

Part II
**Higher Education:
Administration and
Policy**

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Strategic Planning and a Balanced Scorecard in Higher Education: How to Make a Strategic Plan in Turkish Universities?

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As the leaders of today's higher educational institutions create and enhance their vision to meet the needs of the changing student population into the twenty-first century, the skills and attributes required are also changing. Today, change is not a choice for universities; it is a necessity. Students have changed, their needs have changed, society has changed, and business has changed. Consequently, universities are being challenged into realigning their roles to fit the new age. Support for continuous improvement in higher education has grown from a unique combination of circumstances in the late 1980s and early 1990s. Many companies were achieving success by focusing on continuous improvement, and their CEO's were recognizing curriculum in higher education. Non-profit organizations were also interested in supporting the use of continuous improvement concept to improve all levels of education. In this rich mixture of interests and events, a variety of campuses began to experiment with continuous improvement principles and to design quality initiatives for a wide range of reasons. Community colleges, private colleges and universities, large public universities and regional universities began to develop approaches that applied concepts drawn from the quality discipline (Dew and Nearing, 2004).

Performance measurement incorporating non-financial measures has been a topic of great interest throughout most of the 1990s. This is because non-financial measures overcome the limitations of just using financial performance measures. "Soft" measures, such as employee satisfaction and commitment, are coming to the fore as protagonists of the business performance measurement revolution urge organisations to complement their traditional financial focus with softer data. An increasingly popular

measurement technique to accommodate these issues is the balanced scorecard developed by Kaplan and Norton (1996a).

The Balanced Scorecard: A New Approach to Performance Measurement

The balanced scorecard approach was originally developed by Kaplan and Norton in 1992 for business companies to satisfy the need of central administration to know how the organization is doing and how it is comparable to other similar organizations. The key to success with the balanced scorecard concept is the appropriateness and quality of the measures. Identifying measures which can track progress towards goals is often as hard as reaching the goals themselves (Sanger, 1998). The BSC focused specifically upon customer satisfaction and increasing profitability. Most public sector scorecards focused upon excellence and sought to work more efficiently, for example, reduce costs, fewer mistakes, and more effective use of resources.

The balanced scorecard translates strategy into objectives and measures, and balances them in a generic form into four different perspectives (Amaratunga & Baldry, 2000).

Financial perspective- How will we look to our stake holders?

It measures the present financial success of a firm. This perspective shows the results of the strategic choices made in the other perspectives, while at the same time establishing several of the long-term goals and thus a large part of the general ground rules and premisses for the other perspectives.

Customer perspective- How must we look to our customers?

It shows the sources of this success, which are market position and customer satisfaction. This perspective includes several core or generic measures of successful outcomes from the company strategy, like, for instance, customer satisfaction, customer retention, and market share in targeted segments.

Internal business processes perspective- What internal processes must we excel at?

It is measured by the processes' effectiveness. This involves describing all company processes from the analysis of customer needs through delivery of the product/service and identification of the resources and capabilities which the company needs to upgrade itself.

Learning and growth perspective- How can the organization learn and improve?

It shows the abilities to changes and further development of a firm. The learning and growth perspective enables the organisation to ensure its capacity for long-term renewal, a prerequisite for survival in the long run.

