Towards sustainable development goals: lessons learned from the interplay between organizational capacity and capabilities

نحو أهداف التنمية المستدامة: الدروس المستفادة من التفاعل بين القدرات والإمكانيات التنظيمية

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Abstract:

This paper analyzes different features supporting the dynamic capabilities building towards Sustainable Development Goals by examining the interplay betweenorganizational capacity and capabilities. To do this, we applied the case study approach by conducting five divergent case studies from government, institutional, and organizational levels. The analysis of the five explored cases revealed that organizations had developed new capacities to change and adapt in an evolving and disturbing environment by integrating organizational capabilities through three categories: (1) the ability to carry out the primary organization' functional activities, (2) learning capabilities, and (3) dynamic organizational improvements. The case studies' results extend the literature by raising a conceptual framework of the principal dynamic capabilities dimensions for Sustainable Development Goals across the Task-Technology fit model.

Keywords: *Dynamic capabilities; Organizational capacity; Organizational capabilities; Task-Technology fit; Sustainable Development Goals*
Jel Classification Codes: *M15; M54; O33.*

ملخص:

تهدف هذه الورقة إلى تحليل الميزات المختلفة التي تدعم بناء القدرات الديناميكية نحو أهداف التنمية المستدامة من خلال فحص التفاعل بين القدرات والإمكانيات التنظيمية. للقيام بذلك، قمنا بتطبيق نهج دراسة الحالة من خلال إجراء خمس دراسات حالة متباينة من المستويات الحكومية والمؤسسية والتنظيمية. كشف تحليل الحالات الخمس المستكشفة أن المنظمات قد طورت قدرات جديدة للتغيير والتكيف في بيئة متطورة عبر دمج القدرات التنظيمية من خلال ثلاث فئات: (1) القدرة على تنفيذ الأنشطة الوظيفية للمنظمة الأساسية، (2) قدرات التعلم، و (3) التحسينات التنظيمية الديناميكية. تعمل نتائج دراسات الحالة على توسيع نطاق الأدبيات من خلال رفع إطار مفاهيمي للأبعاد الرئيسية للقدرات الديناميكية لأهداف التنمية المستدامة عبر نموذج المهام والتكنولوجيا المناسب.

كلمات مفتاحية:القدرات الديناميكية؛القدرات التنظيمية؛*الإمكانيات التنظيمية*؛ تناسب المهام والتكنولوجيا؛ أهداف التنمية المستدامة
تصنيف *JEL*: *M15; M54; O33*

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Introduction

The digital transformation is a continuing process that has amplified performance in the industrial and economic levels in several ways. In many areas, the digital transformation process is just taking its first steps in many industries, which means that this process is getting an even robust change strength in the next coming years (Vial, 2019). It has led organizations to invest significantly in digital technologies, especially in countries with higher labor costs. Still, the willingness to invest in digital solutions in organizations despite their economic or industrial level does not ensure a competitive advantage (Alblas et al., 2014). Organizational capacities and capabilities in deploying and exploiting these technologies are often more critical factors defining whether digital technologies bring the needed competitive edge. Lack of required capacities and capabilities leads to ineffective use of these technologies that may cause longer delivery times, quality problems, and extra costs. These technologies are readily available to all organizations, and the distinction is mainly created from technology usage (Luo et al., 2012).

With digital capacity, organizations are supported by technological infrastructure, referred to as digital technologies' availability, which increasingly guarantees economic and organizational growth opportunities. These digital technologies embrace information and communication technologies' systems such as digitalization, mobility, and analytical systems and are integrated into a holistic digital transformation process to provide an overview of the digital system. Such initiatives are referred to as the digital transformation process, which requires organizations, institutions, and governments with respective management practices to reflect a successful process' implementation.

This study's primary purpose is to extend an understanding of the required capacities and capabilities to deploy and exploit dynamic capabilities regarding the digital transformation process implementation. We analyzed digital capabilities through five divergent case studies to meet this objective and identified the dynamic capabilities. The choice of divergent case studies is justified as we aim to reveal these capabilities at three economic levels, i.e., at government, institutional and organizational levels.

This paper is designedas follows; after reviewing the literature review in the first section. The second section treats the methodology used to analyze the different case studies presented. Also, it presents the choice of the different explored cases. The third section deals with the findings resulting from the five treated cases. Furthermore, it presents the discussion of the different findings. The last one concludes the research paper.

1 . Related works

Literature in information systems can clarify organizational features that can promote sustainability through dynamic capability in organizations regarding the digital transformation process. Transformations and changes initiated and built based on digital technologies constantly push organizations to evolve and upgrade to changethe business landscape, accompanying unique changes in business operations, business processes, and value creation. Within any organization, the digital transformation process refers to an organizational alteration to big data, analytics, cloud, mobile, and social media platforms. On the other hand,

digitalization focused on the automation of numerous business processes and operations and information processing. It is about using digital technologies and digitized data to impact how processes get done, transform how organizations engage and interact, and create new digital income streams.

