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Digitalisation of public services in Benin: challenges and opportunities

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Summary

Since 2016 Benin has been implementing a digital transformation of the administration, putting Information and Communication Technologies (ICT) at its heart. Thus, the tools offered by ICT have been central in the process of modernizing Beninese public administration through the digitalisation of public services. The objective of this study is to analyse the opportunities and challenges related to accessibility and usability of digital public services in Benin, taking into accountinequalities in use and access across different social categories. The methodological approach of this study combines qualitative and quantitative analysis.

The qualitative analysis consisted of a literature review and interviews with employees of various institutions involved in the digitalisation of public services in Benin. It allowed to assess the progress of projects that the government undertook with the aim of digitalising of public services as well as their effect on the digital economy in Benin. This analysis shows that the digital transition in the Beninese public sector is already a reality, and that digital technology is used in several ministries and public institutions to make the administration modern and more efficient. This modernization has inspired a new dynamic and improved the capacity of the government officials by making them more productive. This achievement required legal and institutional reforms, as well as investments.

The digital sector in Benin is now regulated by the Act No. 2017-20 of April 20, 2018 on the digital code in Benin. The purpose of this act is to ensure the protection of personal data, to regulate e-commerce and cybercrime and to lay down rules for digital-related offenses and penalties. In this way the government intends to facilitate the adoption and use of digitalised basic services by all citizens. The challenges of developing and implementing the digital strategies have led the government to set up new institutions, such as the the Ministry of Digital Economy and Communication (MND), the Agency for Information and Digital Systems (ASIN), The National Agency for the Identification of Persons (ANIP), and the Personal Data Protection Authority (APDP).

The Beninese government also made significant investments in energy and digital infrastructure. These investments have enabled the country to improve their position in international statistics and thus progress towards its vision which is to establish Benin as the digital platform of West Africa. Between 2016 and 2020 the indicators of development of the e-government, online services and e-participation have all risen significantly, respectively from 0.2 to 0.4, from 0.14 to 0.50 and from 0.17 to 0.54. These reforms and investments have also facilitated the modernization of the administration and the creation of the national e-services portal. The portal was created with the intention to facilitate citizens' access to public services and improve the quality of governance. Nowadays it allows its users to obtain information on at least 560 public services online, as well as to make and manage requests for 132 online services. However, further efforts are still necessary, particularly in the form of investments aimed at the improvement of the human capital index, which did not experience a comparably dynamic development between 2016 and 2020.

The quantitative analysis has descriptive character and was based on primary data collected in two communes of Benin (Cotonou and Abomey-Calavi). In total 800 interviews were conducted, out of which 272 took place in rural and 528 in urban areas. The sample consisted of 50% men and 50% women. Analysis proved that access to telephones and the use of mobile money are distributed equally across different social categories (gender, age, education and income levels). However, significant differences were observed with regard to the possession

of computers and access to the Internet across social categories. Men were found to have more access to the Internet (80%) than women (62%). Also, analysis showed that only 7% of women and 6% of all individuals living in rural areas own a computer, compared to 19% of men and 16% of all individuals living in urban settings. At the same time, the data analysis also showed that the majority of respondents (76%) are well aware of the existence of digitalised public services and 67% of them have used it to make a request of public services at least once. The digitalisation of services brought about an increase in the number of requests for public services, particularly in the sectors of public administration, labour and education as well as healthcare.

However, not all people who are informed of the existence of digitalised public services use it to make online requests. The analysis shows that 56% of those aware of the existence of digitalised public services still prefer to make requests for public services personally in the administration offices. This concerns mostly the civil status and citizenship services. Generally, women, people living in rural areas and those without any level of education issued fewer requests for digitalised public services. As these groups often need intermediaries to make their requests they are therefore also the most likely to make the requests in person, even though they are aware that these services were digitalised.

Based on the conclusions of this study, we make following recommendations:

- As Internet access is the key factor enabling accessing and using the digitalised public services, the government should continue its investments in digital infrastructure, as well as the reforms offering investment incentives to telecommunications operators.
- In its investment efforts to facilitate Internet access to the Beninese population, the government should include policies and strategies focusing on women and people in rural areas.
- Even though most people are informed about the existence of digitalised public services, only some of them actually use it to make requests for digitalised public services. The government should continue its communication about these services, focusing on explaining the access procedures in different local languages and targeting rural communities.
- Public services in the civil status and citizenship sectors are those that are most often requested personally despite having been already digitalised. This may be due to lack of information on the procedures and the challenges (queues) related to accessing these digital services. The government should make its digital services much more accessible across all social categories.
- Certain groups such as women, citizens from rural areas or those with low levels of education are most likely to resort to using intermediaries for their requests for digitalised public services. It could be an interesting solution for the government to expand the policy of setting up Community Digital Points (PNC) to allow these groups to benefit from assistance for their requests for digitalised public services. PNCs are centres equipped with power generators, good Internet connection and computers and offering support of staff to people who want to make a request for digital public services (DPS).

Introduction

0.1. Context and goal of the study

Benin is a West African country bounded to the north by Burkina-Faso and Niger, to the east by Nigeria, to the west by Togo and to the south by the Atlantic Ocean. It covers a territory of 114.763 km^2 and its population was estimated at 12.123.198 inhabitants in 2020. The capital of Benin is Porto-Novo and its currency is the CFA franc. Since 2016 Benin has been declaring an ambition to promote the development of the digital economy. Therefore, the government of Benin has been developing an environment which would favour the implementation of the digital public services for the benefit of its citizens. In fact, the rapid growth in the use of the Internet and IT applications has been pushing numerous organizations around the world to digitalise their services. Digitalisation improved the quality and performance of services, particularly in the area of public administration, as it facilitates the execution of tasks and reduces bureaucracy. It also allows the citizens to reduce their costs of access to the public services (cost of transport, time saving, etc.).

The digitalisation of public services signifies provision of public services in a way where the interaction with a public administration is carried out through an IT system. As citizens are constantly demanding more transparency, efficiency and responsiveness from public authorities, several countries have embarked on the path of digitalisation of public services in order to facilitate access to the public services and make them more efficient (Lynn et al., 2022). Progressing adoption of digital public services can generate substantial benefits for the entire economy, both locally and nationally (Mensah et al., 2020). Digital public services platforms can play a significant role in the digital transformation of society by rendering the delivery of public services to the citizens fairer and more efficient (Upadhyay et al., 2022). The digitalisation of public services improves processes and facilitates the tasks and duties of public officials (Tangi et al., 2021).

Potential benefits of the introduction of digital public services have become even more evident during the Covid-19 pandemic. As face to face services were inaccessible, public organizations were forced to accelerate the adoption of innovative public e-service technologies and rely on them to navigate through the crisis times (Nations Unies, 2020). A large part of the public activities and services have been enabled in an online version in order to facilitate their accessibility which was limited by the restrictions put in place to contain the spread of the pandemic.

Despite the efforts to digitalise public services taken by the Beninese government, their accessibility remains fairly unequal. A large part of the population does not have a smartphone or a computer which are necessary to use the digital services. Over 50% of the Beninese people live in rural areas with limited access to Internet and electricity. At the same time, low rate of literacy of the Beninese population also inhibit the use of digital public services. The objective of this study is to assess the opportunities and challenges related to accessibility and usability of digital public services in Benin, taking into account the inequalities across different social categories (different genders, elderly, etc.).

0.2. Methodological approach

The methodological approach of this study incorporated both qualitative and quantitative analysis. The qualitative analysis is based on an online literature review and interviews with the staff of different institutions that are in charge of the digitalisation of public services in Benin (See Annex 2). It allowed to: (i) review all the projects undertaken by the government in order to facilitate the digitalisation of public services as well as the access to and the use of digitalised public services by government officials and citizens; (ii) assess the progress in the implementation of these projects as well as their effect on the digital economy of Benin.

The quantitative analysis is based on data collected through a survey of 800 respondents in the communes of Cotonou and Abomey-Calavi. Communes of Cotonou and Abomey-Calavi were chosen due to: their demographic importance, well developed offer of Internet services and, above all, the possibility of observing the phenomenon of digitalisation in both urban and rural contexts. Futhermore, the inhabitants of these two communes have relatively equal access to all public services. Thus, people living in these areas have real choice between using digital and traditional (face to face) public services.

The sample of 800 respondents was distributed over the two communes, in line with the rate of urbanization. Cotonou is a completely urbanized commune which also constitutes is the largest city of Benin. The urbanization rate in the commune of Abomey Calavi is estimated at 40%, although no official data is available. Therefore, respondents from rural and urban areas represent respectively 40% and 60% of the sample, i.e. 272 and 526 individuals. Selection of respondents within villages or city districts in the study area was carried out through systematic sampling. In each village or city district we interviewed eight (08) respondents from houses which were distanced from each other by ten (10) houses. Collected data allowed us to outline the factors facilitating access and use of public services as well as identify inequalities in access to and use of digital public services across different social categories defined by: gender, age, place of residence, level of education and age.

The remainder of this report is divided into four parts. The first part describes the reforms, investments and development indicators related to the digitalisation of public services. The second part investigates the significance of the digitalisation of public services for public administrations and the citizens. The third part analyses the inclusiveness of digital public services. The fourth part comprises a summary and recommendations on how to improve accessibility and inclusiveness of digital public services.

