

Determinants of the digital transformation: Exploratory study on the perception of the managers of Moroccan companies

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Abstract: Globalization, competitive pressure, digital revolution, continuous innovation, ... Perpetual socio-economic changes impact the activity and performance of the company, which is then confronted with the need to transform itself in order to remain competitive in its market.

The digital transformation has become, more than ever, an indispensable factor in the development of companies. However, adjustments are still necessary to ensure the competitiveness of economic operators in a constantly changing environment. The global health crisis of 2020 has confirmed this trend, in particular the need to digitalize the company.

This paper aims to analyze the perception of managers on the determinants of digital transformation. On the methodological level, we adopted an exploratory qualitative approach in the form of semi-directive interviews with managers of Moroccan companies.

The results of this study show that to improve the performance of companies and to take advantage of their investments in digital, it is essential for managers to ensure consistency between business strategy and digital strategy, organizational agility and organizational culture as well as human capital in a logic of alignment in order to succeed in the digital transformation.

Key Word: Alignment; digital Transformation; organizational culture; organizational agility; performance

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I. Introduction

We live in an era where digitalization has become more relevant. This phenomenon has led to a paradigm shift in several professions and has proven its advantages but also its limitations. The COVID-19 health crisis in particular has proved that thanks to digitalization, the wheel of the economy has been able to turn.

The transformation of companies towards digital technology is not just about the intensive adoption of tools and technologies and the dematerialization of internal or external processes, but also challenges business models, value chains, the competitive environment, organizations and the way they operate, the professions, the ways in which men and women work and collaborate, and the daily lives of employees.

In an increasingly connected world, competition from digital companies is disrupting business models, and executives have little choice but to embrace digital transformation. This transition is not new. It covers a necessary reality, especially for "traditional" companies, which were not born in the digital culture. Built on an old model, they must engage and succeed in their transformation in order to remain competitive.

It is therefore urgent, in this constantly changing world, organizations must react and adapt, at the risk of not seeing their activity at least diminish, at worst disappear, to the benefit of players who are quicker to adapt and expand, overcoming market barriers and attracting the younger generations. We can fear the digital world, but also understand its opportunities. The question of the determinants of the digital transformation of companies on their performance is studied in this paper.

Our study was conducted in the form of semi-directive interviews. The collection of information through semi-structured interviews allows us to focus the discourse of the interviewees around themes defined beforehand and recorded in an interview guide.

After presenting a literature review on the concept of digital transformation, its link with strategy, structure and culture as well as business performance. The second part will present the methodology used to adopt our exploratory study. Finally, the synthesized results and contributions of this research will be discussed.

II. Literature review

The current paradigm of business evolution requires a digital transformation. The need behind this digital transformation stems from the fact that we are evolving in a postmodern world where success is closely linked to the adoption of digital best practices, new technologies and a change in corporate culture. Companies are aware of these opportunities and are engaging in a process of digital transformation (Dudézert, 2018). Several elements fall within the scope of a digital transformation. We can see in the field that most companies are primarily concerned with the technological aspect of Digital Transformation. It should be pointed out that this aspect is extremely reductive. It is important to specify that the Digital Transformation is different for each company. This is why it can be difficult to propose a universal definition.

What is digital transformation?

Digital transformation is not a new phenomenon: the expression first appeared in 2000 (Patel and McCarthy, 2000).

Digital transformation, also referred to as digitization, is still a protean concept; some practitioners characterize it as "the changes induced by digital technologies in all aspects of human life" (Stolterman and Fors, 2004).

"It refers to the changes brought about by the development of digital technologies that are occurring at a breakneck pace, changing the way in which value is created, social interactions, the conduct of business and, more generally, our way of thinking".

Digital transformation is part of what (Dussart, 2015) calls innovation through complete transformation, which is the fourth and last type of innovation alongside process innovation, product innovation and innovation in enhancing the customer experience. As an innovation strategy, digital transformation supports business performance by bringing new technology investments or by reinforcing the use of existing technologies (Deltour&Lethiais, 2014).

The digital transformation has the peculiarity of being more successful, because it completely transforms the business model of a company or its entire value chain in a sector, configuring its products, procedures, and customer experiences, with a fair balance between costs and benefits given to consumers or industrial buyers.

