A Review about Performance Management in Education Systems: Case of Morocco

Hind Benlhabib

Equipe AMIPS, Ecole Mohammadia d'Ingénieurs, Mohammed V University of Rabat, Morocco hindbenlhabib@research.emi.ac.ma

Abdelaziz Berrado

Equipe AMIPS, Ecole Mohammadia d'Ingénieurs, Mohammed V University of Rabat, Morocco berrado@emi.ac.ma

Abstract

It is common to think about evaluation when considering performance management in education systems and vice versa. Nevertheless, both concepts have risen from knowledge areas that evolved separately. Recent research provided empirical evidence that evaluation, which relies on the use of performance data, enhances in practice performance management. Several scholars highlighted differences between these two approaches and their possible complementarity when they are aligned. This complementarity is valid for most of the OECD countries which implemented a standards-based assessment and evaluation in Education Systems.

A recent review confirms that "Napoleonic" states are characterized by a strong resistance to the education system reforms brought by the New Public Management (NPM) particularly when evaluation reports are used for performance measurement purposes. Moreover, the application of NPM in developing countries remains globally embryonic and complex while it is widely adopted in OEDC countries.

Through a review of the literature, we explore, in this work, avenues to guarantee complementarity between evaluation and performance management in complex education system and how their outcomes lead to educational equity and Effectiveness. We use Morocco as an empirical case study to give insights about the two issues.

Keywords

Performance Management, Evaluation, Education system, morocco.

Introduction

Performance Management, as a concept, was developed since the 1970s. It experienced a significant growth and primacy in the public sector only in the 90s with the introduction of the New public management (NPM). Scholars in the UK and Australia introduced the NPM theory to describe approaches and currents of thoughts in OECD countries to reform the public sector by adopting private sector model (Hood, C.,1991; Arnaboldi, M., *et al.*, 2015).

NPM is summarized as 'three Ms': Markets, Managers and Measurements. The Measurements element, which forms the principal key of the NPM implementation, foregrounded a way of thinking in which 'Accountability' and 'Performance Management' approaches were developed to impact the way in which public service delivery was organized (Lowe, T., & Wilson, R.,2017).

Most OEDC countries have established performance management in the public sector and developed a real industry of performance measurement. Globally, after having successfully enhanced the public services delivery, there was a shift in thinking about performance management which evolved from searching efficiency and transparency to focusing on effectiveness. This brought the practitioners to develop means of measuring results (outcomes) instead of measuring inputs and outputs. Outcomes Based Performance Management (OBPM) which was a way of making a

judgement about the performance and effectiveness of social policy interventions was widely adopted (Hughes, P., & Smart, J., 2012; Lowe, T., & Wilson, R., 2017).

Scholars who have led quantitative studies to evaluate this experience, have recognized globally the positive impact of NPM. Those who led qualitative studies have, however, nuanced its effectiveness even its efficiency (Arnaboldi, M., *et al.*, 2015; Lowe, T., & Wilson, R.,2017).

Some scholars qualified Performance Management in the public sector as being "risky". Others participate in this debate by differentiating between public services and private sector activities and proposed the use of the complexity theory into performance management concepts (Arnaboldi, M., *et al.*, 2015). Globally, the complexity theory appears increasingly in studies looking at the implementation of performance management in public sector, especially when it's applied in social sectors or in emergent organizations (Eppel, E. A., & Rhodes, M. L., 2017; Arnaboldi, M., et al., 2015).

Despite of the heavy criticisms of NPM by scholars joining the movement of 'Post new public management', who qualify its effectiveness and propose adaptations of its practical modalities. A recent study demonstrated that NPM remains the unique model valid for reforming the public sector (Reiter, R., 2018).

The educational sector, for over twenty years, is faced to the challenge of performance at every governance level, micro, meso & macro, and sees applying NPM principles under several forms. The goal is to improve the educational effectiveness, to reduce the disparities or the gap of pupil's performance according to the social or cultural origins (the equity), finally to control or to reduce the costs, that is to improve the efficiency.

In most OECD's countries, the approximation between evaluation and performance management in education systems is structural and effective.

This paper explores through a literature review, avenues to guarantee the complementarity between evaluation and performance management in a complex Education System. Effectiveness and equity are discussed in perspective to highlight hurdles and possible solutions. We use Morocco as a case study to give insights about the two issues. The rest of this paper is organized as follows, in Section 1 we explore the Education System literature through a focus on concepts and a review of structures. Section 2 discusses the point of connecting performance management with Evaluation in Education System and the way in which the complementarity between these two approaches is guaranteed. Section 3 summarizes the hurdles to the performance management effectiveness in Education Systems. Section 4 presents Morocco as a case study of the implementation of performance management in Education System. Finally, section 5 provides some concluding remarks and discusses some potential extensions of this research.

1. Reviewing the structures of Education Systems

According to UNESCO, Education sector or education system is a group of institutions (ministries of education, local educational authorities, teacher training institutions, schools, universities, etc.) whose primary purpose is to provide education to children and young people in educational settings. It involves a wide range of people (curriculum developers, inspectors, school principals, teachers, school nurses, students, etc.. These institutions can vary according to different contexts (Behzadfar, M., & Yavari, M., 2018),

Tolofari, S., (2005) noted that education is one of the most important areas in which New Public Management brought significant changes and paradigm shift in countries around the world. In fact, in most countries, Education Systems structures moved gradually from a centralized model of organization to a decentralized one integrating gradually the principals of NPM.

