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RUMO AO TOPO: O IMPACTO DA TRANSFORMAÇÃO DIGITAL NO VALOR DE MERCADO DO MAGAZINE LUIZA

TO THE TOP: THE IMPACT OF DIGITAL TRANSFORMATION ON MAGAZINE LUIZA'S MARKET VALUE

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RUMO AO TOPO: O IMPACTO DA TRANSFORMAÇÃO DIGITAL NO VALOR DE MERCADO DO MAGAZINE LUIZA

Objetivo do estudo

Este artigo tem como objetivo destacar os aspectos que impulsionaram a implementação da Transformação Digital no Magazine Luiza e contribuir para o desenvolvimento da teoria sobre Transformação Digital.

Relevância/originalidade

Apesar de existirem estudos a respeito do Magazine Luiza (Félix, Tavares, & Cavalcante, 2018, Saccol, 2005, Silva, 2015), nenhum estudo avaliou as iniciativas digitais de maneira ampla.

Metodologia/abordagem

Analisamos por meio de um estudo de caso os principais aspectos da Transformação Digital da varejista brasileira Magazine Luiza, que alcançou um aumento de 43.000% no preço das ações entre 2015 e 2020, principalmente devido às inovações possibilitadas pela TI.

Principais resultados

Identificamos que alguns dos principais aspectos da transformação digital da empresa não estão sendo adequadamente estudados na literatura, como o uso de uma estrutura de TI bimodal e o uso e a interconectividade entre tecnologias tradicionais e novas de maneiras inovadoras e até disruptivas.

Contribuições teóricas/metodológicas

Este estudo contribui com a literatura analisando dados empíricos sobre os pilares que sustentam a implementação da Transformação Digital em uma organização, que podem ser usados como insumo para o desenvolvimento da teoria sobre Transformação Digital.

Contribuições sociais/para a gestão

A transformação digital do Magazine Luiza resultou em um grande aumento no valor de mercado da empresa. Isso, alinhado à expansão da empresa e a resultados cada vez melhores, sugere que a tecnologia tem o potencial de mudar a estratégia da empresa e torná-la bem-sucedida, corroborando a visão de Bharadwaj (2013). Este estudo sugere que em uma estrutura de TI bimodal é possível unir estratégia de negócios e TI.

Palavras-chave: Transformação Digital, Estratégia Digital de Negócios, TI Bimodal, Inovação, Digitalização



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TO THE TOP: THE IMPACT OF DIGITAL TRANSFORMATION ON MAGAZINE LUIZA'S MARKET VALUE

Study purpose

This article aims to highlight the aspects that drove the implementation of Digital Transformation in Magazine Luiza and contribute to the development of the theory about Digital Transformation.

Relevance / originality

Although there are studies about Magazine Luiza (Félix, Tavares, & Cavalcante, 2018, Saccol, 2005, Silva, 2015), no study has evaluated the company's digital initiatives with a broad perspective.

Methodology / approach

We analyzed through a case study the main aspects of the Digital Transformation on the Brazilian retailer Magazine Luiza, which achieved a 43,000% increase in its share price between 2015 and 2020, mainly due to innovations enabled by TI.

Main results

We identify that some of the main aspects in the company's Digital Transformation are not being properly studied in literature, such as the use of a bimodal IT structure and the use and interconnectivity between traditional and new technologies in innovative and even disruptive ways.

Theoretical / methodological contributions

This study contributes to literature by analyzing empirical data on the pillars that supports the implementation of Digital Transformation in an organization, which can be used as input to theory development on Digital Transformation.

Social / management contributions

The Digital Transformation of Magazine Luiza resulted in a large increase in the market value of the company. This, aligned with the company's expansion and increasingly better results, suggests that technology has the potential to change the company's strategy and make it succeed, corroborating Bharadwaj's (2013) view. This study suggests that in a Bimodal IT structure it is possible to unite Business and IT strategy.

Keywords: Digital Transformation, Digital Business Strategy, Bimodal IT, Innovation, Digitalization



1 Introduction

With the advent of internet, the connectivity among people and companies was deeply transformed; the digital economy changed the way firms in every industry do business. In this context, the evolution of technologies enabled by the combination of information, computing, communication, and connectivity technologies (digital technologies, as defined by Bharadwaj, El Sawy, Pavlou, & Venkatraman, 2013) generated strategic responses from companies in order to adopt and utilize these technologies to gain competitive advantage.

