire them from an online player that is not necessarily owned by the physical store they visited. Thus, the traditional bookstores continue to be a part of the decision-making process, but not necessarily the purchase process.

E-commerce sales have also expanded the availability of authors' work in the publishing market. This happens because

bookstores upload the entire catalogue on their website, despite not having the physical space to store all the books listed. In case there is a very specific demand, they order from the publishing company.

Adaptations to the new publishing industry scenario

Based on the interviews, the likely configuration of the publishing value chain, after the introduction of e-books, can be established; this is presented in Figure 3.

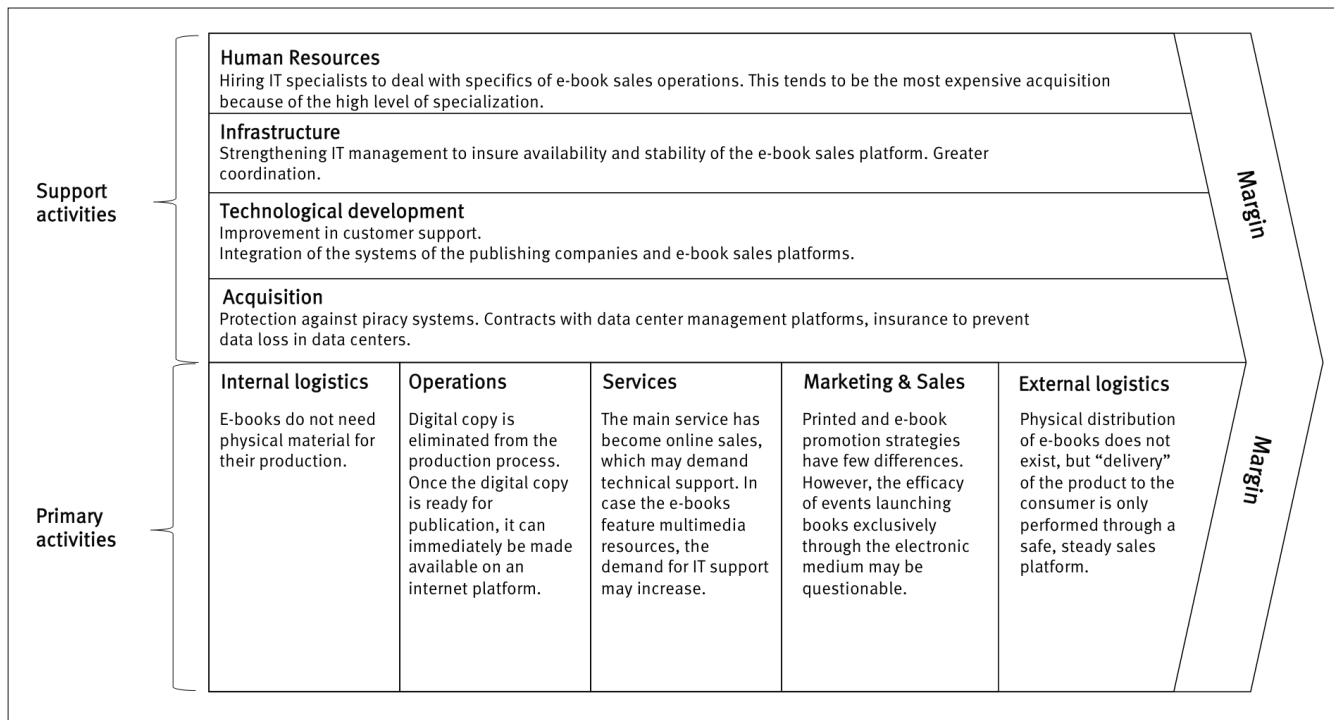
As for the primary activities, the arrival of e-books has exerted a stronger impact on the organizational outputs than on the inputs. The outputs take two forms—printed and e-books—while the inputs have remained the same (literary works with market potential). Content development is still the main source of value creation in the publishing chain. As stated by one of the interviewees,

this only works when you have something called content, which is the book. If you don't have [...] content, you have nothing. Then, the bookseller asks [Why] his publishing company books won't sell. Because the book from his/her publishing company is bad. If you bring me a good book, I'll sell it.

