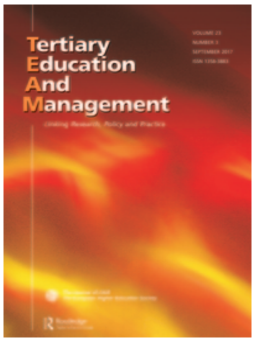

Tertiary Education and Management

Routledge
Taylor & Francis Group

ISSN: 1358-3883 (Print) 1573-1936 (Online) Journal homepage: https://www.tandfonline.com/loi/rtem20

Management of Higher Education Institutions and the Evaluation of their Efficiency and Performance

Tommaso Agasisti

To cite this article: Tommaso Agasisti (2017) Management of Higher Education Institutions and the Evaluation of their Efficiency and Performance, Tertiary Education and Management, 23:3, 187-190, DOI: 10.1080/13583883.2017.1336250

To link to this article: https://doi.org/10.1080/13583883.2017.1336250

Published online: 08 Jun 2017.

Tertiary Education and Management, 2017
Vol. 23, No. 3, 187–190, https://doi.org/10.1080/13583883.2017.1336250

Routledge
Taylor & Francis Group

Check for updates

Editorial

Management of Higher Education Institutions and the Evaluation of their Efficiency and Performance

The evolution of higher education systems over the last few decades has been characterized by a particular attention to the topic of 'efficiency', defined as the ability to produce the maximum amount of educational service for a given budget. This discourse is gaining momentum in times when public budgets are increasingly reduced, and consequently public investments in areas such as higher education suffer from a steep decline in the public resources allocated to them. At the same time, the expectations of citizens towards the activities of higher education institutions are even higher than in the past (Hazelkorn, 2015). Societies believe that higher education institutions should educate their students to be great citizens for tomorrow's world, a world which will be characterized by the necessity for more sophisticated skills, by the interaction between research and socio-economic development, and by a continuous cycle of innovation and knowledge transfer from academia to external stakeholders. From such a perspective, 'doing more with less' is now an imperative that characterizes all of the public sector's activities, including the funding of higher education's operations and institutions.

There is an extensive literature that deals with the measurement of the efficiency of educational institutions, including higher education institutions of various kinds: for comprehensive reviews, see De Witte and López-Torres (2017), Johnes (2004) and Worthington (2001). Despite differences in the methods used for this purpose (i.e. parametric vs. non-parametric), and in details of model specification, all the existing studies share common approaches to the consideration of higher education activity as employing key inputs (human and financial resources, facilities) to 'produce' important outputs such as education (graduates), research (publications) and knowledge transfer (patents, spin-offs, public events, etc.). Several contributions have focused on the determinants of efficiency, i.e. on the exploration of those factors that are statistically correlated with the measured levels of efficiency – for example, the presence of certain departments/schools (subject mix), the socio-economic composition of the student body, the qualifications of professors, the economic development of the territory in which the universities operate, etc. In other words, while the traditional approach to the measurement of efficiency in higher education considers the production as a 'black box', in which inputs are transformed into outputs without any concern about the production process, recent studies aim at identifying key factors that can improve efficiency and reduce costs, without compromising the quantity and quality of higher education production.

One element that deserves specific attention for its key relevance in affecting higher education institutions' performance and efficiency is the quality of management. The literature on higher education points out that, when institutions behave strategically (i.e. defining their own priorities, within the set of rules and incentives defined by a national/regional public authority), the role of management is pivotal in determining their performance (Shattock, 2000, 2010). In the attempt to clarify which mechanisms are more conducive to (in)efficiency, it becomes crucial to explore the role of management and its specific characteristics. For example, it would be important to understand if certain managerial practices and/or leadership styles are associated with differentials in measured performances, and/or whether different types of governance models and organizational structures lead to heterogeneity in institutions' performance.

This special issue of *Tertiary Education and Management* is an attempt to contribute towards the extension of the literature on higher education institutions' efficiency in the directions just described. The topic initially attracted the attention of many scholars, and we gradually winnowed down over 20 expressions of interest to the 7 articles included in this issue. These articles can be considered as good examples of the discussion about the intersection between efficiency measurement and judgment of management quality in the higher education sector.

The contribution by Geraint Johnes and Kaoru Tone is primarily methodological, and shows how the relative efficiency of higher education institutions in England can be judged very differently when using alternative non-parametric methods to data envelopment analysis. Efficiency scores are derived with three methods using data for 2013/2014, and the measures are highly sensitive to the method chosen. The article raises a crucial topic that applies to all other empirical analyses about performance and efficiency of higher education institutions: every time that an evaluation is made, the results must be checked for robustness and sensitivity. A possible policy implication of this approach is that management of universities should orient their practices towards more efficiency only when the relationship between specific activities and results are established in a robust way.

Eva de la Torre, José María Gómez-Sancho and Carmen Perez-Esparrells empirically study the relative efficiency of public and private universities in Spain, using Malmquist indexes, for a short period of time (from 2009/2010 to 2013/2014). The assumption underlying their work is that difference in management regimes (i.e. private vs. public legal status) can be reflected in performance differentials. Their findings reveal that some differences exist between the measured efficiency of public and private institutions, although during the period the former slightly close the gap with the latter. The question of how much of the differential between efficiency of public and private universities is attributable to heterogeneity in managerial attitudes remains as a potential extension for this work.

