The challenges of digital transformation: Case of Tunisian companies

Amine Bel HajHassinea, *

*Department of Management Sciences, Higher Institute of Informatics and Management of Kairouan, Kairouan University, Kairouan, 3100, Tunisia

Abstract

Now a days, we live all in a connected world, competition from digital companies is disrupting business models, and leaders no longer have a choice: the time has come for digital transformation (Dussart, 2015). This transition is not new. It covers a necessary reality, especially for so-called traditional companies, which were not born in digital culture. Built on an old model, they must initiate and succeed in their transformation to remain competitive. This paper aims to analyze the opportunities brought by digital transformation for Tunisian companies. In our research and on the methodological section, we used an exploratory qualitative approach with Tunisian companies, using a questionnaire. The results of this investigation have shown that the great opportunities and challenges facing Tunisian companies are human capital in the first place, funding and above all methodological support. And the government must be the first to assist and support the digitization process.

Keywords: Digital transformation, Tunisian companies, challenges, opportunities.

1. Introduction

The digital transformation of businesses is a major economic and societal issue for Tunisia. A country that must use the new opportunities of information and communication technologies. The transformation of companies to digital is not just about the intensive adoption of tools and technologies, the dematerialization of internal or external processes, but calls into question economic models, value chains, the competitive environment, organizations and their functioning, professions, working methods and collaboration between men and women, the daily life of employees (Gicquel, 2014). This is a profound change of paradigm, a percolation of systems which impacts not only all traditional functions (human resources, marketing, communication, sales, finance, and production) but also all hierarchical levels, including general management. The digital metamorphosis is based on the appropriation and dissemination within organizations of a true digital culture, based on collaborative intelligence, open innovation, openness to an ecosystem, new employee participation, development constant of trades and working methods Kane et al. (2015).

In this context, resistance to change is often strong, organizations’ commitment to digital transformation slow, speeches often contradicting the actions taken. As a result, we are now witnessing a market paradox: on the one hand, increasingly connected consumers, endowed with an increased capacity to act through networked exchanges, making digital their daily use, on the other hand, companies that are little or not sufficiently digitized, in which culture digital remains inexistent or weakly distributed. There is therefore an urgent need: in this constantly changing world, organizations must react, adapt, at the risk if not of seeing their activity at least decrease, at worst disappear, in favor of actors who are quicker to settle. adapt and expand, breaking through market barriers and appealing to the younger generations. We can fear the digital, but also understand its opportunities Kessler and Buck (2016).

The question of the positive impact of the digital transformation of companies on their performance, both economic and social, studied in this report, is major. The digitization of companies also has a societal impact: it is an
opportunity to massively train individuals in digital technology and give them the capacity to better face the world of work and to become citizens of the digital society of the 21st century. Digital transformation is now a categorical imperative for any business to succeed. Indeed, the digitalization of companies is disrupting the operating methods of traditional companies. The digital transformation is pushing companies to invent new procedures to adopt new technologies. The impact of digital transformation will affect the relationships and interactions between teams within the same company, but also the company's relationship with the outside world.

According to Dudézert (2018), digital transformation offers new information processing and analysis capabilities and opens new opportunities for the company, regardless of the sector of activity: this digital transformation makes it possible to reduce costs, create a new relationship with customers, and make organizations more efficient. Therefore, companies want to engage in the process of digital transformation. Digital transformation offers a real transformation in the organization of work because it requires rebuilding for each company a balance between its autonomy and the control of its employees. Faced with this situation, digital transformation can therefore be considered as a source of anxiety for managers, since they must use new working methods that link the following parameters: teamwork, great collaboration with customers, creativity, and innovation. Through this research work, we wanted to take a closer look at the case of companies facing digital transformation, and try to answer the following problem: How do business leaders perceive this digital transformation?

The perception of company managers in the face of the potential contributions of digital transformation will be explored through this paper. To answer our problem, we used a qualitative approach with Tunisian companies. The objectives of the study are to understand the digital transformations in Tunisian companies and identify the potential opportunities that can be given to this transformation. The empirical investigation was conducted in the form of face-to-face interviews and by email. In fact, the collection of information through interviews makes it possible to classify the information revealed by the people questioned around the 3 themes defined previously. After presenting the concept of digital transformation, and its effects on the company. The second part will be devoted to the research methodology used to adopt our exploratory study. And finally, the last part will be devoted to the results obtained.

