

# THE ROLE OF DYNAMIC CAPABILITIES, BUSINESS MODEL AND ORGANIZATIONAL CULTURE IN THE DIGITAL TRANSFORMATION OF A TRADITIONAL ORGANIZATION

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## *Abstract:*

*The aim of the paper is to analyse the impact of dynamic capabilities, business model and organizational culture on the digital transformation process of a traditional organization. Our approach will try to determine to what extent the success of the digital transformation journey is influenced by these three factors and this in spite of the novelty and the complexity of the question of digital transformation. Our research methodology is based on the critical analysis of the reports and of the Internet sources related to the digital transformation process. Our findings suggest that there is a strong dependency between the three elements, both in relation with each other and with digital transformation process.*

*Keywords: Digitalization, Digital transformation, Business model, Dynamic capabilities, Business culture*

## **1. Introduction**

Since their introduction, digital technologies have had a transforming influence on society, affecting individuals and organizations. For a company, the process of evolution from analogue to digital is complex, with several factors influencing its triggers, unfolding and outcomes. The digitalization of an organization is a dynamic process, as the introduction of new technologies can generate new products and services with the power to transform the existing business model (Matzler et al., 2016). Business model itself is conditioned by the resources and capacities available in the organization (Teece, 2017), and more dependent on the context in which the company evolves than the technology it uses (Rachinger et al, 2018). The appropriate organizational culture can be understood as a competitive advantage, as it plays a major role in the adoption of new technologies and innovation process.

An organization has different options in developing technological skills, having the choice of internal development, partial or complete acquisition of an innovative or potentially disruptive technology, creation of relationships with disruptive companies or integration of a digital ecosystem (Burlea-Schiopoiu et al., 2011).

According to Teece (Teece, Pisano et al, 1997), an organization's ability to identify market opportunities and to organize effectively to capture and transform them is more valuable than its ability to build a strategy focused on destabilizing the competition, on excluding newcomers or on waging price wars. The ability of

organizations to adapt to changes in the environment is defined by Teece (2017) as dynamic capabilities. Their role is to orientate corporate strategy, having the ability to identify market opportunities (through new technology), to capture them (by transforming the business model) and to transform the organization in order to allow it to maximize benefits, by redefining the organizational culture. These elements can be found, at least partially, in the analysis of Matt, Hess et al (2015), who emphasize the common features of digital strategies: relationship to technology, ability to update value proposition, structural transformation of the organization and financial capabilities. To these elements, we add the organizational culture, with the observation that there is a strong link between all the mentioned dimensions.

Strategy can be defined as a set of analyses, concepts, policies, arguments and actions that respond to an important objective (Rumelt, 2011) and determine the selection of a business model, a customer segment and the manner in which the market should be addressed. Although the role of strategy is indisputable in building and preserving competitive advantage, Casadesus-Masanell and Ricart (2011) believe that, in the future, it will be strongly influenced by the business model. We consider that this perspective is very relevant for the organizations how are evolving in a technology-dependent environment and who are in position where they need to adapt quickly, in order to respond to opportunities or threats posed by the emergence of technologies of general interest, such as the Internet.

## 2. Literature Review

The literature review section aims at defining several key concepts, such as business model, dynamic capabilities, digital strategy and corporate culture, and understanding the manner in which they are reflected in relevant literature.

An organization's technology choices must respect strategic considerations and serve organizational purposes. In this regard, an organization either may seek to achieve the position of technological leader in the industry, a risky and potentially expensive option, but accompanied by a strong competitive advantage if successful, or follow the path set by other actors, a safer approach but deprived of the strong position of the first comer (Matt, 2015).

The management of the Information Technology (IT) strategy depends on its level of penetration and on the potential impact, it can have on organizational strategy. In the case of a limited effect, a gradual and diffuse integration within the organization is desirable; however, if the technology adopted has a potentially disruptive effect, it is preferable to launch initiatives within an independent organizational unit. However, this approach carries the risk of incompatibility with the overall organizational strategy, insofar as the effects obtained at the level of a small, agile and flexible structure may encounter difficulties in large-scale replicability (Gupta, 2014).

According to Fosso et al. (2017), the theory of dynamic capabilities has its origins in Resource theory, as formulated by Barney (1991). For resources to be a valid basis for a sustainable competitive advantage, they must be valuable, scarce, difficult to imitate and difficult to replace. In an industrial context sensitive to the influence of new technologies, the way they are directed is as important as the resources themselves (Burlea-Schiopoiu and Remme, 2017). Uniqueness, an intrinsic feature of valuable resources, is all the more important in the case of

dynamic capabilities, as they consist of the unique way a company operates and are deeply related to the managerial style and cultural and historical heritage of the organization.

Dynamic capabilities consist of a series of routines, processes, and managerial skills that allow an organization to integrate, build, or transform so that it responds to or causes beneficial transformations in the industry in which it evolves (Teece et al., 1997; Burlea-Schiopoiu, 2008; Teece, 2017). Dynamic capabilities have three main roles, each having a direct influence on the relationship with technology, business model or organizational culture (Table 1).