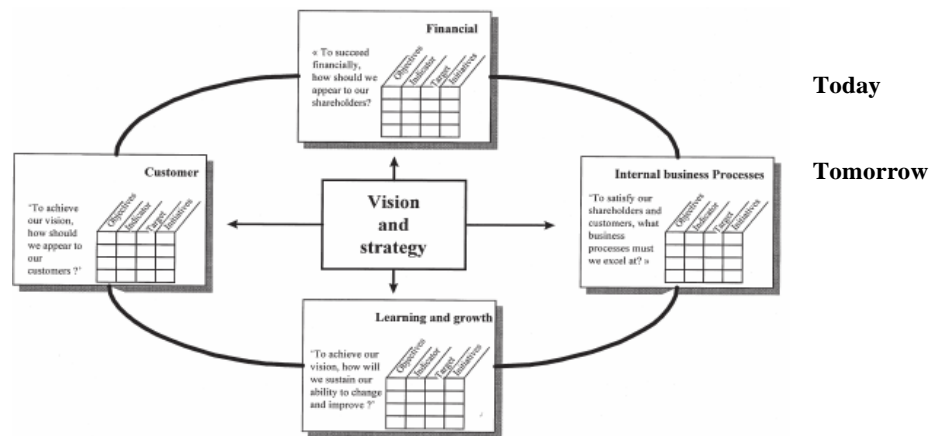
The objectives, corresponding measures and performance targets of the perspectives are derived from an organization's strategy and vision. Therefore the performance of organizational units and workers can directly be linked to the strategy (Olve, Roy and Wetter, 1999). The perspectives of the balanced

scorecard can easily be used in the evaluation of strategies instead of the traditional suitability, feasibility and acceptability criteria. (Kettunen, 2004).

The Balanced Scorecard (BSC) is intended to link short-term operational control to the long-term vision and strategy of the business. In other words, the company is forced to control and monitor day-to-day operations as affect development tomorrow. Therefore, BSC concept is based on three dimensions in time: yesterday, today and tomorrow (Figure 1) (Olve, Roy and Wetter, 1999).

Figure 1. *The Balanced Scorecard Framework*

Yesterday



Within the context of these goals, the institution must decide what it will benchmark and what performance it will measure. The balanced scorecard tracks key strategic elements through a balanced series of performance indicators to ensure that action is meeting strategic objectives, while demonstrating that the institution is meeting accountability expectations and legislative requirements.

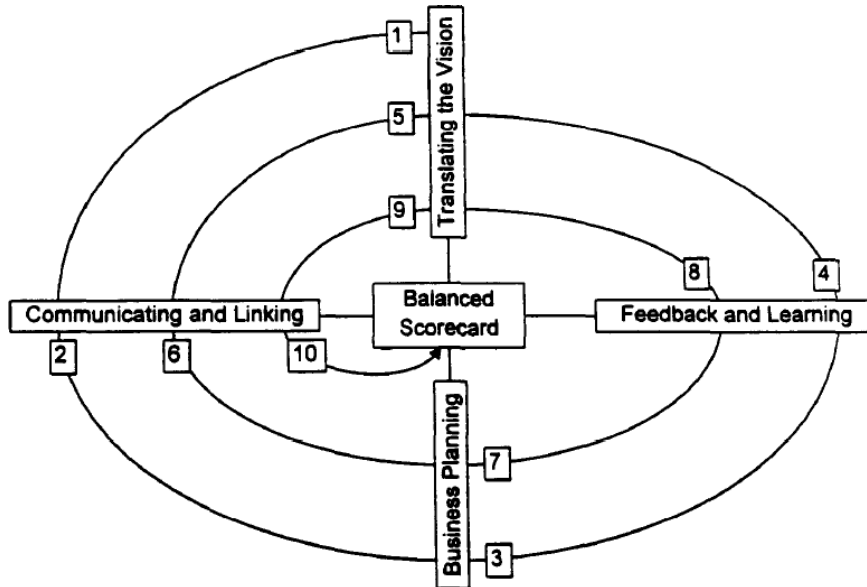
BSC process makes it possible for institutions to be able to test the validity of their strategies. The results got from 4 perspectives are frequently reviewed and the basis of strategies are compared to the assumptions. If the first hypotheses were correct, the results would move toward the Balanced Scorecard objectives. If the hypotheses were not correct, strategy (the cause and result relationships in Balanced Scorecard) should be re-evaluated according to the institutional efficacy, and the objectives should be reviewed and if possible revision should be applied. (Ensari, 2005).

