Accountability of University: Transition of Public Higher Education

Łukasz Sułkowski

**ABSTRACT**

**Objective:** The main goal of the article is to discuss and elaborate on the basics foundations of the concept of accountability in terms of public universities management.

**Research Design & Methods:** The article is of descriptive character, based on literature review and its constructive critics.

**Findings:** The article presents the concept of entrepreneurial university to relate this idea to develop the accountability practices in higher education. Subsequently, the limitations of trends related to the development of the entrepreneurial university and accountability are discussed.

**Implications & Recommendations:** Higher education is increasingly becoming a business operation, in which competition plays a key role. Accountability at universities is established to implement a specific accounting and reporting system, which is a prerequisite for the existence of this accountability and responsibility. Accounting of higher education systems is a consequence of the marketization of universities.

**Contribution & Value Added:** The article assembles the scientific developments in four main fields, namely (i) entrepreneurial university, (ii) university accountability, (iii) accounting and autonomy of universities, (iv) measures of university performance.

**Article type:** conceptual article

**Keywords:** Accountability; university; higher education institutions (HEIs); economics of higher education

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INTRODUCTION

This article presents the foundations of the concept of accountability in terms of public universities management. General change in the direction of "entrepreneurial university" increases the focus on the economic aspects of the business activities of universities. Consequently, it is necessary not only to develop sources of income and methods of controlling costs, but also expand financial reporting for universities. The answer to these challenges is to establish the concept of accountability, serving to govern universities. The article presents briefly the concept of entrepreneurial university and relate this idea to develop the accountability practices in higher education. Subsequently, the limitations of trends related to the development of the entrepreneurial university and accountability are discussed.

MATERIAL AND METHODS

The main goal of the article is to discuss and elaborate on the basics foundations of the concept of accountability in terms of the public universities management.

The article is of descriptive character, based on literature review and its constructive critics. The article arranges existing scientific developments on accountability at universities in order. The article consists of four main sections of literature review and theory development (except for the introduction and conclusions): (i) entrepreneurial university, (ii) university accountability, (iii) accounting and autonomy of universities, (iv) measures of university performance.

LITERATURE REVIEW AND THEORY DEVELOPMENT

Entrepreneurial University

Many researchers point to the different directions of development of modern universities (Brint, 2005). What dominates is the view of university transformation into an business market organization, executing the concepts of "new public management" (De Boer, Jürgen, Schimank 2007, Hood, 1995, pp. 93-109). Based on this management approach universities become "producers" of educational services in a competitive market. This applies to teaching students, but equally to research performed by academics. The final shape of a new model is not yet established, although, according to Ronald Barnett, it will enable the resurrection of an organization called the university (Barnett, 2000).

Barbara Sporn has identified three general approaches to university management: new public management, entrepreneurialism and academic capitalism. According to Sporn, NPM, in respect of universities in the EU, is focused on the creation and strengthening of education quality management systems based on TQM. This refers to of both British and the Scandinavian universities. Other management methods used in universities and motivated by NMP, are for instance: project management, contract management, evaluation, audit and accreditation, as well as institutional autonomy and accounting (Sporn, 2006, p. 145).

"The entrepreneurial university" is a concept developed and popularized by Clark (1998). By studying five universities and their ability to respond to challenges arising from
the environment, he has identified five variables. "The entrepreneurial university" is characterized by:

− strong managerial and leadership core,
− integrated culture of entrepreneurship,
− varied sources of university funds,
− extensive developing peripheral areas,
− stimulating core of academic activities (Clark 1998).

A strong managerial and leadership core refers to a high degree of organizational autonomy, accompanied by a separation of professional managers and administrators and academic structures. Enterprise culture is a source of identification for employees of the university, who combine individual and institutional autonomy. Diversified funding of higher education institutions leads to the strengthening of autonomy and independence, but also economic security. "Entrepreneurial universities" are increasingly investing in new technologies, start-ups and spin-offs. All these aspects of the entrepreneurial university are developing on the high quality base, in the form of educational and research activities of the university (Sporn, 2006, p. 145).