Digital transformation is defined as the use of technology to radically improve the performance or reach of businesses. (Westerman, 2016).

Reis et al (2018) identify the aspects of digital transformation in three distinct classes:

- A technological aspect where the digital transformation relies on the use of new digital technologies such as social networks, mobile technology, analytical or integrated tools (Fitzgerald et al., 2013).
- An organizational aspect where the digital transformation requires a change in business processes or the creation of new business models (Ross et al., 2016).
- A final social aspect or digital transformation is a phenomenon that influences all aspects of human life (Matt et al., 2015)..

Digital transformation is part of the digital strategy

The digital transformation is defined by the set of actions that will be undertaken within the organization in order to best integrate digital technologies into its processes. This can result in the automation of repetitive tasks, the improvement of the flow of information in the organization via for example an ERP (Enterprise Resource Planning), the dynamic management of the customer portfolio and prospects through a CRM, or the improvement of production processes ... But strategic thinking and digital transformation are not disconnected. Strategic thinking involves the formulation of a strategic vision. This vision guides the company in its markets to gain a competitive advantage, but it also guides the management of process change internally. Thus, the digital transformation process, which is a change management process, is guided by the company's strategy as formulated in the vision, but it is different from the strategy itself. We could say that the digital transformation is the internal corollary of the digital strategy.

Impact of digitization on performance

The digital transformation, by promoting connectivity and the use of digital tools by companies, is permanently changing the way they operate (Deloitte, 2016) and the relationship with their customers. It develops creativity and innovation and increases their impact on customer satisfaction and loyalty (Kenmogne, Djipwo and Feudjo, 2018). Digitalization offers the possibility of broadcasting advertisements on the sites and thus to push a message to a relatively large audience, but also to send a more or less personalized message, by e-mail or SMS to prospects or customers. Pranjali Singh (2017), in a study of Indian SMEs, reports that digitalization improves the performance of these companies and helps to reduce financial barriers by providing alternative financing options to them. Alam and Noor (2009), in a study conducted in Malaysia, point out that the use of technology can improve the competitiveness of firms, as the Internet offers SMEs the opportunity to compete with large firms. According to the same authors (Alam and Noor, 2009), numerous empirical studies

confirm the positive effect of technologies on firms' performance in terms of productivity, profitability, market value and market share, process efficiency, service quality, cost reduction, flexibility (organization and processes) and customer satisfaction.

For Bayo-Moriones, Billon and Lera-Lopez (2013), the adoption of technologies leads to an improvement in the performance of SMEs in terms of profitability, growth, market value, social and environmental performance and satisfaction.

III. Methodology

Our objective through this study is to analyze the perception of managers of Moroccan companies on the determinants of the digital transformation to performance. For this purpose, we have opted in this study for a qualitative approach of an exploratory nature in order to give meaning to empirical observations while basing ourselves on theoretical knowledge in the literature that concerns the object of the research. (Charreire and Durieux, 2007).

Sampling and concern for representativeness.

The semi-directive interview is a means of research which brings a great richness to the analysis. In this respect, the question arises for the latter to know what is the minimum number of interviews necessary while remaining relevant to the research subject and the chosen method. (Allouani, 2013). The purpose of this exploratory qualitative study is not to test a model proposed at the end of the literature review.

The choice of companies studied was made in a selective manner to ensure that the selected case studies meet several criteria. As well, the use of owner-managers or managers is considered as sources of information to understand their perception of the determinants of the digital transformation. Thus, we were required to comply with the two criteria recommended for all qualitative research, namely the saturation and diversification criteria. In our case, we reached saturation at the end of the 13th interview, as we realized during interviews 14 and 15.

Data Collection for the Exploratory Study

The choice of the semi-directive interview method for data collection implies the prior preparation of an interview guide where the researcher prepares the questions to be addressed with the interviewees.

This interview guide is organized around the following themes:

- Digitalization and digital transformation
- Business and digital strategy
- Organizational culture
- Organizational Agility
- Organizational Effectiveness

Semi-directive interviews are conducted on the basis of an interview guide made up of "different thematic questions" previously developed according to the conceptual and theoretical framework previously posed (Albarelo, 2004).