Part I: Reforms, investments and development indicators of the digitalisation of public services in Benin

1.1. ICT as a catalyst for economic dynamics and modernization of Benin

Current strategy of Benin's digital economy development was instigated in 2016 as a consequence of the ambition of the President of the Republic to use the digital sector as a lever for country's development. In 2016, the potential of the digital sector as instrument of country's socio-economic development was under-exploited. Benin's Network Readiness Index (NRI) [1] score was 2.9 and the country ranked 128th out of all 139 countries investigated, behind Uganda (121st) and Ghana (102nd). This implies that back in 2016 ICT was hardly used to stimulate the competitiveness and well-being of individuals in Benin. The rate of mobile phone penetration was estimated at 84.14% (ARCEP, 2016b). Although mobile phones were widely adopted, Internet access remained considerably limited with the rate of Internet penetration estimated at only 27.06%[2] (ARCEP, 2016a). This could be explained by several factors.

In 2016 there were five operators present in Benin's mobile phone market (MTN, Moov, BBCom, Glo Mobile and Libercom). However, the market itself was very uncompetitive and functioned almost as a duopoly led by the operators MTN and Moov who held 90% of the market. Such almost duopolistic structure of the mobile phone market did not encourage infrastructure investments which would improve coverage and the quality of services offered to individuals and businesses. At the same time, the wireline market was very weak and constituted only 4% of the electronic communications market. Moreover in 2016, 54% of the Beninese citizens lived in rural areas[3], but electrification reached only 5% of rural areas' populations (DGAE, 2020) and the national illiteracy rate was nearly 60%. The adjusted net income per capita was estimated at around 3 dollars per day[4] which did not favour accessibility of terminals (smartphones, tablets and computers) needed for the use of Internet. All these factors constituted barriers to the rise of digital technology in Benin.

In this context the government of Benin decided to establish the digital sector as the main area of growth of its 2016-2021 action program (PAG). On 31st May and 1st June 2016, the Presidency of the Republic organized a national workshop entitled "ennov-Benin 2021" which aimed at creating a strategy for the development of the digital economy. This workshop has brought together all the private and public players from the ICT sector in order to develop strategic directions involving innovative solutions. As a prelude to the workshop the President of the Republic shared his vision "to establish Benin as the digital platform of West Africa by 2021 and to employ Information and Communication Technologies as the main lever of the country's socio-economic development". The recommendations that were then formulated at the "ennov-Benin 2021" workshop laid the foundations for the development of the Digital Sector

1 http://reports.weforum.org/global-information-technology-report-2016/networked-readiness-index/

2 Les taux de pénétration mobile et internet ne tiennent pas compte des phénomènes d'abonnées doubles et des utilisateurs inactifs.

3 https://donnees.banquemondiale.org/indicator/SP.RUR.TOTL.ZS?locations=BJ

4 https://donnees.banquemondiale.org/indicator/NY.GNP.PCAP.CD?end=2018&locations=BJ&start=2000

Policy Document (DPS) for the period 2016-2021[5]. This document outlined government's objectives for the digital sector, projects and strategies designed to meet these objectives, as well as indicators which would be used to measure policy's success by 2021. This document formulated the vision for the digital sector. Table 1 presents the vision of the digital sector, its objectives and its 2021 success indicators.

[5] https://numerique.gouv.bj/images/DPS.pdf

Table 1 : Vision of the digital sector, its objectives and its 2021 success indicators.

Vision of the digital sector	
Establish Benin as the digital platform of West Africa in order to accelerate growth and social inclusion	
Goals	Indicators
Foster social inclusion and population's well-being through better access to knowledge and learning	- Contribution of the digital sector to GDP greater than 5% - Double the size of the ICT market to reach 580 billion CFA francs
Improve access to work and reduce unemployment	A minimum of 90.000 jobs created by the digital economy by 2021
Boost the economic growth of all sectors of activity, including the ICT sector	Employ digitalisation of the economy in order to boost development of other sectors, in particular: - The e-government sector: achieve an EGDI (a UN e-government development index) of 0,5 - The education sector: 100% of primary, secondary and higher educational institutions are equipped with a fast or very fast Internet connection - The trade sector: achieve a 50% rate of use of online financial services by the citizens
Promoting transparent governance and more efficient, user-oriented administration	- An 80% coverage rate of broadband Internet services for individuals and businesses - A penetration rate of 40 % for fixed line and of 60 % for mobile telephone services
Promote Benin regionally and internationally	Be in the top 100 of the Global Network Readiness Index (NRI) and 1st in Africa

Source: Sector Policy Declaration: 2021 strategic guidelines for the digital economy sector[6]

In order to achieve the objectives of the digital sector strategy by 2021, six flagship projects have been identified as major levers for the development of the digital economy. These are, among others: the roll-out of high speed and very high-speed Internet network throughout the country and the implementation of smart administration (Smart Gouv), etc.

[6] https://numerique.gouv.bj/images/DPS.pdf

1.2. Legal and institutional reforms of the digital economy in Benin

Information and communication technologies have experienced significant growth in recent years and have become indispensable in everyday functioning of both private companies and public administrations. Like all countries in the world, multiple African countries have undertaken to put digital technologies at the centre of their citizens', businesses' and administrations' focus. Since 2016 Benin has been aiming to employ the digital sector and the digitalisation of public services as catalysts for economic dynamics and modernization in order to accelerate economic growth and social inclusion. To achieve this goal the Beninese government has adopted a code for the digital sector in the form of the Law No. 2017-20 of 20 April 2018[7], which aims to regulate the functioning of the digital sector and facilitate the adoption and use of digital services by all stakeholders. The country now has a unified reference law that ensures the protection of personal data, regulates e-commerce and cybercrime and to lays down rules for digital-related offenses and penalties.

The government of Benin also established institutions tasked with the development and implementation of the digital strategy. The priority that the government gave to the digital transition led it to dedicate an entire ministry to the digital sector: the Ministry of Digital Technology and Digitalisation (MND). This ministry is responsible for the creation, monitoring and evaluation of state policies related to electronic communications, digital development as well as digital transformation of public administration, of companies and of other sectors of the society. Electronic Communications, Postal and Print media distribution Regulatory Authority (ARCEP) supports the MND through the development of the regulatory framework applicable to electronic communications. Another institution that functions under the supervision of the MND is the Beninese Agency for Universal Electronic Communications and Postal Services (ABSU-CEP), whose mission is to (i) improve the penetration of fixed Internet across all communes; (ii) offer high speed digital, multimedia and e-Government services to Beninese citizens via the postal network; (iii) facilitate access to high-speed Internet and mobile telephony to populations living in white zones; and (iv) foster the use of ICT for teaching and training purposes to improve the quality of education.

Apart from the Ministry, the Digital Development Agency (ADN), the Information Services and Systems Agency (ASSI) and the National Information Systems Security Agency (ANSSI) have been created and placed under the supervision of the Presidency of the Republic.

- ADN is responsible for the implementation of the national digital strategy, the development of high-speed and very high-speed Internet network infrastructure. It is also in charge of designing, planning and programming of activities aimed at promoting the use of digital technology in Benin.
- ASSI oversees the operational implementation of programs and projects falling within the scope of strategies for the development of secure digital services and information systems in Benin. It is in charge of the strategic, methodological and operational support of all governmental structures and essential operators (OIV) and ensures the execution of projects relating to intelligent administration (Smart Gouv), E-Commerce and dematerialization.

[7] https://apdp.bj/wp-content/uploads/2019/04/CODE-DU-NUMERIQUE-DU-BENIN_2018-version-APDP.pdf

- ANSSI is tasked with, among others, the drafting of legal and regulatory texts relating to the security of information systems and networks as well as the implementation of agreements, treaties and conventions relating to the fight against cybercrime and cybersecurity ratified by the Republic of Benin.

On June 1, 2022 the Council of Ministers has adopted the Decree No. 2022-324 of June 1, 2022 merging the ADN, ASSI, ANSSI and ABSU-CEP agencies to form a single Agency of Digital Technologies and Information Systems (ASIN), to ensure rationality, efficiency and consistency of public action. ASIN is placed under the dual supervision of the Ministry of Digital Technology and Digitalisation (MND) and the Ministry of Economy and Finance (MEF). The government supports the agency through the provision of resources such as:

- in-kind contributions of movable and immovable properties belonging to or at the disposal of the State or its branches;
- annual allocations from the State attributed within the framework of the finance law at the proposal of the Council of Ministers. These allocations are included in the agency's budget;
- parafiscal contributions and charges set by the applicable legal and regulatory provisions;
- products resulting from the delivery of services, in line with the agency's scope;
- resources shared by development partners under conventions or agreements concluded with the Government of Benin.

The National Agency for the Identification of Persons (ANIP) reporting to the Presidency of the Republic manages the digital and biometric identities of natural persons within the national territory and produces documents and integrated systems relating to identity. ANIP was endowed with an initial resource of two hundred and fifty million francs (250.000.000) FCFA[8] from the Beninese government. In addition to this initial resource, it benefits from an annual allocation from the State attributed within the framework of the finance law and additional resources coming mainly from identity authentication fees, fees relating to the issuing of identity documents, resources shared by development partners under conventions or agreements concluded with the Government of Benin; donations and bequests; and any other resources acquired in the course of its activities.

The protection of personal data is ensured by the Personal Data Protection Authority (APDP). It ensures that the processing of personal data is carried out in accordance with applicable legal provisions. According to its 2015-2020 activity report[9], APDP has benefited from subsidies granted by the State. In 2016 this subsidy amounted to 255.000,000 FCFA. In 2017 it rose to 425.000,000 FCFA, which represents an increase of 66.66%. In 2018 it was reduced to 354.352.000 FCFA, a decrease of 16.62% and remained unchanged in 2019 and 2020. Additionally, the Central Office for the Repression of Cybercrime (OCRC) placed under the General Management of the Republican Police (DGPR) ensures the prevention and repression of cybercrimes.