Higher education is increasingly becoming a business operation, in which competition plays a key role (Sporn, 2006, p. 145). These changes strengthen the activities of the management team (executive committee), which consists of the leaders of individual units (Sporn, 2006, p. 148). What is also formed is a group of professional managers and administrators in educational activities (Sporn, 2006, p. 153).

**University Accountability**

*Accountability* is for public institutions a continues reliability and clarity of settlements. Thus, it is established to implement a specific accounting and reporting system, which is a prerequisite for the existence of this accountability and responsibility.

The concept of accountability made a great "career" in the discourse of social sciences, becoming in the last decades a kind of buzz-word. This concept is sometimes particularly intensively used in relation to the public sector, including universities. The term is ambiguous and axiological, as evidenced by the discourse analysis carried out by Melvin Dubnick, combining different types of definitions and narratives. Accountability may therefore constitute a commitment to: strengthen democratization, increase control, provide greater fairness or efficiency gains (Dubnick, 2012), as shown in the table below.

Universities receive money from public funds, and in some cases, such as the US, also from significant private donors. This creates a pressure in the direction of transparency of universities’ accounts. The public has a right to know how funds are spent by universities, which creates a pressure to introduce institutions and mechanisms enabling those settlements (Bogue & Hall, 2003b, p. 224). In the US, this tendency to increase financial control over universities manifests itself by, among others:

− increasing number of government regulations regarding assessment of quality, curriculum and teaching staff of a university,
− growing number of states requiring the university to undergo the mandatory process of accreditation,
– an increase in the number of states requiring reporting effectiveness and assessing the performance of spending of funds by universities,
– limited autonomy of universities by state and federal agencies (Bogue & Hall, 2003b, p. 228).

Table 1. Ways of understanding the concept of accountability

<table>
<thead>
<tr>
<th>Understanding of accountability</th>
<th>Concentration of discourse</th>
<th>Promise (value of concept)</th>
<th>Topics and researchers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solutions and actions to limit the omnipotence of power through social responsibility and strengthening the sensitivity and readiness to provide public explanations by those in power.</td>
<td>Institution-alization</td>
<td>The increase of democratization</td>
<td>Constitution Making (Habermas 2001, Habermas &amp; Regh 2001), Self-Restraining State (Schedler, Diamond &amp; Plattner 1999); Accountability forums (Bovens 2007), Horizontal accountability (O’Donnell 1998)</td>
</tr>
<tr>
<td>The methods and concepts allowing for anticipation and management of operations and activities in organizations.</td>
<td>Standardization, mechanization</td>
<td>The increase in the degree of control</td>
<td>Administrative control (Kaufman 1967); Bureaucratization (Eisenstadt 1959; Markoff 1975; Baron, Burton &amp; Hannan 1999); Hummel (2008); Rules (Kaplow 1992), Reporting (Connolly &amp; Hyndman 2004; Cooper &amp; Owen 2007), Auditing (Ashton 1990; Power 1999; Schwarz &amp; Sulitzeanu-Kenan 2002)</td>
</tr>
<tr>
<td>The formalization of rules and procedures, usually taking the legal form, which counteracts the effects of unwanted or unacceptable organizational behaviour.</td>
<td>Legislating</td>
<td>The increase of justice, better law regulation</td>
<td>Formality (Stinchcombe 2001), Rulemaking (Kerwin 2003), Criminalization (Dekker 2011), Enforcement (Malone 2010); Truth &amp; Reconciliation (Allan &amp; Allan 2000; Sarkin 2000)</td>
</tr>
<tr>
<td>Solutions, standards and measures developed in order to influence organizational behaviour.</td>
<td>Motivating, evaluating and rewarding</td>
<td>The increase of effectiveness and efficiency</td>
<td>TQM (Zbaracki 1998); Performance measurement (Hatry 2006); Performance management (Dubnick 2005), Standards (Kassel 2008).</td>
</tr>
</tbody>
</table>

Source: own elaboration based on Dubnick (2012).

