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METHODS

E-management in the Moroccan university: what impact on governance?

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It is obvious that the use of new information and communication technologies (NICTs) is essential for development, and this is by promoting e-governance and access to information, with the avowed aim of giving the population the means to influence the decisions of public authorities. The use of new technologies within administrations is one of the determining factors in boosting good governance. Moreover, democratic, economic, and administrative governance are the three results of the good use of NICTs. In this paper, we will study the implementation of e-management in the Moroccan University (case of the USMS: Sultan Moulay Slimane University) and its impact on governance and sustainable performance within this organization.

Keywords: governance, E-management, Moroccan University, NICT, public administration

1. Introduction

Many have carried out reforms influenced by the concept of the "new public management" At the heart of these reforms is a redefinition of the state higher education institution relationship. This approach advocates that the state should move away from direct management and control of higher education to "remote steering" and ex post control of outcomes (1, 2).

Many governments then decentralized part of their responsibilities to universities while strengthening autonomy; in order to cope with these new burdens, the governance of universities was transformed. Education has always been high on the agenda of governments in Morocco. The observed deterioration of education has prompted politicians to introduce reforms in the education system. In terms of governance, the new reform has put in place several attempts to correct the problems of public higher education. **Figure 1** illustrates these different approaches.

To this end, the problem is based on the following central question:

What are the contributions and impacts of E-Management in the good governance of Moroccan Universities?

In order to address this issue, we will address the following research questions:

- To what extent does the use of digital platforms contribute to the effectiveness of university management?
- What are the areas of intervention, and how can we define university digital governance?

This work consists of a field study on the case of "Sultan Moulay Slimane University." Thus, this study aims to demonstrate the role of e-management as a performance lever, to give an overview of the practices of this determinant, and to assess its added value in the sustainable performance within this organization.

2. E-management: a new approach to university governance

2.1. Strategic vision of the 2015–2030 reform

Despite the implementation of all these reforms, higher education still suffers from accumulated shortcomings that the reforms have failed to address. Several dysfunctions have been raised by the National Evaluation Instance over the period of 2000–2013.

Taking into consideration all these findings, the Higher Council of Education, Training and Scientific Research has developed a «Strategic Vision of the Reform 2015–2030», which is the main pivot for the establishment of a modern school based on equity and equal opportunities and good governance (Belkacimi, 2017). Each of these axes is broken down into a total of 44 projects. Then, each project is also broken down into a total of 245 actions.

With regard to the second axis, relating to the development of governance, this plan aims at several changes due to the 9 projects including the modification of law 01-00 and the establishment of the National Agency for Evaluation and Quality Assurance of Higher Education and Scientific Research, and the operationalization of its missions (MESRSFC, 2015).

Figure 2 shows the nine projects of the second axis related to governance development.

Within the framework of e-governance, this plan provides for the development of the use of modern technologies. Several changes have been put in place to facilitate and make certain procedures more flexible. We cite the continuation of the program "INJAZ," the implementation of the digital work environment (ENT), and the generalization of the use of Wi-Fi terminals in higher education institutions and university halls of residence.

2.2. E-governance

Many definitions of e-government have been formulated by researchers and major international organizations. One of the simplest and certainly the most comprehensive is offered by the Organization for Economic Cooperation and Development (OECD). It defines e-government as the use of ICT to achieve better government. A similar definition of e-governance would, therefore, be the use of ICT to achieve better governance. The "better government" in the OECD definition implies greater efficiency and performance on the part of the government, as well as its ability to deliver quality public services; better governance would also include the ability for stakeholders to become more engaged in democratic policies and processes. For the sake of simplicity, we will treat the two concepts as synonymous here.

2.3. Introduction of e-management in the university

Many universities now have an "ICT cell," a pedagogical assistance service, and often even a vice-president in charge of these issues, or at least a project manager. ICT is the showcase of the information society for pedagogy. However, ICTs, more generally, touch the heart of the university's major functions: training, professional integration, research, HRM, steering, financial management, and accounting. Each of these functions, already structured by several IT tools, is now on the verge of becoming a "brick" in a vast information system.

