

## Digital transformation in public administrations: The National Social Security Fund as a model during the COVID-19 pandemic.

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**Abstract:**

The COVID-19 epidemic has boosted the digital conversion of public administrations around the world, including the kingdom of Morocco. It investigates how the National Social Security Fund has adjusted its services to respond to the requirements of Moroccan citizens during the health crisis, with a particular emphasis on the switch to digital platforms and electronic services. Our scientific paper provides a theoretical perspective on digital transformation, outlining the historical context of technological progress and its effects on public services. By examining the National Social Security Fund 's responsiveness to the crisis, it illuminates key digital policies, including enhancing online services and deploying new digital alternatives to enhance accessibility and efficiency. In parallel, the paper examines the socio-economic consequences of these digital developments, particularly the improvement of citizens' accessibility to social security systems and the reduction of the digital gap in Morocco. This investigation emphasizes the value of a solid digital infrastructure and a strong dedication to innovation in improving public sector performance, even in tough conditions. The paper concluded by underlining the importance of pursuing efforts to overcome the digital divide and guaranteeing that all citizens can fully embrace the current digital evolution. The paper is organized into various parts to give a comprehensive insight into the digital transformation of the National Social Security Fund during the epidemic. The first part of the paper provides a historical and theoretical overview, examining key technological advances and their effects on society and public administration. The second part of the paper discusses the National Social Security Fund 's digital strategy, emphasizing the digital solutions implemented to respond to the constraints of COVID-19. Finally, the third part examines the outcomes of this transformation, evaluating the advantages for citizens and institutions.

**Key words:** Digital transformation, National Social Security Fund, COVID-19, Public Administration, Digitalization, Digital gap.

## **1. Introduction:**

In the last two years, countries around the world have speeded up the upgrading of their administrations, especially by digitizing them. This digitalization is designed to secure the availability of public services for customers, notably in the context of the covid-19 epidemic. In fact, the arrival of the health epidemic at the beginning of 2020 has inspired decision- and policymakers in all the world's nations to boost the deployment of digital alternatives in all the digital transformation projects initiated over the last few years, across all industries. Public sector staff have been forced to embrace teleworking, as have the majority of corporations, which have had to embrace modes of work relying on digital systems and equipment to ensure the continuity of their business functions. As a consequence, various platforms, applications, software and other mobile services have been developed or have expanded during this healthcare phase. In the Kingdom of Morocco, internet traffic is estimated to increase by 14.4% between 2019 and 2020. The advent of Covid-19 has resulted in a 3.5 million rise in the total number of Internet customers CFCIM (2021). Nowadays, it is unthinkable that the economy and society could move back to the pre-pandemic situation. Whether in the field of learning, healthcare, governmental services, or trade, every person's day-to-day activities have been made dependent on technology.

## **2. Technological progress and health crisis in the Kingdom**

In the past few years, technological progress via information and communication systems has left its imprint on our communities through its speed and the widespread nature of its deployment Nwamen (2006). Contemporary corporations, notably in the West and Asia, are continuously introducing innovations in this area, sometimes to adjust to specific situations (war, health, economic crises), sometimes to develop special requirements for customers. This is where the term “innovation” and “economic competition” emerges. While many scientists and practitioners Dahmani (2018), Villani (2018), Marwalla (2019), Cissé (2019) support the view that technological progress can support modern companies, especially in Africa, in their quest to meet sustainable development targets by enhancing risk assessment, improving forecasting accuracy and the pace of knowledge sharing, providing creative alternatives in the areas of education, health, ecology, and enhancing living quality, others had doubts about the massive application of these technologies in the economic and social life of modern developing nations. They and Latouche quoted by Berthe (2006) claim that they are ruining the environment and increasing the indebtedness of Third World nations. In the view of international institutions such as the World Bank, the European Union and the African Union

