ASSESSMENT OF "DIGITAL MOROCCO 2013" STRATEGY

February 2014

SUMMARY

In accordance with Article 75 of the Code of Financial Courts n°62-99, the Cour Des Comptes conducted an evaluation of "Digital Morocco 2013" Strategy. To this end, the examination of the progress of this strategy, the evaluation of the modes of its governance and steering as well as the assessment of the realization of the objectives of the strategy were conducted through the analysis of its indicators and ICT international indicators.

1. Introduction

Information and communication technologies (ICT) constitute a major tool for human and economic development. Following the example other countries since 1996, Morocco has initiated the reorganization of the field of information technologies by the adoption of Law n°24-96, which made it possible to launch the first stage of the liberalization of the telecommunications sector. Within this context, Morocco has adopted several digital strategies: the five-year plan 1999-2003, E-Morocco 2010 over the period 2005-2010 and "Digital Morocco 2013" Strategy [1], whose implementation covers the period 2009-2013.

«Digital Morocco 2013» Strategy set four strategic priorities, namely:

Line 1: Social transformation;

Line 2: Implementation of user-oriented public services;

Line 3: Computerization of SME; and

Line 4: Development of IT industry.

It also adopted 2 support measures:

Measure 1: Development of human capital and

Measure 2: Cyber-confidence.

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[1] MN2013

Such strategic priorities and their support measures were composed of 53 actions.

The financial resources allocated to the strategy amount to 5.19 billion MAD. The budgets regarding Line 1 "Social transformation" and Line 2 "User-oriented public services" account for almost 83% of the total budget.

The financial package was limited to determining the total amount allocated to each of the 4 lines without presenting the various funds mobilized by source.

No budget was planned for the implementation of the first support measure "human capital".

The strategy also provided for bodies to ensure its governance and steering. These are the National Council of Digital Economy and Information Technologies (CNTI) established by Decree n°2-08-444 dated 21 May 2009 and CIGOV, the inter-ministerial committee in charge of steering E-Government program. Several entities contributed to the implementation of the strategy.

2. Progress of «Digital Morocco 2013» Strategy (MN2013)

The 53 actions planned in the strategy were undertaken within the framework of 105 projects.

The progress of the 4 lines and the 2 support measures of MN2013 as of 30 June 2013 indicates that the latter shows a delay with regard to the materialization of the entire actions and projects planned. This can be seen along the following lines:

- Concerning Line 1: At 6 months of the estimated closing date of the strategy, only 11% of the scheduled actions are completed.

  The projects that witnessed significant completion rates are those relating to the equipment provided to the teachers and students of the schools of engineering and universities, namely Nafida and Injaz. The flagship project of the equipment of primary, secondary and high schools (GENIE) is still late with a completion rate not exceeding 71% of equipment as to multi-media bags and 24% regarding multi-media classrooms, whereas the target objective was the generalization of such equipment. Moreover, 20% of the initial projects were either abandoned or never started. A case in point is the project of the promotion of low-cost equipment and GENI-SUP project concerning the establishment of an information system in universities.

- Concerning Line 2: The assessment of the progress of the 69 projects planned for E-Gov indicates that only 36% of the projects are operational and 3% underway, whereas 38% of the scheduled projects are late or experiencing problems and 22% of the projects did not start.

Among the 25 operational projects, 15 projects (60%) have an informational and interactive character. Only 6 projects (24%) are transactional and integrated, whereas the initial objective was the implementation of 40 transactional and integrated projects.

In addition, it should be noted that out of the 13 projects identified as priority (must have) by the strategy only the "electronic certification" project was implemented. The E-consulate project is underway. However, 11 projects are late including the project concerning the information system of the local government agencies, which has not started.

- Concerning Line 3: This line was composed of 9 actions. The assessment of their achievement shows that out of the 9 scheduled actions, two were conducted (22%), five are underway (56%), one action is suspended (Rawaj TI), and one action was not conducted (Training of correspondents and chartered accountants).

- With regard to the implementation of Line 4, fourteen (14) actions were planned and composed of 15 projects. The assessment of their achievements shows that only 4 actions (27%) were carried out, 9 are underway (60%), whereas two actions did not start. The major actions implemented are the Moroccan Center for Innovation, Digital Morocco Fund, Technopark Casa, IT Cluster.

