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## The Role of Performance Budgeting in Developing Management Control in Universities: Evidence from Morocco

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### ABSTRACT

Under the combined effect of performance budget reforms and reforms of the higher education sector, universities face a set of constraints but also opportunities. More than ever, they are called upon to engage in strategic thinking and to set up performance reporting mechanisms that promote a new governance style called “the entrepreneurial university”. Management control is the most suitable tool for ensuring consistency of actions towards the objectives pursued. In this paper, we tried to shed light on the role of budgetary reforms in the development of management control in universities. For this we have chosen to conduct a case study which will make it possible to detect the relationship between the performance budgeting devices and the development of management control in Moroccan universities. Results show that results based budgeting has an important role on the development of management control in universities. Nevertheless, management control practices remain in an embryonic state and should be improved by university’s responsible.

### INTRODUCTION

Since the 1980s, public budgeting systems have undergone an unprecedented change in response to the need to control public deficits. The need for greater efficiency, effectiveness and accountability has led to a shift from means-oriented to results-oriented budgeting (Sterck, Scheers and Bouckaert, 2004). This shift was clearly influenced by the New Public Management (NPM) which is characterized by the idea that traditional public sector management is inflexible and inefficient, and that only the transposition of management methods from the private sector can improve it. One of the reform of NPM is performance budgeting.

The performance budgeting is a way of linking between funding and results to improve the effectiveness and efficiency of public spending. It has been implemented in all OECD countries in a different way and to a different extent depending on the country. This reform did not exclude the higher education sector with all its specificities. To support this reform, universities have implemented new managerial tools. Management control is one of this popular tools that was used because of his ability to control the resource constraint and make actions consistent with the objectives pursued (Dollado, 2022).

There are many papers that studied the performance budgeting reforms applied on higher education. But there is a lack of studies which focus on the relationship between results-based budgeting and the development of management control in universities (Janka, Heinicke and Guenther, 2020). In this paper, we focus on the Moroccan higher education case. Since the early 2000s, the Moroccan government has been aware of the need for radical reforms of its administration and education

sector. For this purpose, governments launched a series of reforms aimed at modernizing the management of its administration at the organizational, budgetary, and human levels. The results-based budgetary reform has been an important entity in accelerating state reform. Its implementation began with an experimental phase in 2001. During this period, the government launched several measures referring to the logic of management by results.

Through this paper, we examine the situation of management control within Moroccan universities and the relationship between the development of management control within universities and the Moroccan budgetary reform through a case study. Thus, we started by presenting the different budgetary reforms in Morocco that have been launched since 2001, then we explained the importance of management control in this reform process.

### LITERATURE REVIEW

#### The Performance Based Budgeting

The budget is the most important instrument available to the State to reflect a faithful image of the economic and social policy of the country (Schick, 1966). Based on this observation, many governments have sought to modernize their budgeting system in order to guarantee the effectiveness of their public spending while improving the quality of services provided to citizens. Thus, adopting New Public Management (NPM) principles was the answer to improving public sector performance. NPM is characterized by the general idea that traditional public sector management is rigid and inefficient and that only the transposition of management methods

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from the private sector can improve it. In return, the NPM promises greater rationalization of public policies and improvement in the performance of public action, accompanied by better transparency towards citizens (Bérard, 2013).

Performance-based budget reform is one of the reforms that have placed performance measurement systems at the center of concerns for public managers. Inspired by the principles of NPM, performance-based budgeting makes a connection between financing and the result provided, through the establishment of IPs making it possible to evaluate pre-established objectives, with a view to improving performance, effectiveness and efficiency of public spending (Robinson and Last, 2009). As such, an accurate budget preparation process is designed to facilitate the use of this information in budget financing decisions. This process begins by presenting the main objective for which the funds are allocated, setting measurable objectives through PIs and finally reissuing accounts of past performance.

The theoretical foundation of results-oriented budget reform is based on the principles of agency theory. Indeed, there is an agency relationship between the citizen and the government and the parliament and the government. To reduce the information asymmetry between the agent (the government) and the principal (the citizen represented by parliament), the budgetary reform provides for the establishment of a reporting system based on the strengthening of autonomy agents while ensuring a culture of accountability providing reliable information to the principal.