1.3. Investments in energy and digital infrastructure in Benin

Since 2016, Beninese government has been making significant investments in the energy and ICT sectors in order to increase country's energy production capacity and to foster wide

[8] 1 dollar = 658.315 XOF (29 August 2022)
[9] https://apdp.bj/wp-content/uploads/2020/12/Rapport-Bilan_2015-2020_Version-finale.pdf

coverage and good quality of the Internet network needed for accessing and using of digital services. In fact, before 2016 Benin faced recurrent long-term power cuts, which affected the economic performance of all sectors of activity. The investments made have therefore made it possible to increase the country's production capacity by 181.5 MW and reduce country's energy dependency rate from 90% to 30% between 2016 and 2020 (DGAE, 2020).

Between 2015 and 2020 Benin acquired 120,000 connection starter kits for subscribers of the Beninese Electric Energy Company (SBEE) and had them installed with the view of further developing electricity transmission and distribution networks. Also, between 2016 and 2019 the high voltage (HV) and low voltage (LV) transmission and distribution networks were expanded from 136km to 590km and from 5.680km to 6.835km respectively. The coverage rate of the public electricity network, which indicates the proportion of localities covered, has increased significantly from 46.60% in 2016 to 54.09% in 2019[10]. In rural areas the electrification rate (proportion of the population which has access to electricity through the public service) has also increased by 5% (DGAE, 2020).

Some of the projects realized thanks to the investments made in the sector of digital infrastructures from 2016 are: the rehabilitation and a 2,000 km extension of the high-speed Internet network with fiber optic backbone which runs from north to south of Benin; development of a metropolitan network around Ouidah-Calavi-Godomey and Cotonou-Porto-Novo by 250 km of fibers; construction of a 960 km fiber optic backbone security loop; the deployment of a new IP/MPLS services network with the integration of 44 routers; modernization of the Benin Telecom Services (BTS) core network; the extension of the 4G/LTE networks with new Radio sites; creation of points of presence in Karimama, Péréré, Avrankou, Toffo, Zè, So-Ava, Ganvié and the Aguégués; securing the existing network between Kandi and Malanville[11].

Next to the investments in digital infrastructure, mobile communications market was undergoing a restructuring from 2017. Three mobile telephone operators left the market, either by dissolution (Libercom), or by withdrawal of license (Bell Benin and Glo Mobile) or due to a failure to comply with the requirements of their operating licenses. Apart from Libercom, two other state companies operating in the telecom sector (Bénin Télécom Infrastructures and Bénin Télécom Services) were dissolved and the Beninese Company of Digital Infrastructures (SBIN) was created to continue the activities of providing Internet access which were previously carried out by Benin Telecom Services. Also, the taxation system for the ICT sector was simplified with the finance law of January 1, 2017[12] which set the GSM communications fee at a flat rate of 10% of monthly turnover. These reforms were aimed to consolidate the mobile phone sub-sector; to encourage operators to invest more in order to boost the growth of the economy of the sub-sector and to encourage them to provide better services for the benefit of consumers. Introduction of SBIN was also intended to stimulate a new market dynamic which would increase the quality of services and improve their prices.

[10]https://beninrevele.bj/wp-content/uploads/2021/03/3-Electricit%C3%A9.pdf

[11]https://revealingbenin.com/wp-content/uploads/2021/03/5-ETAT-DE-MISE-EN-ŒUVRE_Cadre-de-vie-Infrastructure-et-Transport-Numérique-Décentralisation.pdf

[12] https://arcep.bj/wp-content/uploads/2019/01/ARRETE-N%C2%B0-2017-017-SUR-LES-REDEVANCES.pdf

1.4. Evolution of digital economy development indicators in Benin between 2016-2021

After five years of implementation of the Digital Sector Policy Document (DPS) projects, Benin has made significant progress in international rankings and has seen growth in both national and international indicators, even though not all policy objectives have been achieved. In order to meet their quality of service and network coverage obligations, mobile operators increased their infrastructure investments by 1.9% between 2018 and 2020 (ARCEP, 2020b). High-speed Internet access through fiber optics became available in a greater number of connected communes. The broadband mobile Internet base (3G/4G) represented 39% of the mobile Internet base in 2020. This rate increased significantly in 2021 and rose to 51% (ARCEP, 2021a). The health crisis linked to the Covid-19 pandemic has also had a positive impact on mobile Internet consumption in Benin. With the mooving restrictions associated with the Covid-19 crisis, the average monthly Internet consumption per mobile subscriber increased from 0.66 GB in 2018 to 0.92 GB in 2020, an increase of 40% (ARCEP, 2020b). The overall Internet penetration rate has also increased significantly, growing from 26.86% in 2016 to 67.36% in 2021 (ARCEP, 2016a, 2021a). However, this growth came with gender inequalities, as in 2021 women represented only 32.9% of the Internet subscriber base (ARCEP, 2021a).

Table 2 illustrates the evolution of Benin's position in chosen international digitalisation rankings between 2016 and 2021. Benin's E-Government Development Index (EGDI) rose from 0.20 (177th) in 2016 to 0.4 (157th) in 2020 (UN, 2020). EGDI indicates the state of e-government development in United Nations member states. It evaluates aspects such as state of digital infrastructure, online public services and education levels to reflect how given country uses ICT to promote accessibility and inclusiveness of public services. Thus, the Online Services Index (OSI) of Benin, which is a United Nations composite indicator, assessing how governments employ ICT to deliver public services at the national level, increased from 0.14 in 2016 to 0.5 in 2020 (UN, 2016, 2020).

Meanwhile, the Telecommunication Infrastructure Index (TII) fell from 0.14 in 2016 to 0.25 in 2020 (UN, 2016, 2020). According to the same source, mobile phone and Internet penetration rates per 100 inhabitants were estimated at respectively 101.71% and 5.3% in 2016 and 82.38% and 20% in 2020. According to the Regulatory Authority for Telecommunications and Postal Services of Benin (ARCEP, 2016b, 2021b), the penetration rate of mobile telephony was estimated at 80.14% in 2016 and 91.17% in 2020. But, it's worth noticing that the rates calculated by ARCEP are theoretical penetration rates as they do not account for subscribers owning SIM cards which they might not be using.

However, the Human Capital Index (HCI) experienced a less dynamic progression, from 0.32% in 2016 to only 0.44% in 2020 with an adult literacy rate estimated at 38.45% in 2015 and at 42.36% in 2018 (UN, 2016, 2020). The e-participation index, which assesses different aspects of social inclusiveness connected to accessibility of public information and services to citizens, also increased from 0.17 in 2016 to 0.54 in 2020, thus placing Benin in the group classified as countries with a high e-participation index (UN, 2016, 2020).

The joint efforts of ARCEP, APDP, OCRC and above all ASIN reinforced regulation in the digital sector as well as data protection measures and the fight against cybercrime. Thanks to these endeavours Benin moved up in the global cybersecurity ranking (Global Cybersecurity Index, GCI) delivered by the International Telecommunication Union (ITU) from 149th place in

2017[13] to 56th place in 2021[14], demonstrating Benin's strong commitment in the fight against cybercrime. GCI is a reliable benchmark that measures countries' commitment to global cybersecurity.

Table 2: Evolution of Benin's chosen digitalisation indicators between 2016 and 2021

Indicators	2016	World ranking	2020	World ranking
E-Government Development Index (EGDI)	0.20	177	0.4	157
Online Service Index	0.14	-	0.5	-
Telecommunication Infrastructure Index (TII)	0.14	-	0.25	-
Mobile penetration rate (ITU)	101.71	-	82.38	-
Mobile penetration rate (ARCEP)	80.14	-	91.17	-
Internet penetration rate (ITU)	5.3	-	69.36	-
Internet penetration rate (ARCEP)	26.86	-	20	-
Human Capital Index	0.32	-	0.44	-
E-participation index	0.17	-	0.54	-
Global Cybersecurity Index	0.07 (2017)	149 (2017)	0.8 (2021)	56 (2021)
Network Readiness Index (NRI)	2.9	128	3.2	112

Source: Compiled by the authors based on data from UN (2016, 2020) and ARCEP (2016a, 2016b, 2020, 2021a, 2021b)

[13] https://www.itu.int/dms_pub/itu-d/opb/str/D-STR-GCI.01-2017-PDF-E.pdf
[14] https://www.itu.int/epublications/publication/D-STR-GCI.01-2021-HTM-E

Part II: Progress of digitalisation of public services in Benin: Smart Gouv

2.1. Cross-institutional digitalisation of public services

The use of ICT as a performance and communication tool in the Beninese administration has become a priority in the implementation of the government's digital vision. As a result, virtual collaborative workspaces within and between ministries were created. Creation of these spaces was possible thanks to an operating contract signed by the government and Microsoft. This contract provided public administration staff with Microsoft packages consisting of, among others, Office, Teams, OneDrive, Outlook etc.

These Microsoft packages allowed public administration officials to become more efficient in organizing meetings thanks to the use of Teams and to better coordinate their activities (exchange of correspondence) internally and between public institutions (ministries, agencies and other institutions) without having to move. Futhermore, they encouraged the creation of a virtual workspace through the use of common working folders in the Microsoft Cloud. Use of a Cloud facilitated access to common working documents by everyone at all times. Public service workers also received an institutional email address for internal and external mail exchange needs.

By providing the public administration with collaborative tools Beninese government intended to improve the productivity of public service workers through better management of working time and better coordination of agendas. To achieve this goal the government carried out ICDL trainings and certification programs for Beninese administration staff. During these trainings government officials acquired skills and competences necessary for the effective use of computer tools. These competences are confirmed with an ICDL certificate which can be considered as a passport of digital skills for the administration staff.

