

# The Digital Transformation in Brazilian Companies: Under the Optics of Consultants



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*Digital transformation is profoundly changing the ways in which value is created and how value is captured. New companies with new and innovative business models are born. Existing companies need to rethink their business models when they become the digital age. In view of this process evidenced in the academic and business literature, the objective is to verify in which factors companies should focus on the digital transformation of their business, through bibliographic review and interviews with expert consultants in this area. For the field research the sources of external and internal evidence will be considered. The sources of external evidence researched will be: documentary analysis, which will include a review of the literature and documents of the hospitals and operator. Internal sources of evidence: interviews using a questionnaire with open questions together with consulting professionals, as well as direct observation techniques at the site. The data analysis procedure will be based on the intra and inter case analysis established by Miles and Huberman [1]. It can be concluded that the factors pointed out by the interviewees converge to what the literature cites: there is a need to review the business models of the companies.*

**Keywords:** Digital Transformation, Business Model, Platform, Ecosystem

## 1. Introduction

Companies are adapting to new technologies and becoming digitalized, structured in new ways are called digital organizations of the future. According to CHEW [2], they are called DOOTF (digital organizations of the future). Digital transformation is profoundly changing the ways in which value is created and how value is captured. New companies with new and innovative business models are born. Existing companies need to rethink their business models when they become the digital age [3].

Digital transformation of a business means discussing various types of business transformation by introducing or adapting value-added services, using new technologies to generate a direct impact on the delivery of results and the customer experience, making this one of the company's main guidelines. Channels and processes will also be transformed and the need to look for new models and revenue streams based on customer requirements will become necessary and, consequently, it will be mandatory to change the company's internal culture to include "digital" at the heart of everything is done [4].

In more digitally mature companies, the ability to adapt or redesign the business is determined in large part by a digital strategy clearly supported by leaders who foster a culture capable of changing and inventing the new. In digital transformation one of the most evident attitudes is the taking of risks as a cultural norm, causing the most advanced companies to seek new levels of competitive advantage. Another equally important aspect is the preparation to adapt to the challenges and functioning of the company thinking about the retention and attraction of new talents as employees of all ages that seek compatible opportunities to work and develop in companies committed to digital progress [5].

In view of this process evidenced in the academic and business literature, the objective is to verify in which factors companies should focus on the digital transformation of their business, through bibliographic review and interviews with expert consultants in this area.

## 2. Theoretical Framework

This chapter describes the main concepts addressed in this study, based on the literature found in the main national and international academic bases.

### 2.1 Digital Transformation

A study presented by Press [6] reveals that in 2019, global spending on digital transformation initiatives will reach \$ 2.2 trillion, almost 60% higher than that spent in 2016. It is rather arduous for traditional companies that already have a structure and form, the task of overcoming the obstacles of their own style and organizational structure, in addition to finding the right talents and strengthening them, adapting their traditional environment in an environment that allows agility in the creation of prototypes, rapid decision making and even acceptance because these issues determine whether they can compete with the new digital markets.

According to Downes and Nunes [7], as a result of this restructuring, whole business models can be reformulated or replaced. Because of this broad scope and far-reaching consequences, digital transformation strategies seek to coordinate

efforts to transform products, processes, and organizational aspects due to new technologies, with a more broadly designed scope that explicitly includes digital activities in the interface or totally next to the customers.

Digital Business Transformation is the application of technology for building new business models, processes, software and systems that result in more profitable revenue, greater competitive advantage and greater efficiency. Companies achieve this by transforming business processes and models, enabling workforce efficiency and innovation, and customizing client / citizen experiences [8].

In the case of digital business, the question of adapting, transforming and / or replacing the business model is widely contemplated by the studies on the subject [9, 10, and 11]. SCHALLMO; WILLIAMS; BOARDMAN present in Table 1 further definitions of digital transformation.