... technological progress is a crucial element in global economic and social growth. At present, information and communication technologies are profoundly embedded in the fabric of our communities and constitute an essential element in the way we conduct business, amuse ourselves, interact and keep up to date with developments outside our boundaries Cutrell (2011). No region of the world has been untouched by this huge expansion in the deployment of ICTs on its lands. Concerning the African continent, Dahmani notes that these technologies have fundamentally changed the lifestyles, production processes, and the whole cultural climate of Africans. The case of Morocco is an excellent example of this. In fact, the Kingdom has managed to overcome great achievements, including the building of the Tangier-Med port, the NOOR solar plant, which is expected to generate annual energy savings of one million tonnes of oil equivalent, and the high-speed rail line; furthermore, the kingdom has emerged as Africa's second- biggest vehicle manufacturing country, with a market share of 35% in 2014 against 5% in 2003 Ministry of Digital Transition and Administrative Reform (2018). These investments have allowed the kingdom to consolidate its economic competitiveness; nevertheless, its growth model suffers from a number of problems that impede the expected human and social advancement. The services of various Moroccan institutions, such as the health and education, are confronted with a range of problems. Despite a series of reforms, these administrations are incapable of adapting to the rapid pace of development of Moroccan society, which has become more demanding, or of remedying the structural deficiencies that impede their capacity to respond to the society's progress. Indeed, most of the time, these institutions do not have the required innovation or quality of governance, which reduces their contribution to investment and impedes their performance at the service of clients. The unexpected arrival of the covid-19 epidemic on an international stage and in the Kingdom highlighted the overall digital situation of Moroccan administrations, which were incapable of delivering services to Moroccan citizens staying at home because of the restrictions and demonstrated the necessity for these administrations to rethink their digital policy by boosting their digital conversion in order to provide administrative assistance to all citizens. In this regard, the National Social Security Fund, as a leading stakeholder in the Moroccan economic system, has emerged as a venue for experimenting with widespread and faster digitization than other Moroccan institutions, as soon as the country's state of urgency was declared in March 2020, resulting in the emergence and launch of a variety of online services. A variety of questions surface on this issue: to what degree has the covid-19 epidemic affected the digital transformation of the National Social Security Fund? What digital strategy has it implemented through the introduction of instruments

and devices like websites, social networks etc.? Do the outcomes of this rapid digital transformation match the aspirations of Moroccan people?

To address these questions, we first outline a theoretical framework for exploring the history of the new innovations that have appeared since the beginning of the COVID-19 healthcare crisis. Secondly, we will explain the digital strategy adopted by National Social Security Fund. Finally, we'll discuss the effect of this digitalization on National Social Security Fund projects.

### **3. Emerging digital technologies and clients**

In the present-era context of organizations, the conventional notion of “digitization” relates to the application of all existing digital technology instruments (Internet, social networks, mobile devices, etc.) with the purpose of boosting organizational effectiveness and thereby improving the collective quality of daily life Nwamen (2006). With the adoption of digital techniques and media, digital transformation is founded on a fundamental rule: remain at the forefront of the latest developments in digital techniques and constantly enhance and optimize their application. While the widespread adoption of these technologies in public and private areas has eased access to and storage of information, they are also under attack from sociologists, psychologists and some economists. They accuse these developments of heightened individualism, over-pressurization of jobs, over-attachment of kids, growing digital gaps between North and South, growing cyber-attacks... Maranda and al (2006).

- Digitalization construct

Mergel and al. (2019) characterize digital transformation as an activity strongly influenced by external considerations, such as the take-up of digital technologies by parties involved, who in the case of public administration are primarily citizens and private firms. It is important to view digitalization from a systemic organizational perspective, which requires regular adaptation of processes and procedures to ensure a lasting digital transformation of governments. These technologies and digital channels encompass the Internet, desktop devices, smartphones and digital platforms Hidayat, Nurwahidin, Huda (2020). E-government is a tool that allows any administration to serve its clients faster, employ a wide variety of communication media to deliver transparent and reliable information, ease administrative formalities and lower, or even completely eradicate, expenditure. And in order to capitalize on the opportunities provided by e-government in the present business context, it is critical to embrace an inclusive digital transformation policy to please all parties involved: citizens, economic and public entities Mergel and al. (2019).

