

## **The effects of digital transformation on the performance of tax administration: Literature review.**

## **Les effets de la transformation digitale sur la performance de l'administration fiscale : Revue de littérature.**

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**Date submitted :** 29/09/2023

**Date of acceptance :** 16/11/ 2023

**To cite this article :**

AKHANNICH. O et BENAMAR. F (2023) «The effects of digital transformation on the performance of tax administration: Literature review», Revue Internationale des Sciences de Gestion « Volume 6 : Numéro 4 » pp : 1461 - 1474

## Abstract

The introduction of digital transformation in order to carry out administrative procedures constitutes a crucial step in ensuring the efforts made to modernize and optimize public administration in general and tax services in particular. Today, we live in a context where technology is considered essential in our daily lives, for this reason, public authorities are required to take advantage of the opportunities provided by digitalization. Moreover, according to the literature review, the impact of digital transformation on public administration is considerable, because it generates structural changes, both in the way in which services are offered to citizens and in the way in which procedures administrative tasks are completed. With this in mind, the main objective sought in this article is to detect the effects that the introduction of the digitalization of administrative procedures has on the effectiveness and efficiency of tax services, in order to achieve the desired performance.

Therefore, according to the literature, it has been noted that digital transformation significantly influences the administrative procedures of tax services, by making it possible on the one hand to improve the fluidity of internal processes, to increase the reliability of the data collected, and on the other hand, to increase the efficiency of tax collection and optimize the tax audit process.

**Keywords:** Digital transformation; electronic services; tax administration; performance; public management.

## Résumé

L'introduction de la transformation digitale afin d'accomplir des procédures administratives constitue une étape cruciale afin d'assurer les efforts déployés visant à moderniser et optimiser l'administration publique généralement et les services fiscaux en particulier. Aujourd'hui, nous vivons dans un contexte où la technologie est constituée comme indispensable dans notre quotidien, pour cela, les autorités publiques sont tenues de tirer profit des opportunités que procure la digitalisation. D'ailleurs, selon la revue de littérature, l'impact de la transformation digitale sur l'administration publique est considérable, car elle engendre des changements structurels, tant dans la manière dont les services sont offerts aux citoyens que dans la façon dont les procédures administratives sont accomplies. Dans cette optique, l'objectif principal recherché dans le cadre de cet article est de déceler les effets que procure l'introduction de la numérisation des procédures administratives sur l'efficacité et l'efficience des services fiscaux, et ce afin d'atteindre la performance souhaitée. De ce fait, selon la littérature, il a été constaté que la transformation digitale influence significativement les procédures administratives des services fiscaux, en permettant d'une part d'améliorer la fluidité des processus internes, d'augmenter la fiabilité des données collectées, et en d'autre part, d'accroître l'efficacité du recouvrement des impôts et taxes et d'optimiser le processus du contrôle fiscal.

**Mots clés :** Transformation digitale ; services électroniques ; administration fiscale ; performance ; gestion publique.

## Introduction.

In recent decades, a new component has emerged as a pillar of economic growth and development: digital transformation. This component is no longer considered an optional tool but rather a necessity for the good management of procedures, whether administrative or technical, in order to improve organizational performance.

With this in mind, public administration in general and tax departments in particular have continued to increase efforts to make tax administration accessible to all sections of society. In this context, the introduction of ICTs has upset all administrative procedures through the digitization of procedures, thus helping to avoid costly travel for taxpayers on the one hand and to reduce operating expenses for the tax administration on the other hand.

In the public sector, digital transformation plays a vital role in improving government services. Governments are adopting electronic government (e-gov) initiatives to simplify administrative procedures, facilitate access to information, and promote citizen participation. This makes it possible to optimize the efficiency of public administration and strengthen citizens' trust in institutions.

To this end, according to the literature review, several studies have shown that the digitization of administrative procedures provides many benefits to all stakeholders, including officials, citizens, partners, and public administrations. To achieve this, public authorities must align themselves with these new trends in order to meet the growing expectations of taxpayers.

Moreover, the digitalization of tax administration has aroused the interest of many researchers. Benazzou. et al., (2022) through their study, they tried to make a presentation of the role that the integration of digital plays in the processes of the tax administration, by obtaining significant quantities of data in order to reconstitute them completely or partially, thus making it possible to detect fraud and tax evasion practices.

However, like any organizational change, the digital transformation of administrative processes can present risks limiting the performance of public administration generally and tax services in particular, including the security of collected data, resistance to change, regulatory complexity and marginalization digital.

