

Justyna Fijałkowska

University of Social Sciences

Lodz, Poland

jfijalkowska@san.edu.pl

Cidalia Oliveira

University of Minho

Braga, Portugal

cidalia.o@hotmail.com

Balanced Scorecard in Universities

ABSTRACT

Objective: Performance measurement and reporting leading to greater transparency and accountability of universities have become a challenging issue. Increasingly, universities have been required to provide performance indicators—empirical evidence of their value creation — to the different group of stakeholders. One of the approaches that may be applied by universities is the Balanced Scorecard (BSC). The objective of this paper is to indicate the BSC as a useful tool for the evaluation of the universities' performance.

Methodology: This study is based on the following research methods: descriptive, deductive, and the literature review. It refers also to case studies that are quoted in the context of their practical BSC application experience and it presents the pioneer approach of California University in BSC adoption. The rationale of this paper follows the principal-agent theory that is a foundation of the accountability concept. It refers also to the new managerialism, new public management, and entrepreneurial university.

Findings: Based on the literature review concerning the analysis of the examples of universities implementing BSC, this paper argues that BSC provides a framework for the performance measurement that allows for the increased transparency and accountability of these institutions.

Value added: The pioneer BSC framework presented in this paper can be used as the basis for the development of general performance measurement in universities.

Recommendations: It is recommended that the universities that want to boost their transparency and be accountable for their outcomes apply and develop the BSC framework to which we refer to in this paper.

Key words: balanced scorecard, performance measurement, universities

JEL codes: M10, M19, M49

Introduction

Universities – secular institutions and one of the most important social organizations, are now inserted in a complex scene of great change and uncertainty in the economic, political, social, educational, technological and environmental fields, requiring new forms of management to make them more agile, flexible and effective in terms of responsiveness to social demands (Aktas, 2015). The development of the knowledge economy and the growing turbulence and uncertainty in the environment of modern organizations impact also universities. Therefore, the decision-making processes in HEIs have become increasingly complex (Leja, 2013, p. 21). There is a lively debate about how universities should be managed that is intensified by the following factors (Elena-Perez, 2011):

- changes in the funding modes of universities,
- increasing levels of institutional autonomy,
- new social demands for greater transparency and accountability.

Accountability of universities became a challenge for HEIs that have been required to provide performance indicators and assessments — empirical evidence of their value and achieved outcomes (Fijałkowska, 2017a, p. 52).

The wide circle of universities' stakeholders pretends they are efficient and effective as well as to be transparent and accountable. Accountability is demonstrated by the transparency of the decision-making processes that govern the universities. Without the measurement, evaluation, profound analysis, benchmarking and communication of universities' key performance indicators there will be no accountability neither transparency if these institutions (Fijałkowska, 2017b, p. 66). Universities are subject to quality assessment procedures evaluating the academic, research as well as business criteria of their operations. To make universities more competitive and sustainable over time it is necessary to introduce and develop strategic management models to govern internal outcomes as well as strengthen the external relationships.

In higher education, there are time-honored traditions relating to performance measurement that nowadays are boosted by the need for external accountability requirements and should implement into a system of financial accounting and reporting (Fijałkowska, 2016, p. 97). Traditionally, performance measurement and reporting, that are the requirements of effective accountability, were based on the financial accounting model emphasizing profitability, cash flow, sales growth, ROA, ROE, economic value added (Fijałkowska, 2017a, p. 52). Financial measures used to provide a basis for accountability, stewardship, comparability. However, financial indicators alone are limited in their ability to adequately represent the range of factors associated with organizational excellence. Ruben (1999) indicates: "As important as the traditional indicators are, these measures fail to present a comprehensive image of the current status of an institution. They do not reflect some of the key success factors for a college or university, nor do they capture many of the dimensions of a university's mission, vision, or strategic directions". The increased interest in issues concerning the accountability of universities led to many internal and external accountability mechanisms in higher education that were introduced to ensure the information needs of stakeholders are met. One of them may be the Balanced Scorecard.

The main purpose of this study is to present and discuss the Balanced Scorecard as a useful tool for the evaluation of the universities' performance. The thesis of this work is that performance measurement based on the BSC approach may be one of the important ways to better strategic management of universities as well as may result in the increase in the transparency and accountability of these institutions. It may also lead to better decision processes. The rationale of this paper is based on the principal-agent theory that is a foundation of the accountability concept. It refers also to the new managerialism, new public management, and entrepreneurial university. As Deem (1998, p. 47) underlines the term "new managerialism" is generally used to refer to the adoption by public sector organizations of organizational forms, technologies, management practices and values more commonly found in the private business sector. For several years, public sector reforms were inspired by the global movement of the New Public Management (NPM) (De Boer et al., 2007) in which particular attention was devoted to performance measurement and performance management (Moynihan, & Pandey, 2010; Rabovsky, 2014). The NPM and new managerialism bring to the concept of the "entrepreneurial university" that is now recognized as a major driver for self-development and innovation and as an appropriate response to succeeding in highly turbulent and unpredictable markets (Sperrer et al., 2016).