Digital Transformation

There is a growing interest in the study of Digital Transformation in academia, in the past seven years, the number of papers published with the key-word “Digital Transformation” increased at an average rate of 77% per year (Scopus, 2019), with a total of 486 papers published in 2019. This can be explained by several factors. First, Digital Transformation is a much-diversified phenomenon permeating business in practically every type of industry, from finance (Scardovi, 2017), to healthcare (Agarwal, 2010) and automobile (Winkelhake, Winkelhake, & Schilgerius, 2018). Second, there are great expectations that Digital Transformation can improve business performance, and empirical data corroborates it: in 2019, the projected expenses of companies around the world with technologies and services that enable Digital Transformation reaches \$ 1.18 trillion, a 17.9% increase compared to 2018 (Framingham, 2019). Third, Digital Transformation is also a subject of study from many fields, for example management, innovation, marketing, social sciences and many other, the heterogeneous nature of Digital Transformation attracts the attention of researches with the most distinct perspectives and interests.

Digital Transformation is relatively an emergent subject in Information Systems Management, there is still not a consensus on the definition of the term. While earlier research suggests the phenomenon is the change in the role of IT from a functional-level strategy to a fusion with business strategy itself (Bharadwaj et. al, 2013), other researches interpret the phenomenon as a process to the integration of digital technologies (Matt, Hess, & Benlian, 2015, Vial, 2019).

Although there are studies in Digital Transformation (Sia, Soh, & Weill, 2016, Karimi and Walter, 2015), it is still not clear what makes some companies be successful and others fail in their Digital Transformation. The research problem this study address is: what are the main aspects in a Digital Transformation implementation? In order to do that, this article aims to highlight the aspects that drove the implementation of Digital Transformation in Magazine Luiza and contribute to the development of theory on Digital Transformation. Magazine Luiza is a Brazilian department store that had major changes in its operations and administration during 2011 and 2019, experiencing one of the biggest stock rallies in Brazilian history: in December 2015 the company stock (MGLU3) was worth R\$ 0,13 (Brazilian reals). In Jan 2020, the stock was being sold at R\$ 56,15, making the company a good case to study the Digital Transformation of companies.

2 Literature Review

The rapid changes in the technological scenery calls for responses from organizations (Bharadwaj et al, 2013) and different strategies have emerged. In literature, we notice two major lines of strategy related to the digital strategy of business, the Digital Transformation and the digital optimization (Proctor, Smith, Anderson, & Sampath, 2019). The Digital Optimization is



defined by Proctor et al. (2019) as “The use of digital technologies to improve employee productivity, create a better consumer experience, or increase revenue- and value-producing opportunities”. Even though this term is not as in the spotlight as Digital Transformation, the Digital Optimization is how most organizations are embracing the digital threats and opportunities (Sia et al, 2016). This can be explained by the complexity of factors necessary for a real transformation, which can involve structural changes in leadership, organization, culture, business models, agility, dynamic capabilities, resistance from employees, among other aspects (Vial, 2019, Nylén and Holmström, 2015, Karimi and Walter, 2015). Companies need to define and adjust accordingly their digital ambition in order to attain satisfactory results and be resilient to change, respecting the industry leads so they are not disrupted (LeHong and Waller, 2018).

Digital Transformation, on the other side, can be defined as “a process that aims to improve an entity by triggering significant changes to its properties through combinations of information, computing, communication, and connectivity technologies” (Vial, 2019), by applying this process firms can be more efficient, innovative, generate new business models and improve customer experience (Sia et al, 2016). Literature also separates the Digital Transformation process accordingly to the perspective on how integrated the IT function is to business, Bharadwaj et al. (2013) bring attention to the changes companies are facing in this new digital era and the need to change the view of information technology from a functional-level to a business strategy function, in a fusion between IT strategy and business strategy, phenomenon they named as Digital Business Strategy. Matt et al. (2015) proposes another perspective where the Digital Transformation comprises the transformational process itself, not only the end as proposed by Bharadwaj et al. (2013), in their opinion the Digital Transformation is “a blueprint that supports companies in governing the transformations that arise owing to the integration of digital technologies, as well as in their operations after a transformation”.

Vial (2019) alerts for the often misunderstanding that only technology is necessary for the Digital Transformation of companies, strategy and changes to the organization’s structure, process and culture are required as well. The model proposed by Albertin and Albertin (2012) helps to explain how complex a Digital Transformation can be, the model connects the dimensions that drive IT strategy and explores the relationships between market competitiveness, consumer expectations, IT capabilities, IT governance and firm’s performance. Given this intricate scenery, companies must stay alert to every aspect that can influence their Digital Transformation, or it can be a huge failure (Davenport and Westerman, 2018).