**Table 1** Definitions of Digital Transformation

Author	Author definition
BMWi [12]	Typing means the complete network of all sectors of the economy and society, as well as the ability to collect relevant information and analyze and translate that information into actions. The changes bring advantages and opportunities, but they create completely new challenges.
Bowersox et al. [13]	Digital transformation is a "business reinvention process to digitize operations and formulate extended relationships with the supply chain. TD's leadership challenge is to reenergize companies that can already succeed to capture the full potential of information technology across the supply chain "
Westerman et al. [14]	"TD - the use of technology to radically improve corporate performance or reach - is becoming an important topic for companies around the world. Executives across all industries are using digital advancements such as analytics, mobility, social media, and embedded smart devices - and enhancing the use of traditional technologies such as ERP - to change customer relationships, internal processes, and value propositions" .
Mazzone [15]	"TD is the deliberate and continuous digital evolution of a company, business model, process of idea or methodology, both strategically and tactically. "
PwC [16]	TD describes the fundamental transformation of the entire business world through the establishment of new technologies based on the Internet with a fundamental impact on society as a whole.
Bouée and Schaible	We understand TD as a consistent network of all sectors of the economy and the adjustment of actors to the new realities of the digital economy. Decisions in networked systems include exchange and analysis of data, calculation and evaluation of options, as well as the initiation of actions and the introduction of consequences.

Source: Schallmo; Williams; Boardman (2017)

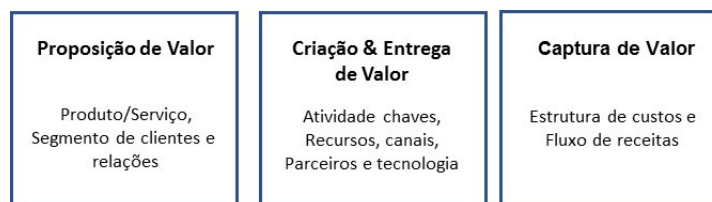
Based on a broad bibliographical query propose the following approach: Digital Transformation includes the network of actors as companies and clients in all segments of the value-added chain and the application of new technologies, requiring skills that involve extraction and exchange of data as well as the analysis and conversion of this data into actions. Information should be used to calculate and evaluate options in order to allow decisions and / or initiate activities in order to increase the performance and reach of a company. Digital Transformation involves companies, businesses, models, processes, relationships, products, etc.

## 2.2 Digital Business Model

For Veit et al. [17] a business model can be defined as a tool to represent, innovate, and evaluate business logic in startups and in existing organizations, especially in businesses that have a strong IT or digital presence.

A business model can also be considered as an abstract representation of an organization, be it conceptual, textual or graphical, involving all the major interrelated architectural, operational and financial definitions, designed and developed by an organization, and may be of a current business or future, as well as all the essential products and / or services that the organization offers or will offer, presenting all the necessary resources to achieve its strategic goals and objectives [18].

A conceptual business model can be seen by three main elements: value proposition, value creation and delivery, and value capture, as shown in Figure 1.



**Figure 1** Structure of the Conceptual Business Model

Source: Richardson [19]; Osterwalder and Pigneur [20]; BOCKEN. et al. [21]

The value proposition is found in the products and services that the company offers to one or more customer segments. Value creation is at the heart of any business model; companies often capture value, taking advantage of new business opportunities, new markets, and new revenue streams'. The capture of value is to consider how to earn revenues (ie capture value) from the supply of goods, services or information to users and customers (TEECE, 2010).

Magretta '22 [states that clarity about a company's model can serve as a basis for communication and motivation and can be used to align everyone in the organization around the type of value the company wants to create. A business model can become a powerful tool for improving execution.

In complex and sometimes unique digital businesses, the business model needs to be explicit and offer in value creation and delivery a new layer of information and knowledge essential to support customers and digital business managers in their decisions.

According to Brousseau and Penard [23], with the evolution of digital business, it becomes easier to identify the commonalities between the business models that exploded with the growth of the Internet and those that existed before. The new models combine new and innovative ways of organizing the relationship between demand and supply with a pricing strategy that takes into account network externalities, information specificity and the ability to differentiate and discriminate through digital technologies.