The Balanced Scorecard will be affected by three major types of culture — national culture, occupational culture and, perhaps most importantly, the culture of the organisation. *National culture* affects the Balanced Scorecard primarily in terms of the approach towards financial performance. For example, organisations in the United States consider it to be their duty, and

their overriding goal, to maximise shareholder wealth (i.e. to optimise the return on investment ratio). On the other hand, European organisations have long been concerned with a stakeholder approach whereby all those with an input in the organisation are rewarded. These different cultural paradigms will have an influence not only on the development of the Balanced Scorecard, but also on its acceptance. It is certainly apparent that many European organisations are hesitant about it as they consider that they have been using balanced perspectives for years. Indeed, in France, the *tableau de bord* is a relatively old management control system which provides a mass of quantitative information. It could be argued therefore that the Balanced Scorecard adds different value in each of these cases. For the US organisations, it forces them to look beyond the short term financial results to the strategic health of the organisation. For the Europeans, on the other hand, it helps them to reduce the wealth of indicators currently “produced” in order to obtain a more pertinent selection of strategically important indicators (Mooraj, Oyon and Hostettler, 1999).

Kaplan and Norton (2001) suggest that the balanced scorecard has become widely adopted to not-for-profit organisations and government organizations. BSC reflects the primary objective of the organisation. The financial result is not the primary objective for most of the non-profit organizations in the public sector, it is reasonable to place the recipient at the top of the hierarchy.

Figure 2. *Balanced Scorecard Implementation*



Since the four perspectives are linked in a cause-and-effect relationship, they cannot be examined separately. Each variable that is selected for the scorecard has to fit this sequence of cause and effect relations; moreover, the variables reinforce one another (synergy effects). The number of variables used should be limited as much as possible (Veen-Dirks, and Wijn, 2002). In

addition to these perspectives, the BSC process involves four steps: translating the vision, communicating and linking, business planning, and feedback and learning (Fleisher and Mahaffy, 1997). They illustrate this perspective in Figure 2 (Kaplan and Norton, 1999b).

First of all, assuming that the mission and vision of the organizational group has been defined (if it has not, it needs to be) it must be translated into actions. While the top levels of management will now understand what is meant by the mission statement and will know what activities will achieve the overall goal, they are not the only ones who need to know. This second step involves bringing in lower levels of management. With the key processes determined and the goals set, the third step is designing a budget plan that matches the long term strategic goals. Essentially, this step links strategy to tactics. Often organizations do not link long term planning and business planning. The final step in the outer circle is getting feedback from the process as implemented and fine tune it. (Fleisher and Mahaffy, 1997).

Organizations that adopt the BSC approach achieve the following (Kaplan and Norton, 1996b; Mc Adam and Walker, 2003):

- (1) Clarify and gain consensus about vision and strategic direction.
- (2) Communicate and link strategic objectives and measures throughout the organization.
- (3) Align departmental and personal goals to the organization's vision and strategy.
- (4) Plan, set targets, and align strategic initiatives.
- (5) Conduct periodic and systematic strategic reviews.
- (6) Obtain feedback to learn about and improve strategy.

Balanced Scorecard and Higher Education

The issues facing higher education today are not simple. In most cases they are multidimensional, broad in scope, and require complex assessment, planning, implementation, and evaluation. Although many of these issues are not new to the environment of higher education, societal, technological, economic, and political factors are altering the way in which they must be viewed. Some of the issues foremost in the minds of educational leaders today are the changing demographics of our student and faculty populations, alliance building with community and global organizations, changing and diminishing financial resource bases, fund raising and development activities, rapid technological advancement, diversity, continuing professional and leadership development activities for all constituencies on campus, community building both on campus and with the surrounding community, gender equity, curriculum reform, and ethical considerations in relation to all services and programs offered (Hoff, 1999).

There is considerable interest in the role of strategic planning and balanced scorecard in assisting university management to develop competitive strategies.