The variations in the competitive environment, for example, are an important factor in how the digital strategic posture of companies manifest itself (Mithas, Tafti, & Mitchell, 2013), accordingly to the authors, “managers view IT as a platform for undertaking strategic actions in response to actions of industry peers”, and this can lead to failures in business initiatives due to the lack of anticipation of the reaction of competitors given the industry conditions. Cain and Waller (2018) and Gewald et al. (2017) brings attention to the importance of the Digital Dexterity of the workforce, the ability and desire to use new and existing technology for better business outcomes, and its alignment with the digital strategy of the company. Karimi and Walter (2015) draw upon the disruptive innovation theory to understand the role of first-order Dynamic Capabilities (resources, processes and values) in building digital platform capabilities, which in turn impact the performance of response to digital disruption. Rai and Tang (2014) studies the impact of collaborative capabilities, dyadic IT customization and network IT standardization, into the execution mechanisms between the strategic intent of interfirm collaboration and the (re)configuration of Business Models to enable different sources of value creation and appropriation. And Horlach, Drews, and Schirmer (2016) and Haffke, Kalgovas,



and Benlian (2017) describes the segregation of IT in two modes (traditional and agile) - process named as Bimodal IT - to support flexibility, agility and innovative uses of IT in a digital business context while still maintaining the stability required from IT systems. All the aspects presented above and their relationships needs to be taken into account when a firm is implementing its Digital Transformation.

3 Methodology

In order to analyze how the Digital Transformation was implemented in Magazine Luiza, we utilize an embedded case study methodology (Yin, 2014). According to Yin, case studies are relevant when one wants to explain how a social phenomenon occurs. Additionally, the essence of case studies is trying to illuminate a decision or a group of decisions: why they were taken, how were they implemented and what results did they generated (Shcram, 1971). Usually, a case study is done by observation, interviews and questioning as per collecting of data aimed to understand the dynamics in the research configuration (Eisenhardt, 1989). This approach enables a better understanding of the main aspects on the implementation of a Digital Transformation through the lens of theoretical analysis.

Magazine Luiza is suited our analysis on how firms are applying Digital Transformation strategies in practice. First, it had a great increase in market value due to its Digital Transformation, accordingly to specialists from the financial market and executives from the company (Madureira, 2019, Folha de São Paulo, 2019), which is a strong indicator of the company's success. Second, there is a high volume of information from the company public available on the internet, such as prior academic studies, detailed administrative reports and interviews with members of the company's executive board.

Data Collection

The data utilized in this study was gathered from public available sources. As mentioned above, there is much information available online, which allows for more agility and abundance of data in reaching the study's objective. However, as Hox and Boeijs (2005) explains, when working with secondary data researchers need to carefully evaluate the available information and work with data that address the study's research problem.

With this direction in mind, we collected the data accordingly to four groups and to their relevance to the study's purpose. First, we listed the available information in Magazine Luiza's website, such as administrative reports, general presentations and letters to shareholders, totalizing 69 presentations. Second, we collected one interview with Magazine Luiza's CEO, Frederico Trajano. Then we gathered articles from 13 known newspapers in Brazil, in order to have a more independent view of the company transformation, totalizing 59 articles. The articles were searched in Google News with the keyword "Magazine Luiza" and filtered by year, from 2011 to 2019. Finally, we collected a case about the application of a chatbot in Magazine Luiza.

We opted to choose the period between 2011 and 2019 for our study due to two main reasons. First, 2011 was the year that Magazine Luiza made its IPO and started divulgating administrative reports about its operations. Second, this period comprehends the beginning of the Digital Transformation to the present, time when the company is still evolving in its digitalization process.

Data Analysis



To analyze the collected data, we utilized a chronological analysis of the events, this made it possible to arrange all the data gathered in a comprehensive form. Starting with the administrative reports, we draw a timeline with the evolution of events from 2011 to 2019. The academic studies on Digital Transformation gave the direction to select the most relevant aspects on Magazine Luiza's transformation among all the data. From 69 administrative reports we selected 21, many administrative reports had the same information. Then, we analyzed the newspaper articles, cases and interviews to consolidate our analysis, from 59 newspaper articles; we utilized 10, which had information that was relevant for our study.

4 Results

In this section, we describe the Digital Transformation process in Magazine Luiza throughout the years from 2011 to 2019, divided in two parts, the first comprising the years before the Digital Transformation (2011 to 2014) and the second corresponding to the Digital Transformation period (from 2015 to 2019).