In the next section, we explore different education system organization models and the governance modes supporting these models to manage educational policy.

1.1. Centralized Vs decentralized Education Systems

We can observe globally three categories of models in the development of education systems organizations:

The Centralized model: It's a traditional one (called Weberian). it is based on a stiff hierarchical structure, where the impulse and the reform come from the upper level towards the lower levels, where the margins of autonomy of the local structures are reduced and where the respect for the order, the standard and the conformity are the reference. The decentralized model with a weak level of school autonomy: The first sign of decentralization was conducted in education systems in Europe since 1980 as an accompaniment of the democratic movement of the society. The goal of school reform was to improve the quality of education with an emphasized need for schools to be more open to the local communities. In 1990, new process of decentralization was progressively been established involving the transfer

to regional or local authorities' powers over budget, personnel and planning; competition for pupils. The issue of school autonomy was being questioned in management and governance perspectives (Kowalczyk, P., 2014).

The decentralized model with a large margin of school autonomy: The lack of satisfaction from public educational services and the cost of education participated to the spread of NPM principals. Thus, another step into school autonomy concept was made. Schools became more accountable to the community and a higher emphasis was put on the quality of services and efficiency. The roles and responsibilities of the principals changed. Local community stakeholders - especially parents –took part in school management. Stakeholder participation often took form of School Governing Boards (SGB). Depending on the country they had consultative or decision-making role. Composition of those SGB may also differ. The principal is an executive member and is also responsible of sharing powers amongst all stakeholders (teachers, parents, governors and the neighboring community). Kowalczyk, P. (2014) summarized this change as an evolution from school governance mode to school management mode. Actors at meso and micro levels, where performativity focused on outcome measurement, appear recently to be the key concern of school leaders and local authorities. At a macro level, it was acted the evolution to the centralization of the strategic missions of the education system as the legislation, the goals definition, the Budgeting, the curriculum and the evaluation, there was also a setup of tools of monitoring, steering and remote regulation of the performance of organizations.

1.2. The Education Systems Governance:

Scholars observed that decentralization has shown its limits in education system where it was based only on the transfer of authority to regional, local or school levels. Most of governments around the world have established new education systems governance modes based on evaluation and control to overcome these limits. They supported decentralization by leading a range of provisions and reforms which increased school autonomy, strengthened the freedom of choices at local level and enhanced the influence of parents and other local stakeholders and stimulated demand sensitivity or school competition (El Hayani, A., 2017; Kowalczyk, P., 2014; Tete, K., 2012).

More globally, in the logic of the globalization, the State intervention in decentralized education systems is modelled according to three perspectives: the regulation, the economic measures and the ideological measures. The regulation consists of implementing, in a proactive way, appropriate compartments of actions for every category of actors. The Human Resources strategy is an obvious example of the regulation which aims the performance of local actors principally the teachers. This regulation is based on two key arrangements which are the incentives and the accountability. It takes the form mainly in teacher recruitment, in the Human Resources deployment policy and in the career management. The economic measures concern the allowance of subsidies and services or the extraction of resources. Ideological measures, from the Education Systems perspectives, include standards learning that students are expected to have attained at different stages of their education, which are defined through curriculum and teacher politics (El Hayani, A., 2017).

El Hayani, A., (2017) studied international experiences related to education system organizations and proposed theoretical models of governance according to two regulation levels: (i) vertical regulation model in connection with the dynamic of the decision-making centralization and decentralization. (ii) horizontal regulation model in connection with mission that has been entrusted to each actor and mechanisms within the same level of governance (central, regional or local).

Education System Governance in a complex world, has been recently the subject of studies initiated in response to a call for a project launched by OECD in 2011. The focus was on governance models which are effective in complex education systems. A set of key principles has been proposed like: governance networks, local capacity building, knowledge production, policy experimentation, risk-taking and learn from failures, and trust as an essential ingredient of education system governance (OECD, 2016).

2. Performance Management and Evaluation in Education Systems

2.1. Performance Management in Education System

Several econometric and micro-econometric analysis argue that a link exists between education and growth on the basis of human capital theory (Mincer, 1958). Other empirical works demonstrated the important positive correlation between quality of education and growth in comparison with quantity (Ibourk, A., 2013; Aoufi, E., & Hanchane, S., 2014). Based on these results and in the light of the significant investment required to enhance the quality of education, there is increasing pressures on countries to adopt accountability and performance management approaches in

Education Systems. Moreover, proponents of NPM, argued that education should not be seen as a social service or public good but as a commodity in the market place in perspective to enhance efficiency and effectiveness of schools (Verger, A., 2017).

Recently in the World Education Forum 2015, international agencies (UNESCO, World Bank, UNICEF and the UNDP), governments and civil society organizations resolve to develop comprehensive national monitoring and evaluation systems in order to generate sound evidence for policy formulation and the management of education systems as well as to ensure accountability (World Education Forum, 2015).