Digitalisation has introduced new technologies into ministries, allowing government officials to quickly process citizens' requests and provide them with timely and satisfactory service. Introduction of these technologies allowed to reduce queues of citizens waiting to consult or request public services. The National interoperability platform allows public administration staff to exchange data with another entity in a secure way, automatically or manually depending on their needs. Public officials now have enough input to better plan their work which contributes to increasing of the digital maturity of the administration.

2.2. Digitalised public services provided to the citizens

To simplify and facilitate citizens' access to public services and improve the quality of governance, Beninese government has developed a national online platform for provision of public services. This platform allows, on one hand to inform users about the conditions of access to public services (already digitalised or not) and, on the other hand to make online requests for already digitalised services provided by various public administrations. Thanks to this portal, it is now possible to obtain information or make a request for more than 560 public

services online[15]. Out of these services, 132 are fully digitalised which means it is possible to request them, pay for them and complete them online. For other services, it is just possible to make the request and pay online but one has to relocate to complete the service. This is the case, for example, for passport applications. Then, there are also services for which it is only possible to find out about the conditions of access online but the request for the service has to be made physically. Public services accessible on the national e-services platform can be grouped into following categories:

2.3. Digitalised civil status, water and energy services

This category of public services includes mainly such civil status services as requests for digital birth certificates, personal identification certificates, digital identity cards, passports, electronic visas, marriage and death certificates, etc. Digitalised public services for the water and electricity sectors mainly include requests for connection and online bill payments.

2.4. Digitalised Finance and Civil Service Services

The digitalised public services of the Ministry of Economy and Finance and the Ministry of the Civil Service include, among others, services of declaration and payment of taxes, standardized invoicing, access to payslips and checking career profiles of the government officials. Using the digitalised national platform, individuals and companies can pay their taxes online and thus save time by avoiding the queues in physical offices. From the perspective of the government digitalisation of tax services enables regular control and efficient collection of taxes from individuals and businesses.

Government officials can also access various administrative actions related to the management of their career. For example, this allows state employees who are retiring, thus mostly senior citizens, to compile their pension documents easily and quickly.

2.5. Digitalised Public Education and Health Services

Beninese government undertook to employ both Information and Communication Technologies and human capacities to improve the quality of education, vocational and technical training. To achieve this objective the government included in its PAG-2016-2021 plans, among others, interconnecting of all research centres and universities functioning on the national territory, ensuring the connectivity of primary and secondary education establishments, providing online trainings for students and teachers, as well as equipping high profile schools for young girls with connected digital rooms in order to boost positive discrimination.

Although not all objectives of the PAG-2016-2021 related to the introduction of ICT to the education sector have been achieved so far, many university centres are already connected

[15] https://service-public.bj/public/services/e-services

to the Internet and it is now possible to consult the results of the national examinations (CEP, BEPC and BAC) on the national platform for digitalised public services. In the health sector, digitalisation is still in its infancy. So far online services in the health sector are limited to making appointments at the Hospital and University Centre Hubert Koutoukou Manga (CNHU-HKM) as well as to managing aspects of Covid-19 testing such as: making appointments, payments and collecting the results.

2.6. Data protection in the process of digitalisation in Benin

In order to manage their governance and data protection processes public administration in Benin needed to strengthen the central governance structures, establish a Public Key Infrastructure (PKI), a National Interoperability Platform (PNI), as well as a platform for archiving and digitizing administrative documents. The exchange of secured data between administrative institutions is carried out and operated through the National Interoperability Platform (PNI) in the form of a Digital Bus. Entire organizational structure, regulatory framework, guidelines, procedures and key standards related to the interoperability system for all state institutions (ministries, agencies and other government institutions) are also defined and implemented this way.

The need to save and protect all administrative documents has led the government to establish a platform for archiving and digitizing administrative documents. Platform provides the goverment institutions with a system that manages and archives all mail but has specific solutions for documents sent through electronic exchange and electronic archiving of documents. Management of mail, archives and documents is thus performed electronically. As the government works towards their vision of a paperless administration, solutions for Electronic Document Management (EDM), Electronic Mail Management and Electronic Archiving System (SAE) have already been selected and selection of service providers for their deployment is in progress.

Despite its overall positive impact on the efficiency of government officials the digital transformation of Beninese administration also carries certain risks. In fact, in case they would become reality these risks are likely to hinder or even block the functioning of the entire administration. These include risks of cybercriminal attacks, system failures, fraud, system intrusion or unauthorized disclosure of sensitive state information. To prevent and mitigate these risks, the government has implemented a Public Key Infrastructure platform (PKI). This tool was designed to protect electronic administrative documents such as passports or identity cards, transactions, digital signatures and all online services. PKI allows for a flexible authentication of senders of messages and thus safeguards the network from being accessed by cybercriminals. In other words, PKI constitutes a technical platform guaranteeing the control of access to the network and to the software by functioning as an access point for the visitors. It manages authentication and electronic signature mechanisms, and provides access to all associated online services to individual users and companies. As a consequence, it provides private sector companies with the means to optimize their business processes and offer value-added services online while minimizing risks.

Personal Data Protection Authority (APDP) has been set up with a mission to ensure efficiency in data protection in Benin and to protect personal identities, human rights, private lives as well as individual and public freedoms from any harm caused by the development of new

technologies. APDP is also responsible for ensuring security and confidentiality of public data and has the power to control and sanction infringements related to data use. Any person can, without providing any justification, disallow the use of the data concerning themselves for prospecting purposes. What is more, anyone can have information concerning themselves corrected, completed, updated, blocked or erased in case any errors or inaccuracies occur, or else in case the collection, use, communication or storage of these information was illegal. APDP can impose financial sanctions on data controllers who do not comply with the Law No. 2017-20 on the digital code in the Republic of Benin. The APDP also verifies public files and checks whether file managers comply with the Law No. 2017-20 on the digital code in the Republic of Benin. Therefore, APDP also receives and investigates complaints in accordance with its mission and the law.

Part III: Analysis of the inclusiveness of digitalised public services in Benin

Digitalised public services must be accessible and usable by individuals of all social categories. In this section we analyse the inclusiveness of digitalised public services. We base our investigations on a descriptive analysis comprising data collected as part of this study from a sample of 800 individuals in the communes of Cotonou and Abomey-Calavi.

First, we describe the variables used in the database, then we analyse factors related to social categories (gender, age, level of education, place of residence and level of income) which can limit access to digitalised public services. After that, we examine the awareness of digitalised public services and how it affects the demand for these services across different social categories. Finally, we present perspectives of the citizens on the opportunities and challenges related to accessing and using digital public services.

3.1. Descriptive analysis of the survey data

Table 3 presents the descriptive analysis of the variables used in the database obtained from the field survey. The sample was made up of 50% women and 50% men. 66% of respondents live in urban areas. On average, the individuals surveyed are around 35 years old and have completed seven (07) years of school and thus have primary level of education. Average monthly income of the individuals surveyed is estimated at approximately 110,860 FCFA[16]. However, if we exclude the respondents who are on the high end of the revenue spectrum, i.e. have incomes equal to or greater than to 200,000 FCFA, the average monthly income becomes 77,398 FCFA. Of the 800 individuals surveyed, respectively 94%, 13% and 71% own at least one mobile phone or tablet, a computer and have Internet access. Within the sample of people surveyed in the communes of Cotonou and Abomey-Calavi financial inclusion which facilitates access to digitalised public services is mainly obtained through access to and use of mobile currencies. In fact, 88% of respondents have a mobile money account while only 24% have a traditional bank account.

78% of all the surveyed respondents claimed that they had requested at least one public service (PS), whether physical or digital, over the past year, and 609 i.e. 76% of them were aware of the existence of digitalised public services (DPS). Of the 609 respondents who were aware of the existence of SPDs, 38% have made at least one request. Hence, 231 people surveyed claimed to have made at least one SPD request during the year preceding the survey. Out of this sample of 231 individuals, 67% said they made at least one SPD request themselves and 35% said they were assisted at least once in the SPD request process. Whether they made the SPD requests themselves or through intermediaries, 93% of individuals said they were able to finalize their requests and had access to the public service online. 80% of them paid for access to SPDs via mobile currencies.

Awareness of the existence of SPDs is important to promote digital inclusion but is not sufficient for individuals to make SPD requests. During the year preceding the survey, 495 of

[16] 1 dollar = 658.315 XOF (29 August 2022)

the people surveyed said they had made in person, at least one public service (PS) request while they were already aware of the existence of the service online. 56% of this sample preferred to make PS requests in person despite the availability of the digitalised services.

Table 3: Descriptive analysis

	Number	Average
Respondent is a woman	800	0.5
Respondent lives in an urban area	800	0.66
Respondent's age	800	35.34
Years of education completed by the respondent	800	7.66
Respondent's monthly income	776	110859.81
Income lower than or equal to 200,000	702	77398.73
Respondent owns a mobile phone	800	0.94
Respondent owns a computer	800	0.13
Respondent has Internet access	800	0.71
Respondent has a traditional bank account	800	0.24
Respondent has a Mobile Money account	800	0.88
Respondent requested at least one PS	800	0.78
Respondent is aware of the existence of DPS	800	0.76
Respondent requested DPS at least once	609	0.38
Respondent is aware of the DPS but did not make any request	495	0.56
Respondent made the DPS request himself	231	0.67
Respondent was assisted with the DPS request	231	0.35
Respondent finalized the request	231	0.93
Respondent paid for DPS request with MoMo	231	0.8

Compiled by the authors based on the data from a survey carried out on a sample of 800 individuals in Cotonou and Abomey-Calavi in April 2022; PS - In person Public Services; DPS - Digitalised Public Services

3.2. Factors limiting the access of different social categories to digitalised public services

Access to digitalised public services requires Internet connectivity and the possession of a terminal such as a smartphone, a tablet or a computer. Table 4 illustrates which factors enabled access to digital services to the respondents of different social backgrounds (gender, place of residence, age group, level of education and income). Analysis of the table shows that there is no major difference with regard to the possession of mobile phones regardless of the social category. The same is true for the possession of mobile money accounts (MoMo) which are the main method of payment for DPS requests. Approximately 94% and 87% of respondents have respectively at least one mobile phone and a MoMo account, and there are no major variations across genders, places of residence, ages, levels of education and income. However, it should be noted that the elderly as well as individuals with no level of education have fewer MoMo accounts than other social categories considered in this analysis.