Before the Digital Transformation

Back in 2011, when the company made its Initial Public Offering in Brazilian stock exchange (Kahil, G., 2011), it already had some digital initiatives, but still in early stages. The main pillar was known as Multi-Channel Model, which was the integration of the sales platform: traditional stores, virtual stores (explained below), website and tele sales (Magazine Luiza, 2011). The Multi-Channel Model allowed many initiatives created by the company later. The virtual stores were an initiative that demonstrates the innovative character of the company, created in 1992, they were smaller than conventional stores (5 to 7 times smaller) and did not have inventory, the products were shown to customers in computers or in product catalogs and, when a sale was made, the product was delivered to the customer from distribution centers. This allowed the distribution of stores in smaller cities without great costs (Magazine Luiza, 2011).

In 2011, the company website had only 27.000 SKUs (Stock Keeping Unit) and another noticeable aspect was the historical archive the company kept of customers buys for more than 10 years (Magazine Luiza, 2011), which later turned in a Big Data project known as Bob.

In 2012, the company launched one of its most remarkable initiatives, the digital character known as Lu (Magazine Luiza, 2012a). Lu was a graphic computer character designed to explain to customers the products characteristics, making technological products more accessible. Frederico Trajano, son of the company president, Luiza Trajano, and whom years later would become the company CEO, explained that the attention to the customer relationship, characteristic of the firm, made they come up with the idea, so they could take this aspect present in physical stores to the digital world (Santos, A. L., 2016). Lu later become the brand of the company, a symbol of its digital identity.

Another featured innovation in 2012 was a social e-commerce initiative called Magazine You, which allowed any person to sell up to 60 Magazine Luiza's products to friends in Facebook and Orkut. Magazine Luiza was responsible for the operations and the delivery of the products, and it was not necessary any investments from the users (Magazine Luiza, 2012b). The project took a year to be completed and was created in a partnership with Facebook and Google (Mello, B., 2011). The public acceptance was good, there were more than 25,000 stores opened after the first three weeks and 70,000 by the end of the year, with a conversion rate (products bought by number of searches) 50% higher than the company's website (Magazine Luiza, 2012a, Magazine Luiza, 2012c).



In the same year, the company also launched a mobile application (Magazine Luiza, 2012a) and started the project multi-channel, an advance in the Multi-Channel Model which objective was to make it possible for purchases made in e-commerce to be delivered by the nearest Distribution Center (Magazine Luiza, 2012a). The Multi-Channel Model made it possible the availability of products in the whole national territory, facilitated the purchase of any product in any channel the customer wanted, retained customers, unified marketing tools and reduced fixed costs (Magazine Luiza, 2012a). Another initiative implanted was Cloud Computing, ensuring the data transfer capability during sales peaks and reducing IT infrastructure costs (Magazine Luiza, 2012c).

Even though there were initiatives in Digital Transformation, there was not a global project encompassing them or a company strategy in Digital Transformation, the innovations were isolated. The financial results of the company were not good, the company had a 3.3 million dollars loss despite the increase in internet sales (Magazine Luiza, 2012d).

In 2013, an innovation lab was created, known as Luiza Labs. It was dedicated to research and development of technology and, initially, the lab was an exploratory initiative, as stated in the Annual Report “We make tests internally with games and develop our own apps to see what we can do and how far we can go” (Magazine Luiza, 2013a). In the following years, the lab would grow to become a central point in Magazine Luiza’s Digital Transformation Strategy. In the same year, the company started Bob, a Big Data platform to make product recommendations to customers in the website and in physical stores. The project was created using historical data aligned with data from Magazine You, which captured information about customers connections and enabled a better understanding of their behavior (Magazine Luiza, 2013a). Magazine Luiza also acquired a cosmetic products website (Época Cosméticos), as a part of its strategy of diversifying operations and intensify internet sales (Olivon, B., 2013), and designed a website directed to people who were engaged, known as “Quero de Casamento” (Magazine Luiza, 2013a). Additionally, Magazine You was released in a mobile version and was up to 170.000 stores by the end of the year (Magazine Luiza, 2013a). In 2013, the company had better financial results, with a 52 million dollars profit (Magazine Luiza, 2013b).

Not many significant improvements were identified in 2014. Bob became responsible for all products recommendation in Magazine Luiza’s website, it was used in delivery, buying recommendations through email and social networks and personalized marketing in Facebook and Google (Magazine Luiza, 2014a) and Luiza Labs launched two projects: Lu’s Club and the app Mobile Sales, the former being a portal with daily offers and the latter a mobile app to support sales people in physical stores, making the buying process faster for customers (Magazine Luiza, 2014b). The three projects were developed by Luiza Labs (Magazine Luiza, 2014b).