- The strategy planned 5 actions with regard to the human capital measure three of which did not start, namely the establishment of a steering mechanism of training programs, the development of private-public partnership training initiatives and the improvement of the employability of university 2nd cycle graduates.

- The strategy planned 12 actions composed of 15 projects as to the cyber confidence measure. 9 actions (60%) are operational and 6 actions (40%) are underway. It should be noted that although Ma-CERT project is regarded as operational, as it was launched on 2 November 2011, no Internet searchable site is available.

3. Strategy analysis

Insufficiencies in terms of development

«Digital Morocco 2013» Strategy was launched by the National Telecommunications Regulatory Agency (ANRT) in 2008 in coordination with the Ministry of Industry, Trade and New Technologies (MITNT), under Contract n°01/08/ANRT amounting to 9.98 MMAD.

The development of the strategy was marked by the lack of a participative approach with the various stakeholders and actors, following the example of other countries which set up online portals for the needs of users. However, it was only almost 3

years after the launch of MN2013 that the site "www.fikra.gov.ma" intended to collect users' needs was posted on line.

The lack of participation of the regional and local actors in the said development involved difficulties in the implementation of some projects, such as GENIE and Civil Status projects, owing to the fact that the strategy did not take account of the degree of maturity of regional and local actors to ensure a successful introduction and modernization of their core business processes.

No evaluation was conducted for E-Morocco 2010 strategy (2005 - 2010) in order to detect the possible constraints having hindered its implementation and take them into account during the development of MN2013 strategy.

Sketchy character of the strategy

«Digital Morocco 2013» Strategy was composed of priorities, initiatives and actions. However, it was not supplemented by sectoral strategies specifying the detailed contents of the projects and actions as well as the processes to reach the set objectives. Such is the case of E-government program, which was conducted independently in the absence of a reference document as planned with regard to action 11 of the strategic document.

Similarly, the support measure regarding "Human capital", in spite of its importance, did not benefit from the development of a specific strategy detailing its contents and the process of implementing its various actions as well as the specification of the targeted populations.

Insufficiencies in terms of prioritization and visibility as to structuring projects

No prioritization among the various actions and projects was observed. However, such approach is necessary to ensure coherence and synchronization in their implementation. Such is the case of "GENIE-Sup"[2] program which was delayed compared to "Nafid@ "[3] and "INJAZ"[4] programs, limited in time and having benefited only a segment of teachers and students.

Some strategic and structuring projects for the administration and users could not be materialized for lack of a clear vision of implementation. This applies to the project concerning the unique identifier of citizens and unique identifier of companies.

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[2] Genius-Sup is a program which aims at the generalization of ICT and the installation of a network in universities.
[3] Nafid@ is a program aiming at providing equipment to individual teachers.
[4] INJAZ is a program aiming at providing equipment to the students of these establishments and the schools of engineering.

4. Governance and steering of the strategy

Limitations in the governance process

«Digital Morocco 2013» Strategy was not subjected to a process of preliminary validation in order to ensure the coherence of its contents, a formalized initiation and adhesion to its implementation, which negatively impacted its smooth running.

Moreover, CNTI, the governance committee of MN2013, and CIGOV, steering committee of E-Gov program, are not included as their members of regional representatives. The absence of this regional aspect did not make it possible, on the one hand, to capitalize on the specificities of each region and, on the other hand, to ensure in the long term a balance between the development of regions and the development of the center.

Moreover, CNTI as a governance body did not perform its missions, because from 2009 to 2013 only three meetings were held instead of a minimum of two per annum. The official reports of the meetings of this committee focused mainly on E-Gov program. Indeed, out of the 12 resolutions taken by this Council, 9 resolutions concern E-Gov program.

Limitations regarding steering bodies

CIGOV, an interdepartmental entity in charge of steering e E-Gov programs, does not have a real capacity of decision and arbitration as regards the launch of an E-Gov project. It rather depends on the will of the department which will carry it out (project initiator), which acts autonomously since it bears its expenses. Hence, several projects were launched without the notification of CIGOV (projects such as employment site, Mahakim site and Stop absence). In addition, there was a poor involvement of CIGOV permanent members, with decisional capacity, in attending its meetings, posting a presence rate not exceeding 35%.

Moreover, the criteria of selection and relevance of the choice of projects along with their integration in E-Gov portfolio are not clearly defined.