Considering the positive impact of PBB on performance, this policy has been generalized to all sectors of activity. The university, like all other public establishments, introduced these reforms in order to develop its results. The university, like all other public establishments, introduced these reforms in order to develop its results. This has the consequence of bringing higher education into a market economic perspective in line with a logic of service to customers and following the business management model to create “entrepreneurial universities” (Deem, 2001). To support these transformations, universities are increasingly using tools and techniques used by private companies such as auditing, management control and management information systems (Ozdil and Hoque, 2017; Pratolo, Sofyani and Anwar, 2020).

### Management Control Systems in Higher Education Institutions

Before studying the importance of management control in the deployment of the budgetary reform, it is first necessary to specify what is meant by management control. Indeed, the literature on this concept has evolved over time. Indeed, Anthony (1988) defines it as “the process by which managers influence other members of the organization to implement the strategies of the organization”. Bouquin (1994), defined it as “the set of devices and processes that guarantee consistency

between strategy and concrete, daily actions. “. Recently, the concept of management control has expanded to become a package of tools structured around five groups: planning, cybernetic, reward and compensation, administrative and cultural controls (Malmi and Brown, 2008). Research on management control has seen a trend oriented towards organizational performance instead of cost calculation. (Vale *et al.*, 2022)

Nevertheless, the implementation of real management control is one of the major challenges of modernizing public management (Naulleau, 2003). Existing management control practices in the public sector are similar to those in the private sphere (Bollecker, 2013). However, recognizing the specificity of the public sector is the first condition for the success of the implementation of this approach. The modes of governance, the stakes of value production and the managerial culture are too different from the private sector for it to be possible to duplicate the existing strategic steering and management control mechanisms in companies. The management control of a public organization is based on heavy engineering work in terms of evaluation in order to account for the production of value. It generally provides a reporting function through the preparation of dashboards and management reports, and computerization of the budget process. In addition to these basic functions, the management control department oversees the preparation of the performance reports. Indeed, management control seems to be imposing itself today as the “spearhead” of current university reforms, while the modes of operation of universities and, above all, their fundamentally political character, reveal the particular challenges of management control faced with complexity (Augé *et al.*, 2010).

The majority of research explains the adoption of management control in the higher education sector to external pressures. Martin-Sardesai (2016) supposes that NPM reforms has led universities to adopt management control systems to adapt to the new framework. In response to budgetary restrictions and for better use of resources, a “managerialization” of management methods has become common in universities (Mok and Lo, 2002). A new vocabulary is thus developed to adapt to the new context such as: mission definition, results, evaluation, audit, strategic plan, cost center, and public relations (Martin-Sardesai, 2016).

Through this study we try to show the role of performance budgeting in the development of management control tools in higher education.

### Performance Based Budgeting in Morocco

Like most developing countries, the Moroccan public sector has undergone profound transformations tending towards the introduction of market mechanisms through a series of reforms aimed at modernizing the management of its administration on the organizational, budgetary and financial levels. human. The Moroccan government resorted to “advanced regionalization” and carried out several waves of privatization. It also began reforms of

its compensation fund to adjust its budget deficit. At the same time, it launched its RBAR in order to improve the performance of the public sector. These reforms, which refer to the principles of the NPM, were the consequence of the structural macroeconomic imbalances experienced by the country, supported by the recommendations of international organizations and donors (Belhassan and Azegagh, 2020).

In Morocco, results-based budget reform began with an experimental phase initiated in 2001. During this period, the government launched several mechanisms referring to the logic of management by results based on four main axes which are:

- The expenditure flexibility, which consists of giving authorizing officers and sub-authorizing officers more flexibility in the use of the appropriations made available to them, on the condition of their personal commitment to achieving the well-defined objectives assigned to them. This technique has been used by Moroccan universities since 2010.