**Table 1****Role and type of dynamic capabilities**

<b>Role</b>	<b>Impact on</b>	<b>Examples</b>
<b>1</b>	<b>2</b>	<b>3</b>
Identifying market opportunities	Relationship to technology: taking advantage of existing possibilities or developing new ones;	Integration of new technologies in product development initiatives, use of social networking solutions to detect new consumption trends, approach of new suppliers (start-ups or investment funds) to integrate the technologies proposed by them, use of Big Data for identifying new trends;
Capturing opportunities	Transforming the business model; committing resources in order to achieve new goals;	Diversifying the offer, approaching new market segments, proposing digital versions of analogue products or services, transforming the invoicing principle; reviewed value proposition;
Transforming the organization	Alignment of organizational structure and culture;	Defining organizational values and desires, defining the type of interactions between employees, establishing the level of hierarchy and decision processes, defining the level of individual or collective responsibility;

*Source: Teece (2017), completed by the author*

An organization's relationship to technology is closely correlated with the macroeconomic environment and influenced by innovations that are likely to have an impact on the sector in which it operates (Table 1). Even though the pace of dissemination of technology in organizations in recent years is on an upward slope (IDC FutureScape Report, 2019), technology in itself is not a guarantee of success as it has become a common resource following advances in accessibility, thus losing its value of competitive advantage (Carr, 2003).

Digitization threatens to primarily destabilize organizations whose analogue value proposition can be replaced by a digital version (Lucas and Goh, 2009). Within an organization, digitalization can have an impact at several levels (Prem, 2015):

- on production, by applying automation techniques, process robotisation or governance with the help of Artificial Intelligence or Machine Learning;
- on consumers, by transforming needs and expectations;
- on the processes and allocation of resources, resulting in the transformation of the dynamics between internal and external collaborators;

These dynamics can change, from within, the business model of an organization. To this is added external pressure in the form of new competitors, who disassemble and reassemble the value chain, exploiting consumer discontent and using new technologies to circumvent barriers to enter into a sector (Burlea-Schiopoiu and Ferhati, 2021; Porter, 2001).

The concept of business model does not enjoy a universally accepted definition, but there is a certain consensus regarding the defining concepts, which we intend to identify in the following: (Table 2).

**Table 2**

**Business model definitions**

<b>Authors</b>	<b>Definition</b>	<b>Defining concepts</b>
<b>1</b>	<b>2</b>	<b>3</b>
Andersson, Bergholtz, Edirisuriya, Ilayperuma, Johannesson, Grégoire, Schmitt, Dubois, Abels, Hahn, Gordijn, Weigand and Wangler, 2006	Matrix that shows the place of each business partner and the relationships between them, as an expression of the value created from the sustained interactions.	Value, collaboration, exchanges
Osterwalder and Pigneur, 2005	Design that defines the roles and logic of the functioning of the relations between the partners involved in business relations. Reproduces the matrix of organization-partner relations, engaged in the exploitation of value for financial purposes.	Value proposition, organizational design
Rajala and Westerlund, 2005	Mechanisms through which market opportunities are transformed into profit, thanks to the delivery of value to customers, by involving the right actors in the value chain.	Value proposition, collaborative transactions.
Leem, Suh and Kim, 2004	Organizational strategy that defines and executes how the organization is going to make money as well as strategic processes and partnerships.	Organizational strategy and processes.

Table 2 (continuu)

1	2	3
Haaker, Faber and Bouwman, 2004	Partnerships set up to offer customers a common offer that might interest them.	Collaborative transactions, value proposition.
Bouwman, 2002	Mapping the roles and relationships of an organization with customers, partners, suppliers, as well as the movement of goods, communication and gains between parties involved.	Collaborative transactions, value proposition.
Magretta, 2002	Identification of customers' needs together to the means in which an organization can monetize them.	Sources of income, value proposition.
Stähler, 2002	Simplifying the operation of a business, which helps to understand its fundamentals.	Simplifying business logic, present and future.
Torbay, Osterwalder, Pigneur, 2001	The architecture of the organization and the network of partners, involved in the creation, communication and use of the value proposed to customers, in order to create sustainable sources of income.	Sources of income, value proposition.
Massa, Tucci and Afuah, 2017	Representation of elements and relationships in the activities of an organization, for the purpose of planning, communication and improvement.	Organizational strategy and processes.
Ritter and Lettl, 2018	Constructs that help the organization answer questions such as following: What does it do? What does it offer? How the offer is made available?	Value proposition, collaborative transactions.
Teece, 2017	The architecture of the mechanisms for creating, proposing and capturing value, used by an organization.	Value proposition.