This study is based on three main research methods: descriptive and deductive as well as the literature review. The BSC framework presented in this paper can be used as the basis for the development of general performance measurement in universities.

Balanced Scorecard in the university context

The concept of the balanced scorecard (BSC) was introduced by Robert S. Kaplan and David P. Norton (1992) in their now widely cited Harvard Business Review article, "The Balanced Scorecard – Measures that Drive Performance." This approach may be also applied in the context of universities. The BSC

can be used as a tool for coordinating the activities of the academic and non-academic departments of a university and the mechanisms of budgeting and target agreements (Küper, 2013). The aim of the concept is to overcome the shortcomings of traditional performance measuring systems, which rely only on financial outcomes (Pietrzak et al, 2015).

Tapions, Dyson, and Meadows (2005) presented the alignment between an organizational strategy and performance measurement at Warwick University (UK). Papenhausen and Einstein (2006), describing an example of BSC application in College of Business at the University of Massachusetts – Dartmouth (U.S.A.) stress the necessity of active contributions from everyone at the university in order to make the BSC successful. McDevitt, Giapponi and Solomon (2008), focusing on the example of University Division, Connecticut, USA, described the process and benefits of developing a custom BSC to revitalize a faculty strategy. Umashankar and Dutta (2007) discussed in what way the BSC approach may be applied to higher education in India. Juhl and Christensen (2008) presented the BSC concept as a tool compatible with the performance measures proposed by the Ministry of Science to allocate resources among Danish Universities. Al-Hayaly et al (2016) using BSC studied the knowledge management processes and their impact on the organizational performance in the Jordanian private universities. Elola et al (2016) a survey questionnaire was created and sent to all the scope of Spanish universities. Using the data collected, the research was carried out using the SmartPLS software (partial least square path modelling analyzed the causal relationships in the balanced scorecard in public and private Spanish universities through structural equation modeling. Ismail et al (2015) recommended by respondents, were related to the customer and internal business process perspectives, whilst they did not recommend most indicators related to the learning and growth and financial and economic perspectives. Furthermore, most indicators had significant differences according to the type and age of the universities. This paper extends previous studies on measuring performance excellence in the higher education sector by considering a set of

KPIs which fit educational systems in emerging economics. The findings would help the management of Saudi universities as well as policy makers in the Saudi Ministry of Higher Education to: 1 described a balanced scorecard model for performance excellence in Saudi Arabia's higher education sector. Eltohy and Radwan (2010) analyzed the monitoring of Egyptian higher education institutions performance development using the BSC approach. Negash (2011) described the use of BSC in the African universities context and Al-Zwyalif (2012) in Jordanian private universities. Application of BSC in one of the Polish universities was described by Pietrzak et al (2015). The example of developing the BSC model at Maria Curie-Skłodowska University in Lublin in Poland was presented by Świerk and Mulawa (2015). An example of universities that applied BSC is presented in the table 1.

Table 1. A list of example universities that applied the Balanced Scorecard

| Country | University |
|---------|---|
| | University of California at San Diego |
| | University of California at Davis |
| | University of California at Berkeley |
| | University of California at Los Angeles |
| | University of California at Irvine |
| | University of California at Santa Cruz |
| | University of California at San Francisco |
| | California State University at Northridge |
| | California State University at San Marcos |
| | California State University at San Bernardino |
| | California State University at Pomona |
| | Florida International University |
| | University of Louisville |
| | University of Vermont |
| | University of Akron |
| | University of Virginia |
| | University of Alaska |

| | |
|-----------|--|
| | University of Denver |
| | University of Arizona |
| | University of Iowa |
| | University of Missouri |
| | University of North Carolina at Wilmington |
| | University of Northern Colorado |
| | University of St . Thomas |
| | University of Vermont |
| | University of Washington |
| | Fort Hays State University |
| | University of Florida |
| | Charleston Southern University |
| | Cornell University |
| | Illinois Benedictine College |
| | Indiana University |
| | Pennsylvania State University |
| UK | University of Edinburgh |
| | Glasgow Caledonian University |
| Australia | Deakin University |
| | Bond University |
| Canada | Carleton University |
| Jamaica | The University of the West Indies |

Source: Rompho, 2008, Binden, Mziu & Suhaimi 2014, Świerk and Mulawa 2015.

In the BSC proposed by Kaplan and Norton (1992 and 1996) there were four main conventional perspectives indicated:

- 1) Financial Perspective – Are we meeting the expectations of our Shareholder?
- 2) Customer Perspective – Are we delighting (or at least satisfying) our customers?
- 3) Learning and Growth Perspective – Are we prepared for the future?
- 4) Internal Process Perspective – Are we doing the right things?