- performance contracts, which consists of setting the rights and obligations of the central administrations and external services within the framework of a contract extending over a period of three years on average to associate the decentralized services with the definition of the objectives which are assigned, the means necessary for the execution of these objectives and the results expected from the execution of their interventions. The practice of contracting has existed only once for the period 2009-2012 as part of an emergency plan

- The multi-annual programming of three-year public expenditure through the implementation of a Medium-Term Expenditure Framework (MTEF) allowing harmonization between development policies and their translation into the budget (Raffinot and Samuel, 2006). The MTEF was launched by the Prime Minister's circular of February 8, 2007. This system concerned 12 pilot ministerial departments. However, the MTEF was not generalized to all ministerial departments (only 19 ministries were able to develop their MTEF) due to several technical weaknesses in its implementation.

- Performance control by adapting public expenditure control to a performance logic, in particular through the simplification of a priori control, the gradual internalization of regularity control and the institutionalization of performance audits to strengthen control of the quality and relevance of the measures of the results achieved. Several audit missions have been carried out since 2005. Budget reform is a reform that legally concerns the state budget alone. However, this reform indirectly affects public establishments, which are mainly financed by the State and required to implement the State's public policies. To this end, they must monitor the actions of the State programs in which they participate and contribute, through a "management dialogue" (Chatelain-Ponroy and Sponem., 2001). In order to guarantee harmonization of procedures and practices related to the preparation and execution of budgets of public establishments, the Ministry of

Finance has chosen to renovate their budgetary and accounting framework so that they follow the budgetary management of the State through the Circular of July 10, 2017 from the Minister of Economy and Finance relating to the financial and accounting management of public establishments. This reform concerns the introduction of the new budget nomenclature, the generalization of accounting budgetary, general and analytical accounting and finally the progressive extension of the "ebudget2" budgetary programming information system.

As public establishments, Moroccan universities are subject to the new rules of the performance approach defined by the budgetary reform. As such, universities must evolve their management systems to meet their requirements through improvement of their management systems (Chatelain-Ponroy *et al.*, 2007). Indeed, universities are strongly encouraged to equip themselves with management control systems, making it possible to monitor performance and expenditure via dashboards (Samson *et al.*, 2007).

In Morocco, it was with the budgetary reform of 2001 that management control began to be introduced into the mores of the administration. Moreover, the establishment of a management control system making it possible to evaluate in a more effective and efficient manner the achievement of the set objectives was among the objectives of this reform. Furthermore, even if the reform does not impose management control in its text, it positions it at the heart of its systems by emphasizing its importance in the performance guide and the management dialogue guide and operational steering in assistance in steering ministerial policies. Indeed, the new financial constitution has prepared the institutional and legal environment for public spending to be managed by results and has made management control a central function to ensure better management dialogue in order to improve effectiveness and quality of public policies (Chatelain-Ponroy, 2008).

Already present in some public organizations to meet the needs of budgetary control, management control has become a necessity throughout the public sector in Morocco with the entry into force of the LOLF. However, until 2015, no Moroccan university had a department dedicated to management control and the practices of the latter were dispersed between the presidential team, common services and services at the establishment level (Abbadi *et al.*, 2015). So what is the place that management control currently occupies within Moroccan universities? And what relationship exists between results-oriented budgetary reforms and the development of management control within the latter?

## MATERIALS AND METHODS

To answer the above questions, we conducted an exploratory study in three Moroccan universities. To do this, we conducted ten interviews on three universities with the responsible of the budget in these universities. In addition, we realised an analysis of job offers

**Table 1:** Respondent's information

| University | Respondents                                                                   | Gender | Duration of interview |
|------------|-------------------------------------------------------------------------------|--------|-----------------------|
| A          | Responsible of financial control                                              | M      | 60 min                |
|            | Accounting agent                                                              | M      | 30 min                |
|            | Head of the financial and economic department                                 | M      | 45 min                |
| B          | Vice-president in charge of scientific research, cooperation, and partnership | M      | 40 min                |
|            | Chief Financial Officer                                                       | F      | 30 min                |
|            | Vice-president in charge of academic affairs and university development       | M      | 30 min                |
| C          | Accounting agent                                                              | F      | 20 min                |
|            | Financial manager                                                             | F      | 120 min               |
|            | Accounting agent                                                              | F      | 30 min                |
|            | Responsible of the budget                                                     | M      | 40 min                |

