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The external auditors' policy after the COVID-19 pandemic and the accounting outlook in Tunisia

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Abstract

Research Question: The objective of this article is to help external auditors resume their activities and enhance their foresight strategy. Specifically, it aims to identify variables that contribute to improved auditors activities primarily post-COVID.

Motivation: In light of the challenges presented by the coronavirus pandemic to the global economy, a number of specific lessons can be drawn from this situation.

Idea: This research examines the audit mission strategy in which the focus is placed on the spirit and prospective reflection of external auditors.

Data: This study uses a qualitative method for collecting information based on non-structured interviews.

Tools: The method used in this research is based on cognitive mapping, which makes it possible to analyze the prospective strategies after the COVID-19 pandemic. Indeed, the cognitive map helps to clarify the mental orientation of a person and to visualize some ideas and beliefs on the achievement of their objectives.

Findings: The obtained results showed that "digitization and Technology" are the most influential variables in the thinking of the external auditors as they represent the evolution during the COVID-19 period while "communication, the quality of audit social mission and the number of clients", which are the most dependent, represent the objectives to be achieved while the variables "teleworking, teleconference and E-learning" are the means to achieve these objectives. **Contribution:** This research could raise awareness of the positive outcomes of the COVID-19 era and develop a future work strategy.

Keywords: after COVID-19; digital evolution; prospective strategies; social distancing; external auditors.

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1. Introduction

Since the COVID-19 pandemic broke out in December 2019, many waves of infections have emerged all across the planet. In addition to endangering people's health, the pandemic has resulted in continual lockdowns that restricted personal movement and have a detrimental impact on the worldwide economy (Corbe *et al.*, 2020; Gormsen and Koijen, 2020). Furthermore, the COVID-19 pandemic has unquestionably transformed lives around the world, affecting all sectors, countries, and individuals; yet, the breadth and depth of the pandemic's influence on the world's population and enterprises' productive capacity are unknown. As a result, in order to help with the recovery of the economy and business finances, this article has examined a set of forward-looking plans based on the changes brought about by the COVID-19, which have the potential to improve people's lives for the better.

In fact, the current situation has changed because of the discovery of vaccines that allow for the removal of social barriers and the restoration of business operations. Therefore, there is little risk of business closures, and the first stages of recovery are progressing rapidly. On the other hand, the rapid shock of the COVID-19 pandemic may result in a recovery and a greater rebound (Corbe *et al.*, 2020). Given the global economic problems created by the COVID-19 epidemic, we learned a lot of insights that will help us improve our operations in the future. In this light, the purpose of this essay is to examine a strategic foresight in order to assist external auditors in achieving their goals following the COVID-19 pandemic, i.e., we will investigate the variables that aid in improving the accounting activity after the COVID problem. Furthermore, considering the issues that the COVID-19 poses for the global economy, we can learn a number of important lessons from this disaster.

As a result, the purpose of this essay is to present a strategic foresight to assist external auditors in achieving their goals once the pandemic ends, i.e., we will investigate the variables that assist external auditors in improving their activity following the COVID-19 problem.

In fact, this study is based on a technique inspired by the accounting psychology paradigm, and it proposes that external auditors resume their work using a new strategy. As a result, this study adds to the growing body of knowledge about the impact of the corona-virus on the accounting activities by looking into the strategic foresight after the pandemic, specifically the digitization associated to the COVID-19 pandemic. The obtained findings revealed that teleworking, teleconferencing, E-learning, and video conference" are factors that can assist external auditors in improving their future operations.

On the other hand, this work makes a three-fold contribution. First, it builds on prior research that looked at the financial market effects of the corona-19 pandemic by looking at strategic foresight following the pandemic. It also contributes to broadening our perceptions on accounting and accountability practices in the society not only during the pandemic but also in normal time. In addition, this article can be used as a basis to build research instruments that aim to provide empirical evidence on the relationship between the evolution of the audit mission and digitization. Second, this study provides a strategic vision that will assist external auditors in resuming their work after the COVID-19 pandemic has gone. Indeed, there are several concrete lessons that we may take away from this disaster. Finally, this study used the cognitive mapping method to investigate the factors that aid in the recovery of activities following the COVID-19 crisis. Indeed, this method makes it possible to clarify the mental orientation of external auditors towards such a judgment and to clarify some ideas and beliefs on their forward-looking strategy.

As a result, this article is organized as follows: the literature is presented in section 2, followed by the study methods in section 3, then, the result analysis is presented in section 4, and finally, section 5 concludes the paper.