These four traditional perspectives have been used in various studies concerning BSC at universities (e.g. Sayed, 2012; Taylor & Baines 2012; Zolfani & Ghadikolaei, 2013; Libing et al., 2014; Chalaris et al. 2014). In some

cases, there were slight differences in the title and the order of presented perspectives. Many studies propose also the modified version of perspectives to be measured in the specific context of universities, especially adding to the conventional perspectives non-financial dimensions, concerning e.g. community participation, innovation, strategic partnership and scientific research excellence that are crucial in case of universities. One of the latest studies of Lin et al. (2016) proposes a modified BSC model of learning and growth, internal operations, stakeholders and sustainability, which are four aspects of the sustainability development concept. The review of modifies perspectives of evaluation in the context of universities are presented in table 2.

Table 2. The perspectives of BSC specific to the context of universities

| Author | BSC Perspectives |
|---------------------------|--|
| Beard (2009) | Student learning results, Student and stakeholder –focused results, Budgetary, financial, and market results Faculty and staff results Organizational effectiveness results, Governance and social responsibility results |
| Eltobgy and Radwan (2010) | Educational and learning excellence, Scientific research excellence, Community Participation, environment development and stakeholders, Financial resources, Institutional capacity and quality management |
| Philbin (2011) | Financial, people development Institute capability, Re- search output |
| Al-Ashaab et al. (2011) | Competitiveness, sustainable development, Innovation, strategic partnership, Human capital, Internal business processes |
| Li (2011) | Goals school, stakeholders satisfaction, Internal business processes, Organization developing ability |
| Zhang et al. (2014). | Client, Teacher's Contribution, Teaching and research Per- sonal ascension |

| | |
|---------------------------|---|
| Beard and Humphrey (2014) | Student learning and process results, Customer-focused results, Leadership and governance results, Budgetary financial and market results |
| Lin et al. (2016) | Learning and growth, internal operations, stakeholders and sustainability |

Source: own elaboration.

Beard (2009) globalization , emerging technology, resource constraints, and the consequences of unethical behavior. Leaders in business and education are more often recognizing the importance of being customer focused by identifying and separating value-added and nonvalue-added activities by and in collecting information for performance evaluation and continuous improvement. Leaders of educational institutions must answer these important questions: Are schools meeting their missions? Are schools offering educational value to their students? Can schools improve their processes and create additional value while containing or reducing costs? Are schools effectively and efficiently using scarce resources such as intellectual capital, state appropriations, other revenue sources, people, and time? Are there management tools used in business that may be useful in higher education? The answer to this question is yes, and the balanced scorecard (BSC, as well as Karathanos and Karathanos (2005), describe the application of BSC at the Wisconsin-Stout University, where 5 following main dimensions of BSC have been measured and monitored:

- 1) Student-learning,
- 2) Student and stakeholders
- 3) Budget and finance
- 4) Faculty and staff
- 5) Organizational effectiveness

The list of measures used at the University of Wisconsin-Stout is presented in table 3.

Table 3. Example of BSC at the University of Wisconsin–Stout

| Dimensions | Measures |
|--------------------------|--|
| Student-learning | <ol style="list-style-type: none"> 1. Freshman ACT scores 2. Freshman retention 3. "At risk" freshman retention 4. Active learning 5. Computer competency 6. Skill development <ul style="list-style-type: none"> – Leadership – Problem-solving – Conflict resolution – Communication 7. Diversity appreciation 8. Graduation rate 9. Student job placement 10. Employment in major field 11. Salaries of graduates 12. Annual income of alumni 13. Alumni rating of program effectiveness 14. Alumni development of active learning skills 15. Alumni appreciation of diversity 16. Skill assessment by employers <ul style="list-style-type: none"> – Basic skills – Communication – Technical – Organizational/problem solving – Leadership |
| Student and stakeholders | <ol style="list-style-type: none"> 1. Freshman ratings of educational experience 2. Number of transfers "in" 3. Numbers that would attend again 4. Student satisfaction with campus environment 5. Alumni satisfaction with instruction 6. Alumni indication they would attend again 7. Employer ratings of graduates' preparation 8. Board of Regents satisfaction with: <ul style="list-style-type: none"> – Mission appropriateness – Student outcomes – Leadership – Accountability – Fulfilling mission 9. Community ratings of customer |

| | |
|------------------------------|---|
| Budget and finance | <ol style="list-style-type: none"> 1. Tuition comparisons 2. On-campus room and board costs 3. Tuition revenues 4. Prioritization of funding 5. Budget allocation to instruction 6. Budget allocation to institutional support 7. Expenditures allocated to personnel 8. Year-end budget variances from budget plan 9. University reserves 10. Foundation assets 11. Dollars awarded to scholarships |
| Faculty and staff | <ol style="list-style-type: none"> 1. Key indicators of faculty and staff morale, well-being, and development 2. Employee satisfaction: 3. Voluntary faculty turnover 4. Classified staff grievances 5. Diversity: <ul style="list-style-type: none"> — Women faculty — Minority faculty 6. Discrimination and harassment 7. Faculty with doctorate 8. Professional development expenditures 9. Satisfaction with opportunities for training/professional development 10. Evaluation of Microsoft training 11. Safety training 12. Injury/accident rates 13. Workers compensation claims 14. Workers compensation experience |
| Organizational effectiveness | <ol style="list-style-type: none"> 1. Distinctive programs 2. Undergraduate curriculum 3. Federal grant expenditures 4. Laboratory-based instruction 5. Enrollment 6. Distance-learning opportunities 7. Audit compliance 8. Safety and security performance 9. Support services effectiveness: <ul style="list-style-type: none"> — Current students — Alumni |

Source: own elaboration based on Karathanos & Karathanos, 2005.