Digitalization and digital transformation concepts tend to be used interchangeably in the information system literature. Therefore, it is imperative to distinguish between them. They present two distinct phenomena which constitute the different stage of the digital transformation process. The digital transformation process is more about people than it is about digital technology itself. This process goes through three main stages (Savić, 2019). The first one when organizations automate single operations. The mid-phase refers to related processes that are automated and interconnected, such as supply chain management. The third phase is considered the most complex one; it implies integrating multiple systems that sustain business processes and information flows into enterprise management systems (Orlandi, 2016).

The dynamic capabilities concept has increased great attention since it was first presented by (J. Teece et al., 1997); It aims to explain how organizations can gain a competitive advantage in dynamic markets and environments. J. Teece et al. (1997) describe dynamic capabilities as organizations' ability to integrate, build, and redesign internal and external processes and competencies to confront changing environments. The speedy environment evolution is due to the emergence of advanced digital technologies. A capability is assessed as dynamic when it improves organizations' ability to make decisions, solve complex problems, identify different opportunities and threats that arise, and modify existing resources and processes by adopting appropriate digital tools (Cezarino et al., 2019).

In the same perspective, technological advances and evolution are also analyzed in information system and management literature. The Task-Technology fit model is developed not to represent a characteristic of a task or a technology itself. Still, it constitutes a mediator variable (Lin et al., 2019). Task-Technology fit model is conceived, from its source, as founded by two distinct capabilities (Tripathi & Jigeesh, 2015). The technology-detection capability refers to organizations' ability to acquire competencies about and understand new digital technology evolution. Technology-response capability reflects organizations' readiness and ability to respond to operations requirements by adopting fitting technologies (Howard et al., 2019).

Combining dynamic capabilities and the Task-Technology fit model provides adequate resources driving organizations' operations, including sustainability initiatives (Cezarino et al., 2019). The digital transformation process is considered an enabler of sustainability (digital transformation for sustainable development goals) because of its transformational power. Sustainable development goals are often defined as the ability to guarantee that it meets the present's different needs without endangering future generations' capacity to meet their own needs. Operationalizing this definition means that it can then be used to construct approaches to assess today's youth's sustainability, who will dominate tomorrow. They have the chance to form what that world will look like. And to communicate it to those who still doubt that they have this incredible chance to shape their existence. That implies being where the young now arein virtual reality, digitally connected, trying every few seconds with images, and adapted to change at the press of a button.

Investing in physical capital resources, such as digital technologies and human capital, is an essential factor that leads sustainability initiatives, making this a dynamic process (Ghobakhloo, 2019). Particular skills and competencies are required as they influence the success of these initiatives' implementation. Organizations that have already obtained a sustainability track record by gaining experience and necessary dynamic capabilities in sustainability management are better positioned to further engage in Sustainable Development Goals (ElMassah & Mohieldin, 2020).

2 . Methods and materials

This paper combines quantitative and qualitative approaches by conducting five case studies to deal with research objectives. Qualitative methods imply using qualitative data, such as interviews and document analysis, to understand and explain the different social phenomena, such as trust and teams' commitment. Qualitative research methods have become widely used in information systems research; since its attention moves from technological to organizational and managerial issues.

On the other hand, a quantitative approach is designed to deliver data summaries to generalize the phenomenon understudy results, in our case, digital capabilities concerning organizational capacity and capabilities. The quantitative approach to information gathering emphasizes the description of a phenomenon in a large number of individuals by applying statistical techniques. Therefore, it offers the possibility to consider general patterns of processes' relationships. Notably, the use of surveys can be done across clusters and groups.

A case study perspective provides reliable support for descriptive or exploratory design questions. It is useful when a specific phenomenon occurs and for gaining direct and in-depth understanding. Besides, case study investigations are considered fitting when the treated issue needs to be explained in detail or regarding its context. It aims to gain direct insights and clarify digital capabilities in a holistic vision to implement and operate the digital transformation process.

We have used the World Bank databases regarding its digital transformation project in African social care services to provide the organizational capacity through two case studies. It aims to impart a preview of the DT process at the government level. Additionally, to treat universities' digital transformation, we have provided a case study treating remote learning in Algerian universities to offer an overview of the DT process at the institutional level. On the other side, we have used the Huawei P30 PRO project to present the organizational capabilities through a real case study. Another case study is conducted regarding organizational capacity and capabilities in Algerian firms. These two cases aspire to cover the DT process at the organizational level.

2.1 Selected cases studies

This research was conducted through divergently selected case studies. These cases have close ties with each other regarding the required changes between old ways of working and modern demands of the digital age, making them appropriate for digital transformation research. Besides, the Algerian context is a relatively emerging economy where awareness of the importance of digital transformation among the different levels (i.e., government,

organizational and institutional) is not fully developed. The selection of the five cases focused on organizations that: 1) are supporters of DT process implementation; 2) are applying the DT process in their operations; and 3) are using the DT process as a driver of sustainable development.