2. Literature

Actually, a considerable corpus of new research examines the involvement of numerous parties and their use of accounting procedures to handle the COVID-19 dilemma. Therefore, accounting processes have evolved or adapted to the emergency in some cases, using other tools or methods.

Accounting procedures have also been misused in some cases, generating serious worries about the hazards of such activities. In fact, when taken as a whole, this collection of work studies highlight a number of accounting issues that have so far been unexplored and also the responsibility in times of crises. On the other hand, while designed to work in normal circumstances, accounting and accountability frameworks may not be adequate in crisis situations characterized by highly unusual decision-making processes, which necessitate unfamiliar decisions, and occur in circumstances of high uncertainty and a lack of clarity about future outcomes (Bansah, 2018; Szczygielski *et al.*, 2021).

Furthermore, prior research, such as that of (Ali *et al.*, 2020; Goodell, 2020; Zhang *et al.*, 2020), has forecast the COVID-19 pandemic's large-scale events and economic effects. Carnegie *et al.*, (2022), for example, looked into the COVID-19 pandemic risk declarations in a sample of Australian public university annual reports. In fact, these higher education institutions are heavily reliant on fee-paying onshore international students. As a consequence, understanding the COVID-19 dilemma and its consequences for organizational change requires analyzing these

risk disclosures. In this context, Landi *et al.* (2022) investigated how public health authorities used social media to enhance the public participation and dialogic accounting during the outbreak of the corona-virus disease in 2019. Their empirical findings demonstrated that social media have been widely used as a public engagement tool in all three studied nations however, in New Zealand, they have been employed only as a dialogic accounting tool due to legitimacy concerns and resource constraints. Moreover, these findings imply that false news spread more widely in areas where the government did not encourage dialogic accounting.

In a similar vein, Villiers and Molinari (2022) examined the lessons that an organization might take away from government communication methods during the COVID-19 problem. Their findings showed that clear, consistent, and credible communication backed up by open access to the numerical data emphasize the decisions and ensure that they are regarded as legitimate and that citizens/stakeholders believe in the necessity of taking measures that are in conformity with the rules and guidelines. On the other hand, the way of retaining information, blaming others, refusing to accept that problems exist, and refusing to resolve problems, leads to citizen/stakeholders' non-compliance. However, to secure the engagement of employees and other stakeholders, business leaders could teach these lessons to the management of crises in their firms. As stated by Ru *et al.* (2020), leaders and organizations that implement these communication methods may emerge from the crisis in a stronger position than before. For their part, (Leoni *et al.*, 2022) define two macro-themes and discuss their contributions to the accounting literature. The first examines how accounting and accountability processes changed and were damaged during the pandemic while the second examines accountability methods in the context of the COVID-19 management in a broader sense, including reporting and disclosure.

As for Moscariello and Pizzo (2022), they studied the response by the International Accounting Standards Board (IASB) to COVID-19, specifically regarding the introduction of the COVID-19-Related Rent Concession, which is an amendment to IFRS 16, Leases (a standard that provides guidance on accounting for lease contracts). The impact of COVID-19 meant that lessors were encouraged or even required to provide lease concessions (i.e., lease modifications).

For their part, Moscariello and Pizzo (2022) are researching the International Accounting Standards Board's (IASB) response to COVID-19, particularly regarding the introduction of the COVID-19 related rent concession amended by IFRS 16, which usually provide guidance on accounting of lease agreements. The effect of COVID-19 meant that tenants were encouraged or required to grant lease permits (i.e., lease changes). In fact, the IFRS 16 amendment was introduced to avoid complex and costly testing if permits due to COVID-19 are rental changes. The authors also pointed out that there is a growing confidence in the effective amendments to maintain the legitimacy of the IASB, to promote flexibility and

strengthen the IASB's ability to respond to the concerns of the European political parties. The authors stated that an effective response helped address the broader economic impact of COVID-19 over time and therefore limit criticism and controversy over the IFRS adoption. Overall, the authors concluded that practical action helps to strengthen IFRS adoption, especially with a view to maintaining the legitimacy of the IASB in the complex situations.

However, the role of accounting and accounting professionals is to provide input into government's approach to dealing with COVID-19, as demonstrated by Antonelli *et al.* (2022) in the context of Italy. In fact, the authors showed how accounting information has been used to ensure support for extremist government actions. More particularly, the study draws attention to how accounting provides reasons for actions that are clearly promoted as temporary, but with lasting consequences, first and foremost the government's ability to enforce individual rights, which may continue to outweigh the crisis. His paper also shows how accounting can affect people's behavior and help develop a lasting sense of diversity, which increases the power of government. Moreover, the study raised many important questions for future research on the role of accounting in social accountability, as well as the integration of political interests and accountability.