A slightly different approach to BSC at universities was presented by Ruben (1999) measurement, and the use of the information that results therefrom, but the question of what should be measured and how that information should be used has been more problematic. One of the defining themes of

contemporary organizational theory is the emphasis on information and measurement for assessing, tracking and promoting organizational excellence. "Information and Analysis" is one of the seven categories in Malcolm Baldrige criteria for performance excellence, and "management by fact" has been a core value in the Baldrige framework (DeCarlo & Sterett, 1989, 1995; MBNQA, 1988-1998 that generally indicates similar areas of BSC, however, he stresses also the important dimension of the research that was omitted in the previous proposals. He proposed a BSC framework for universities based on the 5 main dimensions, described in table number 4:

- 1) Teaching/learning (Instruction),
- 2) Scholarship/research,
- 3) Public service/outreach,
- 4) Workplace satisfaction,
- 5) Financial issues.

Table 4. Balanced Scorecard in universities according to Ruben

| Dimension | INSTRUCTION | PUBLIC SERVICE/ OUT-REACH | SCHOLARSHIP |
|-----------|--|--|---|
| Measures | <p>PROGRAMS/COURSES</p> <ul style="list-style-type: none"> • mission clarity • disciplinary standing • need • coherence • rigor • efficiency • instructor qualifications • currency /comprehensiveness of course materials • adequacy of support services • teaching-learning climate <p>STUDENT OUTCOMES</p> <ul style="list-style-type: none"> • preferences • selectivity • involvement • learning outcomes • satisfaction • retention • preparedness • placement • life-long learning | <ul style="list-style-type: none"> • activity level/contacts • selection for leadership roles • reputation • meeting perceived needs • satisfaction levels • contributions/funding • preferences <p>Examples of stakeholders:</p> <p>Prospective Students</p> <p>University</p> <p>Profession/Discipline</p> <p>Research Agencies</p> <p>Alumni</p> <p>Families State</p> <p>Employers Community</p> <p>Governing Boards</p> <p>Public at Large</p> | <p>PRODUCTIVITY</p> <ul style="list-style-type: none"> • presentations • performances • submissions • publications • funding proposals <p>IMPACT</p> <ul style="list-style-type: none"> • publication stature • citation • awards/recognition • editorial roles • peer assessments • funding |
| Dimension | WORKPLACE SATISFACTION | FINANCE | |
| Measures | <p>Faculty, Staff</p> <ul style="list-style-type: none"> • attractiveness • turnover • compensation • climate • morale • satisfaction | <p>REVENUE</p> <ul style="list-style-type: none"> • funding levels • endowments <p>EXPENDITURES</p> <ul style="list-style-type: none"> • operating expenses • debt service • credit ratios • deferred maintenance | |

Source: own elaboration based on Ruben, 1999.

The dimensions, key questions, targets and measures used in the Ohio State University are presented in table 5.

Table 5. Balanced Scorecard in the Ohio State University

| Dimension | Question | Target | |
|------------------------------|---|--|---|
| Diversity: | How well do we broaden and strengthen our community? | Increase campus diversity, provide better disability access | % of students, staff, and faculty by gender and ethnicity; Inventory program needs as baseline; improvement over time; |
| Students learning experience | How effectively do we transfer knowledge to our students? | Improve students' progress; Increase student satisfaction; Improve graduate program quality; | Retention and graduation rates; Higher Education Research Institute student survey data; Graduate student placement; |
| Academic excellence | What is our contribution to the creation of knowledge? | Increase research productivity; Heighten national reputation; | Counts of publications, citations, grants, and awards; Number of departments in top quartile of National Research Council rankings |
| Outreach and engagement | How effectively do we transfer knowledge to the local, national, and international communities? | Increase technology transfer activity; Increase outreach to community; | Number of licenses, patents, and invention disclosures; royalty income; Number of programs and services; number of people served; |
| Resource management | How well do we develop and manage resources | Increase and diversify revenues; Provide incentives for entrepreneurial initiatives; | % of revenue by category over time; Number of science and technology campus partnerships; |

Source: based on Stewart & Carpenter-Hubin, 2000.

Also Binden et al. (2014) presented their proposal of the BSC project for Higher Education, based on 5 stages that are described in table 6:

- 1) BSC readiness assessment and BSC training,
- 2) BSC design & development,

- 3) BSC software automation,
- 4) BSC cascading,
- 5) BSC review.