*Source: the author*

We can see that certain concepts are specific to several definitions: value proposition (9 out of 14), collaborative transactions (5 out of 14), organizational strategy and processes (3 out of 14), sources of income (2 out of 14), logic of

business (2 out of 14). In the following, we aim to understand how digitalization can influence key elements of the business model, in order to better understand the cause-effect relationship between the two.

- The notion of *value* corresponds to the value proposed by the company to a certain segment of customers and for which they are willing to pay a price. New technologies can affect value proposition from several perspectives:
- Analysing consumer data, organizations can evolve towards customizing the range of products or services, sometimes opting for their partial or full digitization. Digitization favours the consumption of services instead of products, a phenomenon encouraged by consumers' preference for use versus possession;
- Lowering the price, by optimizing partner infrastructure or replacing intermediaries with digital alternatives (e.g. selling on the Internet);
- Privileging consumer experience, which has become an obsession for some organizations (e.g. Airbnb, Netflix, and Uber). As it has been argued, the needs of the consumer in the digital age have undergone profound changes. A starting point for the adaptation of organizations was the scrutiny of the need that is really addressed and whose response can lead to the revision of the offer of products and services by integrating technologies such as Cloud, Internet of Things or Artificial Intelligence. The notion of value is also strictly related to the consumer segment and, more broadly, to the market perimeter in which the organization operates, and which is defined by geographical parameters, customer segmentation or product type (Burlea-Schiopoiu and Burdescu, 2016). New technologies volatilize these barriers, addressing a valid response in terms of possible responses;
- The modification of collaborative transactions refers to the revision of actors' roles within the value chain, traditionally dominated by stable interorganizational relations. The latter can take the form of strategic alliances, partnerships, buyer-supplier partnerships or other forms of relationships (Gulati et al., 2000). To ensure the new range of products or services, the organization can either cultivate the necessary skills internally or seek them externally. Thus, it can decide to acquire an organization, remove a sales channel to favour another or collaborate with new partners or competitors, through collaborative technology platforms. A consequence of the adoption of new technologies is the reduction of costs, obtained either by replacing partners with more competitive ones, often specialized in a certain niche, or by removing intermediaries.
- A review of organizational strategy and processes may be necessary when an organization decides to adopt a digital strategy. We have presented above the ways in which digital strategy can affect the organization, in terms of scope, level of penetration, the way it redefines the speed at which the organization operates and the impact on value.

The potential for transformation of the business model held by new technologies endangers organizations whose products or services can be replaced by digital versions (Lucas and Goh 2009). New technologies can thus represent, on the one hand, a threat to companies whose value proposition is based exclusively on analogous offers (Rishi, Stanley et al, 2008) and, on the other hand, a source of opportunities for those who manage to take advantage of the stage of creative destruction in the Schumpeterian sense (Dudézert, 2018). The response of

organizations, whether offensive or defensive, materialized in adapting the business model, finds its starting point in the exploitation of technologies. Their implementation must be accompanied by an organizational transformation in the absence of which their effect can only be superficial (Winkelhake, 2017).

The difference between digitalization and digital transformation lies the holistic approach to changes in structure, processes and culture (Fitzgerald et al., 2014). Thus, digital strategies change the speed at which the organization operates, altering value sources and having internal and external effects. Organizations operate internal adjustments to protect themselves from disruptive change and capture new sources of value. Organizational transformation sums up the changes brought to the structure and processes, but especially to the attitudes and behaviours of the collaborators (Philip and McKeown, 2004). According to Venkatraman (1994), a suitable culture is essential for exploiting the benefits of new technologies, as organizational culture influences their development, implementation, adoption and use (Leidner and Kayworth, 2006).

A suitable organizational culture is a considerable strategic advantage (Downes and Nunes, 2013), but it can also hinder digital transformation (Lucas and Goh, 2009). As shown by a study conducted by McKinsey (2016) on 2,135 managers involved in digital transformation projects, inadequate organizational culture is the first barrier to digital transformation.

Organizational culture is essential in supporting the changes that organizations need to embrace, including in terms of adapting the business model (Westerman et al., 2011).

Organizational culture is defined as an implicit, tacit and widely accepted set of values and beliefs that govern how employees behave within the organization. It involves immaterial concepts, norms and beliefs, as well as explicit elements such as structures or processes (Watkins, 2013). Values, a fundamental element of organizational culture, encompass employees' beliefs about what is considered desirable (Deal, 1991). Among the values incompatible with a transformational culture, McKinsey's respondents cited the lack of transparency and communication, materialized in inter-departmental fractures, risk aversion and an inhomogeneous and non-priority view of customer needs. Academic literature identifies some of the desirable values in an organization that is going through a process of digital transformation: the desire for innovation (Dos Santos et al., 2014), risk tolerance, (Fitzgerald et al., 2014), the spirit of collaboration (Westerman et al., 2011), willingness to accept and learn from failures and agility (Kane et al., 2016). Hartl and Hess (2017) rank, based on a study involving academic experts and practitioners, the desirable organizational values in a process of digital transformation, which they divide into three categories (Table 3).