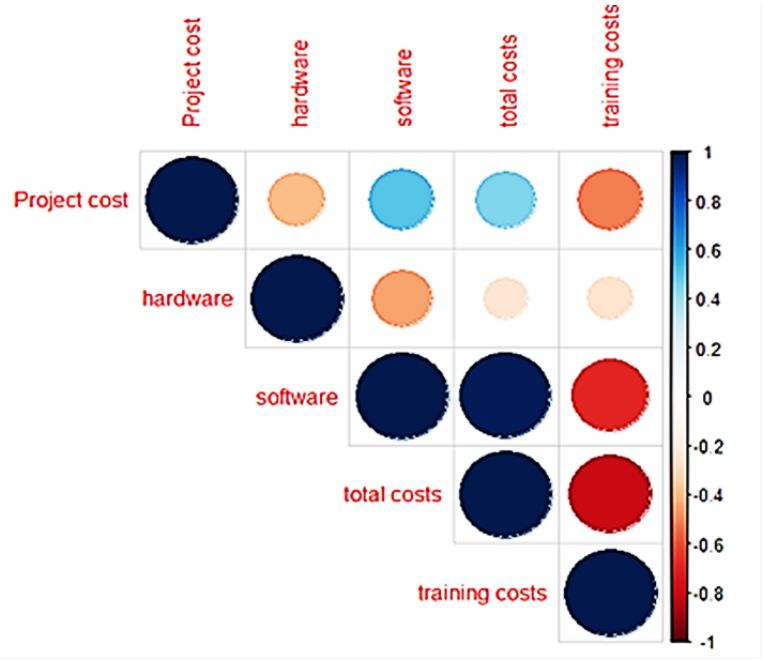
These five case studies' choices can be justified because implementing digital transformation in Algeria toward sustainable development is upheld by three main processes. The first one is the World Bank's sight for the developing countries' social care services sector. The second one concerns the starting digitalization process in higher education institutions, and the third one is about the business landscape's road map. This roadmap is supported by the ministries of industry, start-ups, and knowledge-sharing that manifest the interest of sustained economic development with businesses based-manufacturing on numerical performance and digitalization.

3 . Finding

To analyze the digital capabilities required for a successful digital transformation process, we have conducted five divergent case studies, as mentioned in the previous section. In the two first case studies, the World Bank data regarding African social care services enabled us to examine the organizational capacity through two projects. The Investment Project Financing (IN) and Development Policy Lending (AD), focusing on different investments made in technology infrastructures and employee training.

The first case study concerns the digital transformation process implementation requirement in African social care services. To realize this study, we have used the PCA method to identify and hold just the most relevant information, thus reducing the problem dimensionality and improving the digital transformation process presentation's performance. This method's choice is justified by using a large-scale, which is made up of 700 observations.

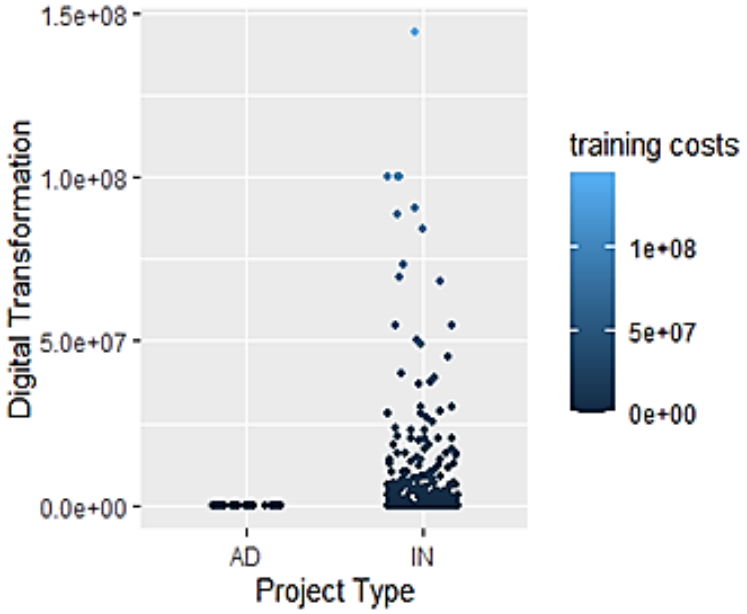
Fig.1. World Bank's investments Correlation matrix



Source: illustrated by authors

The results indicate that the World Bank engages significant investments in the digital technology infrastructure to benefit African developing countries. Most investments made concern servers record big data regarding customers (hardware) and Open Communication Platforms (software). This operation aims to digitalize African social care services. These investments are not just about technological infrastructure, but they include employee training regarding the use of these technologies. The investment's ultimate purpose is to pass from the simple digitalization of digital transformation processes to ensure African social care services' agility and sustainability.