Thus, the NPM impacted gradually on the processes of educational reform of these systems. It was crafted and shaped in a specific way regarding the "tradition" of each country. Countries sharing the same organic design of state don't have necessarily the same NPM features. (Gunter, H. M., *et al.*, 2017, Kowalczyk, P., 2014, World Bank (2010)). In all cases, these precursory states accompanied the implementation of the NPM by scientific and empirical research that cut across various thematic areas (Verger, A., 2017).

2.2. Evaluation in Education Systems

2.2.1. Conceptualization of evaluation in education

To conceptualize evaluation in education, Nevo, D. (1983) suggested a framework based on ten dimensions to be addressed by the most prominent evaluation approaches and led an analytical review. The proposed framework dimensions are: (1) Evaluation definition; (2) Evaluation functions; (3) Evaluation objects; (4) Kinds of information should be collected regarding each object; (5) Criteria that should be used to judge the merit and worth of an evaluated object; (6) Who should be served by an evaluation; (7) The process of doing an evaluation; (8) Methods of inquiry should be used in evaluation; (9) Who should do evaluation; (10) The standards that should evaluation be judged. Scholars gave several definitions of evaluation. But the well-known definition was given by Ralph Tyler who perceives evaluation as 'the process of determining to what extent the educational objectives are actually being realized'. A joint committee on standards for evaluation, comprised of seventeen members presenting twelve organizations associated with educational evaluation, published their definition of evaluation as 'the systematic investigation of the worth or merit of some object'. Stanford Evaluation Consortium group critiqued, however, the judgmental definition of evaluation and proposed another description of evaluation as 'systematic examination of events occurring in and consequent of a contemporary program-an examination conducted to assist in improving this program and other programs having the same general purpose' (Nevo, D., 1983).

In the definition of evaluation functions, scholars suggested two principal distinct functions "formative evaluation" and "summative evaluation". Globally, in its formative function evaluation is proactive and is used for the improvement and development of an ongoing activity (or program, person, product, etc.). In its summative function evaluation is retroactive and is used for accountability, certification, or selection (Nevo, D., 1983).

2.2.2. Evaluation in education system: Major milestones:

Evaluation has always existed within the school, particularly in classrooms. Its evolution has all the time been impacted by the educational reforms (Ni, Y. J., 2010; Nevo, D., 2010). Globally, we can distinguish three major milestones of evaluation in education system according to USA experience:

Before the '60s, evaluation existed in a very limited capacity. It was usually limited to student assessment, conducted by means of tests and examinations. (Nevo, D., 1983). Accountability was more of professional than administrative nature (Ni, Y. J., 2010). The focus was on what the school and the teacher do rather than on student learning outcomes. The regulation was made by a professional body to inform and to make teachers conduct the profession in a socially and ethically responsible way.

Since the early sixties, much has changed in evaluation within the educational system. Educational evaluation was related to accountability since it obtained in 1965 the legitimate status through Elementary and Secondary Education Act (ESEA). Thus, some scholars made much progress in defining the meaning of educational evaluation, identifying its functions, developing multiple methodologies and practices. Others have developed evaluation concepts in different areas and levels (Schools, Principals, teachers, Education systems. (Ni, Y. J., 2010; Nevo, D. 2002).

In the 1980s evaluation for outcome-based accountability has become statutory and mandatory by governments for individual schools, classrooms, and teachers. In fact, this transformation was facilitated by increasing public dissatisfaction with public education. And there was also a trend toward NPM principals and global neoliberalism that conceptualized education less as a process and more as a product or outcome.

The publication of the Program Evaluation Standards, by the Joint Committee on Standards for Educational Evaluation, in 1994, demonstrates the maturity of the field of educational evaluation as a field and a profession. Under its guidance, there have been changes that are both significant and numerous at all levels.

From the second half of the '90s until now, these changes have obtained prominence and have become an integral part of educational systems in most OECD's countries. This was the case of the No Child Left Behind Act of 2001 in USA. In England, the Education and Inspections Act which, in 2007, established the Office for Standards in Education, Children's Services and Skills (OFSTED). More recently in France, a National Council for the Assessment of the School System (CNESCO: Conseil National d'Evaluation du Système Scolaire) was created in 2014 (Gunter, H. et al., 2017).

In the following section, we will focus on the structural approximation which is established gradually between evaluation and performance management in education system. First, we examine through a literature review the underpinnings of this approximation in a comprehensive framework. Later, we conduct a critical review of this approximation in the education system context by highlighting it's benefits and hurdles.

2.3. Performance Management and Evaluation: A general perspective

We always tend to speak about evaluation when we approach performance management issues and vice versa. Nevertheless, these two concepts arise from different domains of knowledge and historically have been developed separately. Scholars characterized program evaluation as a basic social science technique, whereas performance management emerges from public and private management concepts rather than the scientific method. There is, however, a growing social science study of performance management (Kroll, A., & Moynihan, D. P., 2017).