Table 6. Balanced Scorecard framework for Higher Education

| BSC Assessment and Training | BSC Design & Development | BSC Automation | BSC Cascading | BSC Review |
|--|---|--|---|--|
| Readiness assessment done by Consulting Services and sometimes internally by the organization in order to provide recommendation and assistance in prioritizing BSC implementation, including education, strategic alignment, and internal marketing. The training should include Introduction to BSC, Intermediate courses in Designing & Developing BSC and advanced courses in Cascading Scorecards. Training will give ideas on the importance of BSC as well and how to make the best out of BSC. | During the stage of BSC design and development, the 'top level' strategy maps should be set. Together with strategy maps the measures and targets should be determined as well. Another important process that should take place during this stage are the initiatives concerning the agreed implementation and communication guidelines. This stage usually ranges from eight to twelve weeks. | In this stage, there are technicalities that will take place like, installing BSC software the server as well as client side. This stage usually takes from one to four weeks. | BSC cascading means that there will be multiple scorecards developed and those scorecards are aligned and cascaded across multiple divisions across the whole enterprise. | During this stage consulting services should review the effectiveness of the BSC and should provide recommendation for any enhancement. They should perform a gap analysis on original requirements versus what is implemented to see whether the requirements are met or not. Lastly, in this stage, there should be included the services to fine-tune and further optimize the BSC. |

Source: own elaboration based on Binden et al., 2014.

This framework may be used as a guide for the BCS implementation in universities. Applying this framework gives an overview of all the components and perspectives that should be considered in HEIs' BSC (Binden et al. 2014, p. 41).

Balanced Scorecard application in the University of California – the pioneer approach

The University of California, one of the preeminence among worldwide research universities, at the beginning of the 1990s decided to adopt changes concerning its management. This was due to a general feeling that the administrative management system that had supported the rise of the University of California to the top-ranked universities worldwide, was no longer suited to the new realities. The University has recognized at the root of the problem, the need to shift from a primarily static and procedural management system to a more dynamic system that could play a diagnostic, self-evaluation and learning role in the same time (Hafner, 1998). The university wanted also to become more accountable, focus on the future, become better in setting strategic goals and performance objectives as well as more effectively track progress over time in achieving the goals through a meaningful set of performance measures (Hafner, 1998). BSC, with the help of IBM consultants, have been implemented in the University of California Office of the President, the nine University of California campuses and three national laboratories managed by the University. University of California San Diego (UCSD) was the first university in the nation to adopt the Balanced Scorecard in 1993. In recognition of its “innovative approach to cutting costs, solving problems, and increasing efficiency, UCSD became the first university in the world to be inducted into the Balanced Scorecard Hall of Fame.

Senior administrative managers from each campus participated in the development of the overall vision and goals for business administration and operations. This administrative group also served as a steering committee over the life of the initiative by providing direction, prioritizing, solving problems, and encouraging and motivating their staff to participate (Brown, 2012).

In the California University, there were four main questions imposed with the tactical objectives referring to each of them. The questions and objectives are oriented in the table below.

Table 7. Questions and Objectives of the BSC in the California University

| Question | Objectives |
|--|---|
| How do customers see us? | <ul style="list-style-type: none"> • Identifying key customers and stakeholders; • Development of customer satisfaction survey; Identifying customer needs and requirements that were not being addressed; • Assessing the customer perception of the value and effectiveness of services provided; |
| At what must we excel? | <ul style="list-style-type: none"> • Identifying the processes and activities that deliver critical services to both internal and external customers; • Design measures to access all core competencies such as productivity, accuracy, cycle times, effective use of people and information resources; |
| How do we look to our stakeholders? | <ul style="list-style-type: none"> • Traditional financial indicators retain an important role in the university BSC initiatives, such as % Net operating ratio, % Reinvestment rate, \$ Debt capacity, or \$ Research funding competitiveness; • Set cost reduction and cost avoidance objectives at the operational level; • Set auxiliary revenue generation objectives and measures for auxiliary services areas such as parking and bookstores; |
| Can we continue to improve and create value? | <ul style="list-style-type: none"> • Set measures and targets for factors such as workplace climate, employee morale, skill alignment; • Establish professional development strategies and effective use of technology; • Develop surveys to assess leadership and management styles, morale, communication, training and skills, motivation and reward. |

Source: Hafner, 1998.

At the UCSD the traditional four dimensions of BSC have been applied. UCSD places the vision, mission, and values of the organization at the center of strategic planning and performance measurement activities. The UCSD Balanced Scorecard uses 4 primary dimensions (perspectives):

- 1) **Financial/stakeholder perspective:** This measures how the university approaches its resource providers through tools such as profit/loss statements, balance sheets, and budget reports. Departments can use results to develop and implement revenue, cost saving, and budget strategies, create a risk management program, and establish internal controls. The

Financial Perspective emphasizes the stakeholder concern about how efficient and effective the unit is at using its resources.