Fig.2. Contribution of employee training to the digital transformation process

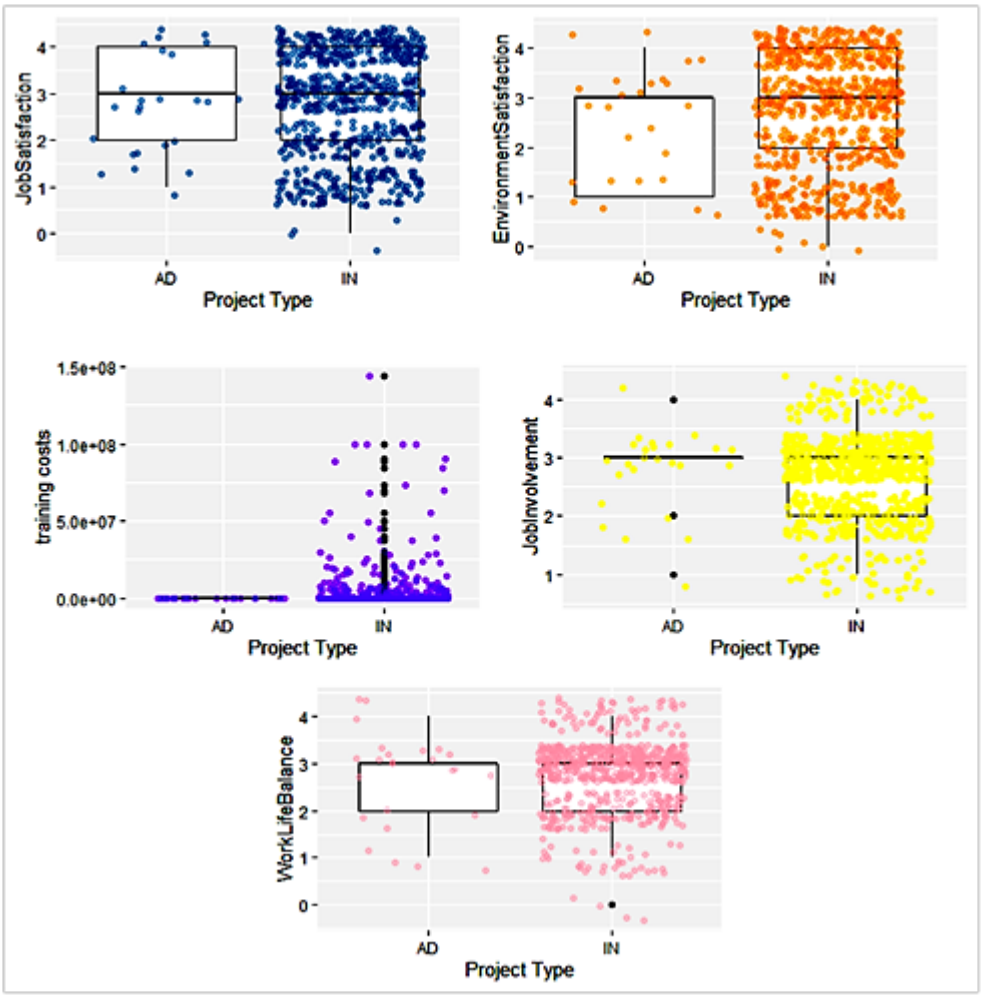


Source: illustrated by authors

The first significant result shows that the implementation of the digital transformation needs more than a technology infrastructure. The employee skills and competencies are the keys to entirely modifying the business model of social care services to be more agile and sustainable. The second significant result indicates that digitalization requires only a digital technology infrastructure. Because in this phase, social care services do not make significant modifications in their processes, they only improve their operations to ensure Sustainable Development Goals.

The second case study investigates the organizational commitment when setting up the digital transformation process in African social care services. The organizational commitment concerns the world bank's efforts towards the social care services employees' satisfaction. This study approaches the World Bank's commitment to the digital transformation process through job involvement, work environment satisfaction, job satisfaction, and work-life balance. To do this, we have used the non-linear generalized model (Benkhider et al., 2021).