#### **4. Digitizing Morocco's public institutions**

Administrative and civil service modernization is at the center of Morocco's societal plan. The National Administration Reform Plan 2018-2021 aims to consolidate the efforts and projects of the so-called reform on the structural transformation cycle of the Administration, with a special emphasis on the organizational, managerial, and digital aspects, in order to enhance public services and create a climate of trust between the Administration and its stakeholders The Commission on the Development Model (2021). To this purpose, the transformation of the Moroccan administration is designed to assist and consolidate its digital conversion Mezouar (2021). The latter, currently Minister Delegate in charge of Digital Transition and Administrative Reform in the Kingdom of Morocco, points out that the digital conversion of public institutions, in order to provide a more user-appropriate service, calls for reforms designed to improve the performance of public administrations, and the shift towards a user-inclusive managerial system, in other words, one that positions the citizen at the center of the administration of public services. The covid-19 epidemic has speeded up the digital revolution in Moroccan institutions. As a consequence, the executive's new plan includes four main lines of introduction of digitization in the Kingdom the Commission on the Development Model (2021):

- Digitalization of healthcare and education sectors.
- The adoption of mobile payments for the allocation of social support in order to boost financial inclusion.
- Widespread digitization of all public administration processes to make them more effective, using a variety of interactive portals.
- the availability of high-speed digital services to minimize the digital “gap” in the community.

The Ministry of Finance conducted a survey on the level of e-service maturity, covering 453 e-procurement processes at 87 administrations involved in the investigation. This survey revealed that only 23% of electronic services are totally paperless. This illustrates the significance of the digital gap that marks Moroccan public administration, and the extent of the effort necessary to overcome it. The Digital Development Agency has also drawn up an evaluation of the initiatives adopted by the government in the domain of digitalization over the past century (2010-2020). The “Digital Morocco 2013” report revealed the principal obstacles and problems of this journey, which can be resumed in 6 aspects:

- 1) a failure to take a holistic perspective of numerical transition.
- 2) regulatory impediments to the introduction and large-scale deployment of numerical platforms.
- 3) a digital infrastructure in urgent need of upgrading due to insufficient coverage of white zones, low speed of data and limited access to data centers.
- 4) a scarcity of qualified digital professionals.
- 5) a digital awareness and practice that is still modest among individuals, corporations and public administrations.
- 6) a governance regime that impedes the successful execution of digital projects.

Following on from these insights, The Digital Development Agency has decided to prepare a roadmap outlining avenues for progress in addressing these concerns, and has therefore set itself new targets for digital expansion, with three main objectives for 2025:

- 1) The development of a global interoperability framework (the possibility for multiple systems from various administrations to function jointly) founded on a shared cloud, unified and common data, and unique requirements.
- 2) The launch of innovation centers to speed up the digital revolution in public services and foster digital solutions.
- 3) Complete digitization of administrative processes.

#### The state of digitization at the National Social Security Fund

The National Social Security Fund recently developed an interactive online service focused on facilitating administrative formalities. This mechanism was especially in demand when users were on lockdown, and they were encouraged to benefit from the wider range of services provided by the National Social Security Fund. The accompanying table detail the various forms of digital services delivered by the National Social Security Fund to its membership over the corresponding period.



Table 1. Digital services provided by the National Social Security Fund to subscribers

| Service                                   | Benefits  |
|---|---|
| Damancom website                          | This web site is dedicated to the needs of National Social Security Fund -registered businesses and their representatives, providing them with the opportunity to electronically declare their workers and pay their taxes, with the greatest possible safety and user-friendly procedures. It can also be deployed to obtain certificates of payroll and declared workforce, as well as documents of membership. |
| Interactive Voice Response (IVR)          | The interactive voice response server provides insured members with a variety of services relating to their National Social Security Fund accounts.   |
| Insured Services Web site                 | This service provides information on the status of each beneficiary, the progress of case handling, and numerous additional benefits.   |
| Company website                           | A special interface for National Social Security Fund members, it provides information on their pension rights, advantages, online facilities and all the news they need to know.   |
| Covid Gateway                             | Claims for workers medical disability and beneficiaries.  |
| 'Introduction by companies' requests area | Businesses introduce requests for loss-of-job benefit for their workers.  |
| Collection website                        | Option for businesses to submit online requests for the discounts for which they are entitled.  |
| TAAWIDATY section                         | Insured employees can claim child support payments and report their children's attendance at school.  |
| Social Networking                         | NSSF is boosting its visibility through a frequent appearance on the social networks most widely accessed by employees: Tiktok, X, Meta.  |
| My NSSF mobile App                        | The App provides access to the insurance section, with all its features suitable for all types of Smartphones.  |