2. Literature review

Digitization is a still recent concept, some studies like that of Dorothée, (2017) defines it as the changes induced by digital technologies in all aspects of human life. The notion of digital transformation refers to the nature of the changes possible by the latest developments in the field of Information and Communication Technologies. The various technological developments have all had a considerable impact on the economic development of companies Simon (2017). According to Patel and McCarthy, 2000, keeping the classical dimension is necessary in order not to fall into the innovation trap. Digital transformation is not a new phenomenon: the term (digital transformation) first appeared in 2000. In addition, all players have agreed to consider that digital transformation allows value to be shifted within different sectors (industrial or service sectors), and companies will be dealing with industrial customers or in large public sectors (Amy et al., 2016).

Currently, this new trend has become one of the most studied concepts in the literature of economics. In addition, the digital transformation will assign a new role to human capital since all tasks will be automatable but in new ways: Automation will move from robotizing production operations to automating office tasks. The new robotization thus allows the production and personalization of products and services. According to Landier et al. (2015), added value is gradually shifting from the actual performance of tasks to three areas: the formulation of the customer's request, the design of the solution and of the machines that execute them, and finally the service, which consists of delivering to the customer.

2.1. The components of digital transformation

According to Lemoine (2014), digital transformation is a combination of automation, dematerialization, and the reorganization of intermediation. Automation plays the effect of increasing performance in the use of factors of production: productivity of labor, productivity of capital, productivity of energy and raw materials, but also an increase in the capacity to individualize supply. For dematerialization, it leads to the emergence of new communication and distribution channels that will transform the physical networks of agencies, stores, with lower production costs and other transaction costs. For intermediation or disintermediation and even re-intermediation, this
concerns the effects of reorganizing value chains. The Emergence of new players who will position themselves between traditional or traditional companies and their clients and will present new business and intermediation models.

Digital technologies are the basis of the transformation of the business and of the organization in general, in fact these new technologies have direct impacts on the way companies operate through the automation of processes and the evolution of existing practices (Stolterman and Fors, 2004). The use of new technologies and their uses on the strategic orientations of the company is essential, and mastering internal and external data sources, to identify the processes and algorithms that make it possible to make sense of the information collected and, above all, you need the skills to have a well-coordinated work within the company. All this constitutes the key factors for success in a new digital environment. Thus, the use of information technology allows the company to develop the strategy and objectives of its organization. According to Bounfour et al. (2015), the challenge for any company is that these new digital technologies can participate in improving value creation processes, while considering risk management and technical performance.

2.2. Human issues

According to Grimand (2012), the actors within the company are more and more dependent on digital tools. Indeed, one of the conditions for having a rapid and optimal return on investment is the use of digital tools within companies. In fact, all employees, managers, and leaders must master these digital tools.

A very important aspect for the company of the future are the skills of the employees. According to Gadille and Jaujard (2015), the role of man in the man / machine / product triangle is set to change, indeed operators would be well equipped with communication tools to interact with other members of the team on the one hand, and on the other hand, to monitor the production line and identify potential incidents. Thus, the human factor and the machines are well involved, thus the skills will be modified, and the task evolves. The use of digital has impacts on the individual skills of workers and on the entire company. Technical, informational, and relational skills evolve in an increasingly digital world.

As soon as the computer tool first appeared, companies found in information technology tools to properly organize work and the distribution of tasks. In several sectors, the use of computers is essential, indeed the computerization of the company has also contributed to the development of computer learning by workers. When introducing digital technologies, companies are not aware of the opportunity to use these new technologies, especially for the improvement of working practices.

According to Hamon (2015), Digital Transformation refers to all the actions implemented by a company to integrate digital technologies into its activities. In other words, a digital company no longer just has a website, but must use new techniques related to this internet medium. The change is more profound and concerns the new economic models of the company, linked to its market, its customer. So, the company must invest in start-ups, because the digital transformation must be internal. In addition, the company must also be present on social networks, and must be close to and attentive to its customers, suppliers, employees, and all stakeholders.

According to Fuchs and Fisher (2015), the digital economy is based on the identification and exploitation of data resulting from its activity. For example, managing customer data should be the day-to-day business of the company. All this while controlling the security and confidentiality of this confidential data, which is a material for companies to exploit.