The analysis of Table 4 also reveals that there are significant disparities across social categories with regard to the possession of computers and access to the Internet. Only 7% of women and 6% of individuals living in rural areas own computers compared to 19% of men and 16% of individuals living in urban areas. What is more, individuals with higher levels of education and income are more likely to own computers than individuals with lower levels of

education and income. Inequalities exist also with regard to Internet access across different social categories. Men (80%) are more likely to have Internet access than women (62%); urban populations (78%) more likely than rural populations (57%), and individuals with higher levels of education and income more likely than those with lower levels of education and income.

Table 4 : Factors limiting the access of different social categories to digitalised public services

	Gender		Area of residence		Age		
	Men	Women	Rural	Urban	Young	Adult	Elderly
Owns a mobile phone	0.97	0.91	0.89	0.96	0.92	0.96	0.96
Owns a computer	0.19	0.07	0.06	0.16	0.15	0.09	0.17
Uses Internet	0.80	0.62	0.57	0.78	0.78	0.66	0.43
Has a traditional bank account	0.33	0.15	0.15	0.29	0.21	0.24	0.49
Has a MoMo account	0.92	0.83	0.87	0.88	0.87	0.90	0.77
Total	**400**	**400**	**272**	**528**	**440**	**313**	**47**
	Education				**Income**		
	None	Primary	Secondary	Higher	Low	Medium	High
Owns a mobile phone	0.90	0.93	0.94	1.00	0.89	0.98	0.97
Owns a computer	0.00	0.01	0.09	0.58	0.08	0.11	0.20
Uses Internet	0.33	0.63	0.82	0.97	0.64	0.70	0.81
Has a traditional bank account	0.04	0.09	0.24	0.75	0.12	0.19	0.43
Has a MoMo account	0.77	0.88	0.88	0.97	0.80	0.91	0.94
Total	**135**	**216**	**330**	**119**	**275**	**247**	**254**

Compiled by the authors based on the data from a survey carried out on a sample of 800 individuals in Cotonou and Abomey-Calavi in April 2022

3.3. Awareness of and demand for different types of DPS

Table 5 presents data related to the awareness of digital public services (DPS) and the type of public service requests (in person or online) made by respondents. Table 5 presents data for the year preceding the survey: (i) in the first column, different types of requests for in person public services made by respondents; (ii) in the second column, different types of digitalised public services (DPS) of which the respondent is aware; (iii) in the third column, different types of requests for digitalised public services made by the respondent and (iv) in the fourth column, different types of requests for in person public services (PS) made by the respondents despite being informed that these services have already been digitalised and accessible online.

One takeaway from Table 5 is that the civil status/citizenship public services are the best known and most often requested by the surveyed citizens. During the year preceding the survey, 72.95% of respondents (621 out of 800 individuals) claimed that they had made at least one request for in person public services. It also turned out that public services in the following sectors are slightly less popular: civil service/labour (12.24%); education/health (6.76%); business/enterprise (5.96%); transport/logistics (1.93%) and the living environment and land (0.97%). When it comes to the awareness of availability of digitalised services, the sector of civil status/citizenship also takes precedence with 595 respondents out of 800 (i.e. 76.12%) claiming they knew that services of these departments are available online. In fact,

71%, 24% and 16% of those surveyed were informed of the existence of DPS for respectively civil status/citizenship, civil service/labour and the education/health sector. The SPDs of the transport/logistics sectors and the living environment and land were very little known to the population.

The analysis of Table 5 also shows that 37% (231 out of 609) of people informed about the existence of DPS made at least one request during the year preceding the survey. Online requests for civil status/citizenship public services are also the most frequent (60.61%). However, it is important to note that the proportion of individuals who made requests for civil status/citizenship public services in person in the offices (72.95%) is still higher than that of individuals who made their request online (60.61%). Column 4 of Table 5 shows for each category of public services the proportion of respondents who decided to make an in person request in the office despite being already informed that these services were digitalised. Notably, 83.09% of requests for public services made in the offices by citizens who knew they are accessible online concerned the civil status/citizenship services.

At the same time, there has been an increase in DPS requests in the civil service/labour and education/health sectors. Actually, in the year preceding the data collection 12.24% of those surveyed made requests for public services personally in public administration offices in the public service/labour sector and 6.76% in the education/health sector. However, during the same period as much as 20.78% of respondents made online request for DPS in the public service/labour sector and 10.82% in the education/health sector. This suggests that the requests for certain public services increase thanks to digitalisation.

Table 5 : Awareness of and demand for different types of DPS

	Requests for PS in the last year	DPS known by respondent	Requests for DPS in the last year	In-person requests for DPS
Civil status and citizenship	72.95	48.24	60.61	83.09
Public finances and labour	12.24	19.16	20.78	8.27
Education and health	6.76	16.97	10.82	3.6
Business and enterprise	5.96	11.76	6.06	3.24
Transport and logistics	1.13	1.85	0.87	0.72
Living environment and land	0.97	2.02	0.87	1.08
Total	**621**	**595**	**231**	**278**

Compiled by the authors based on the data from a survey carried out on a sample of 800 individuals in Cotonou and Abomey-Calavi in April 2022; PS - In person Public Services; DPS - Digitalised Public Services

3.4. Awareness of and demand for DPS across different social categories

Table 6 presents data related to the awareness of digital public services (DPS) and the type of public service requests (in-person or digital) made by respondents across different social categories. Analysis of this table shows that women (69%) are less aware of the existence of DPS than men (83%); population of rural areas (67%) less than those living in urban areas (77%); people with low levels of education (54%) less than those with higher levels of education (94%). These inequalities in access to information regarding the existence of DPS also result in a limited accessibility of DPS to certain social classes. In fact, only 28% of women and 18% of people with no level of education made DPS requests compared to 46% of men and 75% of people with a higher level of education.

Furthermore, the analysis of Table 6 shows that women (67%), people with no level of education (80%) and those with the lowest income levels (65%) are most likely to make requests for public services in person despite being aware of the digitalisation of these services, as compared to just 48% of men, 22% of people with higher levels of education and 46% of those with the highest income levels.

Table 6 : Awareness of and demand for DPS across different social categories

	Gender		**Area of residence**		**Age**		
	Men	Women	Urban	Rural	Young	Adult	Elderly
Request for at least one PS	0.81	0.74	0.7	0.82	0.76	0.79	0.81
Aware of existence of DPS	0.83	0.69	0.67	0.81	0.77	0.76	0.70
Request for at least one DPS	0.46	0.28	0.40	0.37	0.37	0.4	0.33
In-person request for DPS	0.48	0.67	0.51	0.58	0.57	0.53	0.69
Total	**153**	**78**	**73**	**58**	**125**	**95**	**11**
	Education				**Income**		
	None	Primary	Secondary	Higher	Low	Medium	High
Request for at least one PS	0.68	0.75	0.79	0.89	0.77	0.77	0.80
Aware of existence of DPS	0.54	0.68	0.84	0.94	0.73	0.77	0.80
Request for at least one DPS	0.18	0.26	0.35	0.75	0.30	0.35	0.48
In-person request for DPS	0.8	0.68	0.60	0.22	0.65	0.6	0.46
Total	**13**	**38**	**96**	**84**	**61**	**66**	**203**

Compiled by the authors based on the data from a survey carried out on a sample of 800 individuals in Cotonou and Abomey-Calavi in April 2022; PS - In person Public Services; DPS - Digitalised Public Services

3.5. Experiences with DPS requests across different social categories

Table 7 presents data related to DPS requests made by respondents across different social categories. In total 231 of the 609 people aware of the existence of DPS claimed they made a DPS requests at least once. It's worth noticing that out of the sample of 231 respondents who made at least one DSPS request only 33.19% are women while as much as 66.81% are men. Also, only 31.60% of people who made DPS requests live in urban areas, compared to 68.40% who live in rural areas. Men (73%) and individuals living in urban areas (73%) are more likely to make their DPS requests themselves than women (56%) and individuals in rural areas (56%). Consequently, women and rural populations tend to use the services of intermediaries

to help them in the DPS request process more often (47% of women compared to 29% of men and 44% of rural populations compared to 31% of urban populations).

Disparities in access to DPS are also observed across different age categories, levels of education and levels of income of the surveyed individuals. Thus, respondents who are younger, have higher levels of education and higher levels of income make more DPS requests compared to older individuals and those with lower levels of education and income. Nevertheless, 93% of DPS requests made by the respondents ended successfully, regardless of gender, place of residence, age, level of education and level of income of individuals who requested them. Finally, the analysis of the table also shows that the most used method of payment for DPS is mobile currency.