Thus, the choice of respondents and companies for this study was made on the basis of existing professional contacts. Thus, the number of firms retained seems to us sufficient, since our objective is to study the determinants of the digital transformation through the perception of the managers of Moroccan firms as to its impact on the performance of the firm in order to elaborate a theoretical model to confront them with the practices of firms in the field within the framework of a quantitative confirmation study (Roussel and Wacheux, 2006). Thus, the managers interviewed work in companies that are relatively different in terms of size or sector of activity (Table 1).

Table no 1: Summary of characteristics of the exploratory study sample

| | Respondent | Sex | Experience | Sector of activity |
|----|--------------------------------------|-----|------------|--------------------|
| E1 | BtoB Marketing Director | M | 15 years | Agri-food |
| E2 | Director of IS | M | 10 years | Banking |
| E3 | Marketing Director | M | 9 years | Services |
| E4 | Digital Transformation Consultant | M | 7 years | Distribution |
| E5 | Head of Controlling | F | 8 years | Commerce |
| E6 | IS Project Manager | M | 9 years | Agri-food |
| E7 | Director of Human Resources | F | 13 years | Banking |
| E8 | Marketing and Communication Director | M | 8 years | Services |
| E9 | Head of IS department | F | 12 years | Insurance |

| | | | | |
|-----|--|---|----------|-----------|
| E10 | Resources and logistics manager | F | 11 years | Transport |
| E11 | Director of Operations | F | 10 years | Banking |
| E12 | Owner - manager | M | 9 years | Services |
| E13 | Director of Finance and Management Control | F | 16 years | Agri-food |
| E14 | Managing Director | M | 18 years | Services |
| E15 | Marketing and Communication Director | M | 8 years | Hotels |

It should be pointed out that following fifteen semi-directive interviews with various company managers. The interviews were conducted between August and September 2020 with an average duration of 45 minutes and were conducted by telephone conversation.

Content analysis method

In the analysis of qualitative data, the most widely used and known method is Content Analysis, which is the most common method for studying interviews or qualitative observations (Badrin, 2007). It consists of transcribing the qualitative data, creating an analysis grid, coding the information collected and processing it.

The analysis of the series of fifteen interviews carried out allowed us to gather a set of information that we transcribed manually in order to faithfully identify what the interviewees had to say. Everything the interviewee says is noted word for word, without changing the text, without interpreting it, and without abbreviations to make it easier to read and keep a faithful record. This information is then subjected to a thematic analysis, which has already been adopted as a type of content analysis and is the most commonly used in management research (Blanchet and Gotman, 1992).

In order to process all the interviews conducted, a thematic content analysis was carried out. The crossing of the vertical analysis (interview by interview) and the horizontal analysis (theme by theme) allowed us to highlight a certain number of results. In a qualitative study, data analysis "consists of reducing the information to categorize it and relating it before arriving at a description, explanation or configuration" (Wacheux, 1996).

IV. Discussion of the results

The analysis of the content of the semi-directive interviews conducted during the exploratory phase allowed us to identify certain relevant factors during the various interviews. We report in the following, the results found:

Digitalization and business performance

The digital transformation is rather a "natural" phenomenon that affects the business ecosystem as a whole, inevitably leading to new uses and modes of operation within companies. It has become a major economic challenge for companies of all sizes, and more specifically for very small, small and medium-sized enterprises.

The question that always arises is what do digital technologies make companies more efficient and competitive? Yes, insofar as the health crisis has demonstrated that the use of new technologies is an important factor in improving a company's competitiveness. Companies have been able to ensure the continuity of their business thanks to technology, from collaborative platforms to e-commerce platforms.

Excerpts of verbatim that illustrate our point:

"The digital transformation is a lever of competitiveness for the company. To remain competitive, Moroccan companies must adapt and innovate. Digital is necessary to survive," insist the interviewees.

"The company must be in continuous transformation. It must always be in search of competitiveness, using precisely the technological means and data. That said, digital transformation should not be confused with automation, because a large majority of companies fall into the trap and do not succeed in this transformation". assures a participant.