- (1) Who will our students be?
- (2) What should we teach?
- (3) How should we teach it?
- (4) How will student learn?
- (5) What are society's needs?
- (6) How does society expect us to meet needs?
- (7) What role will learning play?
- (8) How will we pay for it?

If these questions cannot be answered directly or easily, then the college or university is probably lagging and needs to consider some form of planning such as strategic planning that will better prepare the campus to fit into its environment (Rowley, Lujan, and Dolence, 1997).

The best scorecards indicate the strategy so well that the strategy can be inferred by the collection of objectives and measures and the cause-and-effect relationships among them (Kaplan & Norton, 1996a). The balanced scorecard provides a general framework for communication and implementation of the strategy and for understanding the 'theory' of the organization. The perspectives can also be used to evaluate the educational policy, which provides general outlines for the institutional strategies. The academic interpretation of the other three perspectives, provides the balanced scorecard for the university. Most colleges and universities have a mission or vision statement that sets out in broad terms the goals of the institution. The overall detail of the balanced scorecard assures that a realistic representation of the institution is provided. The BSC perspectives in university strategy are (Dorweiler and Yakhou, 2005):

(1) Customer perspective:

- student, employers, faculty, alumni, parents;
- teach innovations, public image;
- faculty reputation, quality of service; and
- continuous improvement.

(2) Internal business perspective:

- teaching excellence, quality of faculty;
- curriculum excellence and innovation;
- service efficiency and effectiveness; and
- strategic issues.

(3) Innovation and learning perspective:

- teaching and learning excellence and innovation;
- faculty development, technology leadership;
- teaching/learning innovation;
- program and curricular innovations and improvements;
- pedagogy enhancements, distance learning;

- value-added learning, lifelong learning;
- quality of facilities, reward system; and
- mission-driven process.

(4) Financial perspective:

- fund raising, revenue from operations;
- human capital investment, financial management; and
- external relationships, public image.

Findings

In this study, strategic plans regarding higher education system of the other countries were examined. A scanning model was used to collect data regarding the manner of realizing the strategic plans that are being tried in Turkish higher education institutions and how balanced scorecards need to be involved in these strategic plans. Consequently, significant indicators will be found regarding reliability and validity of the results to be reached at the end of this study.

Study sample in this research include Edinburgh University- United Kingdom, San Diego University- the USA, Western Ontario University- Canada, Melbourne University- Australia and the Middle East Technical University (METU)-Turkey. The reason for selecting these universities in the sample group is that they represent the leading universities in their respective countries. In addition, though many countries have strategic plans, statistical data is not available by years regarding these plans. Data regarding above mentioned universities' strategic plans corresponding to the education and instruction years 2000-2001 and 2006-2007 are available, and these data constitute sample of the research. The data collected from these universities were accessed from strategic reports and activity reports drawn up by universities except for Edinburgh University depending on the strategic plans. Only Edinburgh University examined the data regarding the strategic plan it prepared in the light of the four dimensions of Balanced Scorecard and thus could access existing data. Other universities' data were arranged on the basis of the information provided about balanced scorecard in the literature and the balanced scorecard applied by Edinburgh University.

In this research, data were collected by means of online scanning of the universities as well as the literature review and correspondences with universities.

As Roest states (1997), there is not one single standard solution for strategic plans implemented in all institutions. Strategic plans that are prepared and measurement of performance of the institution varies depending on every single institution. In other words, every single institution has a strategic plan peculiar to it. Balanced Scorecard also provides an important framework about performance measurement for the institution. Strategic plans must include objectives and measurements of certain and well-balanced numbers.

Measurements developed for any institution must be always well balanced and included in one of the four dimensions of the BSC. If too many measurements are included in the strategic plan, this might upset the balance; therefore, deviations from originally intended measurements might take place leading unplanned results (Roest, 1997).