The Business Model is thus one of the keys to the success of digital transformation in organizations, showing all its stakeholders what their objectives are, what efforts should be made, and what the new way of acting in the face of changes in society should be. More influenced by technologies.

### 3. Methodology

To support and better understand the subject, a bibliographical research was elaborated on the main themes involved that are digital transformation and business models, which compose the Phase of the theoretical framework (foundation). For this stage, national and international scientific knowledge bases such as Web of Science, Elsevier, IEEE, among others, as well as books and other information sites were considered.

In relation to the instruments and protocols used, that is, the form and the mechanisms used to construct and collect the empirical data, it is used as sources of information, interviews with specialists of companies that act strongly in projects of digital transformation in clients of various sizes and segments. The interviews were conducted with open questions, with semi-structured script.

For Yin (2001), a case study is "an empirical investigation that investigates a contemporary phenomenon within its real-life context, and when the boundaries between phenomenon and context are not clearly defined."

The case study is a research strategy that focuses on understanding the dynamics present within individual configurations, and may still involve a single, or multiple, [26]. For this case study, two digital transformation consulting companies will be considered as objects of study.

Qualitative and quantitative evidence will be used for this study. According to Eisenhardt (1989) case studies can be used to provide a description; test a theory; or generate a new theory.

For field research, the sources of external and internal evidence [20] will be considered. The sources of external evidence researched will be: documentary analysis, which will include literature review and consulting documents. The sources of internal evidence: interviews using a questionnaire with open questions together with consulting professionals, in addition to performing direct observation techniques at the site

The data analysis procedure will be based on the intra and inter case analysis established by Miles and Huberman [1]. This analysis aims to describe, understand, explain and cross-refer the conceptual contents, processes and results of a given phenomenon in a multiple-case context and thus develop a more detailed understanding of all the cases in the sample [1].

The intra-case analysis, a description of each case in isolation, will provide an in-depth analysis of the data collected in each case, highlighting specific characteristics of each one. According to Eisenhardt (1989) it is fundamental to know the unique patterns of each case, before seeking generalization through the cases, this will allow the researcher the deep understanding necessary to carry out an analysis with cross-referencing of the cases.

## 4. Case Study

### 4.1 Intra-Case Analysis 1

The first expert interviewed works in an Indian multinational company that operates in Brazil with several fronts such as technology and service design. The company has a strong technological aspect in its operations, but sought to acquire other complementary companies that would bring a more consultative vision to understand, not only the technological issue, but the business as a whole, supported by these technologies, thus allowing to attend the cycle all for digital transformation. Serves companies seeking a renewal or disruption, in some cases traditional companies that seek to reinvent themselves.

The interview was held in October 2018, using the Skype tool with digital file recording and later transcribed using Atlas software.

One of the main points raised by the interviewee was the question of understanding the business vision with the centrality of the user, redesigning the process in search of innovation. It also considers that there is a great lack of alignment with the concept of what is digital transformation and many customers still understand that only investment in technology is enough for a digital transformation of the business. Emphasis was placed on the importance of revisiting processes and aligning strategy and technologies.

In the interview the question of the processes appears in evidence and it helps in the understanding of where the company wants to arrive and how and what to do to align the strategy for effectiveness in the digital transformation of the business.

In addition, there have been cases in which customers invest in leading-edge technologies and are actually involved in the process of digital transformation, but the use of technology in isolation does not transform the business. It is mandatory to align with the other areas so that the data is transformed into information that leads to the expected result strategically. The issue of culture change is also a priority and preparing teams is critical.

#### 4.2 Intra-Case Analysis 2

The second expert interviewed works in a Brazilian multinational company that was born as a software consultant and today works mainly with digital transformation. Some clients come from the software consultancy, extending the projects aiming at an evolution towards a true digital transformation; others are already specifically looking for a move to digital. The interview was held in October 2018, through the phone with digital file recording and later transcribed using Atlas software.

