Application of Balanced Scorecard in Universities: Adiyaman University Case

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ABSTRACT

It has become challenging to increase university transparency and accountability through performance monitoring and reporting. Universities are increasingly being required to provide performance indicators to various stakeholders. Universities may use the Balanced Scorecard (BSC) as one strategy. This study aims to show how balanced scorecard can be applied to universities through the example of Adiyaman University (ADYU) from Turkey. For this reason, 2015-2019 Strategic Plan of Adiyaman University has been examined according to the four dimensions of the balanced scorecard and a model has been developed for how the balanced scorecard can be. Indirect research method is used to access the necessary scientific data. The model applied to a Turkish university demonstrates potential future benefits of using the BSC model in universities.

Keywords: Balanced Scorecard, Balanced Scorecard in Universities, Adiyaman University

1. INTRODUCTION

Accountability of universities has become a challenge since they have been required to provide performance indicators and assessments. The vast majority of university stakeholders present themselves to be transparent and accountable as well as efficient and effective. There will be no accountability or transparency if universities’ key performance indicators are not measured, evaluated, thoroughly analyzed, benchmarked, and communicated. In order to make universities more competitive, strategic management models to regulate internal outcomes and develop external partnerships must be introduced and developed. There are long-standing traditions in higher education on performance measurement which should be included into a framework for financial reporting and accounting in light of the need for external accountability standards today (Fijalkowska and Oliveira, 2018). Historically, performance measurement and reporting have been centered on the financial accounting model which prioritizes profitability (Alharafsheh et al, 2021:302). Accounting, stewardship, and comparability are based on financial metrics. However, financial indicators by themselves have a limited capacity to accurately depict the variety of elements linked to organizational excellence. Ruben (1999) notes that despite the traditional indicators' importance, they are unable to provide a complete picture of an institution's current state. They fail to adequately represent numerous elements of a higher education institution's mission, vision, or strategic directions as well as some of the essential success elements for colleges and universities. Numerous internal and external measures have been established in higher education as a result of the rising interest in issues relating to universities' accountability, ensuring that stakeholders' information needs are addressed. The Balanced Scorecard (BSC) is one of them.

The Balanced Scorecard, which is a new approach to strategic management and carries many management philosophies forward, is a product of the work of Dr. Robert Kaplan and Dr. David Norton in 1992. One of the most effective tools for sharing and disseminating the strategy, the Balanced Scorecard is a management framework that aids in the development of organizational performance by translating strategy into operational goals. (Kaplan and Norton, 2014:10).

The Balanced Scorecard is a performance management tool that can be used to manage and evaluate business strategy, track improvements in operational efficiency, and strengthen organizational capacity. It aids businesses in bringing their vision and goal into alignment with client demands and daily operations (Rohm, 2002:1).
Rohm and Halbach (2006:2) liken creating a Balanced Scorecard system in his work to building a house that must be merged by the right craftsmen to make it structurally and functionally sound.

All private or public institutions can use the Balanced Scorecard by adapting it to their missions, visions, strategies and corporate cultures (Kaplan and Norton, 1993:135).

The Balanced Scorecard ensures that the organization's strategies transform into focused strategic objectives and improve the performance of the organization. At the same time, the performance of employees is evaluated with this model and they are ensured to act according to the objectives of the institution (Coskun, 2006:133).

The Balanced Scorecard is an appropriate tool for defining, implementing and monitoring the strategy. The Balanced Scorecard predicts defining objectives in the medium term, implementing and configuring consistent logical action plans. It facilitates the management of stakeholders within the organization by increasing their responsibilities and according to the objectives. The Balanced Scorecard is also a means of communication. In this sense, the Balanced Scorecard contributes to the management of the institution in three areas (Usta and Karaca, 2013:317):

✓ Balanced Scorecard, defining the objectives to be followed,
✓ In revealing corporate responsibilities, durations of action, measures,
✓ Contributes to communication with different stakeholders and ensuring cooperation in achieving objectives to increase sensitivity.
✓ The questions answered by the Balanced Scorecard are as follows (VPah, 2002:2):
✓ What are the strategic objectives to follow primarily in a country, a city and an institution?
✓ What are the measures discussed in monitoring the level of the carried out of the specified objectives?
✓ How long is it envisaged to take actions that provide access to the objectives?
✓ Who is responsible for the defined actions?

It is seen that answers are sought for important questions in the Balanced Scorecard table. In this sense, goals, criteria, targets and activities are expressed in a Balanced Scorecard table.

Strategic goals are set as a result of comparing the current situation with the vision. Measures allow to monitor the achievement of strategic objectives. It refers to the results that the target organization plans to achieve on the basis of the measure. Actions, on the other hand, are concrete activities defined by the strategy-vision couple in order to achieve target-results and thus to realize strategic goals (Usta and Karaca, 2013:318):

The Balanced Scorecard is a balanced combination of both financial and non-financial performance indicators. This card measures the performance of the organization from four different dimensions, called internal process, customer, financial, learning and growth dimensions (Kaplan and Norton, 1996:75). Leadership is also important in the organizational dimension of the Balanced Scorecard. In this context, positive leadership (visionary and transformational leadership) can affect the process positively (Ozan and Yolcu, 2021: 390; Yolcu and Ozan, 2021: 394). Kaplan and Norton's Balanced Scorecard is depicted in Figure 1.