In this context, and in order to measure the degree of impact of digitalization on administrative processes, our problem can be formulated as follows: To what extent does digital transformation affect the performance of the tax administration? What are its advantages and risks? How can we lead the change in administrative procedures towards digitalization?

To answer these questions, we will first address through the literature review the definitions and basic principles of digital transformation, then a presentation of the concept of performance generally and public performance in particular, and finally, the effects of digital transformation on the performance of tax administration in different contexts.

### **1. Definitions of digital transformation.**

Several authors have contributed to the definition of digital transformation; however, we see in the field that most companies are primarily concerned with the technological aspect of digital transformation. From this, we observe that the said transformation is different for each organization, in particular according to the sector of activity, the means, and the objectives to be achieved. That is why it can be difficult to propose a universal definition of DT.

For this purpose, digitalization is considered a change in all possible aspects of human life, namely, the economic side, work, but also education, health, social relations, or culture (Solterman & Fors, 2004). From this definition, it seems to us that the introduction of New Information and Communication Technologies (NICT) has significantly contributed to the radical change in the daily habits of individuals, which forces us to adapt and align ourselves with these new trends.

For their part, Parida et al., (2019) define digitalization as the use of digital technologies to innovate a business model and provide new sources of revenue and value creation opportunities in industrial ecosystems. Moreover, for these authors, digitization is a key factor in economic development since it directs organizations to new perspectives, allowing the conquest of markets and the diversification of activities to achieve economies of scale.

To properly measure the impact of digitization on our daily lives, Westerman (2011) has developed a classic scheme consisting of three axes, a temporal, spatial, and multitude way. The time dimension of digitization cancels delays as well as waiting and transport time. Then, the dimension of multitude

sweeps away the limits created by presence and audience. Thus, the technology allows a file to be available in several places simultaneously (Besson et al., 2016).

On the other hand, Salgues (2018) differs from the others by the fact that it goes from a conception of digitization as a phenomenon affecting only a limited number of processes to a global phenomenon influencing all the productive activities of companies. To find out the impact of digitalization, Salgues proposes a diagram with three axes that interact with each other:

- **Automation** is characterized by increased performance, productivity and individualization of the production of goods and services, as well as a better customer experience.
- **Dematerialization** has resulted in the emergence of new ways of relations that have replaced traditional physical networks (agencies, counters, stores). This substitution pushes the marginal production and transaction costs down.
- **Intermediation** is about dealing with the new intermediary actors who place themselves between companies and customers.

In addition, Océane Mignot (2019) shares the same ideas on the contributions of digitalization to the company by defining it as the integration of digital technology in all sectors of a company to change the way in which it operates and offers value to its customers. To this end, digital transformation enables business agility, commitment and creativity. We operate in a digital world where commercial success requires the adoption of new technologies, new strategic approaches and cultural change.

In short, all of these definitions contribute in the same direction, indicating that the effects of digitalization are not limited only to the economic sphere, but also to human behavior and life in its entirety. In what follows we will address the concept of public performance in order to discover the effects of digital transformation on tax administration.

## **2. Definitions and principles of performance.**

According to the literature review dealing with this concept, there are different definitions of performance as well as its main measurement models. For researchers in management sciences, the concept of performance is an old «sea snake» (Bartoli, 1997), so performance is a frequently used concept; however, the proposal for a universal definition remains difficult because of its multiple dimensions.

According to Aubert (2006), the notion of performance requires exceptional surpassing of results, suggesting an increase in social demands and a continuous putting under pressure on individuals.

In the same sense, Schier & Saulquin (2007) consider that the concept of performance has as many meanings as there are individuals or groups who use it. For a manager, performance could be the profitability or competitiveness of his company; for an employee, it could be the working climate; and for a client, it could be the quality of the services provided. The multiplicity of possible approaches makes it a polysemic concept; it remains indeterminate due to the diversity of the groups that make up the organization.

The requirement forever more advanced performance thus seems to have become the absolute norm, both for companies and for individuals. It is both an economic imperative for companies, which must be ever more profitable and more competitive in the context of fierce global competition, and a standard of behavior that requires individuals to have a certain form of relationship with themselves, implying constantly surpassing their limits.

To this end, we note that the concept of performance in management sciences has a chain composed of three fundamental elements, namely the process, the action, and finally the result. In other words, it is the evaluation of the results obtained following the actions taken.