Table 3

**Organizational values essential to digital transformation**

<b>Focus</b>	<b>Value</b>	<b>Content</b>
<b>1</b>	<b>2</b>	<b>3</b>
External environment	Openness to change	The ability of the organization to embrace and promote change.
	Consumer orientation	Continuous design and adaptation of products, solutions and processes in order to meet the needs of consumers as accurately as possible and to provide a satisfactory experience.
	Innovation mind-set	Continuous identification of new sources of value through innovation.
Internal environment	Continuous learning	Continuous acquisition of new skills and knowledge.
	Trust	The level of trust between collaborators, towards the hierarchy, organization, suppliers or providers.
	Open communication	The willingness of the organization to contribute to the circulation of information in a clear, complete and accessible manner.
	Cooperation	The organization's attachment to a flat collaboration, depending on projects and objectives.
Flexibility and adaptability	Willingness to accept failure	Tolerance of acceptable mistakes and willingness to learn from failures.
	Inclusion	Inclusion of all collaborators in discussions and decisions, regardless of hierarchical rank.
	Agility	The ability to react quickly to change through flexibility and proactivity.
	Entrepreneurship	The freedom granted to employees to behave independently, proactively and responsibly.
	Risk tolerance	Willingness to take risks and make decisions despite uncertainty.

*Source: based on Hartl and Hess, 2017*

The type of culture adequate for digital transformation is open, flexible and agile. Since change can only be implemented to the extent that it is accepted, a leader's ability to lead collaborators around a new idea is an important quality in digital transformation processes. Agility fostered by open communication and



networking has the role to help organizations respond to the challenges of a dynamic and unpredictable environment.

Internally, the values associated with sharing and improvement continue to contribute to the establishment of an environment dominated by trust, in which failure is not seen as a fatality but as a source of learning. Tolerance of mistakes is supported by agility, contributing to the development and spread of innovations. As digitization increases the speed of response and the amount of information available, collaboration is essential to mastering complexity. Externally, continuous innovation and consumer prioritization invite the development of an entrepreneurial spirit, in which each employee assumes responsibility for collective failure and success. Organizations that value consumer relations are more willing to adopt digital solutions that allow them to maintain a satisfactory relationship with them. The need to meet expectations reveals the need for the adoption of digital solutions and activates a sense of urgency around digitalization, which may be absent in organizations less inclined to prioritise customer relations.

### **Case study: digital transformation of a tire manufacturer, from the perspective of dynamic capabilities**

We chose to conduct a case study on the digital transformation process of an organization with a long history in the tire industry in order to understand the change in its identity from a tire manufacturer to mobility solutions provider. In order to analyse the process of digital transformation of the studied organization, we will refer to the model of dynamic capabilities formulated by Teece (2007), which we will complete with a presentation of the governance model of the transformation process. In Teece's view, the dynamic capabilities or ability of a company to identify significant market changes, capture opportunities and transform processes or culture to deliver benefits is critical to the organization's ability to meet strategic goals.

The digital transformation strategy of the organization under study is a complex and long process. Planned to last approximately 10 years (with a debut in 2015), it involves the entire organization and focuses on five major directions: consumers, employees, processes (manufacturing, supply chain, R&D, automation), IT platforms and data analysis capabilities.

The strong orientation towards innovation, accompanied by the right governance structures, allow the organization to identify new trends thanks to three types of structures, human and technological, as follows:

- *Corporate Innovation Board*, a management group composed of internal experts from several departments and external experts in the digital field. Having a key role in the company's innovation policy, the group aims to analyse innovations related to tires and, from a broader perspective, those related to services and mobility. The group has decision-making power in transferring possible interesting leads to the R&D structure and in allocating the necessary financial resources for their exploration.
- *Partnerships with academic centres*, start-ups or other industry players, part of the open innovation policy, is another way in which the group detects the emergence of potentially interesting technologies. Driven by a philosophy of agility and openness, the open innovation centre brings together consultants, researchers, professionals, start-ups and students, gathered around the goal of

detecting trends that will mark the mobility of the future (The strategy of innovation of the group, 2016).

- *Participatory innovation is an internal approach*, which encourages employees to identify possible product ideas and solutions, which can be transformed into business ideas through a mentoring process proposed by the organization.

In order to capture the opportunities, the organization relied on redefining the business model. The objectives of the digital strategy, as defined by the management, are the following: "creating a privileged relationship with consumers, based on their fine knowledge, developing a structured and disruptive service offer and developing the digital skills of employees" ([www.bestpractices-si.fr](http://www.bestpractices-si.fr)). Customer expectations are the starting point, digital skills - the means by which the digital strategy is implemented and a new offer of products and services, the accomplishment. In this manner, the organization went from being a tire manufacturer to a mobility service provider. Innovative services propose a new product-billing model (depending on the number of kilometres travelled instead of unit sales), new digital services (vehicle management services for transport companies) or new connected products, able to offer added user value (connected tires, developed in partnership with a premium car manufacturer).