![Figure 1. The Balanced Scorecard (Kaplan & Norton, 1996)](image_url)
Effectiveness, efficiency, customer satisfaction for the purpose of customer dimension; good execution of the application and profession for the purpose of the size of internal process; the dimension of learning and growth means technology to achieve goals and the capabilities and innovations to be brought before the use of new practices. The dimension of financial expresses the physical, financial and human resources necessary for achieving the goal (Usta and Karaca, 2013:317).

Two tools are used on the Balanced Scorecard; one of the tools is the strategy map. The strategy map is a diagram that graphically charts managers’ views on the organization's strategy and the cause and effect relationship between objectives in terms of the four scorecards. The second tool is scorecards covering measurement, objective, and current performance data for each purpose in the strategy map (Harvard Business School Press, 2009:37).

The BSC may be used to coordinate the operations of all departments, along with budgeting and target agreement processes at a university. Although the majority of the published research on the BSC focuses on for-profit organisations (Süzər, 2020; Yıldız, Kethûda ve Kurutgan, 2013; Čebeci, 2013; Bekmezci, 2010), there are a few studies on the BSC that examine it in the setting of higher education. The prominent studies in the international literature are as follows: Al-Zwayalif (2012) makes a survey in Jordanian Private Universities. He decides that these private universities recognize the significance of Balanced Scorecard and he counts that essential sources required for the application of Balanced Scorecard are existing. Naoufel and Boutora (2017) study application of Balanced Scorecard at Tebessa University. They find that Balanced Scorecard can be adopted to measure the performance of university. Fijalkowska and Oliveira (2018) indicate in their study the Balanced Scorecard as a useful tool for the evaluation of the universities’ performance. Pietrzak, Paliszkwiewicz and Klepacki (2015) describe the BSC as performance measurement and strategic management system. They emphasize using BSC in higher education. McDevitt, Giapponi and Solomon (2008) describe the process and benefits of developing a custom BSC to revitalize a faculty strategy. Umashankar and Dutta (2007) discuss in what way the BSC approach may be applied to higher education in India.

While there have been many BSC investigations across the world, there have been relatively limited BSC studies on universities in Turkey. The prominent studies in the national literature are as follows: Furuzañ (2019) adapts four universities (Western Ontario University, Edinburgh University, Melbourne University and METU) strategic plans to scorecards and compares them from Balanced Scorecard’s four perspectives. She evaluates that BSC will help to improve efficiency of the institutions. Erkul, Derekoç and Ayhun (2015) design a case study carried out at the Canakkale Vocational School of Social Sciences. They suggest that BSC can be used in universities. Hocalar (2008) applies Fuzzy BSC to Sakarya University in Turkey. She asks all the staffs personal and departmental objectives according to strategic plan and she concludes that Fuzzy BSC is preferred. Guner and Memis (2020) develop a risk-focused integrated BSC for a private university. The research concludes that this model can be applied at a private university. According to the papers’ analysis, the BSC is well suited for measuring organizational performance in higher education. Although these earlier studies provide specific information about the BSC’s applicability to universities, none of them study at one of the universities located in the southeast anatolian region of Turkey. This study aims to show how Balanced Scorecard can be applied to universities through the example of Adiyaman University (ADYU) from Turkey. Adiyaman University has been selected as a case study. It is chosen because it can accurately represent a typical public university in Turkey's southeastern anatolia region. It also serves as the location of the author's lectureship, making the process of gathering data more practical. The collected data is thought to be of higher quality than that available from other universities.

2. METHOD

Theoretical research approach is used in this research. Indirect research method is used to access the necessary scientific data. First, the strategic plan for the years 2015-2019 is reached on the website of Adiyaman University which is selected for the case study. After the strategic plan is examined, a strategy map which is one of the two tools of BSC is created by using 8 strategic objectives defined by the university. After detecting this strategy map, it is specified the objectives, criteria and activities in accordance with the strategies. Customer dimension, financial dimension, internal process dimension and learning and growth dimension for Adiyaman University are determined. After these stages, the scorecards which are the second tools of BSC shown between Figure 3 and Figure 10 are reached.

3. RESULTS AND DISCUSSION

3.1. BSC Model in Accordance with the Vision, Mission and Values of Adiyaman University (ADYU)

Since March 17, 2006, Adiyaman University has continued to provide educational services. More than 17 thousand students, including many international students, are educated on 4 campuses. These 4 campuses are Central
Campus, Besni Campus, Golbasi Campus and Kahta Campus encompassing 2 million 287 thousand square meters, totally. Adiyaman University incorporates 13 Faculties, 1 State Conservatory, 1 Institute, 3 Schools, 6 Vocational Schools and 18 Research and Practice Centers.