Since studies regarding strategic plans in education institutions have only recently been launched in both Turkey and rest of the world, it is not likely to access to data from years ago regarding variables, namely factors in the plan, in the scope of our research. Thus, 7-year old data regarding strategic plans were applied in our study. As information about four universities and for some variable only could be found, factors that are common in all universities such as the number of students, academic personnel and income variables were compared. The trend model was developed and change of the data across years was examined as a part of such a comparison.

Turku Polytechnic University strategic plan can be identified as an example of the present research. In the strategic plan of Turku Polytechnic University, Balanced Scorecard was used so that strategy of the institution could be measurable in order to integrate strategy of the institution with its future vision. It must be emphasizing objectives and measurements (Kettunen, 2005). At the same time, basic measurements must reflect the large scope of the ongoing education.

Since such data belonging to San Diego University could not be accessed, these common variables could not be analyzed, but data regarding other strategic plans were examined under sub dimensions of the BSC. Moreover, it shows that, most of the performance indicators, targets and objectives of strategic plans reflect San Diego University's strategic plan. Vision and strategy play a central role in the development of a BSC (McAdam and Walker, 2003). As we mentioned before having a clear vision, and a strategy to achieve that vision, is just as important in a statutory or not-for-profit organisation as it is in a for-profit company. In both cases, organisations often lack a customer (student) focus. Strategy mapping is just a tool. But it is a very effective tool in ensuring an understanding of the role of strategy and how an effective strategy encompasses all of an organisation's activities (Irwin, 2002). However, in San Diego University strategic plan as a performance indicator San Diego University doesn't have any vision statement, or an objective of strategic plan about increasing the number of students (customers).

According to the linear trend model; review of the number of students at METU between the years 2000-2001 and 2006-2007 and total income variables, annual increase of number of students was found to be 615,93. Average income increase by years was found to be 23066, 64 thousand TL. Number of students at METU increase by 0, 0302 % while income increased by 0, 2134 % every year.

As for the strategic plan data for Melbourne University, annual increase of student number corresponding the years between 2000-2001 and 2005-2006 was noted as 1442,571. Annual increase of the total income of Melbourne University can be cited as million 90,196 \$ between 2000-2001 and 2006-

2007. While the number of students at Melbourne University increases by 0,0471 % per year, the increase rate recorded in the revenue received by the same was found to be 0,0897.

In Western Ontario University, number of students increased by 524, 14 on average within 7 years. As for the annual income levels, Ontario University recorded an increase of 49, 82 thousand \$. In this institution, number of students increase 0, 0225 % by years and the average annual income is reported 0, 1816 %.

In the case of Edinburgh University, the number of students increased by 755, 29 on an annual basis between the years 2000-2001 and 2006-2007. The change of revenue within 7 years covering the years between 2000 and 2006 indicate an increase of 25, 27 thousand £ per year on average. The increase of students recorded in Edinburgh University between 2000 and 2006 is found to be slightly higher than the others. The annual increase in the number of students is 0,0327 % every year. The revenue of Edinburgh University is increased by 0,072 %. UK government policies dictate that higher education institutions look to profit making organizations for models for performance improvement (Cullen at al, 2003).

The relation between the number of students percentage (ODTO) and the annual income percentage (ODTG) is; an increase of 1% in the number of students at METU corresponds to 6, 6 % increase in annual income.

$$R^2 = 0,702874, (p < 0,05) \\ \text{Log (ODTG)} = -53,75761 + 6,603937 \text{ Log}$$

For Melbourne University the relationship between total income (MTG) percentage and the number of students (MTO); percentage the increase of 1% in student number percentage brings an increase of % 1,47 in total income.

$$(p < 0,05), R^2 = 0,702935; \\ \text{Log (MTG)} = -8,389354 + 1,476647 \text{ Log (MTO)}$$

As for the proportion of number of student percentage and total income percentage (ETG), an increase of %1 in number of students (ETO) in Edinburgh University, corresponds to an increase of total income 2,14%. (p < 0,05) R² = 0,985104;

$$\text{Log (ETG)} = -15,65247 + 2,142234 \text{ Log (ETO)}$$

In Western Ontario University, the relation between total income percentage and number of student percentage is; an increase of 1% in the number of students (ONTO) at Western Ontario University corresponds to 6,6 % increase in total income (ONTG).