We note that the interlocutors insist on the strategic value of digital technologies and their central place in the company, as well as on their contribution to the improvement of performance and the development and growth of companies, which is perfectly in line with our review of the literature on this issue.

Organizational agility and digitalization

In addition to providing solutions in terms of performance and competitiveness, digital technology enables innovation in terms of products, services and operating methods, optimizing production resources, reducing time to market and improving the agility of work teams.

Organizational agility within the company is mandatory. Today there is no fashionable organization or business, you have to think long term. Otherwise we'll miss this shift to digital acceleration. Precisely habits are

changing, "the new way of working dictated by the health crisis being hybrid, it will cause the body of the company to change.

Excerpts of verbatim that illustrate our point:

"Having a good strategy is not enough to be successful: you also need a good organization, which implies a systematic management of the organizational culture, structure, processes and people". Explains a participant

"According to one participant, to be truly agile, it is not enough to simply apply new organizational practices or methods. It is also necessary to take ownership of the values and principles of Agility that directly affect the culture of organizations. The digital transformation therefore implies a profound organizational and cultural evolution whose purpose is to put the customer back at the heart of the company's strategy. Therefore, any digital transformation is first and foremost an agile transformation".

In the same sense, another participant explains *"that the success of an agile and digital transformation, it is therefore essential to first succeed in transforming management. Managers must be the creators of an inspiring vision, carrying meaning and ambition. They must encourage initiative, allow room for error, be a player in innovation and provide a framework conducive to the emergence of collective intelligence. The manager of the future must be an Agile manager".*

Transformation digital, agile and managerial are therefore inseparable and form a harmonious whole. Indeed, digital is a market necessity and agility is today the best answer to satisfy this necessity. Moreover, the manager remains a key player in initiating this transformation. More than a transformation, it is rather a question of setting up a continuous evolution process in order to stick as closely as possible to the market evolutions. It is by taking this path that traditional organizations will be able to survive, gain in service quality and attractiveness, and become learning organizations.

Culture and human capital

The human factor was also addressed by the speakers. It represents an important link in the digital transformation of companies. One participant stated on this subject that the health crisis *"has forced companies to make the big leap to telework"*.

In this perspective, a specific participant is competence: it is quite difficult to find qualified human resources, capable of carrying out in-depth digital strategies, while at the same time acting as a link between top management and the different departments of the organization.

Difficulties for leaders to formulate a clear digital vision for their organization, the lack of models within the management teams and the lack of performance indicators related to digital transformation.

One participant explains that "we are witnessing a transformation of uses. The employee is not obliged to know how to code an artificial intelligence, but rather how to integrate it into his job. Use" becomes the "new skill that must be instilled". As well as the company's top management and strategic executives must really understand the stakes of digital technology and know how to use it to shape the company's future. The digital transformation is not the transformation of tools, but the transformation of minds."

Digital technologies bring real added value, but only organizations that adopt a sustainable digital culture can exploit this potential. Reducing the difference in perception between managers and employees regarding the existence or not of a digital culture is essential to their growth. Companies must therefore motivate, involve and empower all employees to enable culture change together. If companies make digital culture one of their strategic priorities, they will be able to improve customer relationships, attract the best talent, and set themselves on the path to success in today's digital world.

Another participant pointed out that companies do not sufficiently involve employees in the culture change process. Yet, it is essential to involve them in order to develop an effective digital culture and accelerate the cultural transformation of the organization. Middle and top management must translate the global digital vision into tangible results and reward positive digital behaviors. *"To remain competitive, companies must develop a digital culture that applies to all employees within the organization. Our study shows that culture is either the main inhibitor or the main catalyst for digital transformation and innovation. However, many leaders already feel that they have a digital culture, but when you ask employees, they don't agree. This disconnect reflects the lack of a digital vision, strategy and tactical execution plan at the executive level"*

In the same vein, one participant said: *"Companies take a step forward when they realize that digital transformation is not a technical problem, but a cultural change"*.