Source: Elaborated by the authors

The launch of these online facilities has helped NSSF to fully join the world's digital era. With the goal of preserving performance, minimizing treatment expenses and facilitating customer relationship, NSSF has been adopting since 2003 a policy of paperless transactions with its members. In this way, new online facilities have been introduced for policyholders (corporation), insureds (workers) and other stakeholders (healthcare partners). In particular, the



“Damancom” gateway designed for the online declaration of employees. The volume of this has grown by 27% versus 2019 CNSS (2020). The total number of affiliated tele-declarers is set to rise to 255,947 in 2020. On the other side, the total number of workers tele-registered is estimated at 3.2 million in 2020 (+4%). Electronically reported payroll accounts for 97% of total payroll. 97% of workers are registered via this gateway. In terms of telepayment, the total number of affiliates who settled their National Social Security Fund fees online was 189,199, against 114,934 in 2019, a difference of 64.4% in one year. Whether it's the policyholder gateway or the “Ma CNSS” app, which are in continuous need of service, the National Social Security Fund has a powerful role to play with a variety of open, reliable e-services offered 24 hours a day, 7 days a week: declaration of siblings and their education using the TAAWIDATY system, summary of the career registered with the National Social Security Fund, access to wage statement archives, progress status of files, download of all relevant paperwork for administrative formalities, upload of wage certificate. Every month, over 55,000 policyholders visit the gateway to check their status and manage their accounts. “Ma CNSS” is the leading professional app in the Kingdom, with more than 5.6 million downloads. Almost 350,000 policyholders access it frequently. It is also important to mention that, as part of its commitment to digitalization and paperless processes, as of the 1st of January 2022, the National Social Security Fund has electronically registered children for family benefits, as well as their education and disability situation. The entire procedure has been made completely electronic, and supporting papers can be loaded instantly onto the National Social Security Fund application platform. As in the previous years, the insured has a personal ID number that gives him/her login access to his/her private space on the different gateways, where he/she can submit his/her requests and upload the necessary files. All these paperless procedures have enabled insured members to benefit from time and travel cost gains.

### **5. National Social Security Fund: digitalization in the age of the epidemic**

In order to deal with the health restrictions imposed by the governments to stop the spread of the virus, The National Social Security Fund has introduced a set of emergency actions to minimize travel by members and protect the health of both members and employees, in alignment with the rules established by the responsible authorities to limit the spread of the covid-19 epidemic. Digitization is therefore one of the main priorities launched by the National Social Security Fund in recent years, given its role in helping to update the administration and its potential to enable operations to keep going during a time of emergency. In fact, digitizing customer service is a key focus for the fund's strategy. The National Social Security Fund has

spent a lot on this to provide its users with a range of e-services. Drawing on its previous experience with tools introduced in this field, the National Social Security Fund was well placed to use digital solutions to keep serving its users while complying with social distancing measures and minimizing physical interactions. The National Social Security Fund decided to switch to work-from-home mode from the start of national lockdown until its buildings officially got back to normal on July 3, 2020. The transition to paperless and digital services has rapidly progressed. On the one hand, the existing system has been improved to facilitate the National Social Security Fund 's interactions with its users and associates, on the other hand, the National Social Security Fund has launched projects to develop new creative solutions.

### **5.1 Upgrading and adjusting existing services to the circumstances of the crisis**

Several enhancements have been carried out to existing services, indeed, in order to respond to the challenges brought about by the health emergency, various available e-services have been improved. For instance, the DAMANCOM gateway has provided the additional functionality of obtaining certificates of payroll and declared workers, business membership of the National Social Security Fund coverage, or access to public contracts. This gateway recorded 54,911 new membership sign-ups, increasing the total count of affiliated member firms to 255,947, representing a 27% growth from 2019. The number of businesses signed up to the DAMANCOM platform using the electronic contribution payment facility went up by 64.6%, from 114,934 in 2019 to 189,199 in 2020 CNSS (2020). The Interactive Voice Response system has also been upgraded to allow citizens to consult their eligibility for the Covid-19 cash benefit and obtain the reference number needed to receive this benefit. The “Assurégateway” has introduced a facility for generating a variety of certificates (pension certificates for pensioners, salary statements and family allowance statements for active insured persons). and the institutional gateway [www.cnss.ma](http://www.cnss.ma) has been enhanced with a feature allowing users to obtain and download various documents.