concerning the management control function in these universities published between January 2016 and February 2019 on the official website of public job offers: “emploi-public.ma”. The analysis of job offers as a research element can show the weight of the “management control” function in the landscape of university professions. This study mainly concerns the following elements: the number of positions, the establishment concerned (presidency, faculty or school), the specialty requested. Job offers correspond to the spontaneous expression of expressed needs (Dumoulin, 1983), a kind of unveiling of practices in organizations (Bollecker, 1999). However, among the limits of this approach is that it gives indications on the will to recruit, but this does not mean that the recruitment will be effective, that the recruited person will have the required skills, that the missions proposed in the profile will actually be those that will be proposed in the reality of the position. Then, in order to deepen our empirical research, we focused on the case of a university which already has a management control service and which has undergone all the budgetary reforms. The choice of the case method is justified by the desire to understand the complexity, logic and singularity of the local context (Yin, 1993). Thus, the university selected is a large university with 76,770 students in 2017. In addition, it includes 19 establishments, the largest number at the national level. This university is among the few Moroccan universities with a management control service linked to the presidency.

We have chosen the triangulation between three methods of data collection in order to ensure a certain scientific rigor, namely: semi-directive interview, documentary analysis and observation. These techniques seemed to us to be the most adequate to the requirements of our problem. Thus, in our interview we focused on the provision of a management control service, its role and missions within the university, its evolution, and its relationship with the budgetary reform mechanisms.

### Context

Until 1975, higher education in Morocco was characterized by a significant shortage of high school graduates and an

honorable quality of teaching following the elitist nature of higher education and the high staff ratio. Then, the period between 1975 and 2000 saw the start of the massification of universities.

At that time, the higher education sector was characterized by centralization and little autonomy granted to universities, university establishments dealing directly with the supervisory ministry, designated university presidents and deans of faculties, and Boards of Directors. establishments and university councils of an advisory nature. Faced with this situation, the World Bank published an alarming report in 1995 on the education situation in Morocco, encouraging the latter to launch a global reform of its education system. In response to this report, the National Education and Training Charter (NETC) was developed in 1999 by the Special Education-Training Commission (SETC) presenting the foundations of the national education and training system, its aims major and the rights and duties of individuals and communities. As part of the work of COSEF, law 01.00 on the organization of higher education was designed in May 2000 in order to completely review the higher education system and its components. Law 01-00 established the legal framework allowing the university to open up to its environment, acquire its own funds, develop its offer of diplomas, invest in company capital, create structures and bodies which complete and strengthen its organization chart, to design and submit its study programs and to diversify its partnerships at the national and international level. Basically, this law granted the university educational, administrative and financial autonomy.

In 2003, Morocco adopted a new educational architecture within its university inspired by the Bologna process. This process was signed in 1999 by European countries in order to respond to a proposal from the World Trade Organization (WTO) to open education to the rules of the economic market, tending to favor applied research and short-term profitability. The Moroccan education system has become an LMD system in three cycles of study set up with the License (3 years), the Master (2 years) followed by the Doctorate (3 years).

Despite the efforts made to improve the quality of the system of education, numerous delays have been observed in the implementation of the NETC's recommendations. As such, seventeen contracts for the development of the Moroccan university were concluded between the supervisory Ministry and Moroccan universities during the period of 2009 to 2012. These programs, which were the subject of a contractual agreement, aimed, among other things, at the upgrading and extension of infrastructure, the increase in the reception capacity of universities, the renewal of equipment and improving the provision of higher education, promoting scientific research and improving the quality of services provided by social works for students.

In 2014, the Higher Center for Education, Training and Scientific Research (CSEFRS) published an analytical report on the implementation of the National Education and Training Charter from 2000 to 2013, highlighting the failings of this charter. Following this evaluation, the CSEFRS proposed the 2015-2030 Strategic Vision aimed at redefining the principles of the Moroccan higher education system. The vision aims, among other things, to strengthen the autonomy of universities and provides for a clear demarcation of powers between the regulatory State on the one hand and universities and higher education and research establishments and establishments in the sector private, on the other hand. As such, the vision provides for a diversification of funding sources alongside the State budgetary resource via the promotion of national and sectoral solidarity, the creation of a fund for the generalization of quality and the institution of registration fees for wealthy families with the application of an automatic exemption for needy families.