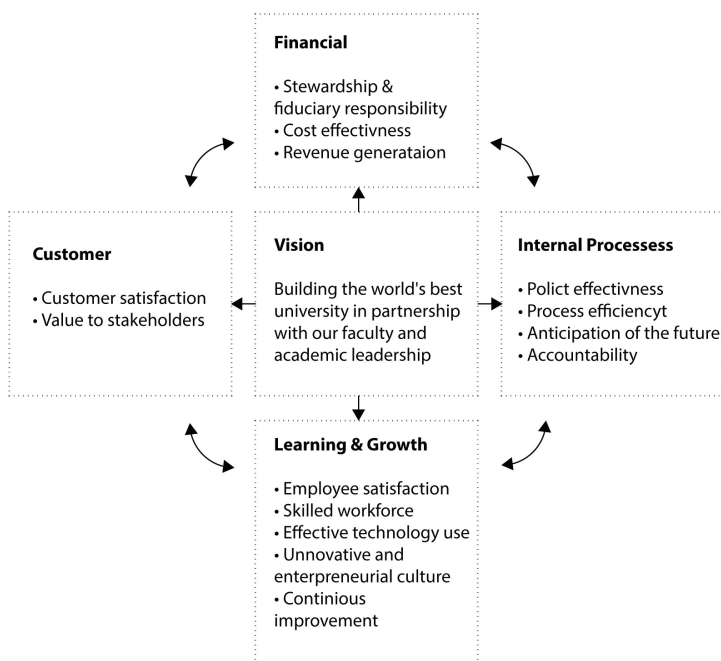
2) **Internal process perspective:** This measures productivity and effectiveness of UCSD through benchmarks comparing UCSD with its peers in order to build best practices and internal controls. The university declares that it has used past results to develop process improvement projects and cross-functional teams, as well as invest in new technology tools. This perspective emphasizes excellence at performing internal processes and in employee competencies.

3) **Innovation & growth perspective:** This measures how UCSD's employees feel through measures such as the Staff@Work survey conducted annually for staff. The past results are used to improve training and avenues of communication and enhance the quality of work/life. This perspective emphasizes continuous improvement and the creation of value.

4) **Customer perspective:** This measures how the university's customers see UCSD through customer surveys conducted annually for staff, faculty, and students. Also in this dimension past results are used to facilitate communication with customers through various channels, develop solid and collaborative relationships, and foster positive relationships by ensuring staff is knowledgeable and well-trained. This perspective emphasizes satisfying the needs of customers.

The BSC framework at the University of California is presented in picture number 1. Each of the perspectives of the BSC was supposed to provide a lens through which to view performance.

Figure 1. Balanced Scorecard Framework at the California University



Source: based on Hafner, 1998.

Regarding the measures, the five business areas on each campus — human resources, facilities management, environmental health and safety, information technology, and financial operations — piloted the development of common BSC measures. In order to communicate the performance architecture based on BSC approach, the University of California decided to create a new website that presented in details its vision, mission, values, and goals. The new website disclosed also the BSC approach adopted by the university, its objectives, measurement teams, the results of measurement and surveys concerning e.g. customer satisfaction. The website contained also presentation materials and initiative status reports as well as white papers on performance management related topics.

Based on the BSC, the university introduced also Performance Management process that followed 7 steps:

- 1) Vision, goals, objectives;
- 2) KPIs, Balanced Scorecard;
- 3) Data collection and analysis;
- 4) Performance assessment;
- 5) Link to action and improvement plans;
- 6) Link to employee performance incentives;
- 7) Feedback, communication, learning.

The University of California performance architecture system based on the Balanced Scorecard brought several contributions in maintaining and enhancing organizational performance and excellence. According to the information published on the official website of UCSD, the use of the Balanced Scorecard in Business Affairs encourages:

- Alignment of Customer Priorities & Business Priorities
- Ability to Track Progress Over Time
- Evaluation of Process Changes
- Identify Opportunities for Initiatives & Partnerships
- Accountability to Constituents
- Develop Action Plans & Set Strategic Direction

After 8 years of BSC application Hafner (1998) published the observed results of this tool in the University of California, underlining that BSC has helped sharpen the focus and better align the day to day activities with longer strategies. It enhanced trust and facilitated better dialogue, the higher level of employee involvement. It helped shape a culture of evidence, where performance information is woven into the fabric of the UC administrative management philosophy.

Conclusions

As pressures for performance measurement and accountability in universities mount, the need to rethink and reframe the excellence measurement frameworks has never been more pressing. BSC may be an important tool of

linking the vision, mission, strategies and operational activities of universities together with a mapping of goals and objectives, as well as performance evaluation. The main reasons for the BSC implementation by universities are (Farid, Nejati & Mirfakhredini 2008, p. 35):

- 1) it is treated as a vital management tool (University of California at San Diego),
- 2) it enables assessment of academic program and planning processes (Rossier School of Education at University of Southern California),
- 3) it may be used as a marketing tool to differentiate images in the higher education market (UK and South Africa universities),
- 4) it is a tool for reinforcement of the importance of managing rather than just monitoring performance,
- 5) it brings benefits to the accounting department heads — they were supportive of the Balanced Scorecard applicability and benefits to accounting education programs.

Without the measurement, evaluation, profound analysis, benchmarking and communicating of HEI's key performance indicators there will be no accountability and transparency of universities. HEIs should become more entrepreneurial and evaluate the effectiveness of their activities in order to be more competitive. The Balanced Scorecard is a prominent tool that can be used to strategize and monitor organizational performance and that gives bases for continuous benchmarking with the key elements of the strategic plan. The "balanced scorecard" approach offers HEIs the opportunity to formulate a cascade of measures to translate their missions into a comprehensive, coherent, communicable and mobilizing framework for both external and internal stakeholders.