### **5.2 Development of novel solutions for users**

One of the main new measures is the Covid19.cnss.ma gateway, which was launched to collect declarations from workers who've lost their jobs and are receiving government support, as well as requests from affiliates to delay paying social contributions. In parallel, the National Social Security Fund has introduced a series of new remote operational facilities, including a portal for claiming compensation for loss of employment, allowing businesses to apply for this compensation on behalf of their workers. In addition, there is a recovery gateway that enables firms to request discounts on penalties, late payment increases and collection costs for the 2016

and earlier periods, as well as for the 2020 and earlier periods. In addition, a facility for online payment of contributions has also been introduced for employers of domestic employees, participants in self-insurance arrangements and self-employed individuals. At the parallel with this, it has been decided to make it easier to follow the status of reimbursements processed under the compulsory health insurance plan through various means, notably the Insured portal, the MA CNSS mobile application etc.

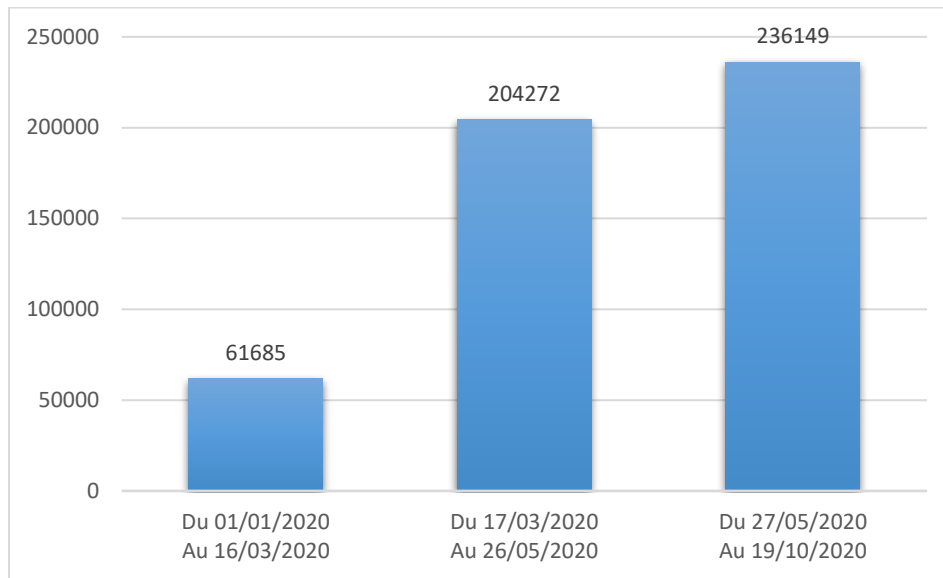
### **5.3 Communication, a powerful instrument for strengthening customer service**

Considering the critical role of sharing information in real time, specifically in the crisis period, and in order to avoid the proliferation of fake information, the National Social Security Fund has implemented a communication policy that relies on the immediate availability of digital channels, rapid response and educational material:

#### **5.3.1 Widespread reliance on social networks**

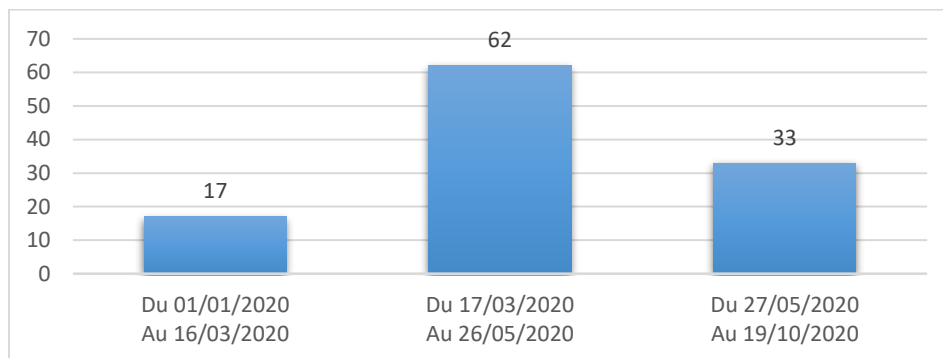
To be as responsive as always to its members' requirements, the National Social Security Fund has enhanced its visibility on social networks. The fund has been in a position to connect with a significant proportion of its community, across all types of profiles. Benefiting from its strong visibility on Meta, Instagram, WhatsApp, TikTok and X, the National Social Security Fund ensured that it developed interactive content and was reactive and accessible, reacting regularly to feedback and suggestions from its community. In the following discussion, we will examine the statistics for the National Social Security Fund's public Facebook page during the confinement period, since this network has the highest proportion of Internet visitors. In the same way, National Social Security Fund recorded 9,545 monthly complaints using Facebook, versus just 1,009 claims in 2019. These statistics reflect the National Social Security Fund 's visibility and the high degree of commitment displayed by its visitors (see graphs 1 to 4 below):

**Graph 1. Number of users**



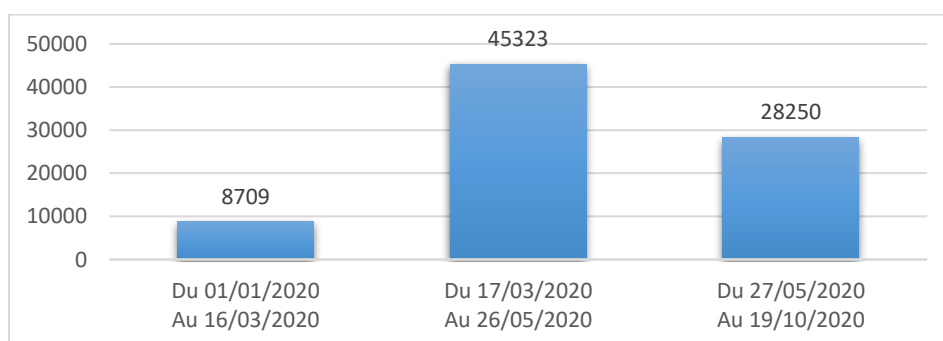
**Source: Elaborated by the authors**

**Graph 2: Nombre de post**



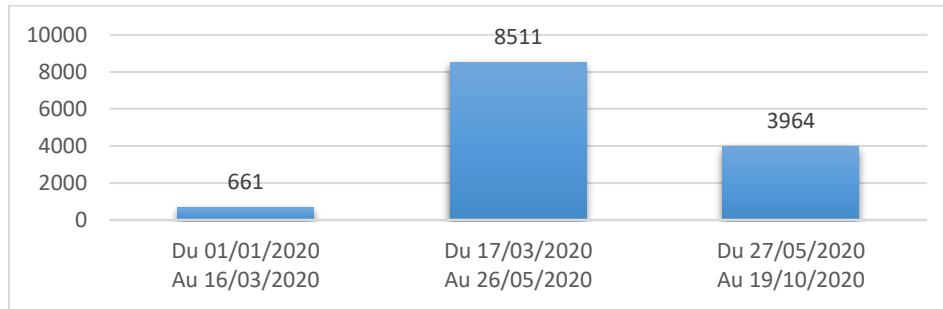
**Source: Elaborated by the authors**

**Graph 3: Number of likes**



**Source: Elaborated by the authors**

**Graph 4: Number of shares**



**Source: Elaborated by the authors**

### 5.3.2 Online educational facilities

To make sure that all people have the chance to find the information they require, the National Social Security Fund has created a number of tutorials to complement the different initiatives it has implemented. These videos provided a fun and educational explanation of each new tool. In response to the potential obstacles encountered by some people in assimilating the new processes, the National Social Security Fund was committed to developing a range of tools to facilitate and clarify the processes in a language that can be easily assimilated by all Moroccans 'dialectal Arabic', or in bilingual Arabic-French format. In the same spirit, the National Social Security Fund has developed and distributed guidelines for use by member businesses and policyholders.

### 5.3.3 Creation of Frequently Asked Questions

To better satisfy its members, the National Social Security Fund has established a Frequently Asked Questions service listing replies to the most frequently requested questions. This has been launched on the website. This facility strengthens the National Social Security Fund's proactive position and its commitment to serving its members.