Recent studies emphasized the frequent tendency to overhaul the performance management systems across the world before they take effect. Thus, for the need in developed countries, particularly Anglo Saxons, to ensure, in addition to efficiency, a positive impact in public services delivery. The goal was that the system continues to evolve to appreciate the importance of outcomes and effectiveness (Hughes, P., & Smart, J., 2012; Moynihan, D. P., & Beazley, I., 2016). At a macro level, performance management system has responded to decision makers interest in improving the efficiency of public spending and in heightening the transparency and accountability for how public funds are used, but it has become rare to find a public official who will argue that performance data should, or even can, drive budget. In fact, the dominance of politics in setting budgets, and its traditional lack of interest in performance data, limits the potential for a closer link between performance data and budgeting (Moynihan, D. P., & Beazley, I., 2016).

Many scholars have recommended an approach based on continuity to overhaul performance management systems and a gradual integration of evaluation practices in performance data. They defend this arrangement due to the potential that evaluation can offer to explain the causality and give a richer understanding of outcomes. (Nielsen, S. B., & Ejler, N., 2008; Moynihan, D. P., & Beazley, I., 2016). A recent study offered empirical evidence that evaluation facilitates performance information use and thus enhances in practice performance management. It confirms, however, that the connection between both devices is not natural, brings tensions and requires a mixture of continuity and design (Kroll, A., & Moynihan, D. P., 2017).

Some scholars demonstrated, conceptually or empirically, that complementarity between the two approaches brings a great value, and the consistency and the alignment brings evidence on a stable set of goals (Nielsen, S. B., & Ejler, N., 2008; Kroll, A., & Moynihan, D. P., 2017; Moynihan, D. P., & Beazley, I., 2016; Newcomer, K., & Brass, C. T., 2015). Figure 1 below illustrates opportunities to build complementarities between performance management and evaluation approaches.

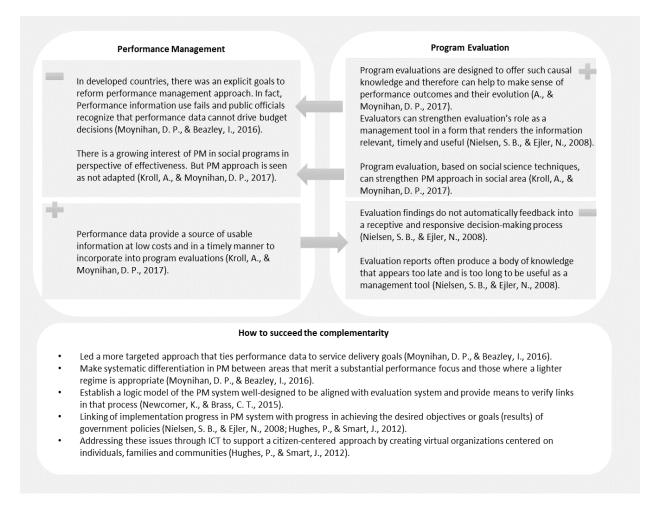


Figure 1: Opportunities to build complementarities between performance management and evaluation approaches.

2.4. Recent trends in Education Systems: connecting Performance Management and Evaluation

Recent studies have explored the experiences of OCDE countries who implemented performance management in Education Systems based on their excellent ranks in international benchmark test. It was concluded that all these states, in committing deep transformations of their education policies according to diverse modalities and degrees, became "evaluative states". (Kowalczyk, P., 2014; World Bank, 2010; Verger, A., 2017).

The 2017/8 Global Education Monitoring Report has noted a gradual shift of emphasis toward a form of accountability that focuses on the measurement of learning-outcomes through large-scale testing instruments, in contrast with the classic measurement of access to learning. In fact, this shift is likely the most significant change that can be observed between the 'Education for All' agenda and the 'Sustainable Development Goals/Education 2030' agenda (Verger, A., 2017).

Different factors influence this policy trend: pressures on education systems from the global economy, normative emulation dynamics between countries and within international organizations, methodological changes in the measuring of learning outcomes and the spread of New Public Management ideas in the educational sector, among others". (Verger, A., 2017).

The complementarity between evaluation and performance management in Education Systems is valid for the majority of the OCDE's countries which implemented on a Standards-Based Assessment and evaluation system (SBA) (Looney, J., 2011; Verger, A., 2017).

The core logic of standards-based assessment systems rests upon the alignment of three key elements: **standards** defining the knowledge and skills – or competences – students are expected to have attained at different stages of their education; **curricula**, which cover the objectives identified in standards; and **student assessments and school evaluations** which measure attainment of standards.

The OECD division of education, which is mainly advocates for managerial and learning-based forms of accountability, emphasizes that performance management system should be holistic and focus on improving classroom practices, rather than placing excessive emphasis on learning outputs (OECD, 2013).

The proposed SBA framework supports the view that evaluation and assessment in school systems need to be built on the interdependence of its parts in order to generate complementarities, avoid duplication and prevent inconsistency of objectives. It illustrates the synergies that can be generated between the different components in response to the overarching policy question of the OECD Review: "How can assessment and evaluation policies work together more effectively to improve student outcomes in primary and secondary schools?" (OCDE, 2013). Figure 2 gives an overview of a standards-based assessments and evaluation framework.