Achieving the objectives of the digital strategy was managed by mobilizing internal and external resources.

- *Internal resources*. A first phase in the digital transformation process was the improvement of the digital skills of the collaborators, the revision of the product development methodology and the redefinition of the internal processes. The organization has initiated a series of projects to improve the digital skills of employees. Thanks to in-house training sessions, employees were made aware of consumer demands and accustomed to the usual notions of new technologies, the aim of this initiative being to increase the level of internal digital skills in order to support the digital experience offered externally. The way new products are developed has also been changed to gain in agility. The methodology based on V development cycles, traditionally applied, has been replaced by an iterative approach involving customers from the earliest stages of new product development. Another aspect of the transformation strategy is the simplification of processes. Beyond the simple digitization of analogous processes, the organization aimed to redefine them, so that their easy execution guarantees a gain in agility.

A second phase of the digital transformation strategy is data integration as the element in the decision-making process. The organization hopes to reach, within three years, a level of maturity that allows it to exploit the data in order to gain new business insights. The organization plans to integrate Artificial Intelligence on a large scale and to create a common culture based on data analysis as a decision factor.

The third phase of the process, the one in which digital maturity will be reached, is one where digital strategy will act in total synergy with the organizational one. At that point, the governance of a digital transformation strategy will have become useless as the transformation of processes and organizational culture will bring the organization closer to the functioning of a digital company.

- *Acquisition of external resources*. An organization has two options for acquiring the necessary skills in a field: cultivating them internally or acquiring them externally. The speed at which the execution of the transformation is desired is

decisive in favouring one of the two options. The fast pace of transformation, set by the studied organization, draws the preferences for external resources in terms of specific skills, human and technical. Thus, despite a strong tradition of internal promotions and a general interest of employees for the digital field, recruiting professional expertise outside the company was a privileged option for setting up over 70 % of digital teams (Chaniot, 2019). The organization also preferred the acquisition of external resources in terms of technical skills that facilitate the transformation of the business model by evolving to the status of provider of mobility services, acquiring a number of companies specializing in data processing using Internet of Things (IoT) technologies.

The culture of the organization, reputed to be closed ([www.usinenouvelle.com](http://www.usinenouvelle.com)), has been adjusted to support the digital transformation policy. The role of leadership in defining and promoting organizational culture is paramount. In the case of the studied company, the president was the first advocate of a transformation that favours the collective intelligence of the collaborators: “(the collaborators) hear their boss repeating them constantly, free yourself! and It is a strong message, which they understand and which mobilizes them”. The change in open innovation policy has naturally contributed to the evolution of organizational culture. Thus, collaborators can intervene in different digital projects and interact according to affinities, without feeling limited by hierarchical barriers. They are directly involved in the process of designing a new offer, through the Community of Collaborators initiative, which aims to promote the development of new ideas internally. The transformations of the organizational culture materialized in the creation of a start-up mentality, which functioned as one of the pillars of the transformation process (Chaniot, 2019).

### **3. Research objectives**

The objective of the paper is to study digital transformation through the perspective of dynamic capabilities, business model evolution and corporate culture. The aim is two-fold: firstly, define the concepts, understand their interdependencies by undergoing a literature review, and secondly understand how academic concepts translate to business reality, by conducting case-study analysis.

#### **3.1. Methodology of research**

The chosen research methodology is individual case study. Case studies allow the collection of field information, the capture of knowledge and the analysis of methods used by professionals to build new theories (Eisenhardt, 1989). To this end, it is postulated the existence of stable relationships between certain phenomena that can be scientifically analysed (Dubé and Paré, 2003). In order to allow analysis by case study, a phenomenon must meet a number of conditions as following:

- (a) The accuracy of the analysis must be conditioned by its development in natural conditions,
- (b) The phenomena studied must be contemporary,
- (c) The intervention on phenomena or participants is not necessary, and
- (d) The phenomena studied are not already defined by a validated theoretical framework (Benbasat et al., 1987, p. 372).

According to Yin (2003), research conducted by case study methodology may involve one or more case studies. For the present paper, we have chosen to build a single case study, in order to allow an in-depth approach to our research issues.

The data was collected by going through public documents regarding the strategy of the selected organization - press releases, activity reports, interviews with representatives of the management, website - as well as academic articles related to that organization.

### **3.2. Research question**

Our research question is the following: what role do dynamic capabilities, business model and organizational culture play in the process of digital transformation of a traditional organization?