### 5.3.4 Regular visibility in the national press

The National Social Security Fund was able to benefit from the support, dynamism and professionalism of the newspapers and magazines, as well as the digital and audiovisual press, in publicizing its activities and new measures. As a consequence, various press statements were distributed and covered during the confinement Phase, and several appearances by National Social Security Fund executives on national TV and radio stations provided widespread, real-time news coverage of all the main developments and initiatives implemented during the initial phase of the epidemic.

### **5.3.5 Advertising spots**

To assist with the introduction of the various initiatives, and to keep in constant communication with its members, the National Social Security Fund broadcast television advertisements. The fund was able to benefit from the support of national television, which showed them free of charge for a two-week period. These spots served to highlight the digital solutions that had been introduced to assist members during the confinement phase. The adverts were also published online via the National Social Security Fund 's social networks, corporate websites and dynamic posters in its offices.

## 6. Conclusion:

Before the covid-19 epidemic, the availability of services in the Kingdom was extremely unequal, depending on the user categories. After confinement, the acceleration of the procedure of digitizing public services in the Kingdom appears to be alleviating these imbalances. A publication conducted by the Oxford Business Group in 2021 on the progress of digitalization in Morocco points to a significant digital revolution during the health emergency, in a range of fields. For instance, mobile payments were up by 31.3% in the first half of 2020, as opposed to the same phase the preceding year. The health, education, agriculture and e-commerce industries are also jumping on the digital trend in 2020. As a result, e-payment, online courses, e-commerce, remote justice, paperless administrative processes, etc. are all being brought under the digital umbrella. The National Social Security Fund is a perfect example of the digital revolution in Moroccan public institutions. We have observed that these institutions have broadened their digital policies to extend their offerings to all social groups. These cover interactive functions on the corporate website, the opportunity for visitors to exploit social networks and even mobile apps. This demonstrates the National Social Security Fund 's commitment to meeting the needs of its members, as customer fulfilment and a high level of service quality have clearly emerged as two of the National Social Security Fund 's main objectives. To realize these goals, National Social Security Fund is increasingly basing its strategy on identifying users' requirements, identifying and meeting their expectations, and responding to their complaints in a more effective and timely way. We might note that during the health pandemic, the National Social Security Fund successfully capitalized on an opportunity to adjust and modernize by implementing a wide array of electronic services for its users. It was also backed by its partners to ensure it could keep delivering its services throughout the COVID-19 crisis. Having embarked on a broad process of paperless and simplified processes two decades ago, the National Social Security Fund has intensified its focus on enhancing its digital infrastructure and intends to keep pursuing further similar projects. In the immediate - future, it intends to electronically handle all benefit requests, beginning with family benefits, which account for 43% of all claims submitted by insured members. This e-service is currently provided via TAAWIDATY on the insured members' gateway, which can also be accessed to manage unemployment benefit requests, daily maternity and sickness allowances, and other benefits. The digitization procedures outlined in this paper demonstrate how the National Social Security Fund is playing its role in reducing the digital gap in The Kingdom. It will therefore keep modernizing its digital network infrastructures and implement new



infrastructures that are better suited to the requirements and aspirations of both citizens using public services and economic actors. This will necessitate the establishment of an effective infrastructure and an environment favorable to the implementation of digital solutions, which in turn will demand the training of employees and clients in the new digital businesses and usages. The development of a cloud and national data centers to overcome the difficulties associated with obsolete servers and the danger of losing files, documentation and physical archives. Plans such as these will help the National Social Security Fund to become a benchmark in an economic field that is growing at the same speed as digitalization: that of general social cover. However, even if the National Social Security Fund succeeds in positioning itself as a national and even continental model for digital conversion, a series of questions still need to be addressed concerning Morocco's digital gap: Do all citizens have equal access to digital services, given that around 32% of the population remains illiterate? How will the public authorities proceed to bridge the digital gap across the kingdom?

This is why we believe it is essential, as a research perspective in this field, to perform field investigations in order to determine the actions adopted in this field by public decision-makers, and to investigate the Moroccan population in order to appraise the extent of approval (or disapproval) of the digital change occurring in the Kingdom.

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