Fig.3. Organizational commitment in the digital transformation process

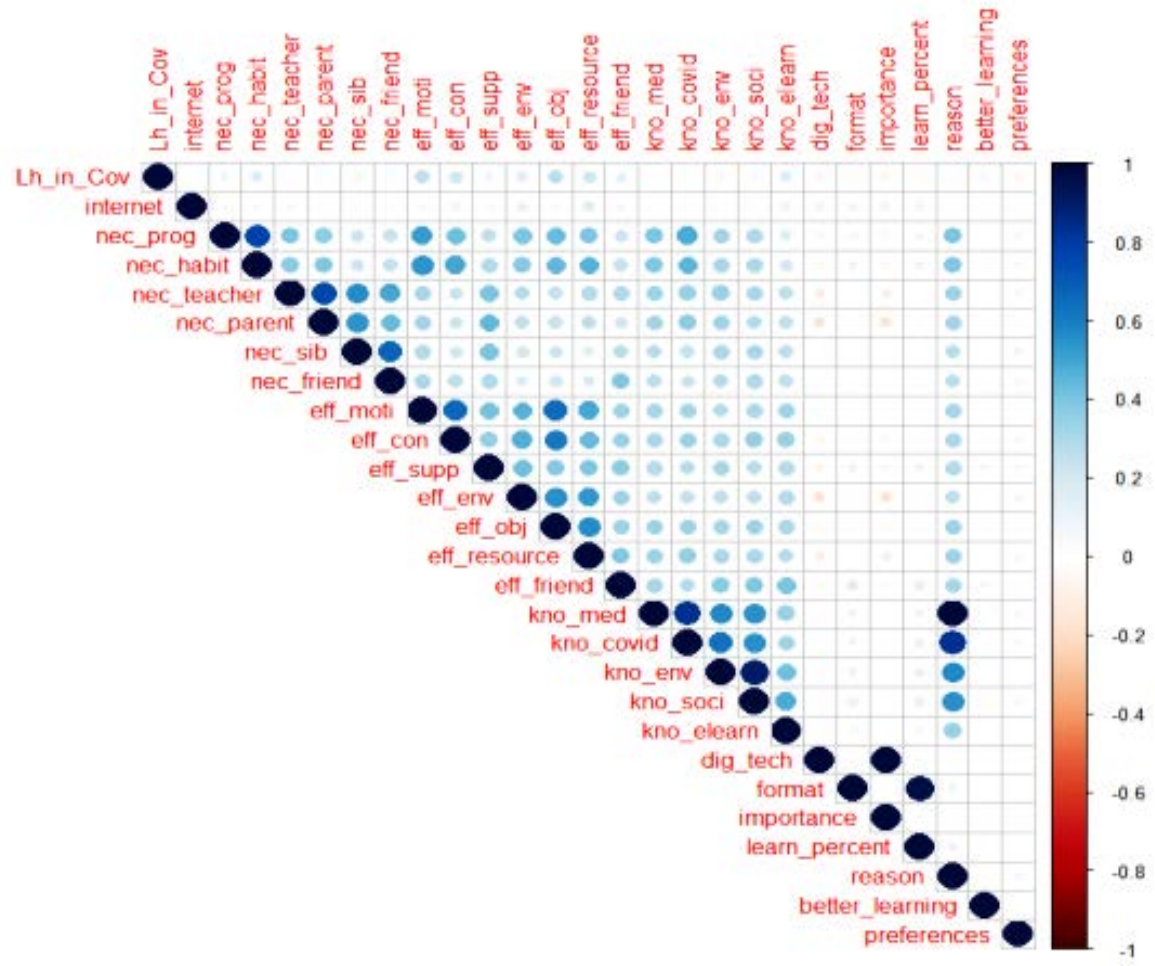


Source: illustrated by authors

Results indicate that a gratifying work environment enhances job satisfaction and employee job involvement to balance work and private life. Consequently, they become more focused on their tasks, increase financial performance, generate new revenue, save costs, and grow. In turn, it enhances the overall organizational performance. For this, governments increasingly offer new and innovative digital technologies to provide an environment that is effectively facilitating digital work. However, the digital job environment means more than just using new digital technologies. It breaks down communication barriers and transforms employee experience into one that promotes efficiency, growth, innovation, and organizational performance.

The third case study deals with the Algerian universities' digital transformation. The dataset used emphasizes the learning habits of 420 students in Algerian universities grading from License 2 to Master 2. This study was conducted during May owing to the universities' closures due to the COVID-19 pandemic. The used dataset includes four main sets of variables: (1) Individual demographics; (2) Students' learning habits; (3) Students' perceptions of their self-learning during universities' closures; and (4) Students' perception of digital tools access to assess the online lessons' integration during this period with sustainability topics. We have used the generalized non-linear least-square to analyze the collected data because investigating universities' disparities is not the scope of this research. It tends to generalize the research results(Benkhider & Kherbachi, 2020a).

Fig.4. Correlation Matrix

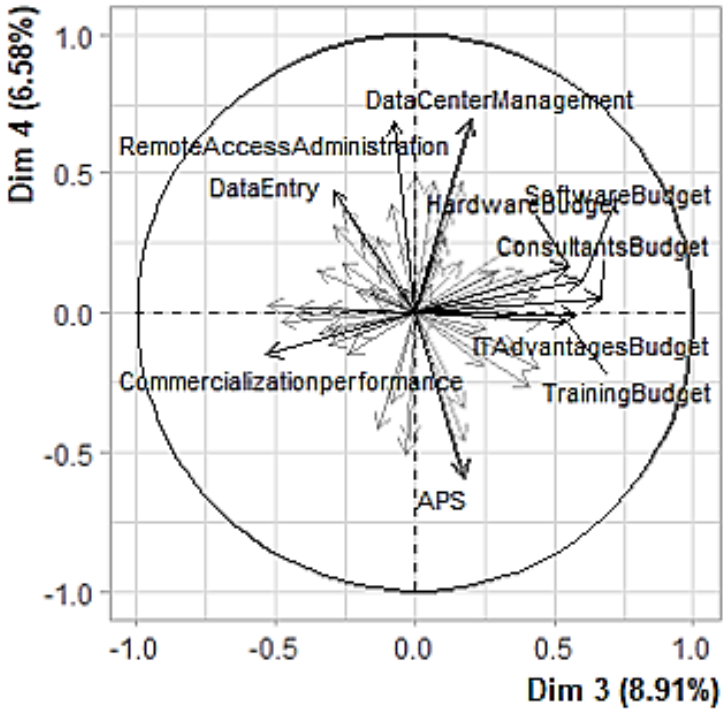


Source: illustrated by authors

The results of this study have confirmed that Algerian universities have developed particular digital strategies to respond to this specific new context through the use of their own digital platforms or by acquiring new ones. In almost all instances, remote learning tools are delivered for free, such as ZOOM, Moodle, Google Classroom. It aims to allow Algerian universities to lead their digital transformation process as soon as possible since they do not have sufficient time to invest in a whole remote learning system. This study has revealed the main challenges encountered by the Algerian universities when implementing their DT process. These challenges are technological due to the non-mastery of the different digital technology tools, whether by students or teachers, and the low Internet speeds, which prevents students from downloading their online courses. Also, not all students have the necessary devices such as computers and smartphones to pursue remote learning.