## **4. Results and discussion**

Concluding the analysis of digital transformation, the head of digital strategy of the organization lists (Chaniot, 2019) among the following success factors:

- continuous and incremental implementation of changes, managed according to the principles of agile management
- transformation of culture and mentality of employees, encouraged to adopt the operating philosophy of start-ups
- the key role of top management
- recruiting of experts in the digital field
- the importance of aligning IT strategy and resources with business, embodied in open and continuous collaboration between technical, commercial and marketing
- aligning resources and streamlining internal processes to remove potential obstacles

The mobility of the future is an area in full transformation. Even if the tire industry can be considered at first glance weakly influenced by the effects of digitalisation, the transformation of the leaders of this industry demonstrates that in any sector, digital technologies can open up new options to reinvent an organization. Viewed through the lenses of the relatively short implementation period (five years) and concrete effects (launch of new digital offerings, changing the perspective on the relationship with consumers, improving digital skills of employees, the evolution of organizational culture) we can affirm that the transformation illustrated by this case study it is a successful one. In this regard, we emphasize the determination of the organization to be fully involved in the transformation process. In support of the transformation, the organization realigned internal and external resources and adjusted the organizational culture. Finally, the digital strategy has become an integral part of the organizational strategy, an element reflected in the very identity of the organization (their presentation as a leader of the mobility of the future and no longer as a tire manufacturer).

Organizational culture can act as a facilitator or an obstacle to digital transformation. In terms of the intangible and collective aspect, organizational culture can be difficult to transform in a short time (Burlea-Schiopoiu, 2019). Despite this, the management of the organization has an active role in defining and maintaining the type of organizational culture that it deems most appropriate for the digital transformation. Defining a vision, actively communicating on the objectives and development of the digital transformation process, as well as stating the behaviours

considered desirable contribute to shaping the organizational culture able to promote the digital transformation process.

Despite the success of the company presented, the limits of the transformation exercise are materialized in the nature of the product and the commercial ecosystem. Indeed, the core business of the organization remains the selling of tires, a product whose digitization is still at an experimental level. Thus, the scepticism of the commercial partners (namely retail network) towards the new digital solutions and their attachment to a traditional offer situates in the distant future the prospect of a digital symbiosis between the actors of the ecosystem. In the face of this reality, we notice the organization's orientation towards an offer of services, built thanks to the exploitation of data and materialized either through acquisitions or through the in-house improvement of digital innovations.

Thanks to a visionary approach to digital transformation, a systematic implementation in favour of which internal and external resources are mobilized and an open communication that transforms the organizational culture, we can conclude that the studied organization is a successful example of the application of digital transformation process within a traditional organization.

## 5. Conclusions

In the present study, we set out to identify the influence that dynamic capabilities, business model and organizational culture hold on the process of digital transformation. A review of relevant literature allowed us to define each concept and understand the role held by each concept plays in an organization's transformation. We conclude that dynamic capabilities act as the means in which an organization detects and integrates market shifts, the evolution of business model as a possible result of the process and corporate culture, as a facilitator or source of blockage. The case study allowed us to observe how the three concepts are translated in an organizational environment and to reveal that the three theoretical constructs are relevant for the business world. The organization we chose to focus upon took steps towards enhancing its dynamic capabilities as a means of sensing and seizing market trends, reviewed its corporate culture in order to foster change and adapted its business model, because of the transformation process. We conclude that, when initiating a digital transformation process, an organization must pay particular attention to the three concepts, as they directly influence the success of the transformation process.

## REFERENCES

- Barney Jay (1991), „*Firm resources and sustained competitive advantage*”. Journal of Management 17 (1), 99-120.
- Benbasat Izak, Goldstein David K., Mead Melissa (1987), „*The Case Research Strategy in Studies of Information Systems*”, MIS Quarterly, 11 (3), pp. 369-386, <https://doi.org/10.2307/248684>.
- Birger Andersson, Maria Bergholtz, Ananda Edirisuriya, Tharaka Ilayperuma, (2006), „*Towards a Reference Ontology for Business Models*”, International Conference on Conceptual Modeling (ER2006).