Although there was not a Public Announced Digital Strategy yet, it is possible to note that the company is alert to the importance of the digital evolution, as stated in the board report: “We are aware of the fast digital evolution that is impacting customers in many economic sectors, and we are alert to the main trends in the world”, in the same report the company also talks about the importance of innovation and Luiza Labs (Magazine Luiza, 2014b).

The Digital Transformation

In 2015, there is a major change for the company, the CEO, Luiza Trajano, is succeeded by her son, Frederico Trajano, who was ahead of the Operations Area. With Frederico in charge of the company, Magazine Luiza started a new phase: The Digital Transformation Cycle, with the objective of going from a “traditional retail company with a digital platform to a digital company, with physical points of sale and human support” (Magazine Luiza, 2015a). A new



strategy is structured to embrace Digital Transformation with five fronts: Multichannel, Digital Inclusion, Physical Stores Digitalization, Transformation of the Website in a Digital Platform and Digital Culture (Magazine Luiza, 2015a).

The Multichannel Model had advancements: all the mix of products available in the e-commerce would be available to the digital stores and more than half of the online sales were being delivered by the nearest Distribution Center. The multichannel model was structured in four pillars (Magazine Luiza, 2015b): Logistics – 09 distribution centers with pre-established routes, Commercial – online sales with replacement in physical stores, Operational – sales in physical stores of online items, and Technological – sale made online and withdraw in a physical store.

Digital Inclusion, the second front in the company strategy, is a mission of “bringing to many what is a privilege of few” by inviting and teaching customers on how to use technology. The main example in this pillar is Lu, the digital character which is used in the digital media of the company, with more than 100,000 subscribers in YouTube and 105 million videos watched (Magazine Luiza, 2015c).

Physical Stores Digitalization included projects developed by Luiza Labs, like Mobile Sales, Mobile Stockist and Mobile Assembler. Brazil has an average of more than one smartphone by inhabitant since 2017 (Meirelles, 2020). By them the site in the Internet, the app in the Mobile and sale tool in the store were already the same.

Mobile Sales reduced the buying time from 40 to 4 minutes (Magazine Luiza, 2015c) and had improvements, it received barcode reader, buying cart, voice product search and a simulator (Magazine Luiza, 2015d),

Mobile Stockist is an app that makes the withdraw time shorter in physical stores and Mobile Assembler is an app designed to make the assembling line faster by eliminating administrative tasks (Magazine Luiza, 2015a).

The Transformation of the website in a digital platform was a project expected for 2016, which comprehended the sale of third-party products in Magazine Luiza’s website, largely amplifying the products portfolio offered, the company started the project by selling products from Época Cosméticos (Magazine Luiza, 2015a).

Finally, the Digital Culture front focus on innovation, speed and people, with the main example being Luiza Labs, which was composed by 75 software engineers by the end of 2015 (Magazine Luiza, 2015a).

Cloud Computing also had advances, one of the main projects in the IT area was the migration of systems hosted in physical data centers to Cloud, known as Luiza Cloud, making the systems more flexible and agile (Magazine Luiza, 2015b). Magazine You, by the end of 2015, had around 100,000 stores (Magazine Luiza, 2015c).

Even though the company had a major transformation strategically, the financial results were not well, the company had a 20 million dollars loss during the year (Magazine Luiza, 2015a) and the share price hit the lowest price in the company history, R\$ 0.12 (ADVFN, 2020). Luiza Trajano, who was named president of the company administrative council, announced the company could be delisted from the stock exchange (Reuters, 2015), but there were no official announcements from the company about the matter.

The Digital Transformation strategy was intensified in 2016, the Multichannel Model now provided administrative, logistics and sales cost reduction by unifying channels and enabling projects such as Store Withdraw (the withdrawing of products bought online in physical stores), the Digital Culture was highly emphasized in the board’s annual report (Magazine Luiza, 2016a) and Luiza Labs had now more than 250 engineers (Magazine Luiza, 2016b), the Digitalization of Physical Stores now included Mobile Pin Pad, allowing customers to pay for the products in their phones and avoiding checkout lines, free Wi-Fi access for clients



in the stores and Lu Connects, a pack of services for customers phones (antivirus, access to Wi-Fi points distributed all over Brazil and cloud storage) (Magazine Luiza, 2016a), the Transformation of the Website in a Digital Platform now grouped Magazine You, Tele sales, Época Cosméticos, Quero de Casamento and Lu's Club (Magazine Luiza, 2016c), but the most noticeable change was the start of the Marketplace, the company opened its website for partners to sell in it, over 200 partners had already been included and around 400 thousand SKUs were available (Magazine Luiza, 2016b), the Digital Inclusion was also highlighted in the board's report, concerning the opportunity for Brazilian population to become more connected (Magazine Luiza, 2016a). The financial results in 2016 were impressive, with a 27 million dollars profit in Brazil's worst recession in history (Magazine Luiza, 2016a, Capucci, R. & Castro, L., 2017).