Concluding, it is important to underline that the approach of California University presented above concerns a pioneer experience in the BSC application at universities that was furtherly developed by other universities and was adjusted to the circumstances, requirements, and institutional context of the followers. The detailed analysis may be a direction of future research, analysis and comparison as translating the Balanced Scorecard to the complex world of academia is still a challenge.

References

- Al-Ashaab, A., Flores, M., Doultsinou, A., & Magyar, A. (2011).** A balanced scorecard for measuring the impact of industry–university collaboration. *Production Planning & Control*, 22(5–6), 554–570.
- Al-Zwyalif, I. M. (2012).** The Possibility of Implementing Balanced Scorecard in Jordanian Private Universities. *International Business Research*, 5(11), 113.
- Al-Hayaly, M. A. M., & Alnajjar, F. J. S. (2016).** Knowledge Management Processes and Their Impact on Organizational Performance, the Adoption Balanced Scorecard: The Moderating Role of Quality Assurance Standards – An Applied Study on Private Jordanian Universities. *International Journal of Business and Management*, 11(6), 70.
- Aktas, C. B. (2015).** Reflections on interdisciplinary sustainability research with undergraduate students. *International Journal of Sustainability in Higher Education*, 16(3), 354–366.
- Beard, D. F. (2009).** Successful applications of the balanced scorecard in higher education. *Journal of Education for Business*, 84(5), 275–282.
- Beard, D. F., Humphrey, R. L. (2014).** Alignment of University Information Technology Resources with the Malcolm Baldrige Results Criteria for Performance Excellence in Education: A Balanced Scorecard Approach. *Journal of Education for Business*, 89(7), 382–388.
- Binden, W., Mziu, H., & Suhaimi, M. A. (2014).** Employing the Balanced Scorecard (BSC) to Measure Performance in Higher Education–Malaysia. *International Journal of Information and Communication Technology Research*, 4(1), 38–44.

Brown, C. (2012). Application of the Balanced Scorecard in Higher Education An evaluation of balance scorecard implementation at the College of St . Scholastica. *Planning for Higher Education*, July–September, 40–51.

Chalaris, I., Chalaris, M., Gritzalis, S. (2014). *A holistic approach for quality assurance and advanced decision making for academic institutions using the balanced scorecard technique*. Paper presented at the Proceedings of the 18th Panhellenic Conference on Informatics (online). <https://dl.acm.org/citation.cfm?id=2645820>.

De Boer, H. F., Enders, J., & Leysite, L. (2007). Public sector reform in Dutch higher education: The organizational transformation of the university. *Public Administration*, 85(1), 27–46.

Deem R. (1998). New managerialism' and higher education: The management of performances and cultures in universities in the United Kingdom. *International Studies in Sociology of Education*, 8(1), 47–70.

Elena-Perez S., Saritas O., Pook K., Warden C., (2011). Ready for the future? Universities' capabilities to strategically manage their intellectual capital. *Foresight*, 13(2), 31–48.

Eltobgy, H., Radwan, M. (2010). *Monitoring Egyptian Higher Education Institutions Performance development, The Balanced Scorecard Approach*. Higher Education Enhancement Projects Management Unit, Ministry of Higher Education, Egypt.

Elola, L. N., Tejedor, J. P., & Tejedor, A. C. P. (2016). Analysis of the causal relationships in the balanced scorecard in public and private Spanish Universities through structural equation modelling. *The Business & Management Review*, 7(5), 18.

Farid, D., Nejati, M., & Mirfakhredini, H. (2008). Balanced scorecard application in universities and higher education institutes: implementation guide in an Iranian context. *Universitatii Bucuresti. Analele. Seria Stiinte Economice Si Administrative*,

2(29), 311–45.

Fijałkowska, J. (2016). Accountability of Universities. In (ed.) Ł. Sułkowski, *Management and Culture of the University* (pp. 97–124), Peter Lang International Academic Publishers.

Fijałkowska, J. (2017a). Towards Accountability of Higher Education Institutions. *Entrepreneur and Management*, XVIII(2), 45–58.

Fijałkowska, J. (2017b). Key Performance Indicators for HEI's Measurement as an Important Element of Their Accountability. *Entrepreneur and Management*, XVIII(1), 57–70.

Hafner, K. A. (1998). *Partnership for performance: The balanced scorecard put to the test at the University of California*. University of California Office of the President. Retrieved from: <http://rec.hku.hk/steve/Msc/reco%206027/handouts/10-98-bal-scor-chapter2.pdf>.

Ismail, T. H., & Al Thaoiehie, M. (2015). A Balanced Scorecard Model for Performance Excellence in Saudi Arabia's Higher Education Sector. *International Journal of Accounting, Auditing and Performance Evaluation*, 11(3–4), 255–280.