Table 7 : DPS requests across different to social categories

	Gender		Area of residence			Age	
	Men	Women	Urban	Men	Women	Urban	Men
In-person request for DPS	0.46	0.32	0.69	0.85	0.66	0.65	0.71
Assisted request for DPS	0.29	0.47	0.44	0.31	0.26	0.47	0.27
Finalized request for DPS	0.92	0.94	0.96	0.91	0.94	0.92	0.82
Payment for DPS with MoMo	0.82	0.76	0.77	0.81	0.82	0.77	0.82
Total	**400**	**400**	**272**	**528**	**440**	**313**	**47**
	Education				**Income**		
	None	Primary	Secondary	Higher	Low	Medium	High
In-person request for DPS	0.46	0.32	0.69	0.85	0.66	0.65	0.71
Assisted request for DPS	0.54	0.68	0.34	0.18	0.36	0.36	0.32
Finalized request for DPS	1	0.95	0.95	0.88	0.95	0.97	0.89
Payment for DPS with MoMo	0.77	0.71	0.79	0.85	0.72	0.85	0.80
Total	**135**	**216**	**330**	**119**	**275**	**247**	**254**

Compiled by the authors based on the data from a survey carried out on a sample of 800 individuals in Cotonou and Abomey-Calavi in April 2022; PS – In person Public Services; DPS - Digitalised Public Services

3.6. Perception of opportunities and challenges related to DPS across different social categories

Table 8 presents the opportunities and challenges related to accessing and using digitalised public services perceived by respondents belonging to different social categories. 76.19% of respondents are satisfied with digitalised public services and 95% of them think that the government should continue to digitalise public services. In general, most of the people surveyed, regardless of their social background, think that DPS are easy to access, save time and money. For example, 77% of surveyed men and 75% of women think that DPS are easily accessible. In addition, 90% of respondents from urban areas and 89% of those with higher levels of education believed that digitalised public services eliminate bribe payments.

However, 51.92% of all respondents (except respondents with no level of education) believe that the lack of a contact person is a major difficulty in accessing and using digital public services. One might think that respondents with no level of education would consider that the absence of a contact person in the process of requesting digitalised public services is not a problem, since they have no direct experience of using these services but mostly resort to using intermediaries for their requests.

Table 8 : Perception of opportunities and challenges related to DPS across different social categories

	Gender		Area of residence			Age	
	Men	Women	Urban	Men	Women	Urban	Men
Easy access	0.77	0.75	0.75	0.77	0.8	0.72	0.75
Timely processing	0.69	0.76	0.66	0.74	0.73	0.67	0.82
Saving time	0.84	0.87	0.78	0.88	0.90	0.79	0.82
Saving money	0.81	0.85	0.74	0.86	0.86	0.79	0.73
Eliminating bribes	0.86	0.87	0.79	0.9	0.88	0.86	0.73
Difficulty - lacking a contact person	0.53	0.49	0.55	0.51	0.43	0.65	0.75
Satisfied by DPS	0.76	0.77	0.71	0.78	0.76	0.76	0.82
Government should continue digitalisation of PS	0.95	0.95	0.94	0.95	0.96	0.94	0.85
Total	**400**	**400**	**272**	**528**	**440**	**313**	**47**
	Education				**Income**		
	None	Primary	Secondary	Higher	Low	Medium	High
Easy access	0.83	0.67	0.8	0.75	0.85	0.74	0.74
Timely processing	0.69	0.58	0.74	0.75	0.77	0.62	0.75
Saving time	0.77	0.76	0.86	0.88	0.92	0.82	0.85
Saving money	0.85	0.68	0.82	0.88	0.84	0.82	0.84
Eliminating bribes	0.85	0.76	0.89	0.89	0.89	0.86	0.87
Difficulty - lacking a contact person	1	0.50	0.50	0.50	0.47	0.60	0.5
Satisfied by DPS	0.62	0.74	0.82	0.73	0.82	0.73	0.76
Government should continue digitalisation of PS	0.88	0.90	0.97	0.99	0.94	0.95	0.95
Total	**135**	**216**	**330**	**119**	**275**	**247**	**254**

Compiled by the authors based on the data from a survey carried out on a sample of 800 individuals in Cotonou and Abomey-Calavi in April 2022

Conclusions and recommendations

The Beninese government envisioned to employ ICT as the main lever of socio-economic development and to establish their country as a reference in terms of digital services platform in West Africa by 2021. This led the government to modernize its administration through the digitalisation of public services. This initiative is an opportunity to relieve the isolation of rural populations and improve the efficiency of public administration. Thus, starting in 2016, the Beninese government initiated several institutional reforms and committed to undertake significant investments. At the institutional level, several agencies were created, some under the supervision of the Presidency of the Republic and others under the supervision of the ministry dedicated to digital technology and digitalisation. These agencies were tasked with the implementation of government's digitalisation policies and the definition of strategies for achieving the government's vision. The investments undertaken by the government were mainly related to the improvement of the accessibility of the Internet, the availability of electrical energy and to the establishment of data centres used for storage and protection of administrative and personal data.

The goal of this study is to assess the progress the digital transformation within the Beninese administration and to investigate the opportunities and challenges in access to digitalised public services by citizens across different social categories (gender, place of residence, age, level of education and income). To achieve the objectives of the study we carried out, on one hand, a qualitative analysis composed of a literature review and interviews with employees of the digital sector in Benin and, on the other hand, a quantitative analysis based on the data collected from a sample of 800 individuals living two towns in Benin (Cotonou and Abomey-Calavi).

The study results show that 94% of respondents have a mobile phone but only 13% of them have a computer. The Internet penetration rate within the sample studied is 71%, a figure which is also close to the estimation delivered by ARCEP (2020a). However, the study also demonstrated that there are inequalities in Internet accessibility, and those particularly disadvantaged are women, people living in rural areas and those with low levels of education. This could explain the results of the analysis of the survey data, which show that respondents from these categories were also the ones who made least requests for digitalised public services.

Most people in Benin are well informed (76%) about digital public services. But this does not necessarily translate into the number of requests for digitalised public services. In fact, 56% of respondents who are aware of the existence of digitalised public services still continue to file requests for these services in person. Based on the results of this study we make following recommendations:

- As Internet access is the key factor enabling accessing and using the digitalised public services, the government should continue its investments in digital infrastructure, as well as the reforms offering investment incentives to telecommunications operators.
- In its investment efforts to facilitate Internet access to the Beninese population, the government should include policies and strategies focusing on women and people in rural areas.
- Even though most people are informed about the existence of digitalised public services, only some of them actually use it to make requests for digitalised public services. The government should continue its communication about these services,

focusing on explaining the access procedures in different local languages and targeting rural communities.

- Public services in the civil status and citizenship sectors are those that are most often requested personally despite having been already digitalised. This may be due to lack of information on the procedures and the challenges (queues) related to accessing these digital services. The government should make its digital services much more accessible across all social categories.
- Certain groups such as women, citizens from rural areas or those with low levels of education are most likely to resort to using intermediaries for their requests for digitalised public services. It could be an interesting solution for the government to expand the policy of setting up Community Digital Points (PNC) to allow these groups to benefit from assistance for their requests for digitalised public services. PNCs are centres equipped with power generators, good Internet connection and computers and offering support of staff to people who want to make a request for digital public services (DPS).

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Annexes

Annexe 1 : Guide d'entretien pour les personnes ressources

Bonjour Monsieur / Madame, nous sommes un groupe de chercheurs des Universités d'Abomey-Calavi et de Parakou en partenariat avec l'Institut Inawa. Nous travaillons sur un projet qui porte sur l'état des lieux de la digitalisation des services publics en Afrique et en particulier au Bénin. Cette étude a été financée par le programme INCLUDE qui est une plateforme de connaissances sur les politiques de développement inclusif, basé à l'Institut des Études Africaines de l'Université de Leiden aux Pays-Bas.

C'est dans ce cadre que nous souhaitons avoir cet entretien avec vous, en vue d'obtenir des informations indispensables pour la réalisation de cette étude. Nous vous rassurons que vos réponses seront gardées confidentiellement et seront exclusivement utilisées pour des fins de cette étude.

I- Analyse du contexte politique d'opérationnalisation de la transition numérique

1) On a constaté que le gouvernement actuel fait de la digitalisation des services publics, une de ses priorités depuis quelques années. Existe-t-il une stratégie nationale de transformation numérique au Bénin ?
2) Si oui, pouvons-nous l'avoir ?
3) Quelles sont les avancés du gouvernement dans cette stratégie de digitalisation ?
4) Selon vous, quelle place occupe aujourd'hui la transition numérique :
    a. dans les administrations publiques ?
    b. entre administrations ?
    c. entre citoyens et administrations ?
5) Quelles sont les difficultés de mise en œuvre de la stratégie de digitalisation des services publics ?
    a. dans les administrations publiques ?
    b. entre administrations ?
    c. entre citoyens et administrations ?

II- Inventaire des interventions portant sur les services numériques (Ministère du numérique)

1) Est-ce que la digitalisation des services publics au Bénin concerne toutes les administrations ?
2) Si non, qu'elles sont les administrations qui ne sont pas concernées pour le moment et pour quel motif ?
3) Dans le processus de digitalisation, quels sont les types de services pris en compte :
    a. dans les admirations publiques ?
    b. entre administrations ?
    c. entre citoyens et administrations ?
4) En dehors des administrations centrales, la digitalisation des services publics intègre-t-elle déjà les administrations locales ?
5) Sinon, existe-t-il un plan visant la digitalisation de ces administrations ?

6) En l'absence de services publics, existe-t-il d'autres interventions numériques (plus privées) qui parviennent à atteindre un grand nombre de citoyens et pourraient potentiellement être étendues et utilisées pour les services publics ?
7) La digitalisation des services publics au Bénin a-t-elle priorisé selon vous, l'intégration des données, des mécanismes de prestation des services et la gestion entre les différents programmes et secteurs ?