For this reason, the design of traditional performance has developed and is not limited to the financial dimension but has a multidimensional character that takes into account all the dimensions of the performance of the organization. For this, Bourguignon (1995) proposes an integrative definition articulated around three perimeters summarized as follows:

- The performance is *successful*. Success depends on the objectives of each organization. Performance cannot be limited only to productivity, which only describes its economic dimension.
- Performance is the result of *action*. In this case, the performance measurement is established after the actions have been implemented in the field.
- The performance is *action*. It is a process and not a result that appears at a given time.

With regard to public management, it appears that a public organization pursues multiple objectives in terms of its means, its achievements in providing public services and their environmental effects.

In terms of resources, the public organization seems to have to control its human resources (optimize the efficiency of its services), financial resources (incur its expenses in a compliant and economical manner vis-à-vis its financiers, the State, taxpayers and banks) and organizational (foster learning of a cognitive, cultural and structural nature).

In terms of achievements, it seems to have to produce a supply of public services in sufficient quantity and quality, to satisfy the user. At the level of effects, the public organization appears to have to, through its activity of offering public services, impact its territory by responding to the socio-economic needs of citizens and businesses, and by communicating reliably and transparently about the actions taken and the resources mobilized.

In an overall vision, public performance refers to the capacity of a public organization to control its human, financial, and organizational resources in order to produce an adapted public service offering in quality and quantity, meet the needs of its stakeholders, and generate positive effects on its territory.

### **3. The effects of digital transformation on tax administration performance.**

Regarding the relationship between performance and digital transformation of public administration, there are many researchers interested in the positive impact of information and communication technologies on the reduction of hierarchical levels, the decentralization of decision-making and the promotion of intra- and inter-communication organizational. For this,

and through the literature review, several effects can be generated following the digital transformation of the tax administration:

### **3.1 Improved fluidity of internal processes**

According to the literature review, digital transformation significantly influences the efficiency of public administration procedures in general. Moreover, it makes it possible to improve the management of resources, optimize internal processes, and support collaboration between the different departments of an organization. In this context, according to a study started by Zhang et al. (2018), digital transformation contributes in a thorough way to eliminating manual and repetitive tasks through their automation, this leads to the reduction of errors and omissions by employees and consequently the facilitation and speed in the execution of administrative tasks. On the other hand, based on a research conducted by Chen et Huang (2017), the computerization of administrative data through the solution «Electronic document management» (EDM), contributes significantly to the improvement of internal administrative flows.

For their part, according to a study initiated by Huang et al., (2019), they consider that the implementation of an integrated management application makes it possible to ensure the fluidity of internal processes by removing information asymmetry and strengthening internal collaboration and communication.

However, internal processes in the public administration may have gaps or deficiencies in the flow of information and data processing. For this, Deng & Ji (2018) consider that digital transformation, through the digitization of administrative procedures, offers the opportunity to analyze data, detect gaps, but also to predict the future directions of public administration strategies.

### **3.2 Increased reliability of data collected.**

Through the literature review, several impacts are possible on the reliability of the data collected following the inclusion of digital transformation in the management of administrative procedures:



The data collection's dependability is established as the basis on which, organizations can plan or implement a strategy. For this, Chen et al., (2018) consider that digital transformation makes it possible to automate many administrative tasks, thus making it possible to obtain reliable data. In the case of the tax administration, the digitalization of tax return filing procedures contributes significantly to reducing data entry errors and speeds up the data collection process. With this in mind, and following the digitization of the procedure for filing tax returns, there are large amounts of data. In order to exploit them, technologies can process and analyze tax data in large quantities and detect suspicious behavior related to fraud and tax evasion practices (Huang et al., 2020). As such, digital transformation also makes it possible to use predictive models to identify taxpayers at high risk of tax fraud and target their data collection efforts accordingly (Shen et al., 2018).

In the same sense, (Sadiq et al., 2017) consider through their study that digital transformation allows a certain speed and precision in the collection of tax data from taxpayers. In other words, and in order to obtain reliable cross-checks, tax administrations can now exchange data electronically with other organizations, such as Customs, banks and financial institutions, and tax administrations in other countries within the framework of cooperation and data exchange.

### **3.3 Effectiveness of tax collection.**

According to the OECD report (2019), the use of electronic collection systems, online payments and automated reminders significantly contribute to the collection of taxes and the reduction of late payments. In other words, digital transformation allows the automation of tax collection processes, reducing manual tasks and speeding up processing times. In addition, Hasseldine, J. et al., (2006) share the same ideas above, indicating that the dematerialization of administrative procedures helps ensure that tax amounts due are correctly calculated.