In this paper, we will focus on some achievements of the Sultan Moulay Slimane University[1]:

- The Digitalization Cluster of Sultan Moulay Slimane University PD-USMS was created as part of the university's organizational chart, and its objectives are to provide the necessary skills for the development of the university's digital projects, federate the digital transformation at the level of the university and its institutions, improve the digital governance of the university and its management, and align the university with the models of innovative universities of reference.
- Sultan Moulay Slimane Virtual University UvSMS is an educational platform for distance learning that integrates all virtual institutions under Sultan Moulay Slimane University. UvSMS's mission is to strengthen face-to-face teaching and promote pedagogical practices, and it allows teachers to create their courses online and students to follow and consult the courses.
- ENT-USMS: Environment Numérique de Travail (Digital Working Environment), as its name suggests, is a digital platform that allows students to benefit from educational and administrative services from any terminal (PC, smartphone, and tablet) connected to the Internet.
- The USMS E-Competition platform allows candidates to apply for recruitment competitions opened by Sultan Moulay Slimane University, it also allows a follow-up and a better management on the part of the administrative body assigned to the human resource department, and finally it gives a global overview for the teacher-researchers present in the recruitment jury to facilitate the selection of successful candidates.

The HR USMS platform is a digital human resources space that provides administrative services related

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1   http://gouniv.univh2c.ma/go_univ/images/go-univ_docs/\hbox{wp51/presentations}/Gouvernance_Univ_Marocaine_Go-Univ_5.12.2014_Aboussalah.pdf
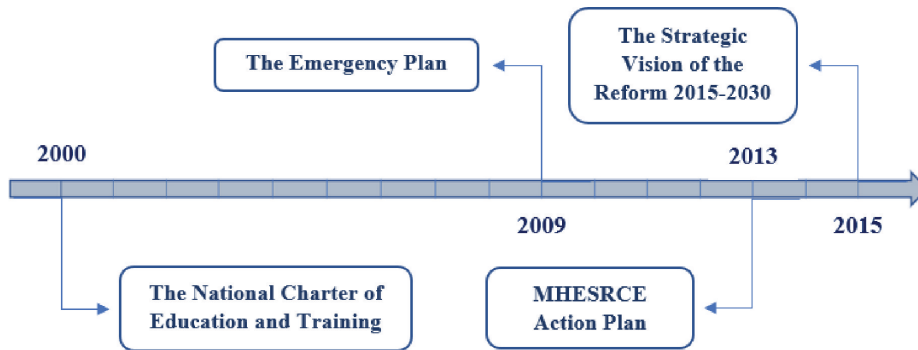
FIGURE 1 | Higher education reforms in Morocco.

FIGURE 2 | Governance development projects. Mr. ABOUSSALAH, 2016.

FIGURE 3 | The research model inspired by Crotty (3).

to this function. In addition, the HR USMS platform offers a complete and updated database containing the information of all staff, which facilitates the work of the HR department regarding promotions as well as all other related procedures.

- The Finance Webeep USMS platform is a digital platform that allows you to monitor the financial situation of the institution. Moreover, the Webeep USMS platform facilitates the procedures for awarding and monitoring public procurement files and presents a dashboard that reflects a global view of all payments.
- Digital Order Office USMS is a mail filing platform that will allow to manage electronically the flow of incoming and outgoing mails with the objective of

limiting the physical exchange of documents and facilitating the submission of administrative mails.

In application of the Circular of the Minister of Economy, Finance and Administration Reform n° 2/2020 of April 1, 2020, relating to the digitalized services of administrative mails, the State Domains Directorate adheres to the platform "Digital Order Office."

3. Epistemological and methodological framework

The research model inspired by Crotty (3) is a useful model for establishing a research framework for this study.

We note that the questionnaire is divided into 4 parts:

- The 1st part allows the identification of the sample respondent.
- The 2nd and 3rd parts answer, respectively, our two research questions mentioned above.
- The 4th part gives a global idea of the contributions and impacts of e-management in university governance, i.e., the problem of our research.

The questionnaire was carried out by the survey and analysis software SPHINX, which generates results in the form of graphs and percentages and facilitates the processing and analysis of responses.

4. Results and findings

This analysis is based on the results of the questionnaire (Annex 1); for this data collection, we obtained 55 valid responses.