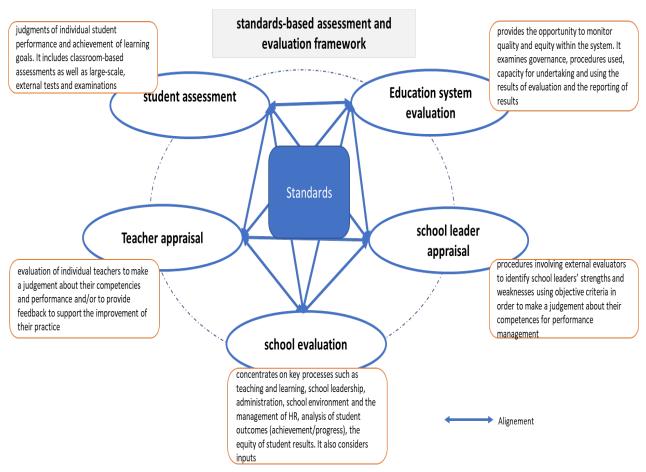


Figure 2: Standards-based assessments and evaluation framework (OCDE, 2013)

The coherence of the whole as well as the articulation between the different components is necessary to reach the complementarity between all the component of the framework, For example:

- Alignment between student learning objectives and student assessment;
- Linkages between student summative assessment and student formative assessment;
- Alignment between teaching standards and student learning objectives;
- Alignment between teaching standards, registration processes and career structure;
- Systematic linkages between school evaluation and school reporting;
- Systematic linkages between school leadership appraisal and professional development;
- Alignment between education goals, student learning objectives and education system evaluation.

3. Hurdles to the effectiveness of education systems performance management

Many scholars demonstrated positive effect of performance management approach in education system reform particularly when they explored the impact of Performance Targets Approach (Lowe, T., & Wilson, R., 2017). Most of them concluded, however, that these improvements are not firmly established and impose additional conditions (Pollitt, C., 2000). In this regard, several studies that do systematically look for the effects have mixed outcomes and generally highlighted hurdles to the effectiveness of such approaches in education systems. These hurdles are related to equity and complexity issues specially when implementing performance management locally. (Lowe, T., & Wilson, R., 2017; Verger, A., 2017; Eppel, E. A., & Rhodes, M. L., 2017).

In this review, we limit to identify hurdles to the effectiveness issue regarding the standards-based assessments and evaluation approach.

According to the OECD's literature, the success of SBA models is conditional of the alignment of various components which must be approached in terms of balance and coherence. Nonetheless, the alignment issue is not as obvious as we can imagine. studies confirmed that systems can't achieve perfect alignment in all cases. Most of the times, the complexity of the systems related to social and cultural matters represent a real barrier. (Gunter, H. M., *et al.*, 2017; Looney, J., 2011).

A comparative analysis of the NPM implementation led in ten European Education Systems, chosen according to the diversity of States and the variety of the "Administrative traditions", shows that the "Napoleonic" states, particularly France, are characterized by a strong capacity of resistance to the reforms brought by the NPM of their state administrations (Gunter, H. M., *et al.*, 2017, P83:95). Moreover, the French Educational community showed visible resistances and tensions particularly during the use of national standardized based assessments reports for performance measurements needs (Cour des comptes, 2017).

Looney, J., (2011) highlighted some examples of trends to the effectiveness of the standards-based assessment and evaluation platform when avoiding complex situations. A first example is related to the deep-seated tensions or a "culture wars" about the goals of education. He explained that, in avoiding controversy, the situation led to the development of standards that are vague, or at the other extreme, overly detailed, making it difficult to identify priorities for learning, and providing little useful guidance for instruction or the development of assessments.

Another example is related to the equity issue; where avoiding, at macro level, tensions between the idea of setting students' standards for excellence and the obligation of supporting individual differences and needs. Or, the balance of power between professional bodies in the choice of conditions of teaching and learning and accountability-based approach requirements. Local traditions, cultures and values in education varying across countries have a strong impact on how policies are implemented (Gunter, H. M., *et al.*, 2017).

The equity issue exists also at the micro level, for example when teachers or principals tend to improve their scores by concentrating their effort on pupils just below a level and neglecting pupil far above or below the threshold of success. This raises equity issues and leads to conclude that outcomes are emergent properties of complex, non-linear systems (Lowe, T., & Wilson, R., 2017).

Looney, J., (2011), in raising complex situations generated by the alignment measures in standards-based assessments and evaluation approaches, proposed accompanying measures to overtake technical hurdles and recommended the use of complexity approaches based on collaboration and communication to overcome social barriers.

Harris, A., & Jones, M. (2017) led a critical study about PISA test and its hegemony across countries. They highlighted its 'dramatic' impact on educational reforms and raised several adverse effects related to equity, complexity and corruption. Many other studies claimed - *the PISA shock*- on several countries, which promoted the introduction of accountability reforms at the national level (Ni, Y. J., 2010; Verger, A., 2017).

4. Overview of performance management in the Moroccan education system

Morocco has been under colonial rule of France until 1956. The French influence is still very present in Moroccan administration; this is also visible in the school system that is based on the French school system (Jongen, G., 2012).

Since 1956, Morocco placed the development of the education system among the first priorities of the State. The school system has been the subject of many discussions and controversies in the most varied areas of the country. Since 1999, a National Education and Training Charter (CNEF) has been adopted through a broad national consensus. The CNEF is a comprehensive framework for the development of the education system. It established a decade of education and training (2000–09) and triggered a real momentum for change and mobilization of all the country's key players in the field of education. Thus, educational reforms have been undertaken since 2000 to address the Moroccan

society needs of evolution and aspiration for better future but the results remain below expectations (Llorent-bedmar, V., 2014).