Accounting and Autonomy at Universities

Accounting in higher education institutions is a consequence of the marketization of university. Research indicates that the pace and complexity of accounting and reporting of universities in the world is increasing, both in the private and public sectors. The two most important reasons are: growing economic pressure and the development of the concept of New Public Management. Financial strategies are converging to the business ones,
taking into account the revenue streams from: paid education, tuition fees of foreign students, etc. (Parker, 2012, pp. 247–268). Arthur M. Hauptmann indicates the following types of increasing orientation on accounting:

- audit and monitoring,
- regulatory performance measures,
- financing related to performance,
- market strategy (Hauptmann, 2006, pp. 91–92).

Representative surveys of Quaestors (Chief Financial Officers) in American universities conducted by the Gallup Organization in 2015 in the US indicate the growing complexity of accounting and financial analytics used to manage financial flows at universities. Controlling systems of American universities allow to monitor revenues, expenses and debts, which is especially important in a situation of financial crisis. Admittedly, the study shows that as many as 81% of the Quaestors believe that their university is not threatened with closure in the foreseeable future. However, at the same time 56% of them confirms that the media information about the financial crisis in higher education are true, and 19% see the threat of closure of their university. Indicators of transparency are also fairly high in the examined sample, because on average, 57% of respondents stated that the financial data about the condition of their schools are made public (74% public, 35% private). The use of financial indicators to assess the condition of the university, controlling of costs and the debt is common and covers over 75% of institutions. 45% of respondents pointed to the profound changes in the last 4 fiscal years, and another 16% are planning such changes in the near future. Economic challenges result in plans among the majority of respondents to increase the revenue streams through: increasing the enrolment (82%), launching new profitable programs (70%), reducing tenures (14%) and assigning more teaching responsibilities to professors (19%). At the same time 61% of Quaestors believe that the key is restructuring costs of a university and that the financial challenges are understood primarily by higher administration (88%) and board members (79%) and in a low degree by the academic staff (32%) (The 2015 Inside Higher Education Survey, 2015).

The image of financial management of universities in the US, therefore, does not differ essentially in terms of organization from other business sectors. It is a professionalised activity managed by specialized staff of financial administration, using a complex system of controlling based on analytical ratios. The financial aspect of university management is also largely excluded from the collegial system and de facto professoriate have a minor impact on financial decisions. In Poland, more power entrusted to collegial bodies such as the senate and faculty councils mean that the degree of collegiality and participation of the academic staff in financial decisions are greater. In the world, most governance systems of universities is evolving towards ever more complex and professionalized accounting using business standards (Tomkins & Green, 1988, pp. 147–164).

Peter Ling conducted a comparative study of higher education systems in Australia and the UK and pointed to the tension between the aspirations for autonomy of universities and university accounting. Using the empirical illustration, Ling has identified several possible system activities conducted on the basis of the logic of New Public Management, which enhance the accountability of universities. First of all, it is possible to create institutions at the national level, which on one hand support, evaluate and disseminate good practices and innovations in the sphere of improvement of the education process, and on
the other hand control and accredit higher education. In Australia this role is played by the National Institute for Learning and Teaching in Higher Education created in 2005, and in the UK, the Quality Assurance Agency and the Higher Education Quality Council founded in 1992. It is also possible to create financial mechanisms promoting and disseminating effective practices via grants and awards for quality and improvement (Learning and Teaching Performance Fund, the Australian Award for University Teaching). Another activity is to create a system of education, certification and improvement, evaluation of teachers and awarding them with bonuses for education quality (Ling, 2005). Paradox is, as Ling indicates, that the growing importance of accountability is accompanied by the decrease in funding of universities from public funds. Yet, it seems that it is a trend that occurs in various sectors benefiting from public funding, as for example in medical sector. The key problems still to solve are: performance measures, limiting the political influence on the process of education, universities reaction subjected to pressures arising from accountability, the impact on the management mechanisms and the costs of introducing the changes.