The interviewee stressed that generally a digital transformation project begins with the management part. Predicting the scenarios, the company needs to understand the need for digital transformation within its business and seek out specialists who can assist them in this transformation. An analysis of the return of this investment, the difficulties and the necessary time is made, going to the training of the leaders and then arriving in the operational.

It is not possible to do digital transformation in only some areas, it is usually a horizontal process that takes a product and goes through all areas. In this way all the leaders involved are trained and can help to clarify internally in the company the importance and benefits of this change.

One premise within digital transformation is the involvement of the ecosystem to minimize risk. With this the analysis of the company is much more complete, but this process depends on the level of maturity of the company culture. For this to happen, paradigm shattering and culture shock need to be very well worked out.

With this closer involvement of customers and partners, there is a need for companies to respond faster and this is reflected in internal IT processes. Implementation deadlines should be reduced and software developments need to adapt to agile cultures, bringing people even from infrastructure into teams and automating processes to ensure security and risk minimization. Another aspect is that the owner of the product becomes the owner of the process, assuming the management of production lead times in the time the market demands, generating dynamism in the analysis through automation techniques and control tools for a greater aggregation of value for customers.

When the company's culture changes, digital transformation takes the company to another reality and it is mandatory to revisit the business model and update it to this new reality. This is a big challenge for traditional companies because for a large company today, a failure can cause millions of losses, but if the business model does not adapt to the agility demanded by the market, competing with the startups that arise presenting new solutions that taking advantage of their agility can transform the market they enter, that is, they can test their business models quickly and cheaply, changing and adjusting according to the market response, traditional companies can be swallowed and expelled from their current markets.

#### 4.3 Intercase Analysis

In order to answer on which factors companies should focus on the question of the digital transformation of their business, a summary table was elaborated from the essential points that were presented in the intra-case analyzes.

**Table 2** Summary view of the main Points

	Case 1	Case 2
<b>Value offer</b>	The value proposition is in the understanding of what the client wants , concepts and objectives , but the company's own culture does not allow, difficult to understand the value proposition	Customers still do not understand the value proposition it is still very vague for them. The very understanding that the customer should participate in the process.
<b>Value creation</b>	It is in the processes that will be remodeled	In the view of companies is the use of
<b>Value Delivery</b>	Generally value is economical in the view of companies	Generally value is economical in the view of companies
<b>Culture</b>	There is a lack of culture, to be inserted in a larger context.	It's time to train the leaders, to implant the digital culture.
<b>People / Training</b>	Change the culture, thought.	Essential to train and train people, there is no formal education for this digital environment.
<b>Technology</b>	Without processes and alignment with the vision strategy does not mean a true Digital Transformation. There is a need to use technology to capture data and transport information to results linked to strategy.	On average, only 30% of a project is related to technology within Digital Transformation. 60% is the issue of communication and training and disruption of paradigms. It needs a set of changes.
<b>Processes</b>	Focus change on internal and external customers.	It requires an adaptation of current processes to better respond to the market / customers.
<b>Difficulties</b>	Lack of business understanding of what they want. Need for leveling, culture talk and change management. It requires commitment and takes more time.	Breaking the company's internal paradigms, each area looks at its world and digital transformation requires it to look at the whole, for the product. It's a culture shock.
<b>Related issues</b>	Agile methodologies. Processes.	Agile methodologies, Lean , Culture.

Source: Prepared by the Authors

## 5. Conclusions

It can be concluded that the factors pointed out by the interviewees converge to what the literature cites: there is a need to review the business models of companies comprehensively; the introduction of new technologies must be accompanied by restructuring of production processes, people management and changes, introduction of agile methods and ways of communicating internally and externally.

The subject is still new and new in the academy as well as in the market, its understanding is not total by the managers and academics. The main factors to be explored are culture, people / skills, technologies and processes..

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