In a highly connected country, the epidemic requires new digital solutions to provide answers to it spread. In fact, it is undeniable that this epidemic has brought a number of negative consequences and unexpected challenges across all sectors. However, there is no doubt that the epidemic has facilitated the development of digital transformation in many industries, which has also reduced some of the negative effects of COVID-19. Moreover, it can be argued that the COVID-19 epidemic is accelerating one of the most dramatic changes in occupational health (Kempf, 2021).

For their part, Raghunath and Tan (2020) stated that the World Health Organization (WHO) recommended social distancing as a measure to reduce the infection rates. However, in order to slow the spread of the COVID-19 pandemic, numerous countries and individuals have implemented various kinds of social distancing measures. Furthermore, a study based on pandemic data in Spain showed that people exercise varied levels of social separation according to the level of perceived risk. In this regard, Saltiel (2020) conducted a poll of Singaporeans and discovered that over 80% of employees want to work remotely for at least half of their working hours. In fact, he predicted that remote working will become mainstream. However, according to Dingel and Neiman (2020), working remotely is not possible for everyone. Actually, by categorizing jobs per sector of activity, such as digital work, it is possible to work from home while manual work is not possible. Moreover, Dingel and Neiman (2020) discovered that up to 37 percent of employment in the United States might potentially be completed at home using this classification of occupations. However, during the COVID-19 pandemic, some managers were hesitant to employ remote working arrangements because they were concerned about potential diversions that could lead to the fall of their company's profitability.

Furthermore, they stated that when employees work remotely, their productivity can suffer owing to a lack of incentives. On the other hand, according to White (2018), it is critical to put in place the appropriate infrastructures so that workers are always socially in contact with their coworkers, which enables them to boost their productivity. As a result, even though the work can theoretically be done remotely, the managers will need to examine whether the organization should invest in remote work or adjust typical working arrangements. In this vein, Briggs *et al.* (2020) proposed that confinement could be beneficial.

According to Saxena *et al.*, (2020) the financial disruption of COVID-19 coupled with market uncertainty has significantly reduced investor confidence in the performance of the company. To adapt to the behavior associated with financial crises, companies are expected to manage the situation through technology. Technological changes resulting from remote working are driving digital evolution (Wilks and Billsberry, 2007; Qureshi, 2021). This acceleration of social transformations is seen as a tool to transform the challenge of the COVID-19 crisis into an opportunity. In this perspective, we assume that the impact of the COVID-19 pandemic on the audit mission in the future is positive.

This article therefore analyzes the impact of COVID-19 on the evolution of the audit mission and our hypothesis is as follows:

Hypothesis: *the impact of the COVID-19 pandemic on the audit mission in the future is positive*

3. Methodology

We collected information using a qualitative method in the methodological framework. Actually, this strategy is based on non-directive interviews, which are made up of a series of open-ended questions that are prepared ahead of time. The purpose of asking these kinds of questions is to figure out what factors affect the strategic foresight after the COVID-19 outbreak has gone.

These interviews are based on a set of open questions that focus on the effects of covid-19 on the accounting profession over the long term. Interviews are carried out with external auditors. We carried out 21 individual interviews, which lasted between 10 and 45 minutes. The objective of the interviews is to identify the variables in the strategic foresight in order to better understand the evolution of the profession. The interview stops when we believe that there are no new variables that can be detected.

Each of these variables is written by the researchers, who asked the external auditors to discover not only the influencing factors but also those influenced by these factors after the COVID-19. Nevertheless, this strategy necessitates a thorough examination

that includes not only the principal influenced and influencing variables (i.e., elements that impact and are influenced by other factors), but also the sub-variables, which could lead to richer analyses by asking more specific questions (Godet , 2001; Elaoud and Jarboui, 2019).

We also inquired of the external auditors about the problems and opportunities presented by the epidemic, as well as the strategies needed to alleviate the pandemic negative consequences.

Actually, these interviews start with the following questions:

- Is the change of COVID-19 causing a long-term impact in the work of the auditor?
- What lessons can be drawn from the changes identified during COVID-19?
- What are the opportunities created by the coronavirus?

We were able to discover 23 variables that describe the future system, which refers to occurrences, trends, and decisions that can be taken through non-directive interviews with external auditors. Table 1 presents the definition of the main variables collected through the conducted interviews.