In recent years, digital presence has translated more into a company’s social media presence than its presence in internet search engines. The value of a company has changed meaning since the value has become directly linked to its digital platform and the quality of the software used as the digital applications offered. According to Belleguic et al. (2011), using apps on smartphones is more profitable than having a store or point of sale. The relationship between the company and its customers has evolved, and this relationship has been strengthened by the direct links of messaging on social networks. In addition, some companies with brands have resorted to diversifying their digital communication and have resorted to a new trend, that of influencers, who are very active people on social networks who, through their media exposure, are able to influence consumption habits.
The digital revolution has empowered the consumer. In fact, the customer has the possibility to interact and communicate with the company. According to Colin et al. (2015), communication has become two-way and interactive, it goes both ways, the customer has the possibility of communicating with the company, by expressing his opinion, his opinion and even his dissatisfaction. This necessarily involves comments on social networks. In the digital world, consumers want very specific and even tailor-made products. The consumer can be involved and can even be a co-creator, he wants to be listened to and his opinion taken into consideration. The status of the new consumer has completely changed, he becomes demanding, and wants to be treated with the greatest attention, in short, he wants personalized service. The function of customer relations is at the heart of the digital revolution. All this has spawned the use of new techniques called artificial intelligence, intended to: capture, process, and analyze customer information and this to retain customers by offering personalized services.

3. Research methodology

Our empirical part is based on a research methodology that uses a qualitative approach. This method of analysis promotes the search and exploitation of any information. Indeed, the implementation of a qualitative study allows the exploration of the phenomena linked to digitization, as a function and adaptation strategies to access it. The collection of information was established through questionnaires and individual interviews.

The sampling of empirical investigation always depends on the objectives of the research. The size of a sample depends on criteria based on requirements related to the target population, and the time available for the survey. By referring to these guidelines, two criteria are highlighted to justify our sample: the size of the sample and the context of the study. The sample size is the number of cases studied. And the choice of the companies studied was made in a non-arbitrary manner to ensure that the selected case studies meet several criteria.

Also, the use of managers is very important, since they are considered the sources of information to understand the digital trend of the companies studied. This method is used by many researchers for its good purpose of collecting information and validating the data collected. We used in our survey 20 companies in different sectors, their leaders expressed their interest in this subject, and agreed to share their experiences. We have chosen to give codes to the various companies to guarantee the anonymity of the actors questioned. The following table provides the codes assigned to companies as well as the resulting information on their areas of activity, the workforce, the function of the person interviewed and their experience in the company.

We opted for direct interviews, and by email, through open questions. The interview questions are organized around 3 research themes:

- Digital transformation: perception by the company.
- Digital transformation: The opportunities offered by the company.
- Digital transformation: the issues and challenges for the company.

### Table 1. Characteristics of the companies studied and the managers interviewed

<table>
<thead>
<tr>
<th>Code</th>
<th>Region</th>
<th>Effective</th>
<th>Field of activity</th>
<th>Interviewee's function</th>
<th>Interviewee's experience</th>
</tr>
</thead>
<tbody>
<tr>
<td>Company 1</td>
<td>Ben Arous</td>
<td>21</td>
<td>Food</td>
<td>Marketing Manager</td>
<td>10 years</td>
</tr>
<tr>
<td>Company 2</td>
<td>Ben Arous</td>
<td>15</td>
<td>Food</td>
<td>CEO</td>
<td>11 years</td>
</tr>
<tr>
<td>Company 3</td>
<td>Tunis</td>
<td>30</td>
<td>Food</td>
<td>Commercial Manager</td>
<td>6 years</td>
</tr>
<tr>
<td>Company 4</td>
<td>Sousse</td>
<td>43</td>
<td>Tourism</td>
<td>Manager</td>
<td>12 years</td>
</tr>
<tr>
<td>Company 5</td>
<td>Tunis</td>
<td>8</td>
<td>Trade</td>
<td>Manager</td>
<td>16 years</td>
</tr>
<tr>
<td>Company 6</td>
<td>Ben Arous</td>
<td>5</td>
<td>Pharmaceutical</td>
<td>Manager</td>
<td>10 years</td>
</tr>
<tr>
<td>Company 7</td>
<td>Sousse</td>
<td>65</td>
<td>Tourism</td>
<td>CEO</td>
<td>8 years</td>
</tr>
<tr>
<td>Company 8</td>
<td>Sousse</td>
<td>80</td>
<td>Tourism</td>
<td>Manager</td>
<td>5 years</td>
</tr>
<tr>
<td>Company 9</td>
<td>Enfidha</td>
<td>95</td>
<td>Textile</td>
<td>Commercial Manager</td>
<td>15 years</td>
</tr>
<tr>
<td>Company 10</td>
<td>Enfidha</td>
<td>113</td>
<td>Textile</td>
<td>Marketing Manager</td>
<td>13 years</td>
</tr>
<tr>
<td>Company 11</td>
<td>Enfidha</td>
<td>18</td>
<td>Packaging</td>
<td>Manager</td>
<td>9 years</td>
</tr>
</tbody>
</table>
4. Empirical results

