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# PERFORMANCE MEASUREMENT IN HIGHER EDUCATION: LITERATURE REVIEW

Literature  
review

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## Abstract

*Significant actions have been taken to define the concept of performance measurement. Many researchers have been discussing and developing this topic. Also, not only in the recent literature are many studies regarding the topic, but now are more than ever. At international level, International Public Sector Accounting Standard Board took the decision to develop a framework for reporting service performance measurement that focuses on meeting the needs of intended users. In this way, around the world, will be a uniform understanding and applicability for performance measurement. This paper analyzes the concept of performance measurement. The main objective of the paper is to do a review of the definitions received by the concept in time, thus a qualitative approach will be used. Furthermore, this paper tries to examine the changes which occurred in public universities due to the budget constraints. Performance measurement plays a central role because, in this way, universities prove their accountability and to show the way in which they have value the money.*

## Introduction

The purpose of the paper is to explore the concept of performance measurement. Starting from the definitions received by the concept, general definitions for public institutions, we will continue with a particular public institution, namely, universities. By identifying and characterising performance measurement in the public sector, the paper examines how public universities see, measure and improve performance. Universities are part of public institutions because in many countries part of the public funds is given to universities. Given to the recent changes, such as the budget constraints, public universities have to be publicly accountable and to show how they put value on money. Thus, the paper focuses on the theoretical approaches used and cited in the published papers.

Due to the recent changes such as demographic, economic, social and political, but also given to the globalization process, the concept of performance measurement became a central topic for researchers, politicians and practitioners. Those changes have repercussions on organisation direction, policy and management because public organisations are managed in accordance with country's political practices.

The paper is structured as follows. In section two, is presented the methodology of the paper. In section three, we briefly review the definitions for performance measurement in general. The fourth section provides an overview of the concept in the public sector. In section five, we discuss about performance measurement in public universities, the most used models for measuring performance and how universities put value for money. In the last section we drew brief conclusions of the paper.

## Methodology

The paper analyse the meaning of performance measurement in the public sector organisations, especially in public universities. The main reason for choosing the universities is driven by the changes that higher education had to face. In the last years, universities are in a deep competition for recruiting the students given the wider recognition. Also, obtaining the funds for research and teaching represents a competition between the universities which had increased significantly.

The main objective is to expand the knowledge in the sphere of performance measurement in public sector. The paper attempts a deductive approach. Starting from the definitions, concepts, and classifications found in the literature or documents published by specialized organisations in the field, to customize them to the public sector and for public universities in particular. Thus, the international literature is used as a tool for delimitation of the concept.

The selected articles were published in public administration journals such as Public Administration, Public Administration Review, and in management journals such as Management Accounting Research, Public Money & Management. We selected the articles from the database by typing keywords in title or abstract (such as performance measurement and performance in universities), and the articles were published between the years 2000-2014. The selected period is motivated by the expansion and the interest of many researchers on this topic. Depending on the number of citation and the journal we took into consideration twenty nine articles.

For the next sections, we developed a gradual approach to get deeper on the subject. Starting from the general, the development of performance measurement in the public sector, to the particular, public universities, we briefly provide an overview of the literature.

## Literature review

Performance measurement is a subject debated since many years ago (Rosa, 1921; Wrightstone *et al.*, 1939; Barr, 1940). In the literature, the concept is too poorly defined, and often discussed (Eccles, 1991; Schneiderman, 1999; Neely, 2005; Jackson, 2011). Since the late of 70s, performance measurement in the public sector gained an important amount of debates. The literature in this field has been developed a lot.

The implamentation of private sector techniques in the public sector organisations was made by New Public Management (NPM) which led not only to improvement of the performance, but also to improvement of the efficiency (Boyne, 2002; Moynihan, 2008; Moynihan *et al.*, 2010). A recent study shows that various actions which are taken in private and public organizations may have different effects on desired results (Hvidman & Andersen, 2013). Also, no research has been made to test whether the same principals and techniques have the same effect on the performance of private and public organisations, as a number of recent studies show (Andrews *et al.*, 2011; Boyne & Walker, 2010; Boyne, 2002).

The models for measuring performance in universities :

The Model	Researchers	Year
Performance pyramid	Lynch & Cross	1991
Results and determinants Framework	Fitzgerald <i>et al.</i>	1991
Balanced Scorecard	Kaplan & Norton	1992
Performance prism	Neely <i>et al.</i>	2002

Performance pyramid measures performance across nine dimensions (organisations vision, market, financial, customer satisfaction, flexibility,

productivity, quality, delivery cycle time and waste) given the fact that organisations operate at different levels and have different aims. Performance measurement takes into consideration external effectiveness and internal effectiveness (Lynch & Cross, 1991).

Results and determinants framework, split measures into two types. Thus, as the name of the method shows, the measures are: for results such as competitiveness and financial performance; and measures which focus on determining the results such as quality, flexibility, resource utilization, and innovation. This method proves the need of identifying the causes of performance in order to achieve the aims (Fitzgerald *et al.*, 1991).

The most often model seen in the literature is Balanced Scorecard (Torres *et al.*, 2011; Sordo *et al.*, 2012). The method design was proposed by Kaplan and Norton in the beginning of the 90s. The perspectives of balanced scorecard (Kaplan & Norton, 1992) for measuring the performance are: financial perspective (for being financially sustainable), stakeholder perspective (the way in which universities must look for meeting the need of the stakeholders), internal business process perspective (universities must to provide good services in order to satisfy the users' needs), and learning and growth perspective (universities keep on creating and improving value).

Performance prism measure performance from five perspectives: stakeholder satisfaction (universities have to identify the target group and to identify their needs), strategies (planning the actions which universities have to accomplish in order to satisfy the users), processes (needed processes for improvement), capabilities (needed capabilities/skills for enhancing the processes), and stakeholder contribution (required contributions from the stakeholders to preserve and develop the capabilities) (Neely *et al.*, 2002).

From all these models, the most used and complete model is balanced scorecard. The main advantage of the model is that takes into consideration internal and external issues, financial and non-financial indicators, and is built on balanced set of measures. The disadvantage of the model omits the employees and suppliers from stakeholder perspective. On the other hand, the stakeholder perspective is missing from performance pyramid and results and determinants framework. This lack of focus on stakeholders' perspective from these two models represents a disadvantage. The main advantages of using performance pyramid when measuring performance is that include internal and external measures of performance and focuses on enhancing worker performance. The other model, results and determinants framework is obtaining results from past actions and the results are in relation with specific determinants. Performance prism unifies existing measurement frameworks,

and basically, the model is built upon their individual strengths. The stakeholder view is adopted by the model.

### Conclusions

This paper has attempted to provide an overview on performance measurement in public sector and in higher education in particular. The relevance of our work in the context of public sector organisations is justified by the complex meaning of performance measurement given to different users and the environment in which an organisation is performing.

Performance measures help entities to improve accountability, professionalism and transparency. Performance measurement is needed for setting the objectives, for planning the way in which these objectives will be achieved, for allocating the needed resources to accomplish the objectives, and for supervising the results in order to make improvements if it is necessary. Being accountable and transparent is very important for the users because entities have to prove their efficiency, economy and effectiveness.

As a result of using public funds, public universities have to provide evidence how they used the allocated resources, and have to show accountability. In order to obtain a successful accountability, a key element is access to pertinent information on performance. The performance of the public universities can be influenced by students, professors and the other employees of the university. Also, an important influence is given by the environment in which the university is performing.

The literature provides numerous methods for measuring performance. The future paper will try to analyze how public universities measure performance using one of the methods mentioned in this paper.

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