The fourth case study carried out covers the Algerian firms' digital transformation process. The study was led on 30 Algerian firms. The number of manufacturing firms was 21, and others were 09. The other types of industries included banks and financial service firms, distributors, and retailers. Therefore, we have classified the sample as manufacturing and non-manufacturing firms. To realize this study, we have used multiple regression analysis.

Fig.5. Variables factor map (PCA)



Source: illustrated by authors

The Variables factor map (PCA) indicates high values for the following variables: Training, Training Type, Trainers, Software Budget, Maintenance Budget, security measures, Data Center Management, and firms' size (variables are sorted from the strongest). Therefore, results confirm that the technological infrastructure convenience within Algerian firms is affected by three main factors, namely firm size, strategic alignment, and employee training. The results emphasize that technological infrastructure availability is determined in the first position by firm size due to its resources. Strategic alignment is an essential factor as the digital transformation implementation requires fitting the technological strategy with the corporate strategy. Besides, employee training is also a determinant of the DT process setting as digital technology mastery is vital to accomplishing this process.

The last case study is about the Huawei P30 PRO project. It treats the coordination paradigm in distributed projects under an agile environment. We have used 23 Huawei teams involved in the project that perform 46 tasks. We have emphasized the agile approach through teams' learning curve to decrease the rework by minimizing the amount of feedback and iteration risk and maximizing the window overlap between distributed teams. Minimum valuable product (MVP) among teams is applied to reflect the teams' ability to interact with agility in each phase of a project life cycle(Benkhider & Kherbachi, 2020b).

Table 1. Coordination ability based on teams' learning curves

Teams	Total Feedback	Tov	LC
A	9	0	0,88
B	5	0,128	0,4
C	7	0	0,75
D	5	0	0,67
E	4	0,023	1
F	5	0,024	0,67
G	10	0	0,4
H	6	0,009	1
I	4	0,009	0,5
J	7	0,005	1
K	4	0	1
L	8	0	0
M	4	0	1
N	5	0	0,48
O	8	0,116	0,6
P	6	0	0,5
Q	4	0	0,67
R	7	0	1
S	4	0,07	0,5
T	6	0,013	0,67
U	2	0,005	0,6
V	3	0	0,67
W	4	0	0,5

Source: illustrated by authors

Results on the Huawei P30 PRO project indicate that distributed teams aim for an efficient situation to decrease the overall project duration by coordinating their tasks under an agile environment using Task-Technology fit (TTF). Moreover, the rework risk is decreased through teams' learning curves (LC). Teams' learning curves present the process whereby teams attempt to develop skills and competencies by learning from their experiences and the shared knowledge. This LC can be approached as an output of overlapping processes between distributed teams. It enables teams to coordinate their common activities during their windows

of overlap, particularly in distributed projects where teams are geographically and temporally dispersed. During these windows of overlap, distributed teams provide feedbacks to ensure agile organizational communication. Feedback iterations help teams enhancing their learning curves. For instance, for teams providing nine (9) feedback iteration, their learning curve is equal to 0.88. Based on an agile approach and learning curves, teams can reach their MVP to look for an efficient situation to decrease the overall project duration.

4 . Discussion

In our analysis, different directions taken in digital transformation guidelines can be detected through the five exploited case studies, especially in the light of their different natures and scopes. Nevertheless, general conclusions on the digital transformation implementation at government, institutional, and organizational levels can be drawn among these divergences.

4.1. Digital capabilities required for digital transformation implementation

The multiple case study approach allows us to learn lessons about the digital capabilities required to implement digital transformation. We have classified these capabilities into two main groups. At the technical level of the digital transformation process, we have recognized the organizational capacity. On the other hand, we have identified the organizational capabilities necessary for digital transformation's practical level.

4.1.1 Organizational capacities

From the analysis of these five case studies, we developed a definition for organizational capacity, which can be stated at the government, institutional, and organizational levels. It refers to the different strategies, skills, competencies, attitudes, infrastructure, and resources enabling people and organizations to operate, evolve, and learn in an increasingly digital and distributed environment.

By analyzing these cases, we were able to determine the most relevant organizational capacities needed to implement the digital transformation process regardless of the implementation level. We can summarize them as follows:

Strategic alignment

To approach the digital transformation process, firms need to formulate a digital strategy that must be aligned with the corporate strategy. This alignment means the extent to which the digital technologies mission, objectives, and plans support, and are supported by, the organization's mission, objectives, strategies, and plans. This IT-Business alignment helps create an integrated organization where every function and employee is focused on its objectives.

Organizational commitment

The digital transformation process implementation claims the organization's commitment, whether at the government, institutional or organizational level. This commitment refers to the degree to which governments, institutions, or organizations identify the digital transformation implications and goals by prioritizing these requirements and hopes to maintain this process's advantages.

Technological infrastructure

Technological infrastructures significantly contribute to the transition from digitalization to the digital transformation process through using several digital platforms and aligning the IT-Business strategies. These infrastructures help organizations, governments, and institutions be agile and sustainable in a continually changing environment.