In 2017, the company announces it is becoming a Tech Company, with the Multichannel model and Luiza Labs as the main pillars of its Digital Transformation (Magazine Luiza, 2017a). As for the Multichannel model, the marketplace grew to 750 partners and 1.5 million SKUs (a 375% increase compared to 2016, even though 30% of partners requests were denied due to poor service level - Magazine Luiza, 2017a), the buy online and pickup in store is well accepted by the customers, with more than 20% of the total sales made in the e-commerce delivered this way, and Magazine You reaches up to 200.000 sellers (Magazine Luiza, 2017a).

Luiza Labs is also growing very fast, hitting more than 450 engineers, almost twice the size it had a year earlier, and representing 30% of the company payroll (Magazine Luiza, 2017b). Luiza Labs delivered more than 200 projects in 2017, digitalizing Back Office and logistics operations and improving the company's mobile applications (internal and external), as in Magazine Luiza (2017b).

The technology in Magazine Luiza is structured in a bimodal model, where part of the IT team is dedicated to Support Missions and part of the team is dedicated to Business Missions, as the CTO André Fatala presents in Magazine Luiza day, an annual event of the company (see Figure 1). A highlighted aspect in the IT strategy is the use of APIs to create a business ecosystem with partners and suppliers, in 2015 there were 263 million API calls in Black Friday, 2 years later the number of API calls in the same day rose to more than 1 billion, a 380% increase (Magazine Luiza, 2017c). Still in 2017, the company was recognized with the best chatbot in services from Bots Brazil Awards (Nama, 2018).

In 2018, the company announces its Digital Transformation has been completed (Magazine Luiza, 2018a).

The company numbers kept growing, 2 new distribution centers were inaugurated (a 20% increase compared to 2017), 30% of the e-commerce deliveries in 150 selected cities were made in up to 48h, the buy online and pickup in store as a percentage of the total e-commerce sales rose to 32%, 52% of total firm sales were being made online, and the physical stores were becoming technological shopping and distribution centers (Magazine Luiza, 2018a).

In Luiza Labs, now counting with 707 employees, new projects were developed: customers could now track their purchases through WhatsApp (a popular messaging app in Brazil) and research products using Google Assistant, Bob started to make recommendations in Mobile Sales, Neuman, a project to compare algorithms that predicts demand, was developed and API calls reached more than 18 billion calls per month, as stated in Magazine Luiza (2018a). The company strategy directs to the use of APIs to create a platform, an ecosystem increasing the collaboration with other companies (Magazine Luiza, 2018b).

2019 was a year where the company consolidated and expanded the initiatives from its Digital Transformation. The company is actually in an omnichannel model and is working to evolve in a digital ecosystem for retail, with the integration of sellers in its marketplace and collaboration with partners through the use of APIs. The e-commerce sales reached 50% of the



company total sales, but the company continues to expand the quantity of physical stores, with more than 150 stores opened in 2019 (Magazine Luiza, 2019).

The strategic drivers for the evolution involves five fronts: the exponential growth of the marketplace, the sales of new categories (such as food, tires and other items), the evolution of the app to a super app, with other sub apps inside like Netshoes (an sports e-commerce company acquired by Magazine Luiza in 2019), Époça Cosméticos and Zattini (a fashion e-commerce also acquired by Magazine Luiza in 2019), the faster delivery of items bought online, with 66% of the sales delivered in up to two days, and Magalu as a Service, a platform to digitalize and connect the retail ecosystem.

The company reached in 2019 sales of 6 billion dollars, 24 million clients, 20 million app installations, 1,100 physical stores, 17 distribution centers and over 12 million different items available in the e-commerce (Magazine Luiza, 2019). Luiza labs now has 1,196 collaborators, with the super app plus seven apps - mobile sales, mobile payments, credit digitalization, mobile results, mobile stockist, mobile delivery and mobile assembler, (Magazine Luiza, 2019).