The Ministry for the Modernization of Public Administration is not associated to the steering of E-Gov program. However, this Ministry plays a pivotal role in the modernization of public services and the success of the change of the patterns of relation between the administration and users.

Limited visibility in the steering process

The process of steering MN2013 was marked by a strong dependence on external resources by the means of concluding a set of contracts amounting to 42 MMAD. Indeed, the Directorate of Digital Economy, the body tasked with ensuring the operational startup of MN2013, did not strive to associate its various structures to the steering of the strategy, although it comprises a total manpower of 35 people with a

supervision ratio of more than 80%. This did not allow the administration to develop its capacities as regards project management and capitalize on experiences.

Furthermore, during the first two years of the strategy, steering was conducted by one company and five contractors only for the line concerning E-Gov. The steering of the line relating to the social transformation accounting for more than 41% of the total budget of MN2013 was conducted by only one contractor. Only three years after the launch of MN2013 that its total steering, except E-Gov, was assigned to another company. The delay of the Ministry of Industry, Trade and New Technologies in concluding the provision of this service, whose notice to proceed was not issued until 15/09/2011, more than thirty months after the startup of MN2013 in 2009, indicates the poor interest granted to this assistance.

Moreover, the limited time of this assistance was fixed at twenty months so that this service came to an end on 30/04/2013; that is six months before the end of the strategy. The assistance contract stipulated that the contractor would be in charge of only the completion of the plans for the years 2011 and 2012. The exclusion of the year 2013 is incomprehensible.

Insufficiencies regarding the steering process

The steering contracts do not provide, under the terms relating to the methods of acceptance, the designation of commissions dedicated to this purpose. Moreover, the accounting statements of such contracts are not accompanied by documents attesting to the effectiveness of the various interventions achieved at the level of the departments, their purpose and the number of man-days assigned to them.

These contracts do not provide details relating to the execution methods of the aforesaid services or to the outputs which the contracting assignees will have to place at the disposal of the project owner and the entire set of departments intervening in the execution of the project.

Moreover, a written methodology common to all the projects of the strategy is lacking. The life cycle of the projects with their various stages and stakeholders as well as information exchanges are not formalized, which made their follow-up difficult. These difficulties were exacerbated by the failure to exploit computer tools of project management.

In addition, the roadmaps serving as a tool of follow-up and planning for E-Gov projects do not provide information about the human resources required for the implementation of projects, essential information to make sure that competencies necessary for their realization are available in good time and to guarantee their good progress.

Finally, it was noted that there were no roadmaps for the projects scheduled with regard to Line 2 of the strategy (only 29 projects out of 69), as well as for the entire set of initiatives relating to Line 1. This indicates difficulties hindering the communication of information between the officers in charge of the execution of projects and steering actors.

5. Objectives and indicators of the strategy

A limited follow-up of MN2013 indicators

It was raised a deficiency as regards follow-up of the indicators fixed at the level of the strategy and the evaluation of its various actions.

OMTIC[5], an observatory established to serve as reference with regard to information on ICT, is limited to the collection of the indicators measured by other authorities (ANRT, Ministry of Education, Ministry of the Modernization of Public Sectors…). The collection of the indicators and their analysis are confronted with the discontinuity of their productions by the actors concerned as well as their unreliability.

Trend of indicators and achievement of objectives

The trend over the period 2009-2013 of certain indicators reported by MITNT raises the following comments.

Line 1: Social transformation

«Digital Morocco 2013» Strategy allowed to make headway in the penetration of the Internet to households and its democratization, increasing from 14% in 2008 to 39% in 2012 exceeding the target of 33%. However, it would be necessary to moderate these results by taking account of the significant disparities between urban and rural areas. Indeed, the penetration rate is 51% urban areas as against 16% in rural areas.

Furthermore, while the effort of providing schools with ICT equipment was conducted at a total value of 71% in MMC, the initial objective of MMR equipment was achieved only at a total value of 24%. It should be noted that the satellite schools totaling 13451 and accommodating about 1 million students or 20% of the total number of students, remain beyond the scope of GENIE action.

The establishment of the Access Community Centers (ACC) planned was also delayed. Only 74 ACC were implemented out of the 400 planned; that is a completion rate of 18%. Moreover, these centers are not operational.