III- Analyse du caractère inclusif de la digitalisation

1) Selon vous, quel est l'objectif poursuivi par le gouvernement actuel en faisant la promotion à grande échelle de la digitalisation des services publics ?
2) Le gouvernement est-il soutenu par des Partenaires Techniques et Financiers (PTF) dans sa stratégie de digitalisation des services publics ?
3) Si oui, quels sont ces PTF et sur quels projets ou initiatives ont-ils apporté leurs appuis au gouvernement ?
4) A la date d'aujourd'hui, quel est le taux de pénétration de la digitalisation des services publics au Bénin ?
5) A la date d'aujourd'hui, quel est le taux d'adoption des services publics digitalisés :
    a. par les administrations publiques ?
    b. par les citoyens ?
6) Avez-vous une idée du profil de ceux qui utilisent le plus les services publics digitalisés à la date d'aujourd'hui ?
    a. dans le rang des admirations publiques ?
    b. chez les citoyens ?
7) Selon vous, comment le risque potentiel d'exclusion est-il pris en compte ?
    a. dans les administrations publiques ?
    b. chez les citoyens ?
8) Selon vous, quel est l'impact de la digitalisation sur :
    a. l'accès aux services publics par les citoyens ;
    b. la réduction du coût d'accès aux services publics par les citoyens ;
    c. les délai d'attente pour l'accès aux services publics par les citoyens ;
    d. les paiements des pots de vin pour l'accès aux services publics par les citoyens ;
    e. sur l'efficacité du travail dans les administrations.
9) Selon vous, quels sont les difficultés d'accès aux services publics digitalisés par les citoyens ?
    a. accès à l'énergie électrique
    b. l'alphabétisation
    c. accès à l'Internet
    d. Accès aux pièces administratives
10) Avez des documents pouvant renseigner sur des aspects ayant fait objet de notre entretien ? si oui, pouvez-vous les mettre à notre disposition ?

Annexe 2 : Liste des personnes interviewées

N°	Nom et prénoms	Structures
1	CODJIA Tiburce P. Cossi	IPEC/DGPD/Ministère du Plan et du Développement
2	OGOULOLA Marcel	Ministère du Transport et des Travaux Publics
3	DEDEHOUANOU Amon	Direction de la Digitalisation
4	AGONVINON Christian S.	Directeur des Systèmes d'Information /Ministère de la Justice et de Législation
5	FAGNIHOUN Gildas	ARCEP
6	ADIKPETO S. Armel	Contrôleur des projets /Agence Services et Système d'Information
7	ADJINDA Frédéric	Responsable suivi étude et performance /Agence des Services et Système d'Information

Annexe 3 : Liste des services publics digitalisés sur le portal national des e-services

1	État civil et citoyenneté	Acte de naissance sécurisé
		Certificat d'Identification Personnelle (CIP)
		Carte d'identité nationale biométrique
		Passeport
		Casier judiciaire
		Certificat de Nationalité
		Récépissé RAVIP
		Paiement facture SONEB
		Paiement facture SBEE
		Attestation d'Identité Fondationnelle (FID)
		Légalisation de documents divers
		Allô Gouv (Renseignement sur les divers services publics)
		Délivrance de visa électronique
2	Finance et Fonction Publique	Déclaration d'impôts
		Facture normalisée
		Taxe sur Valeur Mobilière (TVM)
		Dépôt de bilan
		Actes de carrière
		Bulletins de paie
		Pension de retraite
		IFU
		Consultation en ligne des systèmes financiers décentralisés (SFD)
3	Éducation / Santé	Consultation en ligne des résultats du BAC/BEPC/CEP
		Inscription en ligne de l'enseignement primaire
		Prise de rendez-vous au CNHU-HKM
		Educ Master
4	Affaire/ Entreprise	Création d'entreprise
		Attestation de non-faillite
		Accès aux marchés publics
		Registre de Commerce et de Crédit Mobilier
		Accès Guichet Unique du Commerce Extérieur
		Accès à la base des entreprises du Bénin
		Accès aux indicateurs Doing Business
		Répertoire des Prix de référence
		Réservation du Palais des Congrès
		Plaintes à l'ARCEP
		Permis de construire
		Autorisation de change pour règlement financier
		Délivrance d'attestation de non exclusion de la commande
		Programme Spécial d'Insertion dans l'Emploi/PSIE

		Attestation de succès à l'examen de permis de conduire
5	Transport / Logistique	Authenticité du permis de conduire
		Carte grise internationale
		Droit Taxi
		Immatriculation d'un véhicule 4 Roues et plus
		Permis international
6	Cadre de vie / Foncier	État descriptif
		Attestation permis de construire
		Identité et adresse du propriétaire d'une parcelle
		Autorisation d'Exploitation de Drones
		Attestation de confirmation cadastrale
		Coordonnées géographiques des sommets d'une parcelle

A

Annexe 4 : Questionnaire pour l'enquête

INTRODUCTION				
Bonjour monsieur/madame, on m'appelle _____ et je travaille pour l'institut Inawa qui conduit actuellement une étude sur la digitalisation des services publics au Bénin. L'objectif de l'étude est d'analyser les opportunités et les difficultés liées à l'utilisation des services publics en ligne au Bénin. Les informations que vous nous fournirez ne seront divulguées qu'aux membres de l'équipe de recherche. Avez-vous une quelconque préoccupation ?				
Nº	**Libellé des questions**	**Options de réponse**		**Instruction de prog.**
I0	Consentez-vous à participer à cette étude ?	0=Non	1=Oui	Si =0 èR1
	Démarrer l'entretien			*Si I0=1*
I	**IDENTIFICATION**			
	Date complète de début de l'interview			Date + heure
I1.	Arrondissement			
I2.	Quartier de ville			
I3.	Enquêteur, veuillez sélectionner votre code			
I4.	Enquêteur : combien d'enquêtes avez-vous déjà réalisées dans {I2}			
I5.	Enquêteur : veuillez confirmer que l'identifiant de ce questionnaire est {ID#####}	0=Non	1=Oui	
A	**PROFIL SOCIODEMOGRAPHIQUE**			
A1.	Sexe du répondant	1=Homme	2=Femme	
A2.	Age du répondant			.>=15 & <90
A3.	Quelle est votre situation matrimoniale ?	1=Marié(e) 2=Divorcé(e)	3=Célibataire 4=Veuf (ve)	
A4.	Quelle est votre ethnie ? *La langue que vous parlez n'est pas nécessairement votre ethnie.*	1=Fon 2=Yoruba 3=Adja	4=Bariba 5=Ditamari 6=Autres (A préciser)	Si ¹ 6 è A5
A4z	Précisez l'autre ethnie			Si A4=6
A5.	Avez-vous un handicap ?	0=Non	1=Oui	Si =0 èA7
A6.	De quel (s) type (s) de handicap souffrez-vous ?	A=Auditif	C=Visuel	Si ¹ 4 èA7

		B=Moteur	D=Autres (à préciser)	
A6z	Précisez l'autre handicap			Si A6=4
A7.	Y compris vous-même, combien de personnes sont membres de votre ménage ? *Votre ménage est constitué de l'ensemble des occupants de votre habitation, qui partagent la même cuisine et vivent sous l'autorité d'une même personne, le (la) chef (fe) de ménage.*			.>=1
A8.	Combien de personnes avez-vous à charge, il s'agit ici de personnes pour lesquelles vous supportez les dépenses en alimentation, et/ou en éducation et/ou en soins de santé même si elles ne sont pas membres de votre ménage ?			
B	**ÉDUCATION ET OCCUPATION**			
B1.	Quelle est la dernière classe ou année que vous avez achevée avec succès au cours de vos études ?	0=Non scolarisé 1=CI 2=CP 3=CE1 4=CE2 5=CM1 6=CM2 7=6ème 8=5ème 9=4ème 10=3ème 12=2nd	13=1ère 14= Tle 15= BTS-1/Licence-1 16= BTS-2/Licence-2 17= Licence-3 18= Maitrise 19= Master-1/DEA-1/DESS-1 20= Master-2/DEA-2/DESS-2 21=Doctorat -1 22= Doctorat -2 23= Doctorat -3	
B2.	Quelle est le diplôme le plus élevé que vous avez obtenu au cours de vos études ?			
B3.	Avez-vous suivi une quelconque formation diplômante à un métier ?	0=Non 1=Oui, sans diplôme	2=Oui, avec diplôme	

B4.	Quelle est votre profession/métier ?		
B5.	Quelle est votre occupation/fonction principale actuelle ? *Votre occupation/fonction principal est l'emploi pour lequel vous consacrez plus de temps au cours d'une semaine normale de travail*.	1= Apprenant/étudiant 2= Sans emploi/occupation 3= Employé dans le prive 4= Employé dans le public 5= Travailleur libéral 6= Chef d'entreprise/ entrepreneur 7= Retraité	
B6.	Est-ce que l'entreprise/la structure/l'atelier, etc. dans laquelle vous avez votre occupation/fonction principale est formellement enregistrée ?	1=Oui 2=Non 3=NSP	=1 si B5=4
B7.	Combien d'heures avez-vous passées dans votre occupation/fonction principale dans la journée d'hier ?		Si B5=1, 2 ou 7➔B11
B8.	Êtes-vous rémunéré pour cet emploi principal ?	0=Non 1=Oui	
B9.	Par quel moyen percevez-vous vos rémunérations/salaires/ honoraires ?	A=Espèces D=SFD B=Chèque/ Virement bancaire E=Nature C=Mobile Money	
B10.	Dans quel intervalle peut-on situer vos revenus mensuels, directement issus de votre activité principale ?	1=[1, 40000] 5=Plus de 1000000 2=[40001, 100000] 97=NSP 3=[100001 , 400000] 98=Refus de répondre 4=[400001, 1000000]	
B11.	Dans quel intervalle peut-on situer vos revenus mensuels issus de vos investissements divers (immobilier, commerce, actif financier, etc.)	0=0 4=[400001, 1000000] 1=[1, 40000] 5=Plus de 1000000 2=[40001, 100000] 97=NSP 3=[100001 , 400000] 98=Refus de répondre	