4.1. Performance Management in the Moroccan Education System

Morocco undertook, since the 80s, a structural adjustment program to maintain the macroeconomic stability. This stability came along with an accentuation of the liberal character of the economy and an opening trade regime, followed by a progressive disengagement of the state for the benefit of the private operators.

At the political and social levels, an important dynamic is also observed by the increased participation of civil society in the management of the public affairs and the woman's socioeconomic integration. In this context, Morocco joined to the NPM movement since its emergence and undertook, since 2002, a set of structural reforms with that aim in mind. This, was an evidence of Morocco's awareness about the administration ineffectiveness.

The Ministry of Education was one of the first departments to support this drive. Moreover, according to many studies, which examined the reform process undertaken in Moroccan Education System since 2002, it's clear that morocco demonstrated a great willingness to implement NPM principals in Education System and to develop the basis of performance management and evaluation (Llorent-Bedmar 2014; El Hayani, A. 2017).

4.2. Evaluation in the Moroccan Education System:

Educational evaluation has always been at the center of the Moroccan educational reforms. Morocco had led various national assessments and participated in international assessments of education since 1995, namely (TIMSS, PIRLS) and recently in PISA tests.

These studies show that Moroccan pupils scores remains well below the international and regional average. Characterized by wide disparities according to gender or to urban and rural areas. The education system is plagued by this gap in economic and social levels, which negatively affects the academic performance detected by international bodies.

All these diagnoses, supported by the study conducted by the Moroccan Higher Education Council, justified the revival of the education reform in 2009 as part of the Emergency Program. Ambitious targets have been set for the new evaluation policy tailored to the issues involved. Quality approach, effectiveness, efficiency, and performance were the watchwords. This has led to the creation of the National Evaluation Instance (INE: Instance Nationale de l'Evaluation), a body of the Higher Education Council, whose mission is to carry out global, sectoral or thematic evaluations, provides a space for proposal, exchange and experimentation. Scientific research is part of INE's regulatory tasks. Thus, the ingredients of a system evaluation policy are in place (Akrim, H., et al., 2010).

At the Ministry level, responsibility for educational evaluation is broken down into several levels and structures. Diagnosis and formative evaluation are the responsibility of schools, summative and certificate evaluation are lodged at provincial or regional authorities, and national and international assessments are the responsibility of the National Center for the Evaluation of Examinations and Guidance (CNEEO). CNEEO is also responsible of national examinations.

Other important provisions that Morocco has recently achieved - among the first states outside of OECD - is the OECD reviews of evaluation and assessment in Education. The effective implementation of the "standard-based assessments system" requires a set of prerequisites that the ministry has initiated (Maghnouj, S., et al., 2018).

The implementation, since 2014, of a national information system of education, namely MASSAR will strengthen this trend. It allows, among others, individual tracking of all Moroccan students, assessment and examinations (Maghnouj, S., et al., 2018).

4.3. Hurdles to the effectiveness of the Moroccan Education System

National and international authorities of evaluation as well as the international agencies supporting Morocco in its process of reforms, as well as scholars who have studied the Moroccan case, noticed the mattering progress that recorded Morocco in the implementation of the Education System's reform. They pointed out, however, challenges related to the performance (El Hayani, A. 2017; Llorent-Bedmar, 2014; Furceri, D., *et al.*, 2013; Ndela, J. F. N. et al., 2016)

In the following, we provide some analysis, and we attempt to raise some relevant elements of analysis in connection with the present study.

Morocco has been experiencing a period of rapid economic growth. From 1980 to 2010, gross domestic product (GDP) growth averaged 4 percent. Overall poverty has also decreased considerably. Despite this progress and economic growth, Morocco is still far from achieving the Millennium Development Goals. In fact, the weakness of the Human Development Index HDI (0.667) due to the low levels of development in health and education and to the inequality in human and economic development remains major issues in Morocco, notably between urban and rural areas and across different regions (Gini index = 39,5%). (Ibourk, A., & Amaghouss, J., 2014; World Bank., 2019).

Morocco succeed, during the last two decades, to meet the challenge of the widespread access to the primary education and to improve the school enrolment rate in the secondary education. But several challenges and hurdles are facing the Moroccan Education System related to efficiency and effectiveness that several studies have related to quality of education and governance (Ndela, J. F. N. et al., 2016; BAD, 2014; CSEFRS, 2016):

- Youth unemployment in Morocco is among the highest in the MENA region (28.80%);
- Public spending on education in Morocco is high compared to other countries;
- The inefficiency of public spending in education is large in Morocco and pointed at large potential efficiency gains.
- The persistent inequalities in economic and human development in Morocco, particularly for early child development (ECD), that impact negatively educational outcomes (Ejjanoui, F., et al., 2015).

5. Conclusion:

Performance management approaches are widely adopted in developed countries and some developing countries education systems.

Critical studies which have took interest for their effectiveness led precursor countries to improve them without abandoning them. This has allowed them to mature in the recent years. Academic or empirical research that has accompanied this implementation has contributed significantly to this development.