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[5] Moroccan Observatory of Information and Communication Technologies

Line 2: E-Gov

One of the objectives set at the level of this line is the development of UN E-government index to 0.8 at the end of 2013. This objective is far from being reached, since this index was only 0.5060 at the end of maturity schedule of the strategy.

The services and E-Gov projects conducted reached 42 out of the 89 planned. However, the E-government sites are posted among the top 100 most visited sites are 17 exceeding the objective of 5.

Line 3: Productivity of SME:

The companies which benefited from Moussanada IT to be provided with professional information systems reached 295 out of the targeted 3000 companies or 10%. As to Infitah program, 3040 SME managers obtained the digital license, whereas the objective was 10.000 recipients (or 30%).

Line 4: IT industry

Out of the five indicators set for this line, only one indicator was followed. It is the turnover of IT offshoring which rose from 0.76 billion MAD in 2008 to nearly 2 billion MAD in 2012, but far from the target amount of 6 billion MAD.

With regard to the support line of "human capital", 3.000 IT offshoring profiles were trained in an emergency operation, but information is lacking to evaluate the progress of the training of 30.000 other profiles which the strategy defined as needs for the TI sector.

Concerning the measure "cyber confidence", the Monitoring Center of Detection and Reaction to Cyber-attacks (ma-CERT) has been created. However, no service has been delivered yet by this center (a website relating to the services of this center was not provided). As to electronic certificates, 4403 certificates were issued out of the targeted 60.000 certificates (or 7%).

Impact of MN2013 on the trend of ICT international indices of Morocco

The follow-up of IDI indices (ICT Development Index) and IPB (ICT Price Basket) resulting from IUT reports on the measure of information society, NRI index (Network Readiness Information) resulting from the IT report provided by WEF (World Economic Forum) and E-government index resulting from the UN report makes it possible to draw the following conclusions:

- Concerning the measure of information society, Morocco recorded an improvement with regard to the global IDI, between 2008 and 2012, up from 2.68 to 3.79 allowing it to slightly improve its ranking thanks to access and use indices. However, the IDI sub-index on the competences related to the education system is alarming since it posted a decline and stagnation in terms of ranking during the implementation period of the strategy, ranking 123 with an

index not exceeding 4.18 in 2011. This sub-index witnessed a slight increase recording 5.03 in 2012.

- This result is also confirmed by NRI sub-indices on the education system and the use of ICT, which recorded slight fluctuations gaining or losing some places in terms of ranking, without improving the overall NRI index which remained stagnant at 3.6, down five places in ranking from 86 in 2008 to 89 in 2013. The stagnation of this index and the decline of Morocco in terms of ranking indicate that the results of the efforts made remain fall short of what is recorded in other countries.

- The measure of the indices of impact on the economy and society by the means of the introduction of ICT shows their modest effect on the Moroccan economy but without contributing to the improvement of the citizen's standard of living. The decrease of the index of the impact of ICT on society from 3.4 to 3.1 with the loss of almost 13 places is alarming.

- With regard to user-oriented public services, Morocco recorded a significant development in terms of e-Gov index measuring the degree of application of ICT by public administrations to improve their services, up from 0.29 in 2008 to 0.5060 in 2014 gaining 38 places in the overall ranking. However, this trend is due mainly to the sub-index of online services which rose from 0.2 in 2008 to 0.6929 in 2014. The sub-index relating to human capital declined from 0.54 to 0.4901 in 2014 causing Morocco to lose places.

6. Remarks specific to some projects

GENIE Program

This program is part of the major actions of the thematic line relating to social transformation. It started in 2006. It aims at the generalization of ICT in education.

The introduction of ICT in schools reveals the following insufficiencies:

- Non-synchronization among the various components of GENIE program. Indeed, the provision of computer material to schools covered a period of one year and half from November 2006 to March 2008 and Internet connection was undertaken only tardily as from November 2008 over a period one year.
  Moreover, the procurement of digital resources began only in mid-2009 and it is still underway in June 2013.
  In addition, the process and methodology of training were formalized only in 2010; that is more than four years after the launch of the program.

- The strategy relating to GENIE did not undertake any prioritization in the process of equipment among the various school types (primary, secondary,

high school). Such approach, exacerbated by the delay in the establishment of ICT infrastructures, creates disparity in the equipment among schools and consequently in knowledge and know-how relating to ICT between regions, students and teachers.