Table 1. Definition of the main variables

Variables		Definition of Variables	Variables		Definition of Variables
1	DIGI	Digitization	13	CASC	Cycle audit sales-customer
2	TLW	Teleworking	14	TaxP	Tax-payment
3	WEBS	Website	15	FS	financial statement
4	TEC	Technology	16	Audit Q	Audit quality
5	MEET	Meeting quality	17	Sharing in	Sharing information
6	WEBI	Webinar	18	Artificial	Artificial Intelligence
7	VID	Videoconference	19	INQ	Information quality
8	TELC	Teleconference,	20	CAPP	Cycle audit purchase - Provider
9	COMM	Communication	21	SOC A	social audit
10	ELEA	E-learning	22	N CLT	Number of clients
11	Online acc	Online accounting	23	SOC DIS	Social Distancing
12	OnlineD	Online declarations	24	RC	Regularity and Conformity

The definitions of the primary variables acquired during the interviews are shown in table 1. As a result, we employed a cognitive mapping-based methodology to examine the characteristics related to the prospective strategy after the covid-19

phase. Furthermore, other studies have examined the cognitive mapping using various approaches. However, since this study solely deals with future structural analyses, it is carried out using the MICMAC software. Furthermore, this program helps investigate the relevance of each variable to a future situation by assisting the individual to develop a foresight plan (Amari and Jarboui, 2015; Veltmeyer and Mohamed, 2017; Elaoud and Jarboui, 2019).

4. Analysis and discussion

The analysis of a cognitive map is based on the study of the links structure between concepts. To achieve our objectives, use of the MICMAC software is necessary to organize the variables and measure the impact of the relationship between them (Godet, 2000; Garoui and Jarboui, 2012). The cognitive map has been analyzed using several methods, however this study is analyzed through the MICMAC method since it only deals with prospective. Thus, MICMAC "matrix multiplication program applied to the structural matrix" is software which has been used in several studies such as (Chander *et al.*, 2006; Veltmeyer and Mohamed, 2017). In addition, this software makes it possible to build a collective matrix containing all the variables common to all professionals and present a relationship between these concepts (Ozesmi and Ozesmi, 2004) (Amari and Jarboui, 2015). The MICMAC method includes three steps; it begins with the census of variables, a second descriptive step of the relationship between the variables and finally the identification of the variables.

The MICMAC method makes it possible to define the prospective strategies of the actors by the analysis of the variables which are evaluated by their influence. In addition, the variable has an important role when their indirect influence is strong. The software helps classify and sort the variables that guide the strategies of external auditors after the COVID-19 pandemic ends, while the comparison between classifications helps to understand how the system is evolving. Therefore, the first figure presents an analysis of the classification of the variables.