Digital business strategy

Having a relevant strategy in a given market is essential, but is not always synonymous with success, as it is conditioned by the execution of this strategy. By definition, organizations are places where there is

permanent tension, which requires constant adjustment, both external and internal. Technology is only one of many dimensions to consider

To succeed in its immersion in the digital world, the company must think deeply about its short and medium-term objectives. Above all, it must dare to undertake the changes necessary to achieve these objectives. Contrary to the transition to digital, which is limited to using new technologies in an existing work environment, digitalization aims to bring about a renewal. Working methods, product design, customer loyalty, taking on a new market... Strategies will have to be thought out upstream to best meet customer expectations while ensuring a satisfactory return on investment.

Indeed, for companies, the implementation of a whole integrated strategy must be thought out upstream in order to maximize internal operating processes and best respond to customers' new consumption habits while ensuring a satisfactory return on investment.

According to one participant, *“Statistics show that digital strategies cost up to 60% less than traditional strategies, simply because they are targeted and specific. Instead of paying for multiple advertising campaigns, we put online content that is tailored to our audience and they will come to us”*

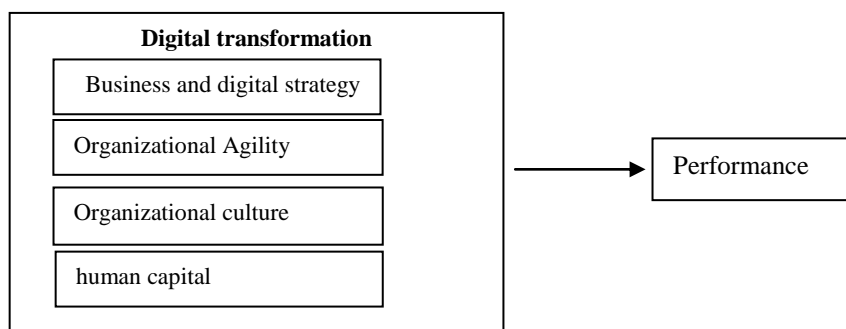
The main obstacle to the implementation of a digital strategy is the state of mind. *“Putting content online and making a newsletter is not the essence of a digital strategy. There is a lack of perseverance in some media for example, which put a process in place and change after a year! The transformation is permanent”*, insists a participant.

A participant specifies *“that digital transformations all have one thing in common: they challenge managers in their ability to organize. Organizing in the classic sense of the term, that is to say the indispensable work of analysis and design to build an organization, in coherence with its strategy and its environment”*.

Conceptual model

Our conceptual model uses a four of variables from our literature review and the results of the qualitative exploratory study:

Figure no 1: conceptual model



V. Conclusion

Digital technology thus represents a gain in growth and productivity for companies. Those that have not yet entered the digital race are in danger of disappearing. The digital transformation is then essential to the Moroccan company.

The digital transformation is built on three pillars: technology, data collection and innovation. The digital transformation lies in the company's ability to innovate based on technology and data. This at all levels, human, process, organization

Our study is part of a qualitative approach of an exploratory nature, so the methodology adopted is based on semi-directive interviews, repeated until theoretical saturation is reached. We took care to maximize the diversity of participant profiles in order to increase the discovery potential of our research. However, we have chosen those elements that are based on the researcher's judgment within a reasoned choice sample. In total, the final sample is made up of fifteen managers who agreed to respond.

Indeed, the contribution of this exploratory study consists in the proposal of determining variables judged by the managers of Moroccan companies in order to elaborate our conceptual model which describes all the factors contributing to the formation of the performance induced by the implementation of digital technologies. The second step will be carried out within the framework of a confirmatory quantitative study to allow the validation or rejection of our research variables by using the qualified structural equations methods of the second-generation multivariate analysis methods.

On the managerial level, this study allowed the interviewers to be aware and vigilant about the imperative of aligning digital technologies as a determinant of good performance. In this sense, based on the

work of (Fimbel, 2007), the author stipulate that poor company performance is due to a lack of alignment with all the components of the company, particularly the lack of coherence between the company's strategy and that of the technologies, which can lead to confusion with regard to taking the right decisions to achieve the performance objectives set out.

In other words, in order to improve the performance of their firms and take advantage of their investments in digital, it is essential for managers to ensure the coherence between the business strategy and the digital strategy, organizational agility and organizational culture as well as the human capital to succeed in this digital transformation.

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