Calogero Guccio, Marco Ferdinando Martorana and Isidoro Mazza measure the efficiency of Italian universities between 2000 and 2010, by employing a data envelopment window analysis. A specific focus of this work is on understanding whether a shift in the management of universities, following the introduction of the bachelor/master structure (as a consequence of the Bologna process), is associated with changes in universities' efficiency over time. The results show that, although some modifications in efficiency levels can be observed, the gap in performance between universities located in northern and southern Italy remained stable during the period under study. Perhaps, notwithstanding the importance of management for universities' results, it cannot modify some structural differences in performance level across institutional types, and consequently this should instead be a task for policy makers.

Tommaso Agasisti and Clive Belfield apply a parametric method (stochastic frontier analysis) to estimate the efficiency of more than 900 community colleges in the United States, using data for the period between 2003 and 2010. The methodology allows them to estimate how much of the difference in measured inefficiency is due to exogenous factors out of managers' control, and the results indicate that a significant portion of inefficiency could be assigned to managerial activities. These interesting conclusions should inform further studies devoted to the analysis of specific managerial practices.

Jussi Kivistö, Elias Pekkola and Anu Lyytinen draw attention to a managerial practice that gained popularity in academia: performance-based management, as explicated through funding and incentives. The authors realized a survey among academics in some Finnish universities. Interestingly, they find that Finnish academics are generally positive towards the use of performance-based management. Nonetheless, their primary focus is on receiving esteem and good reputation from their academic communities. The article is useful in shedding light on the integrated use of managerial tools within academic life and organization.

The article by Cristian Barra and Roberto Zotti highlights the use of another managerial instrument, namely the systematic leverage of quantitative data for supporting decision-making. More specifically, their work claims a major role for student-level data when assessing the performance of an institution. Following a theoretical and methodological discussion, the authors present an empirical analysis based on more than 48,000 students from one large Italian university, and develop a method to assess the efficiency of the institution's activity, disentangling the effects of student characteristics from those attributable to the university's 'value added'. This approach could be used in the future, both for replicating the analysis for other institutions and to develop specific managerial suggestions for university decision makers.

Different forms of governance and the distinct nature of higher education institutions also require a differentiation in the evaluation models, as indicated by Giuseppe Cappiello and Giulio Pedrini in their article about the development of a performance evaluation system for corporate universities in Italy. The main results from the authors' survey indicate that, for assessing their efficiency and performance, the measurement system must take into account the peculiar nature of these institutions. This contribution should inspire further examination of other kinds of higher education institutions.

Overall, the special issue mixes contributions of various kinds. The first article is more methodological and aims at showing how different techniques can lead to inconsistent measurement of efficiency. Three contributions focus on the applied measurement of efficiency and performance of higher education institutions in different countries, and suggest how results can be used for benchmarking and comparison purposes, based on evidence about differences between institutions' efficiency and its determinants. Two other papers deal with the use of specific managerial tools, to underline how they may be adapted to the specificities and complexity of the higher education domain. One paper shows how performance measurement systems should be flexible and adaptive when considering institutions whose nature is very different from conventional universities.

I am honored to have served as Guest Editor for this initiative. While it took a lot of time and effort, it was definitively worth it. The discussions are timely, and the analyses and findings contained in these articles should be informative and useful for scholars, practitioners and policy-makers. I must dedicate a special thank-you to all the authors who submitted abstracts at the beginning of this initiative, enabling the selection of the papers that were the most relevant for the issue's purpose. I am also particularly grateful to the authors of the accepted papers, who contributed their time and energy to the success of this Issue.

Lastly, I am gratefully indebted to the Editor, Malcolm Tight. He encouraged my original ideas, helped me at crucial stages, and assisted any activity with great rigor and

professional ability. While the responsibility for the quality of the academic papers included in the issue is only mine and the authors, Malcolm must share the honor of having made this Issue possible.

References

De Witte, K., & López-Torres, L. (2017). Efficiency in education: A review of literature and a way forward. *Journal of the Operational Research Society, 68*, 339–363.

Hazelkorn, E. (2015). *Rankings and the reshaping of higher education: The battle for world-class excellence*. Dordrecht: Springer.

Johnes, J. (2004). 16 efficiency measurement. In *International handbook on the economics of education* (pp. 613–742). Cheltenham: Edward Elgar.

Shattock, M. (2000). Strategic management in European universities in an age of increasing institutional self reliance. *Tertiary Education & Management, 6*, 93–104.

Shattock, M. (2010). *Managing successful universities*. Maidenhead: McGraw-Hill Education.

Worthington, A. C. (2001). An empirical survey of frontier efficiency measurement techniques in education. *Education Economics, 9*, 245–268.

Tommaso Agasisti
Politecnico di Milano School of Management, Italy
tommaso.agasisti@polimi.it