Content development remains critical to the value-creation process. Meanwhile, production and physical distribution were replaced by marketing and digital distribution when it comes to e-books (Clarke, 2017). With regard to marketing, one of the interviewees stated that increasing the e-book readership will require adjustments in the book release process, since the conventional promotion strategies, such as launch events, seem to make little sense for books that are launched exclusively in electronic format. Printed books still depend on the traditional distribution channels, while e-books depend on the implementation of a secure and steady electronic commerce platform that makes products available and commercializes them.

Changes in demand (authors who had difficulty getting their books published by publishing companies are now able to publish digitally) and the formats on offer (book purchase options in print and digital formats), both support activities, must be improved in the electronic commerce and customer support platforms. Structuring a digital supply chain is not just about technology acquisition and capacity development; it also requires the hiring of the right type of people and being open to a new culture that can lead to such change (Schrauf & Bertram, 2016).

Figure 3. Changes in the value chain of the publishing market with the introduction of e-books



Source: Based on Ramos (2013).

Moreover, expanding storage capacity on servers (hosts) and developing new skills in human resources are decisive in the transition to offering e-books. The recruitment of new employees is a key process, impacting human resources management and the financial environment of publishing companies, especially if the skills required are scarce in the market and, therefore, costly. This transition usually requires the development of new skills by organizations, as well as changes in the relationship between companies (Coreyne, Matthyssens & Bockhaven, 2017; Eloranta & Turunen, 2016; Lin et al., 2013).

FINAL REMARKS

This study aimed to evaluate the impact of the arrival of e-books on the publishing chain in Brazil. By interviewing executives of publishing companies, it was observed that the main transformations in this chain are related to a rapid disintermediation process and redefinition of the role of some links, such as physical bookstores. These bookstores have been helping many consumers in the purchase decision process, without necessarily benefiting from the service provided.

In practical terms, the study showed that the rise of e-books is not yet large enough to cause a radical change in the publishing

chain; however, it has necessitated adjustments in the operations. Printed books continue to be the consumers' preferred choice. Some studies predict the coexistence and complementarity of the two formats, rather than one replacing the other (Mullolland & Bates, 2014; Zhang & Kudva, 2014).

The potential for adopting e-books varies significantly among the publishing segments. This is a major obstacle to the growth of this new format. Even the textbook segment, considered the most promising for e-books, needs a more accurate evaluation, since there is evidence that teachers and students do not necessarily prefer e-books to the conventional books. In addition, they have little knowledge of the books available in an electronic format and all the features and functions of the reading devices (Cassidy, Martinez & Shen, 2012; Muir & Hawes, 2013; Mulholland & Bates, 2014; Wang & Bai, 2016).

As regards self-publication, the analyses suggest that its impact is very limited, with few implications for the publishing chain dynamics. The dubious quality of some of the self-published books makes this segment less promising than expected, notwithstanding the fact that several such books have appeared on the bestsellers list in the US market (Waldfogel & Reimers, 2015).

However, there is considerable evidence that the publishing sector has not yet become aware of all the implications of this digitalization process—a finding that is in line with what McIlroy

(2015) had reported. The interest shown by publishing companies in bringing their production processes closer to the just-in-time system shows a greater concern with manufacturing and reduction of operating costs than with the possibilities of using digitization to make the chain faster and consumer-focused, but at the risk of losing access to important market segments (Rahayyu & Day, 2015).

From a theoretical perspective, the analyses indicated that the arrival of e-books, which eliminated printing and physical distribution activities, did not bring the expected simplification of the operations in the book chain; this is despite the fact that digitization is viewed as beneficial by some companies (Lenka, Parida, & Wincent, 2017; Reddy & Reiniartz, 2017; Zott & Amit 2017). In contrast, adding new activities exclusively for the production and marketing of e-books increased the complexity of the chain. As a result, publishing companies have to manage the flow of digital books, along with that of the traditional books. This new flow requires the development of new resources and skills by organizations, directly affecting operational costs of the publishing companies. If the printed format is not completely replaced by with the digital one, the potential gains in efficiency are limited.

Given the limited sales of e-books and the significantly high entry costs to this market, future studies could seek to understand what reasons prompt publishing companies, especially smaller ones, to enter this field. No research seeking to explain the reasons for entering the publishing market have been found. Regrettably, some existing studies address only the factors that lead small- and medium-sized companies to adopt e-commerce (Rahayu & Day, 2015; Sin, Osman, Salahuddin, Abdullah, Lim, & Sim, 2016). Thus, research encompassing a wider range of publishing companies, and incorporating other links in the book chain, could substantially contribute to this field of study.