Figure 1 Hierarchy of variables

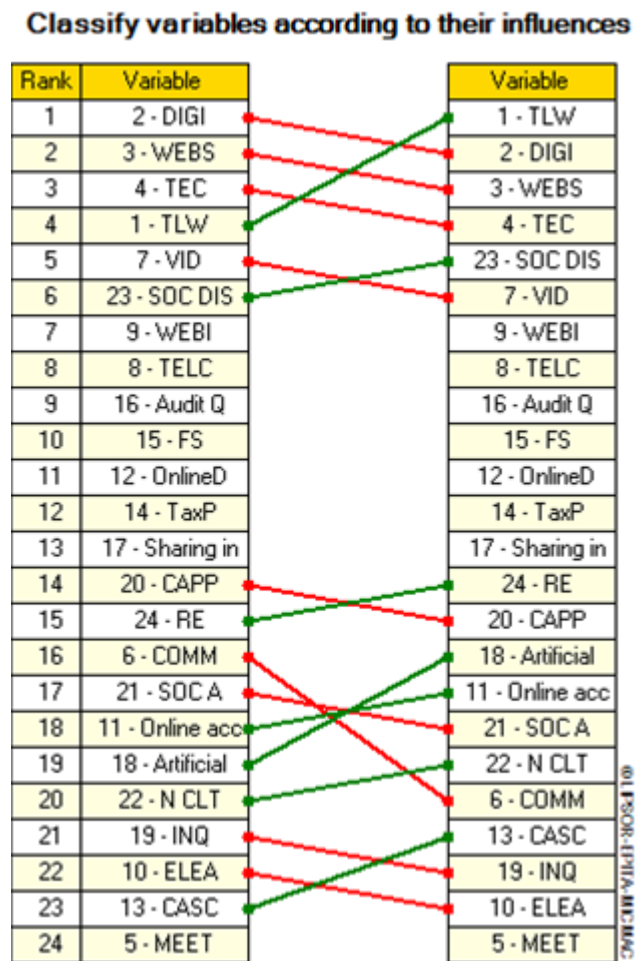
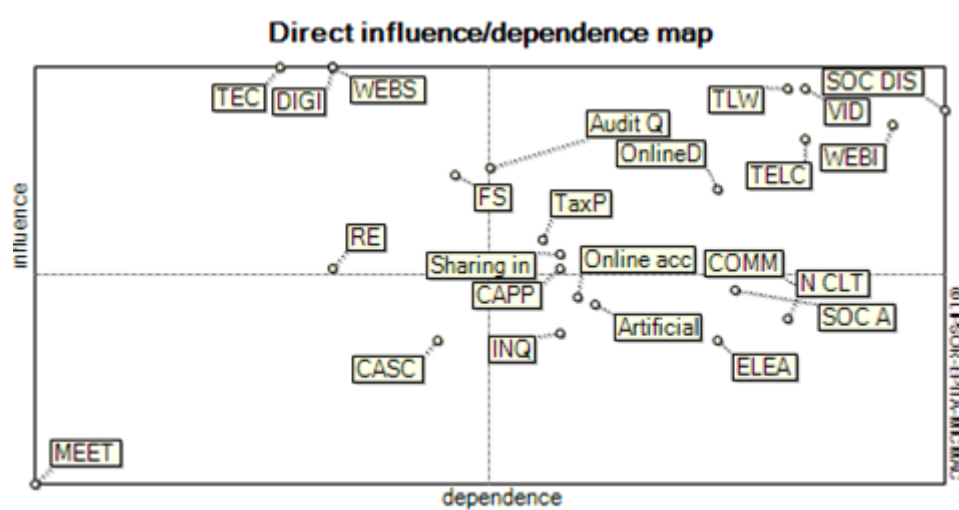


Figure 1 indicates that, for the external auditors, the variables "website" "digitization" and "technology" are the most influential. This is explained that the pandemic crisis and containment have a positive impact in the future of on all professions thanks to technological evolution, thus offering a post-Covid-19 perspective.

The MICMAC method generates what is called an influence-dependence plan (Ozesmi and Ozesmi, 2004; Amari and Jarboui, 2015) where each variable is positioned on this plan and has an influence and dependence indicator. Figure 2 shows the positioning of the variables according to their movement.

Figure 2: Direct influence/dependence map (MICMAC software results)



In the influence / dependence map, the external auditors' cognitive factors associated with the COVID-19 era are projected. Furthermore, these variables, which are highly influential but not very reliant, indicate the most prevalent notions in the dynamics of the participant's cognition and serve as the system's explanatory elements. In our situation, the "Digitization," "Technology," and "Website" variables are the most prominent in the external auditors' minds, indicating a desire to focus on global development during a period marked by the need to adapt to this change. Consequently, the variables that are simultaneously very influential and very dependent are the results of evolution; the latter is explained by the input and the intermediate variables (Elaoud and Jarboui, 2019). In fact, figure 3 indicates the "social audit mission", "Communication", "Number of clients" and "Sharing information" variables. On the other hand, the variables that are both not very influential and not very dependent are relatively excluded from the reflection of the external auditors and therefore, do not have much impact while both highly influential and dependent variables are mainly related to the changes caused by the COVID-19, resulting in lessons that could be used and can be applied after the pandemic. As for the less influential and dependent variables, they are more related to the goal of the audit mission, which consist in improving the work quality. Therefore, this strategy seems to be the main theme around which these variables revolve. These variables are referred to as intermediate variables because they are highly dependent and important as a result, they are the system's issues, such as the external auditors' future strategy after the COVID-19 phase. "Teleworking," "Teleconference," "E-learning," "Videoconference," and "Online declaration" variables are also mentioned.

Consequently, the variables that are simultaneously very influential and very dependent are the results of the evolution such as “Sharing information”, “Communication” and “Number of clients”; the latter is explained by the input and the intermediate variables (Elaoud and Jarboui, 2019). On the other hand, the variables that are both not very influential and not very dependent are relatively excluded from the reflection of the external auditors and therefore, do not have much impact while both highly influential and dependent variables are mainly related to the changes caused by the COVID-19, resulting in lessons that could be used and can be applied after pandemic. As for the less influential and dependent variables, they are more related to the goal of the external auditors, which consist in improving the mission quality. Therefore, this strategy seems to be the main theme around which these variables revolve.