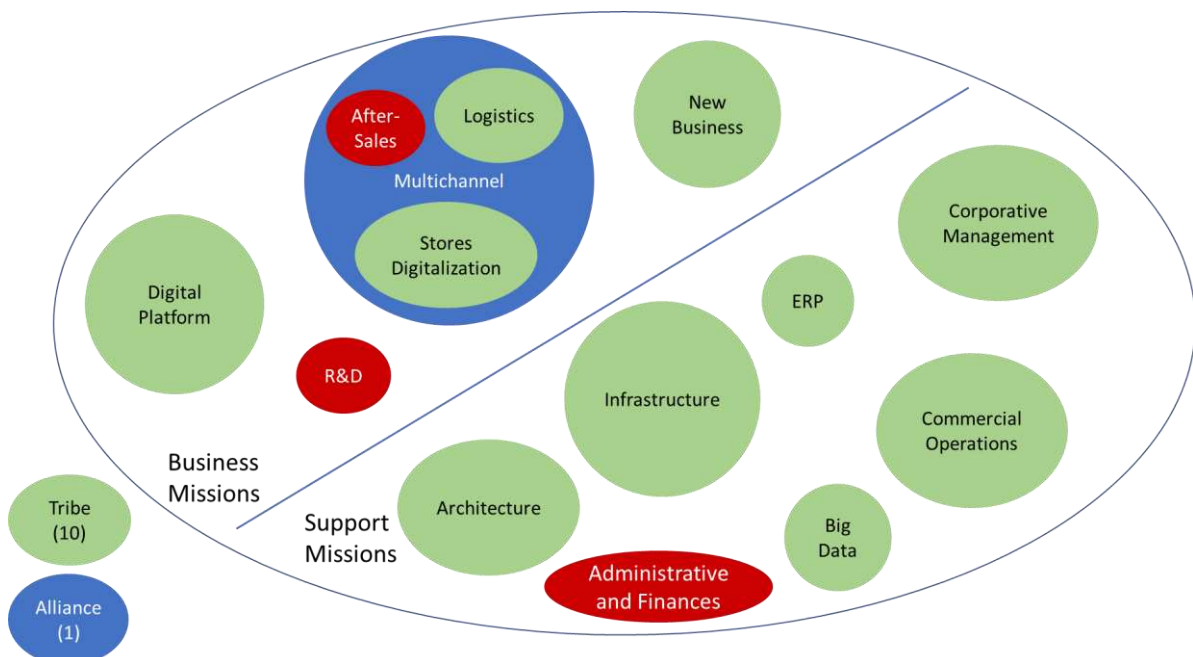


Figure 1 - Bimodal Technology Structure in Magazine Luiza. Adapted from Magazine Luiza (2017c).

5 Discussion

Digital Transformation versus Digital Optimization

As argued by Proctor et al. (2019), companies can opt for the Digital Transformation or the Digital Optimization Strategy. In Magazine Luiza, for a moment there were mixed initiatives, the company had digital initiatives to improve operational efficiency, like Mobile Sales, Mobile Assembler and Mobile Stockist, but also had transformational initiatives such as Lu, Bob, Magazine You, and other initiatives that were not part of a Digital Transformation Strategy, they were isolated initiatives.

Only in 2015, when the Digital Strategy of the company was released, these transformation initiatives became part of the company's strategy. Luiza Labs for example, was an IT bimodal model for developing innovative projects, but were not associated to a broader



strategy pillar until it became part of the Digital Culture pillar. The same with the digital character Lu, even though it was derived from a strategic pillar of the company, the human relationship present in physical stores, in 2012 it was announced in the Annual Report merely in the e-commerce section of the report, with no mentions to the human relationship strategic pillar. In 2015, integrated the Digital Inclusion pillar.

In 2015, there is a clear intention for the transformation of the company. A new cycle in the company history begin, the Digital Transformation Cycle, with a strategy with five pillars: Multichannel Model, Digital Inclusion, Physical Stores Digitalization, Transformation of the website in a digital platform and Digital Culture.