The link between education system performance management approaches with those of the evaluation seems to give visible results for the education systems effectiveness. It could, however, constitute a real failure factor if there is a lack of consistency and complementarity.

The case study of Morocco revealed new evidence in research on relevance of performance management in education system developing countries. Morocco is among the first non-OECD countries to develop a conceptual standard-based-assessment and evaluation platform which basically links performance management and evaluation approaches. Based on the findings of this works, we will investigate in future research the feasibility of a data-driven framework to potentially integrate performance management and evaluation practices in education systems. This could be the key to conquer the complexity of education systems and lead to better governance.

References:

Akrim, H., Figari, G., Mottier-lopez, L., & Talbi, M. (2010). La place de l'évaluation dans la réforme du système éducatif marocain : questions pour la recherche. *Questions Vives Recherches en éducation*. Vol.4 n°13 | 2010.

Aoufi, E., & Hanchane, S. (2014). Economie de 1'éducation: une brève revue de la littérature, 21–33.

Arnaboldi, M., Lapsley, I., & Steccolini, I. (2015). Performance management in the public sector: The ultimate challenge. *International Journal of Public Sector Management*, 31(1), 1–22. https://doi.org/10.1111/faam.12049

BAD, (2014). Analyse du système d'Education et de Formation. Maroc. Etude économique et sectorielle. *Banque Africaine de Développement*. https://www.afdb.org/fileadmin/uploads/afdb/Documents/Project-and-Operations/MAROC - Programme d appui à l accélération PAAIM I .pdf

Behzadfar, M., & Yavari, M. (2018). Education (Psychology, Technology), 3(1), 6–19.

Cour des comptes, (2017). L'éducation nationale : organiser son évaluation pour améliorer sa performance. https://www.ccomptes.fr/sites/default/files/2018-02/20180221-rapport-education-nationale.pdf

CSEFRS, (2016). Programme National d'Evaluation des Acquis. Conseil Supérieur de l'Education, de la Formation et de la Recherche Scientifique. http://www.csefrs.ma/wp-content/uploads/2017/02/Resume-Rapport-PNEA-2016-Final.pdf

Ejjanoui, F., Krafft, C., Abdelkhalek, T., Benkassmi, M., Chavez, M., & Bassett, L. (2015). Inequality of Opportunity in Early Childhood Development in Morocco over Time -2015, (May). Retrieved from https://www.dohainstitute.edu.qa/MEEA2016/Downloads/Touhami Abdelkhalek_Final.pdf

Eppel, E. A., & Rhodes, M. L. (2017). Complexity theory and public management: a "becoming" field. Public *Management Review*, 0(0), 1–11. https://doi.org/10.1080/14719037.2017.1364414