4.1 Digital transformation: The company perception

The variation between different companies in the perception of digital transformation is no longer marked, as 20 respondents say they are aware of the existence of the trend. The computer function is present, but the concepts and functions dedicated to digital are quite weak. Indeed, the terms used by companies speak less of new technologies. In addition, nearly 30% (6 companies) of business leaders indicated that digital transformation is part of their future project. For the implementation of projects related to digital transformation: The interviews revealed that digitalization projects are not the same for all companies, some have privileged their presence on the web, creating professional websites while other companies, have chosen to strengthen their presence in social networks like Facebook. In addition, there are companies in the sample, which have projects in progress (3 companies) and companies with projects that have not yet started or do not have digital projects. (2 companies). Another very important result is the low use of e-commerce. Indeed, nearly 80% of respondents are not present on the e-commerce channel. If there are websites, these are essentially just for information showcase sites.

4.2 Digital transformation: The opportunities offered for the company

Many companies questioned as part of this work have shown that the digital transformation will provide them with great benefits in several phases and in several stages, in this context of improving the work chain, having access to other markets on an international scale, which will promote the export of their products, increase their turnover, improve the quality of their products, and optimize costs. And finally, to have a good perception of the company.

4.3 Digital transformation: Challenges and issues for the company

According to our survey, we found that digital transformation poses several challenges for the companies in our sample, mainly the lack of skills and digital techniques. Most companies (16 respondents) believe that human capital is the main challenge to be faced, following this, the respondents showed that to achieve a good digital transformation, it is necessary to develop the new digital skills of employees. Other respondents felt that there are other means that are the major challenge, such as financial means. So, the human factor is a very important factor for the success of the digitalization process more than the financial aspect, which is not a big problem. The human challenge is thus manifested by the acquisition of the skills necessary to be able to succeed and support the digital transformation. The second challenge according to the respondents concerns the financing of this digital transformation, because it surely requires a tangible and intangible investment. There is a third factor that must be considered in the challenge, and that is having the time necessary for this transformation, and the potential shortfall that will accompany the digitalization process.

5. Conclusion

The digitization of the economy is an unavoidable reality, and large groups are no longer the only ones who must adapt their practices to survive. Faced with this major competitive challenge, companies must also rethink their
business model and accelerate their digital transformation. European companies are the first to enter the digital age, but while most have a website and are connected, few companies have embarked on a real digitalization process, which would allow them to take advantage of the leverage of performance and growth. The analysis of the level of use of digital means shows that the various managers are aware of and perceive the potential of digital as a factor in the development of companies. But there is still little investment in putting in place a real strategy to access digital transformation. The main results of our research work are that the priorities of Tunisian companies currently in terms of digital transformation are quite basic and companies have remained oriented on a traditional vision of the IT function. The digital transformation of companies is a challenge to be met to help them move forward and adopt a digital transformation approach.

Companies understand to succeed, it is necessary to have qualified human resources, which is not the case at present. To realize these challenges, companies must be accompanied by people with experience in this field of digitization, which will ensure them gains in all areas: Benefits, development.... The development of start-ups dedicated to innovation and the digitization of operating and production processes, which will allow Tunisian companies to have a competitive advantage and ensure their expansion and growth in markets beyond Tunisia. This research work has enabled us to identify some recommendations, which can help accelerate and succeed in the digital transformation of our companies. Indeed, the success of the digital transformation of Tunisian companies, passes above all by a digital revolution, and this imperatively passes by an incentive fiscal and legal framework. Governments must properly assist this digital transformation, by developing digital and digital education in all disciplines from school to university. The ministries of labor and industry must mobilize resources for training and support the digital transition. The ministry of higher education must develop sectors specializing in innovation and the robotization of production and operating processes. Of course, our study on digital transformation and the impacts on the activities of SMEs has limitations, especially in terms of the empirical part. Other future research, including other stakeholders whom we have friends to quote, should be carried out to enrich the understanding of this phenomenon of digital transformation.

References


https://www.researchgate.net/publication/281472740_Dechiffrer_les_savoirs_des_acteurs_locaux_et_creer_la_collaboration_entre_les_parties_prenantes