Employee training

Ensuring employee training is paramount to implementing the digital transformation process. It is crucial to have high skills to be proactive rather than reactive in a changing environment and follow the technological evolution speediness. Employee training means gaining skills and competencies to form employees with the required information and new knowledge to enhance the opportunities to achieve their goals, which should be adequate with the overall organizational goals.

4.1.2 Organizational capabilities

By analyzing the five case studies explored, we can set organizational capabilities as the unique combination and deployment of different skills, processes, digital technologies, and individual abilities to reach a particular goal. They are created internally and are therefore difficult for others to imitate.

The research approach carried out on divergently selected case studies enabled us to distinguish three main organizational capabilities categories. The first are those reflecting the ability to perform the necessary functional activities of the organization. The second category is related to learning capabilities. The third category deals with dynamic organizational improvements. Table. 2. provides a summary of different organizational capabilities categories.

Table 2. Distinguishing organizational capabilities

Distinguish categories	Organizational capabilities	Dynamic capabilities	Adapted from
First category	The ability to carry out the primary functional organizations' activities	- Coordination ability	- (Fernandes et al., 2018)
		- Organizational communication	- (L. Marlow et al., 2017)
		- Teams and employees' commitment	- (Buvik & Tvedt, 2017)
		- Employee satisfaction	- (Hanaysha, 2016)
Second category	Learning capabilities	- Learning habits	- (Benkhider & Kherbachi, 2020b)
		- Learning curves	- (Benkhider & Kherbachi, 2020a)
Third category	The dynamic organizational improvements	- Overlapping process	- (Yang et al., 2014)
		- Minimum valuable product (MVP)	- (Benkhider & Kherbachi, 2020b)
		- Agility	- (A. Nafei, 2016)
		- Sustainability	- (ElMassah & Mohieldin, 2020)

Source: illustrated by authors

4.1.3 Dynamic capabilities

The conclusions from the case studies analysis allowed us to define the dynamic capabilities resulting from the digital transformation exploitation. It represents the combination of organizations' intrinsic capacities and competencies to adapt and capitalize their resources and processes optimally toward Sustainable Development Goals. These capabilities can be recapped as follows:

Coordination ability and organizational communication

The digital transformation implementation contributes mainly to improving the coordination ability at government, institutional and organizational levels by providing adequate digital technologies. This coordination ability enhances organizational performance. Moreover, the digital transformation process supports organizational communication enabling fluid organization operations.

Teams and employees' commitment

Teams and employees also benefit from the digital transformation process. It helps them to build commitment around the shared vision and move to action. This commitment is the basis

of organizational performance improvement since teams and employees are more devoted to their activities.

Employee satisfaction

Employees' satisfaction in a digital environment is mainly linked to advanced digital technologies. When they have the appropriate technologies, they respond to the challenges associated with today's organizational structures and the resulting geographical and temporal dispersion.

Learning habits and curves

In the digital era, employees, teams, and students' learning habits tend to change to follow the new age exigencies. They tend to work on teammates and remotely to respond to environment evolution. This evolution claims that people focus on processes to make necessary modifications or to predict future needs. To improve processes, people appeal to learning curves. This LC refers to the rate of an individual's progress in gaining competencies, experience, or new skills.

Agility and overlapping process

Organizations are challenged to build strategically agile organizations in response to an increasingly changing and competitive environment. Luckily, digital technologies provide the basis for robust organizational forms that would not have been possible merely for a decade ago. The overlapping processes help employees and teams to be agile when performing their common activities.

Minimum valuable product (MVP)

The Minimum valuable product reveals an efficient situation for reducing the project length by maximizing the window overlap-related potential propagation of iteration risks. This MVP cannot be reached without appropriate technological infrastructures and employees' training.

Sustainability (Sustainable Development Goals)