Maintaining the balance between efficiency and transparency of university funding and its autonomy is a key concern of changes in governance and subsequent development of accountability systems. It concerns not only the education systems of the developed countries, as mentioned earlier: US, UK and Australia, but also fast-growing sectors of universities in the developing countries. Typically, these are the systems with State domination, but often also with a significant participation of private universities. China with its profound State control introduces very little autonomy at universities while increasing the complexity of accounting systems and external reporting. In India, 620 universities and about 35 000 higher education institutions are subject to a complex system of management and reporting at central and regional level, where institutions have very different degrees of autonomy, and thus, different reporting requirements (Gandhi 2013).

Orientation for the implementation of controlling systems focused on efficiency also refers to the quality of education, research, and even the implementation of a social mission (Sandu, 2014, pp. 169–175).

**Measures of University Performance**

In recent decades there has been a significant increase in accountability systems based on performance indicators both in university funding, as well as quality assurance and commercialization of scientific research (Darling-Hammond, Synder 2015). Polls show that an increase of emphasis on reporting and controlling is an international trend. It is manifested in adapting business models to accounting for finance, management of education quality and other processes in higher education (Welsh & Dey, 2002; Mutula, 2002; Cruickshank, 2003; Sahney et al., 2004; Freeman & Thomas, 2005; Burbules & Torres, 2000).

The use of appropriate performance indicators is essential to implement accountability systems, which in turn are essential for effective management of the university. Serge Cuenin defined performance indicators as a mathematical formula that provides a numerical value, which is the basis of evaluation or performance measurement of the system (Cuenin, 1987, pp. 117-139). Changes in the value of the indicator provide information on whether the system works more or less effectively. Filip Dochy and Mien Segers formulated three proposals, as to an accurate formulation of performance indicators. Firstly, they should be clearly linked to the function of the institution. Secondly, that they allow...
for an assessment of only a selected aspect of the organization activity and should therefore be interpreted collectively. Thirdly, they constitute an adequate operationalization, allowing for the measurement, evaluation and interpretation of the operation of a particular aspect of the organization (Dochy & Segers, 1990).

In the Dictionary of Education Quality and Accreditation, more extensive definitions and typology of indicators and performance indicators were proposed. Indicators are defined as "operating variables referring to specific empirically measurable characteristics of higher education institutions or programs that provide information enabling to ascertain whether it meets the established standard". "Performance indicators are a set of statistical parameters representing a measure of the extent to which higher education institution or program implements the established standard." "A simple indicator is a generic pointer type in a form of a number that provides a simplified, relatively objective measure" (Vlăsceanu, Grünberg, & Pârlea, 2004, pp. 59–62; Bogue & Hall, 2003a). An example of a simple indicator would be the average number of candidates for the spot. As a result, performance indicators enable tracking the trends and comparing them between universities and programs. They make it possible to identify the areas requiring action and improvement. Indicators can also be used to create quality standards and quality management procedures of education (i.e. operationalization). At the same time, indicators must be distinguished from the measures, since the latter is merely a specific numerical value representing the reflection of selected efficiency aspect. In turn, a standard means an acceptable level of performance expressed in numbers. We can distinguish several different types of indicators:

- economic indicators (related to budgeting),
- performance indicators (current productivity, the effect in relation to the inputs for a unit),
- performance indicators (degree of goal attainment).

Another division assumes the differentiation of the following indicators: context, input, process and output, called from the English abbreviation the CIPO-model. Context indicators relate to the specific nature of the higher education institution or program regarding the following aspects: social, political, economic, demographic and others. Input indicators relate to organizational, financial and human resources used by institutions. Process indicators are, above all, a way of resource use by universities to achieve the objectives pursued by the organization. Output indicators, on the other hand, relate to educational and scientific achievements of an institution. Examples of commonly used indicators are: the value of research grants, points for publications and scientific achievements, the ratio of teachers to students, expenditures per student, employee, organizational units (Cave, Kogan & Hanney, 1990; Fielden & Abercromby, 2000, p. 7; Spee & Bormanns, 1992, p. 143; Van Damme, 2004, pp. 125-157).