## RESULTS

In Morocco, it was with the budget reform of 2001 that management control began to be introduced into the mores of the administration. Moreover, the establishment of a management control system to more effectively and efficiently assess the achievement of the objectives set was one of the objectives of this reform. Already present in some public organizations to meet the needs of budgetary control, management control has become a necessity throughout the public sector in Morocco. However, until 2015, no Moroccan university had a department dedicated to management control, and the practices of the latter were dispersed between the presidential team, the common services and the services at the level of the establishments (Abbadi *et al.*, 2015). So what is the place of management control in Moroccan universities today? And what is the relationship between results-based budget reforms and the development of management control within them?

Management control in Moroccan universities

According to our exploratory study, only one university have a management control service attached directly to the president. In addition, there are universities that have created management control units that are attached to the budget department with a view to improving their internal

management. Moreover, this dynamic of modernization of university management is the result of several factors. Already with the emergency plan of 2009-2011 which consisted in establishing a contract between the State and the universities. During this period, the universities were led to carry out actions provided for in programs specifying the objectives to be achieved and the resources to be allocated to the universities within a contractual framework with the State. According to a manager in university C "At the time, universities had to create monitoring and evaluation committees which will be in charge of presenting periodic reports with a battery of monitoring indicators". These practices are part of management control but not formalized management control. After this period, several universities thought of formalizing management control within their management system.

According to the results of the analysis of the job offers launched by the universities concerning the management control function, only one university which launched a call for tenders for three positions requesting a laureate specialized in Audit and management control. The first call for tenders launched on October 28, 2014 concerns a post within the presidency. The second and third were launched on April 29, 2016 and May 31, 2018 for faculties. Moreover, what we have noticed is that there is confusion between audit, internal control and management control. Indeed, among the universities surveyed, one university claimed to have an audit and management control position, but, after looking through its job offers, we realized that it had recruited a laureate in Audit and internal control.

## Management Control in Moroccan Universities

The selected university is considered among the first Moroccan universities to use management control tools. It is also a pilot university in the application of budgetary reforms. Moreover, it was among the universities that experienced a merger in 2014.

In our case, the idea of introducing management control started in 2007 with a function that was part of the budget department. The Chief Financial Officer of university B says that "The creation of the MTEF 2008-2010 was among the missions that were carried out by the management controller at the time following the request of the Ministry of Higher Education". In addition, with the contractualization launched by the emergency plan, the management controller was responsible for establishing annual action plans and preparing periodic reports based on a battery of monitoring indicators. Then in 2011, the university created an audit and management control entity made up of three people to ensure continuity in the reporting process launched with the emergency plan. This entity disappeared in 2014 after the merger of the university with another university. Nevertheless, the introduction of a performance-based management mode as well as the strengthening of the managerial, financial and administrative capacities of the university staff was part of the development project of the president of the university appointed in 2014. In this perspective, the Chairman

appointed a Project Manager in charge of the Budget and Financial Management Control in 2015. Finally, in 2016, a management control department was created which was attached to the Vice-Chairman in charge of governance.

### The Qualification of Management Controllers within the University

Since the creation of the first unit, the head of management control within the university has not received any specialized training in management control and has practiced management control on the basis of his personal efforts and has not subject only to a reassignment within the presidency. In addition, the recruitment of the first management controller was after the creation of the service in 2016.