- Burlea-Schiopoiu Adriana (2019), *The Impact of Triple Bottom Dispersal of Actions on Integrated Reporting: A Critical perspectives*, in Samuel O. Idowu and Mara delBaldo (eds.), *Integrated Reporting: Antecedents and Perspectives for Organizations and Stakeholders*, pp.141-152, Springer Nature Switzerland, DOI: 10.1007/978-3-030-01719-4-7.
- Burlea-Schiopoiu Adriana (2008), *Managementul resurselor umane*, Universitaria.
- Burlea-Schiopoiu Adriana, Badica Amelia, Radu Carmen (2011), *The evolution of e-learning platform TESYS user preferences during the training processes*, ECEL2011, 11-12 Novembre Brighton, UK, pp.754-761.
- Burlea-Schiopoiu Adriana, Burdescu Dumitru Dan (2016), *An Integrative Approach of E-Learning: From Consumer to Prosumer*, in *Smart Education and e-learning 2016, Smart Innovation, Systems and Technology*, Springer International Publishing Switzerland, Vol. 59, pp. 269-279. DOI 10.1007/978-3-319-39690-3.
- Burlea-Schiopoiu Adriana, Koudoua Ferhati (2021), *Adapting smartphone based application for quality improvement metrics' tracking in healthcare facilities as a managerial tool*, in *Innovative Smart Healthcare and Bio-Medical Systems: AI, Intelligent Computing and Connected Technologies*, Editor Abdel Badeeh M. Salem, pp. 133-148. Taylor & Francis.
- Burlea-Schiopoiu Adriana, Remme Joop (2017), *"The Dangers of Dispersal of Responsibilities"*. *Amfiteatru Economic*, 19(45), pp. 464-476.
- Carr Nicholas G (2003), *"IT doesn't matter"*, *Harvard Business Review*, Vol. 81, No. 5.
- Casadesus-Masanell Ramon and Ricart Joan E. (2011), *"How to design a winning business model"*. *Harvard Business Review*. 89 (1/2), 100-107.
- Chanot Eric (2019), *"Tools for Transformation: Michelin's Digital Journey"*, *Research-Technology Management*, 62:6, 31-35, DOI: 10.1080/08956308.2019.1661078.
- Deal Terrence and Kennedy Allan (1991), *"Corporate Cultures: The Rites and Rituals of Corporate Life"*, Cambridge, Mass., Perseus Books.
- Dos Santos Brian L, Fichman Robert G, Zhiqiang (Eric) Zheng (2014), *"Digital Innovation as a Fundamental and Powerful Concept in the Information Systems Curriculum"*, *Mis Quarterly*, 38(2):329-353, DOI: 10.25300/MISQ/2014/38.2.01.
- Downes Larry, Nunes Paul (2013), *"Big Bang Disruption"*, *Harvard Business Review* (91:3), <https://hbr.org/2013/03/big-bang-disruption>.
- Dubé Line, Paré Guy (2003), *"Rigor in Information Systems Positivist Case Research: Current Practices, Trends, and Recommendations"*, *MIS Quarterly*, 27 (4).
- Dudézert Aurélie (2018), *"La transformation digitale des entreprises"*, La Découverte, Paris, France.
- Eisenhardt Kathleen M. (1989), *"Building Theories from Case Study Research"*, *Academy of Management Review*, 14 (4), pp. 532-550.

- Fitzgerald Michael, Kruschwitz Nina, Bonnet Didier, Welch Michael (2014), „Embracing Digital Technology: A New Strategic Imperative”, MIT Sloan Management Review (55:2)
- Fosso Samuel, Angappa Wamba, Shahriar Gunasekaran, Steven Akter, Ren Ji-Fan, Dubey Rameshwar, Childe Stephen J. (2017), „*Big data analytics and firm performance: Effects of dynamic capabilities*”, Journal of Business Research, 70, 356–365. <https://doi.org/10.1016/j.jbusres.2016.08.009>.
- Gao Paul, Kaas Hans-Werner, Mohr Detlev, Wee Dominik (2016), „*Automotive revolution – perspectives towards 2030: how the convergence of disruptive technology-driven trends could transform the auto industry*”, McKinsey and Company, <http://hdl.voced.edu.au/10707/412253>.
- Gulati Ranjay, Nohria Nitin, Akbar Zaheer (2000), „*Strategic Networks*”, Strategic Management Journal, pp.203-215, [https://doi.org/10.1002/\(SICI\)1097-0266\(200003\)21:3<203::AID-SMJ102>3.0.CO;2-K](https://doi.org/10.1002/(SICI)1097-0266(200003)21:3<203::AID-SMJ102>3.0.CO;2-K)
- Gupta Sunil (2014), „*Driving Digital Strategy: A Guide to Reimagining Your Business*”, Harvard Business Review Press, Boston, USA.
- Henry C. Lucas Jr., Jie Mein Goh (2009), „*Disruptive Technology: How Kodak Missed the Digital Photography Revolution*”, The Journal of Strategic Information Systems, 18(1): 46-55, <https://doi.org/10.1016/j.jsis.2009.01.002>
- Joan Magretta (1998), „*The Power of Virtual Integration: An Interview with Dell Computer's Michael Dell*”, Harvard Business Review, 76, 2.
- Haaker Timber, Faber Edward, Harry Bouwman (2004), „*Balancing strategic interests and technological requirements for mobile services*”, Proceedings of 6th International Conference on E-commerce, ICEC04, Delft, The Netherlands.
- Harry de Reuver Bouwman, Mark Nikou, Shahrokh Nikou, (2017), „*The impact of digitalization on business models: how IT artefacts, social media, and big data force firms to innovate their business model*”, 14th International Telecommunications Society (ITS) Asia-Pacific Regional Conference, Kyoto, June 24-27. 1157.
- Hartl Eva, Hess Thomas (2017), „*The Role of Cultural Values for Digital Transformation: Insights from a Delphi Study*”.
- Kane Gerald C., Palmer Doug, Phillips Anh Nguyen, David Kiron, Natasha Buckley (2016), „*Aligning the Organization for its Digital Future*”, MIT Sloan Management Review (58:1).
- Leidner Dorothy E., Kayworth Timothy (2006), „*Review: A Review of Culture in Information Systems Research: Toward a Theory of Information Technology Culture Conflict*”. MIS Quarterly (30:2).
- Leem Choon Seong, Hyung Sik Suh, Dae Seong Kim (2004), „*A classification of mobile business models and its applications*”, Industrial Management and Data systems, 104, 1, 78-87.