NOTE

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REFERENCES

- Anderson, C. (2006). *The long tail: Why the future of business is selling less or more*. New York, NY: Hyperion Books.
- Bardin, L. (2006). *Análise de conteúdo*. Lisboa, Portugal: Edições 70.
- Bookwire. (2015). *The bookwire Spanish and Portuguese markets report*. Retrieved from <http://marketing.bookwire.de/acton/media/14994/download-bookwire-spanish-and-portuguese-digital-ebook-markets-report>
- Botelho, J. M., & Scaramuzza, B. C. (2012). *Os atributos das livrarias e as mudanças que ameaçam sua existência*. Retrieved from <http://www.convibra.com.br/artigo.asp?ev=25&id=4348>
- Brooks, L., & Fitz, G. (2015). *Grey Matter(s): Embracing the publisher within*. *Foundation Review*, 7(2), 38-50. doi:10.9707/1944-5660.1248
- Caputo, A. (2012). *Reflections on the state of specialized libraries: Five global trends all knowledge professionals should understand*. *Information Services & Use*, 32(3-4), 169-171. doi:10.3233/ISU-2012-0666
- Carreiro, E. (2010). *Electronic books: How digital devices and supplementary new technologies are changing the face of the publishing industry*. *Publishing Research Quarterly*, 26(4), 219-235. doi:10.1007/s12109-010-9178-z
- Casarin, H., & Casarin, J. (2011). *Pesquisa científica: Da teoria à prática*. Curitiba, PR: Intersaberes.
- Cassidy, E. D., Martinez, M., & Shen, L. (2012). *Not in love, or not in the know? Graduate student and faculty use (and non-use) of e-books*. *The Journal of Academic Librarianship*, 38(6), 326-332. doi:10.1016/j.acalib.2012.08.005
- Caves, R. E. (2002). *Creative industries: Contracts between art and commerce*. Cambridge, UK: Harvard Business Press.
- Censo do Livro Digital. (2017). Retrieved from <http://www.snel.org.br/wp-content/uploads/2017/08/Apresentacao-Censo-do-Livro-Digital.pdf>
- Chao, C., & Lu, F. V. (2011). *Emergence of e-books and related managerial issues: A preliminary study*. *International Journal of Business, Marketing, and Decision Sciences*, 4(1) 117-126.
- A indústria editorial do livro e o desafio estratégico das novas tecnologias*. Retrieved from www.anpad.org.br/diversos/trabalhos/EnADI/enadi_2009/2009_ENADI130.pdf
- Clarke, M. (2017, Maio 27). Trade publishing and ebooks: W(h)ither the supply chain? *The Scholarly Kitchen*. Retrieved from <https://scholarlykitchen.sspnet.org/2010/05/27/trade-publishing-and-ebooks-whither-the-supply-chain/>
- Coreynen, W., Matthyssens, P., & Bockhaven, W. V. (2017). *Boosting servitization through digitization: Pathways and dynamic resource configurations for manufacturers*. *Industrial Marketing Management*, 60, 42-53. doi:10.1016/j.indmarman.2016.04.012
- Cresswell, J. W. (2007). *Projeto de pesquisa* (2ª ed.). Porto Alegre, RS: Artmed.
- Cunha, J. (2016). *Mercado de livros digitais não decola no Brasil e estagna nos EUA e Europa*. Retrieved from <http://www1.folha.uol.com.br/mercado/2016/04/1759174-mercado-de-livros-digitais-nao-decola-no-brasil-e-estagna-nos-eua-e-europa.shtml>
- D'Ambra, J., Wilson, C. S., & Akter, S. (2013). *Application of the task-technology fit model to structure and evaluate the adoption of e-books by Academics*. *Journal of the American Society for Information Science & Technology*, 64(1), 48-64. doi:10.1002/asi.22757
- Digimarc. (2017). *Inside de mind of a book pirate*. Retrieved from <https://www.digimarc.com/docs/default-source/default-document-library/inside-the-mind-of-a-book-pirate.pdf>