The management controller within the university carries out a reporting mission to the managers in order to help them in decision-making through the monitoring of the achievement of objectives and the calculation of the differences between discounts and achievements. In addition, the management controller is responsible for preparing the budget by program. The management control department is also called upon to establish the university's performance indicators and to evaluate them periodically. Thus, in line with the university's 2014-2018 development project and the ministry's strategy, the management controller tried to introduce a management logic obtained on the results. This through the design of the budget for the 2016-2017 academic year on the basis of distribution keys. This approach is part of a budgetary approach adapted to results and based on the principles of fairness and transparency. Moreover, this practice was retained as a good practice within the framework of the First National Meeting on University Governance in May 2016, which aimed to strengthen good governance practices within Moroccan universities. Indeed, these keys are based on the recurrent costs of the establishments, the pedagogical supervision of students, the international mobility of teachers-researchers and administrative staff, the internal mobility of civil servants, support for scientific and cultural events, support for publishing pedagogical and scientific, publication and patent filing, and finally budgetary performance. This last key is calculated on the basis of the commitment rate for year  $n$  and the physical achievements of the same year. If there is a positive difference, the establishment will benefit from a bonus for year  $n+1$ . Nevertheless, according to the management controller interviewed: "management control within the university is still in an embryonic phase, not covering the whole of the university and requires a lot of effort to take advantage of this tool". Indeed, among the causes of this fragility, the management controller said that the instability at the university level is among the main causes that have blocked the development of management control. This instability is at several levels. First of all, the unfinished reforms brought by the governments have succeeded which are not the subject of an evaluation to come out with recommendations for improvement. In addition, the

university's merger had a negative impact on its internal management. And finally, the instability of the position of president within the university: between 2017 and 2019 three people held this position.

### Management Control: A Necessary Tool for the Deployment of Performance Based Budget Reform

The budget reform could provide an opportunity for universities through its performance approach requiring the implementation of performance indicators by the various actors. Even if no text obliges universities to set up management control tools, the latter is developing as an essential tool to bring together the various actors around a common definition of organizational objectives, and to combine relevance and coherence, operational and strategic, efficiency and effectiveness (Augé *et al.*, 2010). Through our case study, we believe that management control within universities plays a role in sharing resources equitably between the different establishments of the university. This will reinforce the transparency which is an essential element of the performance budgeting. Management control also encourages the various actors of the university to improve their performance through the bonus system followed through the method of distribution keys. However, the management control approach in universities is based on the cybernetic model (Augé *et al.*, 2010) which corresponds to a mechanistic and deterministic vision of the organization. However, the university falls under a "non-cybernetic" model of control because of its objectives which are not lacking in ambiguity and the difficulty of measuring its results (Hofsede, 1981). We believe that the development of the contractual approach between the supervising ministry and the university will strengthen the role of management control within universities by encouraging establishments to build projects, to negotiate them with the supervising authorities and, on the basis of a methodical evaluation, to collect targeted financial support for the most inventive and relevant programs (Cohen, 2007). Finally, based on the results of the study, we believe that there is a strong relationship between launching results-based budget reforms and the development of management control. In fact, the launch of the first management control function within the university coincides with the launch of the MTEF and the management control function was strengthened during the contractualization period between 2009 and 2011. In addition, the necessary management dialogue to carry out the performance approach based on the establishment and evaluation of performance indicators will necessarily encourage universities to set up a management control service. We believe that Moroccan universities need to consolidate the efforts of all its stakeholders to promote the quality of higher education sector (Tamer and Knidri, 2023) only the articulation between the budgetary reform and the reform of the management of universities and the strengthening of their autonomy will make it possible to achieve the strategic objectives which are at the foundation of the organic law (Cohen, 2007).

## CONCLUSION

An analysis of the development of management control within Moroccan universities leads to the conclusion that there is a desire on the part of the presidents of these universities to modernize their internal management. This desire is the result of several factors. First of all, the general tendency to “managerialize” the civil service by introducing “modern” management tools and instruments. In addition, and to support budgetary reforms, universities find themselves in the need to modernize their governance. The specific case of the university studied makes it possible to understand the context of the creation of the management control service within the university. In addition, the results of this study obviously cannot claim a theoretical generalization but all the same it makes it possible to emerge with managerial lessons. First, from a methodological point of view, it only targeted a single case and a limited number of actors and components. A deepening of this research in an approach targeting several cases would be likely to better identify the diversity of these practices. Despite such limitations, the recommendations made provide a better understanding of the relationship between the development of management control within universities and budgetary reforms.

One of the managerial lessons arising from this contribution is the need to ensure continuity and consistency between reform decisions within universities. Moreover, the problem of policy inconsistency presents one of the major challenges presented by the OECD report to be taken up by the Moroccan state.

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