Pillars in the implementation of Digital Transformation

Culture became a pillar in Magazine Luiza's strategy, demonstrating the value of this aspect, and is perhaps the most important aspect in a Digital Transformation process. As Mithas (2013) concludes, managers view IT as a platform for undertaking strategic actions in response to actions of industry peers. However, in Magazine Luiza, innovation and technology were priorities for the company, this can be illustrated by the creation of virtual stores, the multi-channel model, the foundation of Luiza Labs and digital initiatives as the apps created by Luiza Labs. The creation of Luiza Labs particularly, is an application of bimodal IT (Horlach et al, 2016), where part of the IT staff stops working on support tasks and focus on digital initiatives. This enables the development of projects that would not become priority for the IT area and would probably get lost among operational tasks. Andre Fatala, who was involved in the creation of Luiza Labs and later became CTO, was a protagonist in the Digital Transformation. With innovative ideas and always looking forward to new technologies, Mr. Fatala participated in many of the company digital initiatives and demonstrated a high degree of Digital Dexterity (Cain and Waller, 2018). The combination of the innovative profile of the company, structure, with the creation of Luiza Labs, and people as Mr. Fatala, was critical for the Digital Transformation of Magazine Luiza.

Leadership and management style are also a central point in the Digital Transformation of Magazine Luiza. Frederico Trajano was responsible for urging the company about the importance of e-commerce and implementing it in Magazine Luiza in 2001 (Barbieri, C., 2014). He also supported the creation of Luiza Labs (dos Santos, 2016) and was responsible for the implementation of the company's Digital Strategy in 2015, when he became CEO. Among several recognitions of his outstanding performance, he was elected in 2019 "The Manager of the year" by the CRA-SP (Conselho Regional de Administração de São Paulo), one of most prestigious awards in business administration in the country.

In addition, Gartner and FGV recognized the innovations in retail digital disruption accomplished by Magazine Luiza (Smith et al. 2017, Meirelles, 2020).

Digital Technologies and Innovation

Digital technologies can be defined as combinations of information, computing, communication, and connectivity technologies (Bharadwaj et. al, 2013). However, the study in Digital Transformation can be misguided to focus on recent technologies only, such as Social Media, Mobile, Analytics and Embedded Devices (Fitzgerald et. al, 2014, Vial, 2019).

Technologies like Big Data (Bob) and Cloud adopted suggests that the company is alert to the use new technologies. However, these approaches in Magazine Luiza appear more as an adoption than truly innovations. The main innovations of the company were based in technologies in the plateau of production stage (as defined by Gartner) approached in different



ways. Magazine You, a social commerce initiative, is an e-commerce model mixed with social networks. The Lu character was a great innovation that renewed the company's image as a digital company, and started as a graphic computing initiative (legacy technology) that was used to explain the products characteristics to customers, it was so successful that later it also became a chatbot, used in customer service and communication. This indicate that the Digital Transformation of companies are not necessarily the application of new technologies, but when these and older technologies are mixed and integrated in different forms companies can distinguish themselves and be more competitive.

Contributions and Limitations

This study contributes to literature by analyzing empirical data on the pillars that supports the implementation of Digital Transformation in an organization, which can be used as input to theory development on Digital Transformation. The study also highlights important aspects that are not properly studied in literature about Digital Transformation, such as the importance of connectivity among different initiatives and the perspective that innovation in the digital age does not necessarily involve recent technologies, but the use and union of different technologies in innovative ways.

Even though this study provides valuable insights for further studies on the main aspects of the Digital Transformation of companies, the utilization of secondary data only may not offer the whole context of a situation. Thus, our analysis may not comprehend all of the main aspects on the Digital Transformation of companies.

We also assume the data the company released is reliable and that the increases in Magazine Luiza stock were due to the Digital Transformation of the company, based on commentaries from specialists.

Not much information was found in the analyzed data about projects that failed or the difficulties faced by the teams that participated in the digital initiatives. These aspects can be important to a successful Digital Transformation and are an interesting opportunity for future studies.

6 Conclusion

The Digital Transformation of Magazine Luiza resulted in a 43,000% increase in the market value of the company. This, aligned with the company's expansion and increasingly better results, suggests that technology has the potential to change the company's strategy and make it succeed, corroborating Bharadwaj's (2013) view where IT cannot be treated only as a support area as it was years ago (and still is for many companies). This study suggests that in a Bimodal IT structure it is possible to unite Business and IT strategy.

We also observe in Magazine Luiza's case that the implementation of a Digital Transformation is an evolutive process that begins with small initiatives that grow, evolve and merge into great innovations. Where culture and leadership are essential to the implementation of the Digital Transformation.

It is also important to notice that a Digital Transformation is not just about technology, the Lu character for example, was created from the company culture of a warm treatment given to customers in the physical stores, and it was one of the main aspects in Magazine Luiza's Digital Transformation.

In addition, the Luiza's culture and complementary management skills of the central figures of Luiza and Frederico Trajano continuous to be vital for the huge financial success of Magazine Luiza.



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