In fact, we focus on the most influential and dependent variables, i.e. the intermediate variables, because on the one hand, they are the system's stakes and, on the other hand, they help identify all the major issues, i.e. all the variables linked to forward-looking strategies following the COVID-19 period. According to the findings, cognitive changes that arise in improved digitization contribute to knowledge enrichment and changes in the workplace. Indeed, the virtual presence of "teleconference," "videoconference," and other distant meeting solutions enable information sharing while eliminating obstacles, such as being in separate places, travel time, transportation costs, and many engagements. Remote meetings thus reduce time, logistics, and the hard costs of international travel. Furthermore, the pandemic's spread has made it difficult for people to cope with new and ongoing changes in their workplaces while also finding practical ways to perform their services in unusual circumstances without losing their professional skepticism. Besides, governments all over the world are interfering with various tactics and initiatives to halt the virus's spread despite the fact that technology is the only means of social contact.

Figure 2 shows that the "Social distancing" variable is very influential and reliant, which has various ramifications, including working from home, shopping online, panic buying, and e-learning. In fact, these ramifications have altered people's lives and indicate future opportunities.

5. Conclusion

To summarize, we can say that corona-virus has affected all corners of the planet. In fact, it had become a global pandemic as it rapidly spread all over the world, disrupting social interactions, economies, and corporate finance. During this challenging time, we were able to learn a lot of lessons that will help us improve our actions in the future.

In fact, there is a large body of research that analyzed the effect of the Covid-19 pandemic before and during its spread as well as after its disappearance. Therefore, to improve the economy and corporate finance, this paper presents a set of strategies based on the cognitive map, which can be implemented at several structural levels. More precisely, the main objective of this article is to help external auditors resume their activities and improve their forward-looking strategies through lessons learned during the COVID-19 period. Then, the method used in this research is based on cognitive mapping, which makes it possible to analyze the prospective strategies after the COVID-19 pandemic. Indeed, the cognitive map helps to clarify the mental orientation of a person and visualize some ideas and beliefs on the achievement of their objectives. The obtained results showed that the variables "digitization, technology and websites" are very influential in the thinking of external auditors representing the evolution during the COVID-19 period while "communication, the quality of the meetings, the number of the clients" are dependent variables, representing the objectives to be achieved. Concerning the variables "teleworking, online declaration, E-learning", they are the means by which we reach our objectives.

According to the findings, advancements in work and professions, such as artificial intelligence, blockchain, platform-based business models, and cloud-based services have accelerated technological change, causing significant concern for the future, particularly in the finance and accounting professions. As a result, it is realistic to anticipate a great deal of interest in the influence of COVID-19 on accounting and finance in the very near future. External auditors, on the other hand, will have new options to work in a globalized society where physical distance is less important because attitudes toward remote work appear to have shifted substantially. Then, the crucial techniques for the implementation of the prospective of external auditors in order to improve their activities by focusing on digitalization are made clear as a result of this investigation.

In this context, the accounting profession is affected by COVID-19, this pandemic affects all parts of the world. This study focuses on the Tunisian context where all trades are affected by the pandemic. Indeed, Tunisia went through a period of containment like all other parts of the world and has taken measures to reduce the pandemic such as remote work. Therefore, the results of this work can be valid for other countries, as most of the countries have resorted to digitalization to ensure business continuity.

This study shows that COVID-19 has a positive effect on work through the evolution of technology. Thus, the results provide preliminary evidence of the impact of the COVID pandemic on the audit mission in the future, showing that the variables "teleconferencing, Teleworking and E-learning" have important implications for the accounting perspective. Finally, this research will be of interest to external auditors who want to improve their activities. Moreover, this study could be of interest to managers, investors, and university researchers interested in discovering the positive effect of COVID-19 in the future therefore, it should be of great interest to decision-

makers and regulators concerned with developing the economy and corporate finance. In addition, the digitization facilitates the work of the auditor during the audit of financial statements thus they help the regulators in their mission.

Furthermore, practitioners and scholars can use the findings of this study to better understand the factors that affect success in accounting operations after the COVID-19. As a result, the findings of this study can be used to improve their forecasting technique. Moreover, work and profession developments are offering up new options for research about the COVID-19 opportunities and interests per sector and country. Finally, the covid-19 pandemic emerged with both advantages and disadvantages that should be examined as a study perspective in order to improve future work tactics.

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