	Enquêteur : Sélectionner « 0 » si « Pas d'investissement »			
B12.	Dans quel intervalle peut-on situer les aides (espèce et nature) que vous recevez mensuellement d'autrui ? *Enquêteur : Sélectionner « 0 » si « Pas d'aide »*	0=0 1=[1, 40000] 2=[40001, 100000] 3=[100001 , 400000]	4=[400001, 1000000] 5=Plus de 1000000 97=NSP 98=Refus de répondre	
B13.	Participez-vous aux travaux domestiques dans votre ménage ?	0=Non	1=Oui	
B14.	Combien d'heures avez-vous consacrées aux travaux domestiques de votre ménage au cours de la journée d'hier ?			
B15.	Avez-vous dans votre ménage des enfants ou des personnes dépendant des autres pour leurs besoins usuels (personnes de troisième âge ou pas) ?	0=Non	1=Oui	Si =0➔B18
B16.	Participez-vous dans votre ménage, aux soins des enfants ou des personnes dépendant des autres pour leurs besoins usuels (soins de toilettes, accompagnement à l'école ou à l'hôpital, etc.) ?	0=Non	1=Oui	
B17.	Combien d'heures avez-vous consacrées aux soins des enfants ou des personnes dépendant des autres pour leurs besoins usuels dans votre ménage la journée d'hier ?			
B18.	Participez-vous à la préparation du repas dans votre ménage ?	0=Non	1=Oui	
B19.	Combien d'heures avez-vous consacrées à la préparation du repas dans votre ménage au cours de la journée d'hier ?			
C	**ACCES ET UTILISATION DES TIC**			
	Maintenant, j'aimerais aborder des questions relatives à l'accès et à l'utilisation des technologies de l'information.			
C1.	Combien possédez-vous de **[Nom de l'appareil]** ? A Téléphone portable B Tablette C Ordinateur bureau D Ordinateur portatif			

C2.	Combien de carte Sim possédez-vous ? A MTN B Moov		
C3.	Combien possédez-vous de **[Nom du service]** ? A Adresse électronique B Compte bancaire C Compte mobile money (MTN-MoMo ou Flooz) D Compte SFD	0=Non 1=Oui	
C4.	Avez-vous la couverture Internet des réseaux de téléphonie mobile dans votre maison ?	0=Non 1=Oui	Si C4=0➔C11
C5.	Utilisez-vous Internet dans votre maison ?	0=Non 1=Oui	
C6.	Sur une échelle de 1 à 10, comment qualifierez-vous la qualité du signal Internet que vous utilisez dans notre maison ?	1 2 3 4 5 6 7 8 9 10	
C7.	Par quel canal avez-vous accès à Internet ? A Forfaits sur téléphone portable B Routeur/Modem personnel/ Ménage C Wifi privé du service D Wifi public	0=Non 1=Oui	
C8.	Personnellement, quel type d'abonnement Internet faites-vous le plus souvent ?	0=Aucun 1=Forfait volume journalier/hebdomadaire 2= Forfait volume mensuel 3= Fournisseur illimité	[1] 0 si C7A=1
C9.	Les services de quel (s) opérateur (s) utilisez-vous pour votre connexion Internet ?	A=MTN B=Moov C=SBIN D=Fournisseur d'Accès Internet (FAI)	Si C9[1]

C10.	Quel est le nom de ce fournisseur ?		
C11.	En général, les gens utilisent les téléphone/tablette/ordinateur avec ou sans Internet pour différentes raisons. Lesquelles des services suivants avez-vous déjà utilisés via un téléphone/tablette/ordinateur ? A Appels via les réseaux sociaux B Messagerie C Accès à Internet D Mobile Money E Services bancaires	0=Non 1=Oui	
D	**ACCES ET UTILISATION DES SERVICES PUBLICS EN LIGNE**		
D1.	Avez-vous eu besoin des services publics suivants au cours des 12 derniers mois ? A Affaire/entreprise B Cadre de vie/Foncier C Éducation / Santé D État civil et citoyenneté E Finance F Transport /Logistique *Enquêteur, référez-vous à la liste des services publics en annexe.*	0=Non 1=Oui	
D2.	Savez-vous que c'est désormais possible d'avoir accès à des services publics via son téléphone portable/tablette/ordinateur ?	0=Non 1=Oui	Si =0 ➔G1

D3.	Par quel canal avez-vous été informé de l'existence des services publics en ligne ***pour la première fois*** ?	1=Radio 2=Télévision 3=Internet 4= Communiqué de gouvernement 5= Agents des administrations publics 6= Agents des administrations locales	
D4.	Quels sont les services publics accessibles en ligne dont vous avez connaissance ? *Citez-en deux au plus* A Affaire/entreprise B Cadre de vie/Foncier C Éducation/Santé D État civil et citoyenneté E Finance F Transport/Logistique	0=Non 1=Oui	
D5.	Avez-vous déjà utilisé un des services publics en ligne ?	0=Non 1=Oui	Si =0 ➔**Error! Reference source not found.**
D6.	Pour les services publics dont vous avez eu accès en ligne, avez-vous fait la requête vous-même ou avez-vous fait recours à une personne intermédiaire ?	1=Moi-même 2=Personne intermédiaire 3=Les deux	Si D6=2 ➔D11
D7.	Quels sont ces services ? *Citez-en deux au plus* A Affaire/entreprise B Cadre de vie /Foncier		

	C Éducation / Santé D État civil et citoyenneté E Finance F Transport /Logistique		
D8.	Êtes-vous allé au bout de la procédure et obtenu satisfaction à votre requête ? *Enquêteur, posez la question pour chacun des deux services.*	0=Non 1=Oui	
D9.	Comment avez-vous payé ces services ? *Enquêteur, posez la question pour chacun des deux services.*	1=Mobile Money (MTN-MoMo/Flooz) 2=Carte Visa 3=Virement bancaire	
D10.	Sur une échelle de 1 à 10, comment appréciez-vous la facilité associé à l'accès à ces services en ligne, le respect des délais et la satisfaction dans l'accès aux services publics en ligne ? *Enquêteur, posez la question pour chacun des deux services* A Facilité d'accès : ouverture de la plateforme (site/application) B Facile de compréhension du fonctionnement de la plateforme (sans aide ou explication additionnelle) C Procédure d'exécution simple et rapide (pour soumettre une requête) D Respect des délais de traitement de la requête E Satisfaction globale par rapport à ce service en ligne	1 2 3 4 5 6 7 8 9 10	
D11.	Sur une échelle de 1 à 10, comment appréciez-vous les avantages associés à l'utilisation des services publics en ligne ? A Gain de temps B Économie d'argent C Disponibilité en continue D Absence de paiement de pot de vin	1 2 3 4 5 6 7 8 9 10	

D12.	Des deux affirmations suivantes, laquelle choisissez-vous ? 1 Affirmation-1 : La politique de digitalisation n'est pas une bonne idée. Le gouvernement doit suspendre les services publics en ligne pour qu'on continue de soumettre nos requêtes publiques physiquement dans les bureaux. 2 Affiramtion-2 : Les services publics en ligne sont meilleurs. Le gouvernement doit poursuivre ses efforts pour les améliorer et en déployer davantage	1=Affirmation-1 2=Affirmation-2	

G	**Distance par rapport à des services**							
G1.	Maintenant nous allons parler des endroits que les gens fréquentent en général. A moto, combien de temps mettez–vous généralement pour aller de votre maison à [**Nom de l'infrastructure ou endroit**]?							
			Moins de 5 min	5 à 15 min	15 à 30 min	30min à 1h	+ 1h	NSP
	A	Lieu de travail	0	1	2	3	4	8
	B	Banque le plus proche	0	1	2	3	4	8
	C	Système Financier Décentralisé (SFD) le plus proche	0	1	2	3	4	8
	D	Guichet Automatique de Banque (GAB) le plus proche	0	1	2	3	4	8
	E	Agent ou point de service Mobile Money (MTN-MoMo/Flooz)	0	1	2	3	4	8
	F	Point de paiement de facture d'eau	0	1	2	3	4	8
	G	Point de paiement de facture d'électricité	0	1	2	3	4	8
	H	Mairie ou arrondissement le plus proche	0	1	2	3	4	8
	I	Tribunal le plus proche	0	1	2	3	4	8
	J	Centre des Impôts le plus proche	0	1	2	3	4	8

R	**RESULTAT**		
R1.	Date de fin de l'enquête	JJ-MM-AAAA	
R2.	Heure de fin de l'enquête	HH-MM	

R3.	Résultat final de l'enquête	1=Enquête achevée	2=Enquête inachevée	R2
R4.	Pourquoi l'enquête n'a pu être achevée ?	1=A refusé 2=Est indisposé	3=Autre	Si R4¹ 3➔R6
R4z	Précisez l'autre cause de non-achèvement de l'enquête			
R5.	Dans quelle langue l'enquête s'est-elle majoritairement déroulée ?			
R6.	L'enquête s'est-elle déroulée en présence de tierces personnes ?	1=Oui	0=Non	
R7.	La personne a-t-elle assisté partiellement ou intégralement à l'entretien ?	1=Intégralement	0=Partiellement	Si R6=1
R8.	Dans quelle mesure pensez-vous que cette personne a-t-elle influencé les réponses de l'enquêté ?	0=Pas du tout/Aucunement 1=Quelque peu/Partiellement 2=Beaucoup/Fortement		Si R6=1
R9.	Votre chef d'équipe a--il assisté à l'enquête ?	0=Non 1=Oui, partiellement	2=Oui, intégralement	