- Our sample is mainly composed of people from the former public institutions, since they have a greater number of public employees. For other characteristics,
- Age is almost equally divided among the three age groups between 25 and 65 years.
- More than 70% of the respondents have a bachelor's degree or a doctorate.
- The most representative department is the dean's office, which is normal since they are the most familiar with governance and management.
- Finally, for the length of service, the highest value is represented between 4 and 10 years, but we also notice that 14.5% of respondents have less than 2 years of service, which is good because it shows the interest of new recruits for e-management in the university.

We note that the Webeep platform is the most used one with a rate of 47.3%, followed by the Human Resources platform, and the digital Registry Office is also used with a rate of 41.8%, followed by the digital work environment (ENT) (38.2%) and the E-Concours platform (29.1%).

We note that the respondents added APOGEE[2] with a rate of 23.6%, and this software is an application for the organization and management of teaching and students.

- 76.4% of the respondents use these digital platforms daily or almost daily, while 23.6% use them occasionally.
- More than 75% of respondents often need information from these platforms.
- More than 95% of respondents are satisfied with the use of these platforms.

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2 https://www.amue.fr/fileadmin/_migrated/news/rapportApogee.pdf

- More than 95% of respondents say that these platforms facilitate their work.
- A total of 92.7% of respondents confirm that these platforms allow them to better organize their tasks.
- A total of 87.7% say that these platforms have facilitated internal communication.
- Consistency of opinion among all respondents on the importance of these digital platforms for the e-management of institutions.
- More than 90% of respondents confirm that e-management allows for good decision-making.
- Unanimity on the effectiveness of e-management.
- More than 90% of respondents say that their institutions are undergoing a digital transformation, and 69.1% confirm that they have a digital master plan.
- A total of 81.8% claimed that board members have sufficient e-governance skills and 18.2% are neutral. This can be explained by the reluctance of some administrative staff who do not accept digital change.
- A total of 45.5% confirm that they have someone in charge of digital governance within their institutions, while 54.5% say they do not. This is normal since the digitalization projects of Sultan Moulay Slimane University are recent.

Among the answers we received for the questionnaire, the most relevant names for this project manager are digitalization project officer/e-governance officer/digital and digital cluster manager.

The figure above illustrates the areas of intervention of these governance missions.

The positive answers concern pedagogy, information system, communication, steering and management, and research.

The negative responses target security policy and liaison with companies in the digital economy.

For infrastructures, there is a small variance between positive and negative responses, with a slight advantage for positive responses.

Beyond the functional aspect, most of the respondents affirm that e-governance brings efficiency/traceability/visibility/good communication/quickness to the institution.

A summary of all the responses received allowed us to draw up a definition of university digital governance:

It is a transformation that is not limited to the digitization of training or the dematerialization of administrative tasks, but rather, it is the first and foremost to become true digital organizations that take into account the digital uses of students and members by inserting themselves into the complexity of the university system while improving the brand image.

It is a transparency tool for a digitalized university and an essential task to go through in order to reach the expectations set on all levels.

Concerning digital actions outside the institution, only 23.6% of the respondents confirm having participated in them.

It is possible to notice that the positive impacts are more numerous, and the answers of the respondents are in accordance with the general aim of e-management.

Indeed, the use of e-management in university governance should allow to coordinate activities, to communicate better, to save time, to do more tasks, to speed up decision-making, to increase the concentration and the performance of individuals, and to face the COVID-19 crisis.

Furthermore, another finding can be made: e-management leads to difficulties between stakeholders and does not allow for the transfer of responsibility for a job. However, this result must be qualified. Indeed, almost one-third of the respondents does not take a position on these items, which weakens the conclusions that could be drawn from this result.

5. Conclusion

E-management impacts university governance. The upheavals in the Moroccan higher education system mean that university management must be constantly revised and adapted.

Other than the functional aspect, we are convinced that the development of the managerial capacities of the Moroccan public higher education system's executives remains a crucial step in the great task of establishing good governance in this system. For this reason, we plan to extend the present research by another one considered complementary, whose objective would be a methodological proposal of some managerial practices considered essential for a good university e-governance in Morocco.

Acknowledgments

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