- Earp, F. S., & Kornis, G. (2005). *A economia da cadeia produtiva do livro*. Retrieved from https://www.bndes.gov.br/SiteBNDDES/export/sites/default/bndes_pt/Galerias/Arquivos/conhecimento/ebook/ebook.pdf
- Eloranta, V., & Turunen, T. (2016). *Platforms in service-driven manufacturing: Leveraging complexity by connecting, sharing, and integrating*. *Industrial Marketing Management*, 55, 178-186. doi:10.1016/j.indmarman.2015.10.003
- Fonseca, L. B. (2013). *Crescimento da indústria editorial de livros do Brasil e seus desafios* (Dissertação de mestrado, Instituto Coppead de Administração, Universidade Federal do Rio de Janeiro, Rio de Janeiro, RJ).
- Gilbert, R. J. (2015). *E-books: A tale of digital disruption*. *Journal of Economic Perspectives*, 29(3), 165-184. doi:10.1257/jep.29.3.165
- Ho, H., Wang, L., & Cheng, H. (2011). *Authors, publishers, and readers in publishing supply chain: The contingency model of digital contents production, distribution, and consumption*. *Systems Engineering Procedia*, 2, 398-405. doi:10.1016/j.sepro.2011.10.053
- Hua, G., Cheng, T., & Wang, S. (2011). *Electronic books: To "E" or not to "E"? A strategic analysis of distribution channel choices of publishers*. *International Journal of Production Economics*, 129(2), 338-346. doi:10.1016/j.ijpe.2010.11.011
- Jamali, H., Nicholas, D., & Rowlands I. (2009). *Scholarly e-books: The views of 16,000 academics: Results from the JISC national e-book observatory*. *Aslib Proceedings*, 61(1), 33-47. doi:10.1108/00012530910932276
- Josselson, R. (2013). *Interviewing for qualitative inquiry: A relational approach*. New York, NY: The Guilford Press.
- Julianelli, L. (2013). *Análise estrutural do processo de planejamento da demanda*. Retrieved from http://www.ilos.com.br/ilos_2014/publicacoes/artigos-2013/analise-estrutural-do-processo-de-planejamento-de-demanda/
- Ketokivi, M., & Choi, T. (2014). *Renaissance of case research as a scientific method*. *Journal of Operations Management*, 32(5), 232-240. doi:10.1016/j.jom.2014.03.004
- Lazzari, A. (2012). *Cenários para a indústria editorial brasileira nos próximos cinco anos*. Retrieved from <http://hdl.handle.net/10183/61625>
- Lenka, S., Parida, V., & Wincent, J. (2017). *Digitalization capabilities as enablers of value co-creation in servitizing firms*. *Psychology & Marketing*, 34(1), 92-100. doi:10.1002/mar.20975
- Li, Y., Lin, Z., Xu, L., & Swain, A. (2015). *Do the electronic books reinforce the dynamics of book supply chain market?: A theoretical analysis*. *European Journal of Operational Research*, 245(2), 591-601. doi:10.1016/j.ejor.2015.01.048
- Lin, C., Chiou, W., & Huang, S. (2013). *The challenges facing e-book publishing industry in Taiwan*. *Procedia Computer Science*, 17, 282-289. doi:10.1016/j.procs.2013.05.037
- Marconi, M., & Lakatos, E. M. (2009). *Fundamentos de metodologia científica*. São Paulo, SP: Atlas.
- Marszałek, P. (2016). *Disintermediation of banks: Causes and consequences*. *Research Papers of the Wrocław University of Economics/Prace Naukowe Uniwersytetu Ekonomicznego We Wrocławiu*, (451), 256-267. doi:10.15611/pn.2016.451.21