- Massa Lorenzo, Tucci Christopher L and Allan Afuah (2017), „*A critical assessment of business model research*”, Academy of Management Annals, Vol. 11 No. 1
- Matt Cristian, Hess Thomas and Alexander Benlian (2015), „*Digital Transformation Strategies*”, Business & Information Systems Engineering. 57. 339-343. 10.1007/s12599-015-0401-5.
- Matzler Kurt, Bailom Franz, Friedrich von den Eichen Stephan, Anschober Markus (2016), „*Digital Disruption Wie Sie Ihr Unternehmen auf das digitale Zeitalter vorbereiten*”. Vahlen, München, Germany.
- Osterwalder Alexander, Pigneur Yves (2010), „*Business Model Generation*”, Wiley & Sons, New Jersey, USA.
- Philip George, McKeown Ian (2004), „*Business Transformation and Organizational Culture*”, European Management Journal (22:6), pp. 624-636.
- Prem Erich (2015), „*A digital transformation business model for innovation*”, The ISPIM Innovation Summit, Brisbane, Australia on 6-9 December 2015.
- Rumelt Richard (2011), „*Good Strategy/Bad Strategy: the Difference and Why it Matter*”. Crown Business, New York, USA.
- Winkelhake Uwe (2017), „*The Digital Transformation of the Automotive Industry*”, Springer International.
- Rachinger Michael, Rauter Romana, Müller Christiana, Vorraber Wolfgang, Schirgi Eva (2018) „*Digitalization and its influence on business model innovation*” Journal of Manufacturing Technology Management. 10.1108/JMTM-01-2018-0020
- Rajala Risto, Westerlund Mika (2005), „*Business Models: A new perspective on knowledge-intensive services in the software industry*”, 18th Bled eCommerce Conference eIntegration in Action, Bled, Slovenia, 1- 15.
- Rishi Sanjay, Stanley Benjamin and Gyimesi Kalman (2008), „*Automotive 2020: Clarity Beyond the Chaos*”, IBM Institute for Business Value.
- Ritter Thomas, Lettl Christopher (2018), „*The wider implications of business-model research*”, Long Range Planning, Vol. 51 No. 1.
- Stähler Patrick (2002), „*Business Models as a unit of analysis for strategizing*”, Proceedings of 1st International Workshop on Business Models, Lausanne, Switzerland.
- Teece David (2017), „*Business models and dynamic capabilities*”, Long Range Planning. 51. 10.1016/j.lrp.2017.06.007.
- Teece David, Pisano Gary and Amy Shuen (1997), „*Dynamic capabilities and strategic management*” [https://doi.org/10.1002/\(SICI\)1097-0266\(199708\)18:7<509::AID-SMJ882>3.0.CO;2-Z](https://doi.org/10.1002/(SICI)1097-0266(199708)18:7<509::AID-SMJ882>3.0.CO;2-Z)
- Dubosson-Torbay Magali, Osterwalder Alexander, Pigneur Yves (2001), „*eBusiness Model Design, Classification and Measurements*”, Thunderbird International Business Review, 44, 1, 5-23.



- Venkat Venkatraman (1994), „*IT-Enabled Business Transformation: From Automation to Business Scope Redefinition*”, Sloan Management Review (35:2)
- Watkins Michael D (2013), „*What Is Organizational Culture? and Why Should We Care?*” Harvard Business Review, <https://hbr.org/2013/05/what-is-organizational-culture>
- Westerman George, Calm ejane Claire et al (2011), „*Digital Transformation: A Roadmap for Billion-Dollar Organizations*”, MIT Center for Digital Business and Capgemini Consulting
- Yin Robert (2013), „*Case Study Research: Design and Methods*. 5<sup>th</sup> Edition. SAGE Publications, Thousand Oaks, California.
- <https://www.bestpractices-si.fr/publications/retour-d-experience/les-huit-ingredients-d-une-politique-d-innovation-l-exemple-de-michelin>,
- IDC *FutureScape Report*, 2019 <https://www.idc.com/getdoc.jsp?containerId=US44403818>,
- Usine Nouvelle, <https://www.usinenouvelle.com/article/michelin-reinvente-son-management-et-brise-ses-chaines.N319325>
- The strategy of innovation of the group Michelin (2016) <https://docplayer.fr/55570299-La-strategie-d-innovation-du-groupe-michelin-au-service-de-la-mobilite-durable.html>