- The absence of a single and secured backbone network among academies, their delegations and the various establishments, on the one hand, and the central services on the other hand, along with allowing access to the equipment deployed in schools within the framework of GENIE program (multi-media rooms, multi-media case cart, multi-media bag, class PC etc.) involved difficulties in the management of the various deployed connections.

- Unlike the incentive actions undertaken by other countries such as France, Switzerland and Canada for the use of free software and "Open Source" systems, especially in the world of education, GENIE program directed its procurements towards copy-righted and expensive software. The expenditure on the purchase of copy-righted software during the first stage of the program (GENIE 1) reached nearly 43.7 MMAD; that is 14% of the total amount of this phase.

- The initial objective of GENIE program as to the use of computer tools is far from being reached owing to the fact that the average duration of use per student (except students of the establishments whose rooms are closed) is only 18 mn per week approximately for primary, secondary and high schools. This rate falls short of the set objectives which are respectively 1 hour, 2 hours and 3 hours for the three cycles.

- The installation of Wi-Fi networks in multi-media rooms did not take account of the principle of prudence issued by the World Health Organization (WHO) considering the effects of these radio emissions especially for primary school pupils.

"E-Gov" Program

This program is part of line 2 of MN2013. It is supposed to meet the needs of users as regards online administration. Some projects of this program significantly lag behind and their materialization experience difficulties.

"Gateway" Project

This project aims at making it possible for the user to address only one administration, physically or electronically.

This project showed a significant delay in terms of its implementation since it was scheduled within the setting of the old strategy "E-Morocco 2010". In spite of its

importance, it was only three years after the launch of the strategy that its roadmap was approved. The project was supposed to start in April 2011 and end in December 2013, with a budget of 14 million MAD. In June 2013, the related contract was being awarded.

Civil status project

The project of the civil status aiming at the computerization of the procedures of Civil Status Offices (CSO) and the establishment of the electronic national register of civil status, with a budget of 600 million MAD remained limited to the digitalization of 4.5 million birth certificates in Casablanca.

Concurrently with to the Civil Status Project, another project was launched called "watiqa.ma" serving as a single window for the order online of birth certificates. The system is not generalized yet and an experiment was launched in some pilot sites. The service is limited to a dematerialization of the procedure of "application" for the certificate rather than the dematerialization of the certificate itself. This service conditioned the online request by the reception of a tariff of 20 MAD via registered mail. This tariff seems expensive since, according to the investigation conducted by ANRT on the use of ICT in Morocco in 2012, only half the users are willing to pay for E-Gov services: 56% are willing to pay 2 to 5 MAD, 27% 5 to 10 MAD, and only 2% could pay more than 20 MAD.

MAJOR RECOMMENDATIONS

The Cour Des Comptes recommends the following to the governmental authorities in charge of the implementation of digital strategies, particularly the government department in charge of ICT:

1. *Formalize the process of development and adoption of digital strategies and ensure the mobilization of all stakeholders.*

2. *Specify with precision the terms of reference of the design studies of the digital strategies and their deliverables and have them approved by a committee of experts.*

3. *Take account, during the phase of development of digital strategies, of the regional and local contexts and their degree of maturity as regards ICT.*

4. *Ensure the indication, with regard to digital strategies, of the target effects of the set objectives and their impacts as well as integrate the adequate indicators allowing the follow-up thereof.*

5. *Ensure the hierarchization of the objectives and envisage adequate planning through the clear identification of human and financial resources required for its implementation.*

6. *Re-examine the system of governance and steering of digital strategies towards a clear definition of responsibilities, regular follow-up of achievements and a greater reactivity to adapt the execution of strategies.*

7. *Plan a body endowed with the required authority for the coordination of various actions, particularly transverse programs and those managed by specific departments.*

8. *Permanently monitor ICT indicators of Morocco and the country's world ranking and make efforts for their improvement, particularly for the strategic aspects directly related to the competitiveness of the national economy and the development of information society.*

9. *Ensure the required continuity in terms of the overall steering of digital strategies for more visibility and traceability during their implementation.*

10. *Ensure that the ministries and bodies in charge of the implementation of strategies have adequate skills, especially project management competencies, to allow a better control of completion timeframes.*

11. *Ensure regular reporting and the centralization of information on each project at the body in charge of coordination. The use of computer tools of project management, reporting and steering is essential.*