- Martin, K., & Quan-Haase, A. (2013). *Are e-books replacing print books? Tradition, serendipity, and opportunity in the adoption and use of e-books for historical research and teaching*. *Journal of the American Society for Information Science & Technology*, 64(5), 1016-1028. doi:10.1002/asi.22801
- Matulionyte, R., Paton, E., McIntyre, P., & Gleadhill, D. (2017). *The system of book creation: Intellectual property and the self-publishing sector of the creative industries*. *Creative Industries Journal*, 10(3), 191-210. doi:10.1080/17510694.2017.1393193
- Maxim, A., & Maxim, A. (2012). *The role of e-books in reshaping the publishing industry*. *Procedia – Social and Behavioral Sciences*, 62, 1046-1050. doi:10.1016/j.sbspro.2012.09.178
- McIlroy, T. (2015). *Reengineering the book publishing supply chain*. *The Future of Publishing*. Retrieved from <http://thefutureofpublishing.com/2015/03/reengineering-the-book-publishing-supply-chain/>
- Mello, G. (2012). *Desafios para o setor editorial brasileiro de livros na era digital*. Retrieved from http://www.bndes.gov.br/SiteBNDDES/export/sites/default/bndes_pt/Galerias/Arquivos/conhecimento/bnset/set3612.pdf
- Mello, G., Nyko, D., Garavini, F., & Zendron, P. (2016). *Tendências da era digital na cadeia produtiva do livro*. *BNDDES Setorial*, 43, 41-80. Retrieved from https://web.bndes.gov.br/bib/jspui/bitstream/1408/9434/3/BS43_corrigeo_P_BD.pdf
- Mello, J. (2004). *Rupturas do conhecimento: O mercado editorial brasileiro entre o livro impresso e o livro eletrônico*. Retrieved from <http://www.portcom.intercom.org.br/pdfs/3884323943626864056643125222784382792.pdf>
- Meredith, J. (1998). *Building operations management theory through case and field research*. *Journal of Operations Management*, 16(4), 441-454. doi:10.1016/S0272-6963(98)00023-0
- Miles, M. B., Huberman, A. M., & Saldaña, J. (2013). *Qualitative data analysis: A methods sourcebook*.
- Muir, L., & Hawes, G. (2013). *The case for e-book literacy: Undergraduate students' experience with e-books for course work*. *The Journal of Academic Librarianship*, 39(3), 260-274. doi:10.1016/j.acalib.2013.01.002
- Mulholland, E., & Bates, J. (2014). *Use and perceptions of e-books by academic staff in further education*. *The Journal of Academic Librarianship*, 40(5), 492-499. doi:10.1016/j.acalib.2014.05.018
- Natálio, C., & Bidarra, J. (2014). *E-books multimedia: O próximo capítulo na divulgação cultural?* Retrieved from <https://repositorioaberto.uab.pt/handle/10400.2/3190>
- Nicolau, M., & Virginio, R. (2012). *Livro digital: Percalços e artimanhas de um mercado em reconfiguração*. Retrieved from http://www.insite.pro.br/2012/Julho/livro_digital_mercado.pdf
- Parry, M. E., & Kawakami, T. (2017, Março 7). *Why e-readers succeeded as a disruptive innovation in the US, but not in Japan*. *LSE Business Review*. Retrieved from <http://eprints.lse.ac.uk/79964/1/blogs.lse.ac.uk-Why%20e-readers%20succeeded%20as%20a%20disruptive%20innovation%20in%20the%20US%20but%20not%20in%20Japan.pdf>
- Porter, M. E. (1985). *Competitive advantage: Creating and sustaining superior performance*. New York, NY: Free Press.