$$(p < 0,05), R^2 = 0,098944$$

$$\text{Log (ONTG)} = -20,59124 + 2,67105 \text{ Log (ONTO)}$$

All of the three universities except for METU originally intended to increase the number of both national and international students within scope of the strategic planning. They can be said to have achieved their target in a sense. As for the METU strategic plan, it is also one of the objectives to increase the number of foreigner students. METU gets the highest state support among these four universities. Since state universities in Turkey get more than 80 % of all their income from the government and contributions paid by Turkish students remain too low regardless of the increase recorded in the number of students, the increase of the students is not expected to be reflected on the revenue gained by the university at a considerable extent. In other words, increase of the students at METU results in increase of the funds allocated by the state for that specific university. It also means the increase in number of students studying in a department without meeting their needs. In the case of the other universities, one of the important factors increasing the total revenue is the amount of allowances contributed by students enrolled in those higher education institutions.

As for the proportion of academic staff per student, an increase of 1 % in the number of students in Melbourne University corresponds to an increase of academic staff of 1,31 %. In the case of Ontario University, increase is known to be 0,64 %. There is no significant relationship between that number of students and that of the academic staff in the cases of METU and Edinburgh Universities. Ontario University, which aims cares perfectionism in education and aims at providing and efficient working environment for its students, academia and employees, could not attain that properly.

The relationship between total income percentage and the number of academic staff indicates no significant indication for METU and Edinburgh, either. For the cases of Melbourne and Ontario, the increase of 1 % realized in their total revenue brings an increase of 0,58 % in the number of academic staff in Melbourne University and 0,30 % in Ontario University. This demonstrates that the university is not only trying to reach academic distinction it specifies within its own vision but also making necessary investments towards becoming one of the leading research universities in Canada. It can be understood from this result that Melbourne University is achieving its originals strategic plans included as a model in its objectives in order to improve employment activities.

Conclusion

The aim of this paper was to design a performance measurement system in higher education institutes by using balanced scorecard. We adapted four universities strategic plans to scorecards and tried to examine them from balanced scorecard's four perspectives. Moreover, we tried to compare some variables that are common in all universities such as the number of students, academic personnel and income.

Unfortunately, current performance measurement systems do not reflect the all the things about universities, and they are not closely linked to the strategic management objectives of higher education institutions.

It is clear the Balanced Scorecard approach has a successful following within private and public, most of the sectors but it has rarely been applied in the university sector context. Therefore, the next research could be to carry out empirical work on the potential use of the BSC in departments, faculties or universities of Turkey.

The BSC measures should focus operations on the vision rather than seek to cover everything. Such measures are quantitative and qualitative measures of what has been achieved during a certain period. They are used for comparison, for giving signals in the exercise of control, and as a basis for learning and change. In universities, besides qualitative measurements we should focus on quantitative measurements. The perspectives of the balanced scorecard can easily be used in the evaluation of strategies instead of the traditional suitability, feasibility and acceptability criteria. The perspectives of the balanced scorecard are natural choices for the evaluation criteria, because they have been planned to describe, communicate and implement the strategy.

There are two possible outcomes when assessing the performance of an institution using a balanced scorecard. It either gets better or worse. If it gets worse, there are two possible reasons. Either the strategy being measured was not successful or the measures encouraging certain actions were not well conceived. Whatever the reason, the best a balanced scorecard can do is translate a university's strategy into specific measurable objectives. However, by focusing on the vision and strategy, the balanced scorecard forces long-term strategic thinking and eliminates the short term focus that can pervade an organization.

Universities in Turkey can assess the institution more satisfactorily by using the BSC while developing their strategic plans. BSC, in turn, will help them further focus on their internal functioning and thus improve efficiency of the institutions.

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