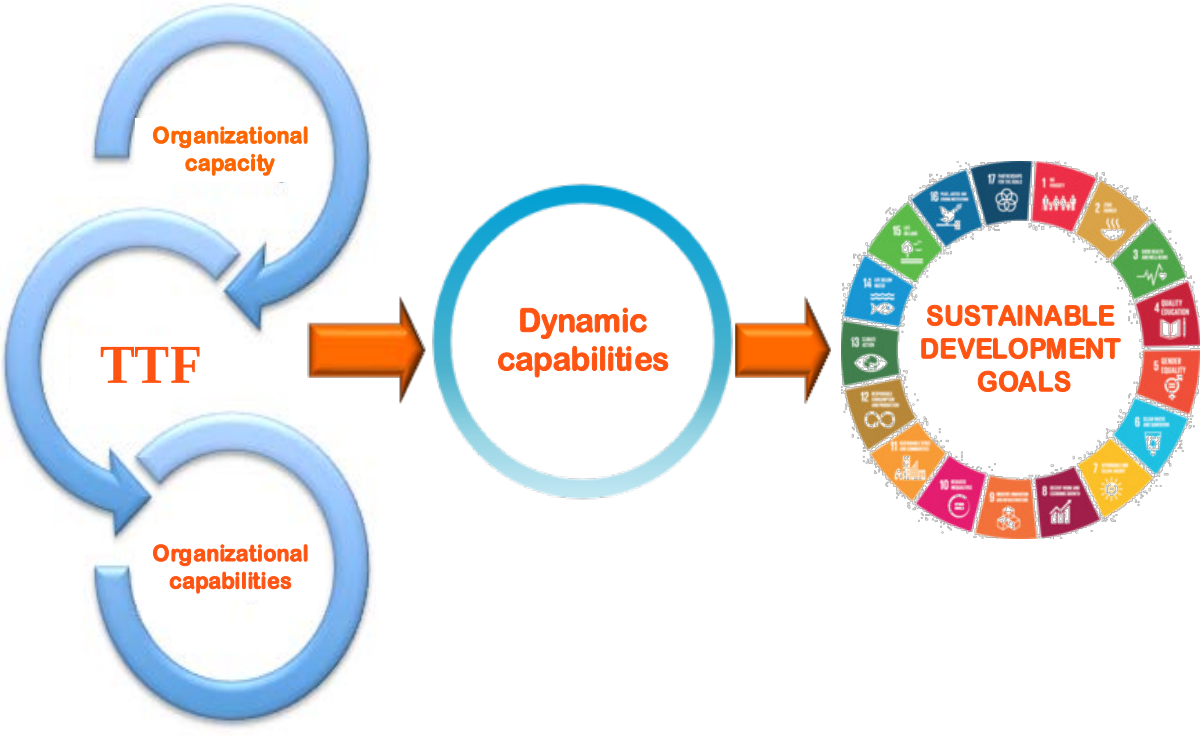
The last decade has seen the emergence of new generations of advanced technologies allowing people and organizations to rethink their relationship with the environment and the way of life and work. This redesign has brought sustainable development goals back to the central podium. Through the digital transformation process, sustainability initiatives examine how organizations can, and in part already, seize the opportunities that arise. It reveals that digital technologies help create a positive economic, social, and environmental impact while addressing global sustainability trends.

4.1.4 The interplay between organizational capacities and capabilities across TTF

The conclusions from the interplay between organizational capacities and capabilities indicated that all people would experience several challenges and resistance when confronted with new digital technologies or different ways of using them. Without the support of a framework, digital transformation implementation will likely produce lower expected performance levels or outright failure against set goals. We approach this framework through the Task-Technology fit model. It enables organizations to deploy their capacities to provide and exploit their capabilities. For example, technological infrastructures support coordination ability and organizational communication. Moreover, the strategic alignment allows organizational sustainability. Further, organizational commitment sustains learning habits and curves when supported by employee training.

Through organizational capacities and capabilities, digital transformation supports Sustainable Development Goals. This process encourages economic and industrial landscape' efforts to develop sustainable and resilient attitudes by adopting appropriate digital tools. It allows governments, institutions, and organizations to build their own Sustainable Development Goals agendas by highlighting the five critical dimensions of the Sustainable Development Goals; efficiency, inclusion, openness, reliability, and accountability.

Fig.6. Digital Transformation towards Sustainable Development Goals



Source: illustrated by authors

Conclusion

The digital transformation process will endure growing in importance for organizations over the coming decade, emphasizing understanding how these organizations can well prepare for such disruption. In this sense, this paper aspires to take lessons from the case studies approaches in exploring dynamic capabilities regarding digital transformation implementation. The study reviewed five divergent digital transformation cases and developed organizational capacities to support this implementation and organizational capabilities generated by this process exploitation. The five case studies come essentially from three levels, i.e., government, institutional, and organizational levels.

The study has identified four key organizational capacities: strategic alignment, organizational commitment, technological infrastructures, and employee training, which organizations, despite their level, typically have to deploy when implementing the digital transformations process. It also found three main organizational capabilities resulting from the digital transformation exploitation. The first one concerns the ability to perform the necessary functional activities of the organization. The second capability is related to learning capabilities. The third one deals with dynamic organizational improvements.

Achieving sustainable development goals has been hindered by compromise favoring organizational and economic growth through social well-being and ecological capability, which may also touch the United Nations' member states' sustainable development goals. On the other hand, the concept of sustainable development highlights the social, ecological, economic, and political dimensions of development. These dimensions are interdependent and mutually reinforcing pillars of the sustainable development goals. For this, a long-term sustainable development must be conceptualized in terms of an economy, environment, and society sustained within Earth's life-funding system.

This paper provides implications for both academics and practitioners. For academics, the study offers an analytical literature review on digital transformation implementation. It designs a conceptual framework of the key organizational capacities required when implementing the digital transformation process, as presented in Figure 1. This framework provides organizational capabilities for practitioners by imparting a holistic view of dynamic capabilities generated by the digital transformation process exploitation. These capabilities help practitioners take full advantage of the digital transformation process by gaining competitive advantages and enhancing organizational performance.

Still, this study has some limitations, which can be surmounted with future research. The lack of empirical case study investigation to validate the proposed framework in organizations operating in different sectors is a limiting feature. Future research can pursue to assess this framework's empirical nature. Notably, studies looking for more exploratory field case studies would meaningfully advance understanding the dynamic capabilities resulting from digital transformation exploitation and validate the proposed conceptual framework's statements. Furthermore, a broader range of data collection techniques, where questionnaires and semi-structured interviews might be deployed, would support an exhaustive data analysis and deliver a holistic understanding of the digital transformation implementation topic.

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