- Rahayu, R., & Day, J. (2015). **Determinant factors of e-commerce adoption by SMEs in developing country: Evidence from Indonesia**. *Procedia – Social and Behavioral Sciences*, 195, 142-150. doi:10.1016/j.sbspro.2015.06.423
- Ramos, G. (2013). *Como montar uma livraria*. Retrieved from pt.slideshare.net/GersonRamos/curso-comomontarumalivraria-parte1final
- Rao, K. N., Tripathi, M., & Kumar, S. (2016). **Cost of print and digital books: A comparative study**. *Journal of Academic Librarianship*, 42(4), 4. doi:10.1016/j.acalib.2016.04.003
- Reddy, S., & Reinartz, W. (2017). **Digital transformation and value creation: Sea change ahead**. *GfK-Marketing Intelligence Review*, 9(1), 11-17. doi:10.1515/gfkmir-2017-0002
- Rodrigues, M. (2014, July 14). **Faturamento com e-book cresce 225% no Brasil, mas mercado editorial continua em crise**. *O Estado de São Paulo*. Retrieved from <http://cultura.estadao.com.br/blogs/babel/faturamento-com-venda-de-e-book-cresce-225-no-brasil-mas-mercado-editorial-continua-em-crise/>
- Rossman, G. B., & Rallis S. F. (1998). *Learning in the field: An introduction to qualitative research*. Thousand Oaks, CA: Sage Publications.
- Sabota, G. (2014). **Crescimento na venda de e-books no Brasil deve continuar, diz especialista**. Retrieved from <http://cultura.estadao.com.br/noticias/geral,crescimento-na-venda-de-e-books-no-brasil-deve-continuar-diz-especialista,1156757>
- Schrauf, S., & Bertram, P. (2016, Sep. 7). **Industry 4.0: How digitization makes the supply chain more efficient, agile, and customer-focused**. *Strategy &*. Retrieved from <https://www.strategyand.pwc.com/media/file/Industry4.o.pdf>
- Seuring, S., & Müller, M. (2008). **Core issues in sustainable supply chain management: A Delphi Study**. *Business Strategy and the Environment*, 17(8), 455-466. doi:10.1002/bse.607
- Shaver, D., & Shaver, M. A. (2003). **Books and digital technology: A new industry model**. *Journal of Media Economics*, 16(2), 71-86. doi:10.1207/S15327736ME1602_1
- Silva, D. S. (2013). **O comportamento do mercado editorial brasileiro frente às novas tecnologias digitais na década de 2000**. Retrieved from <http://repositorio.ufba.br/ri/handle/ri/14429>
- Sin, K. Y., Osman, A., Salahuddin, S. N., Abdullah, S., Lim, Y. J., & Sim, C. L. (2016). **Relative advantage and competitive pressure towards implementation of e-commerce: Overview of small and medium enterprises (SMEs)**. *Procedia Economics and Finance*, 35, 434-443. doi:10.1016/S2212-5671(16)00054-X
- Stuart, I., McCutcheon, D., Handfield, R., McLachlin, R., & Samson, D. (2002). **Effective case research in operations management: A process perspective**. *Journal of Operations Management*, 20(5), 419-433. doi:10.1016/S0272-6963(02)00022-0
- Sun, D., Easley, R., & Kim, B. C. (2015). **Optimal Digital rights management with uncertain piracy**. *Decision Sciences*, 46(1), 165-191. doi:10.1111/dec.12120
- Svaldi, G. (2010). *O e-book como alternativa para as empresas do mercado editorial: O caso da Jambo Editora*. Retrieved from www.lume.ufrgs.br/bitstream/handle/10183/29696/000778351.pdf?sequence=1
- Taylor, L. J., & Smith, J. (2016). **Goldratt's thinking process applied to the digital rights management**. *Franklin Business & Law Journal*, 2016(4), 8-32.
- Tesch, R. (1990). *Qualitative research: Analysis types and software tools*. London, UK: Psychology Press.
- Tonkin, E. (2010). **E-books: Tipping or vanishing point?** *Ariadne Web Magazine for Information Professionals*, 62. Retrieved from www.ariadne.ac.uk/issue62/tonkin
- Vassiliou, M., & Rowley, J. (2008) **Progressing the definition of "e-book"**. *Library Hi Tech*, 26(3), 355-368. doi:10.1108/07378830810903292
- Vendrell-Herrero, F., Bustinza, O. F., Parry, G., & Georgantzis, N. (2016). **Servitization, digitization and supply chain interdependency**. *Industrial Marketing Management*, 60, 69-81. doi:10.1016/j.indmarman.2016.06.013
- Waldfoegel, J., & Reimers, I. (2015). **Storming the gatekeepers: Digital disintermediation in the market for books**. *Information Economics and Policy*, 31, 47-58. doi:10.1016/j.infoecopol.2015.02.001
- Walton, W. E. (2014). **Why undergraduate students choose to use e-books**. *Journal of Librarianship and Information Science*, 46(4), 263-270. doi:10.1177/0961000613488124
- Wang, S., & Bai, X. (2016). **University students awareness, usage and attitude towards e-books: Experience from China**. *The Journal of Academic Librarianship*, 42(3), 247-258. doi:10.1016/j.acalib.2016.01.001
- Wischenbart, R. (2017). *Global e-book report: A report on market trends*. Retrieved from <http://www.wischenbart.com/page-4>
- Yin, R. K. (2014). *Case study research*. Thousand Oaks, CA: Sage Publications.
- Zhang, Y., & Kudva, S. (2014). **E-books versus print books: Readers' choices and preferences across contexts**. *Journal of the Association for Information Science & Technology*, 65(8), 1695-1706. doi:10.1002/asi.23076
- Zott, C., & Amit, R. (2017). **Business model innovation: How to create value in a digital world**. *GfK-Marketing Intelligence Review*, 9(1), 19-23. doi:10.1515/gfkmir-2017-0003