Juhl, H.J., & Christensen, M. (2008). Quality management in a Danish business school - A head of department perspective. *Total Quality Management & Business Excellence*, 19(7–8), 719–732.

Kaplan, R. S., & Norton, D. P. (1992). The Balanced Scorecard – Measures that Drive Performance, *Harvard Business Review*, 70(1), 71–79.

Kaplan, R. S., & Norton, D. P. (1996). Using the balanced scorecard as a strategic management system. *Harvard Business Review*, 74(1), 75–85.

Karathanos, D., & Karathanos, P. (2005). Applying the Balanced Scorecard to Education. *Journal of Education for Business*, 80(4), 222–230.

Küper, H. U. (2013). A specific accounting approach for public universities. *Journal of Business Economics*, 83(7), 805–829.

Leja, K. (2013). *Zarządzanie uczelnią. Koncepcje i współczesne wyzwania*. Warszawa: Oficyna Wolters Kluwer Business.

Li, W. (2011). *Performance evaluation for private colleges and universities based on the balanced scorecard*. Paper presented at the Management Science and Industrial Engineering (MSIE) 2011 International Conference, IEEE, 603–606.

Lin, M-H., Hu, J., Tseng, M-L., Chiu, A., & Lin, C., (2016). Sustainable development in technological and vocational higher education: balanced scorecard measures with uncertainty. *Journal of Cleaner Production*, 120(2016), 1–12.

Libing, Z., Xu, Z., & Ruiquan, Z. (2014). *Application of the Balanced Scorecard In The University Budget Management*. Paper presented at the 2014 Conference on Informatisation in Education, Management and Business (IEMB-14).

McDevitt, R., Giapponi, C., & Solomon, N. (2008). Strategy revitalization in academe: A Balanced Scorecard approach. *International Journal of Educational Management*, 22(1), 32–47.

Moynihan, D. P., & Pandey, S. K. (2010). The big question for performance management: Why do managers use performance information? *Journal of Public Administration Research and Theory*, 20, 849–866.

Negash, M. (2011). Resource allocation challenges in South African universities: a management accounting perspective. *International Journal of Critical Accounting*, 3(2), 265–292.

Papenhausen, C., & Einstein, W. (2006). Insights from the Balanced Scorecard – implementing the Balanced Scorecard at a college of business. *Measuring Business Excellence*, 10(3), 15–22.

Philbin, S. P. (2011). Design and implementation of the Balanced Scorecard at a university institute. *Measuring Business Excellence*, 15(3), 34–45.

Pietrzak, M., Paliszkiwicz, J., & Klepacki, B. (2015). The application of the balanced scorecard (BSC) in the higher education setting of a Polish university. *Online Journal of Applied Knowledge Management*, 3(1), 151–164.

Rabovsky, T. M. (2014). Using data to manage for performance at public universities. *Public Administration Review*, 74(2), 260–272.

Rompho, N. (2008). Building the Balances Scorecard for the University Case Study: The University in Thailand. *Journal in Professional Accountancy*, 4(9), 55–67.

Ruben B. D. (1999). *Toward a Balanced Scorecard for Higher Education: Rethinking the College and University Excellence Indicators Framework*, Higher Education Forum, QCI, Center for Organizational Development and Leadership, 99(02), 94–154.

Sayed, N. (2012). Ratify, reject or revise: balanced scorecard and universities. *International Journal of Educational Management*, 27(3), 2.

Sperrer, M., Müller, C., & Soos, J. (2016). The concept of the entrepreneurial university applied to universities of technology in Austria: already reality or a vision of the future? *Technology Innovation Management Review*, 6(10), 37–44.

Stewart, A.C., & Carpenter-Hubin, J. (2000). The Balanced Scorecard Beyond Reports and Rankings. *Planning for Higher Education*, Winter, 37–42.

Świerk, J., & Mulawa, M. (2015). *The Balanced Scorecard for Higher Education-the Case of Maria Curie-Skłodowska University* (online). http://br.wszia.edu.pl/zeszyty/pdfs/br41_18swierk.pdf.

Tapions, E., Dyson, R. G., & Meadows, M. (2005). The impact of the performance measurement systems in setting the 'direction' in the University of Warwick. *Production Planning and Control*, 16(2), 189–198.

Taylor, J., & Baines, C. (2012). Performance management in UK universities: implementing the Balanced Scorecard. *Journal of Higher Education Policy and Management*, 34(2), 111–124.

Umashankar, V., & Dutta, K. (2007). Balanced Scorecards in managing higher education institutions: an Indian perspective. *International Journal of Education Management*, 21(1), 54–67.

Zhang, J., Gao, S., Jiang, J., & Xing, H. (2014). *Application Research of BSC Theory in the Salary Design of Teacher in College and University*. Paper presented at the Measuring Technology and Mechatronics Automation (ICMTMA), 2014 Sixth International Conference.

Zolfani, S. H., & Ghadikolaei, A. S. (2013). Performance evaluation of private universities based on balanced scorecard: empirical study based on Iran. *Journal of Business Economics and Management*, 14(4), 696–714.