For its part, Deloitte (2021) states that digital transformation leads to greater efficiency, a reduction in errors and a reduction in management costs for the tax administration. Moreover, the digitalization of collection procedures, including the use of online forms, electronic signatures and digital documents, makes it possible to simplify administrative processes and reduce paperwork.

Along the same lines, Kirchler, E. et al., (2017) consider through their study that the digitalization of the procedure for filing tax returns and paying tax allows a certain ease and fluidity in tax collection, but also this can encourage taxpayers to respect even more their tax obligations and to make payments within the legal deadlines.

### **3.4 Improvement of the tax audit process.**

According to a study carried out by Hafizah et al., (2018), digital transformation ensures the collection and analysis of data in an info way. Moreover, the use of advanced technologies such as integrated management applications and large data analysis instruments contribute to the collection of financial data allowing tax administrations to improve their efficiency and reduce potential errors in the tax audit process.

It is in this context that we can note the importance of the role of advanced technologies in improving the performance of the tax administration. In this sense, and based on a study carried out by Mwaura et al., (2019), we can see that the use of advanced techniques in the tax audit process makes it possible to improve the detection of tax fraud and evasion practices and to increase tax revenue. In other words, the use of automatic and data mining tools makes it possible to spot patterns and anomalies in tax data.

In order to obtain reliable crosschecks, the exchange of data between tax administrations has become a necessity. For this, Graetz et al., (2017) state that digital transformation has facilitated the exchange and sharing of data between tax administrations on an international scale, thus allowing the improvement of the tax control process through strengthening the quality of the information obtained.

### **4. Risks of the digital transformation of tax administration.**

According to the literature review, the digital transformation of the tax administration presents undeniable advantages, however, like any transformation, it also involves certain risks, in this case:

#### **4.1 Data security.**

Digital transformation makes it possible to collect, store and share large quantities of data. This leaves tax administration vulnerable to security risks, such as cyberattacks, data breaches and leaks of sensitive information. For this reason, (Khan & Rizvi, 2018) indicate that administrations are faced with the need to invest in robust security measures to protect taxpayers' tax data.

#### **4.2 Digital marginalization.**

According to Abdelkafi & Täuscher (2016), the shift to online services can result in digital revocation for certain taxpayers who do not have access to the Internet or who do not have sufficient technological skills to use it. In other words, the generalization of the obligation to use online services to complete administrative formalities leads to the exclusion of taxpayers, harming their tax compliance.

#### **4.3 Resistance to change.**

Transforming working methods through the inclusion of ICT often requires significant organizational changes and adaptation of existing work processes. This may encounter resistance from tax administration officials, who may fear job loss or uncertainty from new technologies, and from taxpayers who do not have enough trust, particularly in terms of electronic filing and payment of taxes (Kampouroglou et al., 2019).

#### **4.4 Regulatory complexity.**

Implementing a digitalization project requires adapting existing regulations and tax laws to align with new practices and technologies. In this context, increased regulatory complexity can cause additional challenges for both taxpayers and the tax administration (World Bank, 2019).

For this, these risks refer to the importance of implementing adequate risk management and security strategies during the digital transformation of the tax administration. It is therefore

essential to find a balance between the potential benefits of digitalization and the management of the associated risks.

In short, the digital transformation of the administration improves its performance through the optimization of administrative processes and procedures and the acceleration of administrative service deadlines, but also through the reduction of administrative expenses, induced by the reduction in size of the workforce and territorial locations of administrations.

### **Conclusion.**

In conclusion, we were able to discover in the context of this article that it is generally accepted in the literature that digital transformation has a positive impact on the performance of the tax administration through the improvement of the fluidity of internal processes, the increasing reliability of the data collected, the efficiency of tax collection, and improving the tax control process. This impact leads to the improvement of the economic competitiveness of a country via the rationalization of administrative procedures, accessibility of administrative services, and optimization of delivery times (authorization requests, etc.). In addition, it stimulates investments and encourages foreign investors.

However, like any organizational change, challenges remain, including the need to ensure data security, digital marginalization, resistance to change, and regulatory complexity.

For this, the implementation of an adequate and coherent strategy makes it possible to attract or take advantage of the advantages offered by digital transformation for tax administration by adapting the skills of staff in relation to these new trends through training programs, which makes it possible to avoid risks that could cause effects opposite to those expected.

Overall, the transition to digital tax administration presents considerable potential to strengthen overall performance and achieve previously set objectives, provided that these challenges are addressed proactively and by adopting a citizen-oriented strategy, which increases the probability of success in the change mission due to the fact that their suggestions and requests were taken into account during the design and monitoring of electronic platforms.

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