- Furceri, D., Mazraani, S., & Versailles, B. (2013). Morocco: Selected Issues. *IMF Country Report. Washington, DC*. https://www.imf.org/external/pubs/ft/scr/2013/cr13110.pdf
- Gunter, H. M., Grimaldi, E., Hall, D., Eds, R. S., Pons, X., Gunter, H. M., ... Eds, R. S. (2017). *Education Public New Public Management and the Reform of Education*, 1–4.
- Harris, A., & Jones, M. (2017). Leading educational change and improvement at scale: some inconvenient truths about system performance. *International Journal of Leadership in Education*, 20(5), 632–641. https://doi.org/10.1080/13603124.2016.1274786
- Hood, C. (1991). Hood, C. (1991), "A public management for all seasons?" Public, 69, 1–4. https://doi.org/10.1111/j.1467-9299.1991.tb00779.x
- Hughes, P., & Smart, J. (2012). You Say You Want a Revolution ... The Next Stage of Public Sector Reform in New Zealand, 8(1), 3–8. *Policy Ouarterly* Volume 8, Issue 1.
- Ibourk, A. (2013). Determinants of educational achievement in Morocco: A micro-econometric analysis applied to the pirls study. *Regional and Sectoral Economic Studies*, 13(2), 179–190.
- Ibourk, A., & Amaghouss, J. (2014). The performance of educational system in Morocco: A spatial analysis. *Regional and Sectoral Economic Studies*, 14(2), 109-128.
- Jongen, G. M. C. (2012). Children, parents and teachers in Morocco on the role of school in the future development of vulnerable children (*Master's thesis*). https://dspace.library.uu.nl/handle/1874/253559
- Kowalczyk, P. 2014. (n.d.). New public management in Education from school governance to school management, 1281–1288.
- Kroll, A., & Moynihan, D. P. (2017). The Design and Practice of Integrating Evidence: Connecting Performance Management with Program Evaluation: The Design and Practice of Integrating Evidence: Connecting Performance Management with Program Evaluation. *Public Administration Review*, 0, 1–12.
- Lahjouji, K., Menzhi, K. El, Lahjouji, K., El, K., Le, M., & Management, N. (2018). Le Nouveau Management Public au Maroc, quels apports? To cite this version: *HAL Id: hal-01801445*.
- Llorent-bedmar, V. (2014). Educational Reforms in Morocco: Evolution and Current Status, 7(12), 95-105.
- Looney, J. (2011), « Alignment in Complex Education Systems : Achieving Balance and Coherence », Documents de travail de l'OCDE sur l'éducation, n° 64, *Éditions OCDE, Paris*, https://doi.org/10.1787/5kg3vg5lx8r8-en
- Lowe, T., & Wilson, R. (2017). Playing the Game of Outcomes-based Performance Management. Is Gamesmanship Inevitable? Evidence from Theory and Practice. *Social Policy and Administration*, 51(7), 981–1001. https://doi.org/10.1111/spol.12205
- Maghnouj, S., et al. (2018), Examens de l'OCDE du cadre d'évaluation de l'éducation : Maroc, *Éditions OCDE, Paris*, https://doi.org/10.1787/9789264301832-fr
- Ndela, J. F. N., Fayad D., & Auclair G., (2016). Morocco: Selected Issues. IMF Country Report No. 16/36. Washington, DC. https://www.imf.org/en/Publications/CR/Issues/2016/12/31/Morocco-Selected-Issues-43675
- Nevo, D. (1983). The Conceptualization of Educational Evaluation: An Analytical Review of the Literature. *Review of Educational Research*, 53(1), 117–128. https://doi.org/10.3102/00346543053001117
- Nevo, D. (2002). School-based evaluation: an international perspective. https://doi.org/10.1360/zd-2013-43-6-1064
- Nevo, D. (2010). Internal and external evaluation. International Encyclopedia of Education, 781–785. https://doi.org/10.1016/B978-0-08-044894-7.01597-9
- Ni, Y. J. (2010). Educational evaluation: Concepts, practice, and future directions. International Encyclopedia of Education, 518–529. https://doi.org/10.1016/B978-0-08-044894-7.01591-8
- Moynihan, D. P., & Beazley, I. (2016). Toward Next-Generation Performance Budgeting. *World Bank Group*. https://doi.org/10.1596/978-1-4648-0954-5
- Newcomer, K., & Brass, C. T. (2015). Forging a Strategic and Comprehensive Approach to Evaluation Within Public and Nonprofit Organizations: Integrating Measurement and Analytics Within Evaluation. https://doi.org/10.1177/1098214014567144
- Nielsen, S. B., & Ejler, N. (2008). Improving performance?: Exploring the complementarities between evaluation and performance management. Evaluation, 14(2), 9–10. https://doi.org/10.1177/1356389007087538
- OECD, (2013). Synergies for Better Learning: An International Perspective on Evaluation and Assessment. Paris: OECD Publishing. http://www.oecd.org/education/school/synergies-for-better-learning.htm
- OECD, (2016). Governing Complex Education Systems. http://www.oecd.org/education/ceri/GCES-Final-Project-Plan-2016.pdf
- Pollitt, C., (2000). Is the Emperor in His Underwear? An Analysis of the Impacts of Public Management Reform. Public Management 2(2): 181–200.
- Reiter, R. (2018). The manifold meanings of "post-New Public Management" a systematic literature review. https://doi.org/10.1177/0020852318759736

- Tete, K. (2012). Gouvernance scolaire au Togo. Intelligibilité des pratiques des acteurs et nouveaux paradigmes d'intervention. *Thèse Pour l'obtention du grade de Docteur Européen*. Université de Lleida.
- Tolofari, S. (2005). New Public Management and Education. Policy Futures in Education, 3(1), 75–89. https://doi.org/10.2304/pfie.2005.3.1.11
- Verger, A. (2017). Background paper prepared for the 2017 / 8 Global Education Monitoring Report Accountability in education: Meeting our commitments Accountability and education in the post-2015 scenario: International trends, enactment dynamics and socio-educational ef, 1–44.
- World Bank, (2010). Supervision and Support of Primary and Secondary Education: A Policy Note for the Government of Poland. http://documents.worldbank.org/curated/en/425821468093563823/Poland-Supervision-and-support-of-primary-and-secondary-education-a-policy-note-for-the-Government-of-Poland
- World Bank. 2019. "Expectations and Aspirations: A New Framework for Education in the Middle East and North Africa." Overview booklet. World Bank, Washington, DC. License: Creative Commons Attribution CC BY 3.0 IGO.

Biographies

Hind Benlhabib, Doctoral Student, in AMIPS research team in EMI School of Engineering at Mohamed V University in Rabat. Hind hold an Industrial Engineering BA/MS degree from the same school. Her research interests are in the areas of Performance management and evaluation, advanced analytics with applications in Education. In addition to academic work, Hind is a Chief Information Officer in Ministry of Education in Morocco.

Abdelaziz Berrado, Ph.D, is Department Chair and Associate Professor of Industrial Engineering in EMI School of Engineering at Mohamed V University in Rabat. He holds a Ph.D. degree in Decision Systems and Industrial Engineering from the Ira A. Fulton School of Engineering at Arizona State University. His research, teaching and consulting interests are in the areas of Big Data Analytics, Industrial Statistics, Operations and Supply Chain Modelling, Planning and Control with applications in healthcare, education and other industries. He focuses on developing frameworks, methods and tools for systems" diagnostics, optimization and control with the aim of operational excellence. He published several papers in research journals and conferences with local and international funding. He reviews for many journals and is a member of INFORMS, IEOM and IEEE. In addition to academic work, he interacts continuously with different Industries in the areas of Machine Learning, Quality Engineering and Supply Chain Management. He was also a senior engineer at Intel.