Using a similar set of performance indicators allows to observe changes over time and comparison between organizations, making it an effective method of controlling. However, their formulation is not easy because of the diversity of educational institutions and the difficult access to information. Problematic is also an abuse of indicators (Ball & Wilkinson, 1994, pp. 417-427). As Elton Lewis writes ironically, "a performance indicator becomes all that is easily measurable." (Elton, 1987, p. 12).
Neoliberal changes conducted in the UK in the eighties of the twentieth century were stimulated and recommended by a central authority (The Development of Higher Education ... 1985; Performance Indicators in Higher Education ... 1991). The founded commission was named after the person in charge of the committee—Jarratt. It produced a report, the purpose of which was to support changes. The report consisted of recommendations for universities to use a number of performance indicators (Jarratt Report 1985).

In the US, in the governance practice a number of performance indicators of education are used, among which the most popular are: the degree of implementation of the demands of the labour market, measure of the value added by education (student relative output to input), return on educational investment, and assessment of the quality of education (Reindl & Reyna, 2011, p. 7).

Sample list of performance indicators of a university, used in the UK, includes 39 indicators (Johnes & Taylor, 1989).

| 1. | Average cost of educating a student. |
| 2. | Average cost of academic employee. |
| 3. | Average cost of an administrative employee in relation to academic employee. |
| 4. | Average cost of equipping the academic employee. |
| 5. | Average revenue per academic employee from research activities. |
| 6. | Percentage of doctoral students in relation to the total amount of students. |
| 7. | Percentage of second-cycle students in relation to the total amount of students. |
| 8. | Percentage of second-cycle and doctoral students in relation to the total amount of students. |
| 9. | The ratio of students to academic employees. |
| 10. | Expenditure on central administration in relation to the expenditure of the university as a whole. |
| 11. | Expenditure on the salaries of central administration in relation to expenditures on central administration. |
| 12. | Expenditure on the central administration in relation to the total costs of educating students. |
| 13. | Expenditure on the central administration in relation to the total costs of employment. |
| 14. | Expenditure on library in relation to the total costs. |
| 15. | Expenditure on library in relation to the total costs of educating students. |
| 16. | Expenditure on library in relation to the total costs of employment. |
| 17. | Expenditure on library in relation to the total costs of academic employees. |
| 18. | Expenditure on books per student. |
| 19. | Expenditure on journals per student. |
| 20. | Expenditure on computers, software and service as a percentage of total costs. |
| 21. | Expenditure on computers, software and service as a percentage of total costs of academic employees. |
| 22. | Expenditure on computers, software and service per a statistical student. |
| 23. | Expenditure on computers, software and service per a statistical employee. |
| 24. | Expenditure on buildings and equipment in relation to the total costs. |
| 25. | Expenditure on wages related to the servicing of buildings in relation to the costs of buildings. |
| 26. | Operating expenses (electricity, water, heating) in relation to the total costs. |
27. Expenditure on cleaning and garbage disposal in relation to the total costs.
28. Repair costs in relation to total costs.
29. Phone costs in relation to total costs.
30. Expenditure on buildings per a statistical student.
31. Expenditure on salaries related to buildings per a statistical student.
32. Operating expenses (electricity, water, heating) per a statistical student.
33. Expenditure on cleaning and garbage disposal per a statistical student.
34. Repair costs per a statistical student.
35. Phone costs per a statistical student.
36. Expenditure on career office and career guidance per a statistical student.
37. Expenditure on self-government and student associations per a statistical student.

CONCLUSIONS

Accountability systems are used for surveillance over universities, mainly by institutions co-financing functioning of universities, such as: State, local authorities, third sector organizations. However, opinions on the effectiveness of these systems and funding policy based on the measurement of performance are not unanimous. Thomas Rabovsky?, based on data collected in Postsecondary Education Data System indicates that they contribute to the financial restructuring of universities in a small way and, to a lesser extent, they are used in management (Rabovsky, 2012).

Accountability has also negative aspects, which include mainly the erosion of a culture of trust and bureaucratisation. In 2002, Onora O'Neill posed questions about the negative aspects of accountability, and in particular the decline of public confidence entrusted to the universities and professional group of academics (O’Neill, 2002; Sułkowski, 2016).

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