Ozer and Onen (2016:97) define mission, as the founding purpose of an organization; vision, as targets in accordance with the purpose of its establishment. ADYU’s vision is to be a university that develops the socio-economic structure of the region where it is located in the health, agriculture and service sector by producing information, products and services. Its mission is to lead the solution, change, transformation and sustainable development of society as a university that engages in education, scientific research, publication and socio-cultural activities with a human-centered and predictive management approach, filters the problems that may be encountered or encountered, and primarily educates qualified individuals needed by the city, region and country in which it is located. ADYU adopts the following core values and working principles in all its activities: respect for human values, merit, transparency, efficiency, accountability, entrepreneurship, sustainability, participation, competitive production and environmental sensitivity.

The strategy map that can serve as a model for the institution based on 2015-2019 strategic plan published by ADYU, which continues its strategic plan studies around this vision, mission and core values, is shown in Figure 2.

<table>
<thead>
<tr>
<th>STRATEGIC PURPOSES</th>
</tr>
</thead>
<tbody>
<tr>
<td>8-To keep the satisfaction of all our stakeholders at a high level and to be a continuously preferable university</td>
</tr>
<tr>
<td>Customer Dimension</td>
</tr>
<tr>
<td>7-To ensure effective and efficient use of budget allowances</td>
</tr>
<tr>
<td>Financial Dimension</td>
</tr>
<tr>
<td>6-To create corporate governance systems and to ensure their dissemination</td>
</tr>
<tr>
<td>5-Strengthening and improving the corporate infrastructure and superstructure</td>
</tr>
<tr>
<td>4-To provide and develop services and products that will benefit the community</td>
</tr>
<tr>
<td>Internal Process Dimension</td>
</tr>
<tr>
<td>3-To improve the quality of education and training that meets the future in terms of quality and quantity</td>
</tr>
<tr>
<td>2-To increase the number and quality of research and development activities at national and international level</td>
</tr>
<tr>
<td>1-To place the awareness of corporate culture and to make the learning organizational structure sustainable</td>
</tr>
<tr>
<td>Learning and Growth Dimension</td>
</tr>
</tbody>
</table>

Figure 2. Strategy Map of Adiyaman University

After determining this strategy map, it is required to define the objectives, criteria and activities in accordance with the strategies. Customer dimension, financial dimension, internal process dimension and learning and growth dimension for ADYU have been detected. After these stages, the Scorecards shown below between Figure 3 and Figure 10 will be reached.
LEARNING AND GROWTH DIMENSION

**Strategic Objective 1:** To place awareness of corporate culture and to make the learning organizational structure sustainable

- Number of Units Applied
- Number of Trainings Organized

- 100% increase in the establishment of the “Academic and Administrative Performance System” in our university
- 100% increase in the development of corporate identity and corporate culture

- Implementation of the Academic and Administrative Performance System in all units
- Giving training / seminars to improve the corporate identity and corporate culture (academic, administrative and student)

Figure 3. Balance Scorecard for Strategic Purpose 1

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LEARNING AND GROWTH DIMENSION

**Strategic Objective 2:** To increase the number and quality of research and development activities at

- Cooperation Number
- Project Number

- 50% increase in research and development activities

- Cooperating with national and international universities
- Being coordinator and partner in EU projects

Figure 4. Balance Scorecard for Strategic Purpose 2

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LEARNING AND GROWTH DIMENSION

**Strategic Purpose 3:** Increasing the quality and quantity of education and training that meets the future

- Regular Number of Events
- Number of Participating Staff

- 45% increase in activities that will increase the quality and quantity of education and training

- In-service training and orientation of academic staff
- National and international congress of academic staff

Figure 5. Balance Scorecard for Strategic Purpose 3
Figure 6. Balance Scorecard for Strategic Purpose 4

**Strategic Purpose 4:** To provide and develop services and products that will provide social benefit

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Project Number</th>
<th>Number of Events</th>
</tr>
</thead>
<tbody>
<tr>
<td>Target</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Activities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• 60% increase in the number of projects and events for the region</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Increasing the number of social, cultural, economic, sectoral and technical projects in the region</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Inviting experts on regional problems to our university and organizing workshops</td>
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<td></td>
</tr>
</tbody>
</table>

Figure 7. Balance Scorecard for Strategic Purpose 5

**Strategic Purpose 5:** Strengthening and developing institutional infrastructure and superstructure

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Completion Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Target</td>
<td></td>
</tr>
<tr>
<td>Activities</td>
<td></td>
</tr>
<tr>
<td>• 100% increase in meeting the indoor space requirement of the Academic and Administrative Units during the plan at ADYÜ Central Campus</td>
<td></td>
</tr>
<tr>
<td>• Personnel lodging</td>
<td></td>
</tr>
<tr>
<td>• Making a tribune in the stadium</td>
<td></td>
</tr>
<tr>
<td>• Construction of the Rectorate building</td>
<td></td>
</tr>
</tbody>
</table>

Figure 8. Balance Scorecard for Strategic Purpose 6

**Strategic Purpose 6:** Establishing and extending Corporate Management Systems

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Completion Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Target</td>
<td></td>
</tr>
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<td>Activities</td>
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<td></td>
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<tr>
<td>• Construction of the Rectorate building</td>
<td></td>
</tr>
</tbody>
</table>
When the figures are examined, it is revealed how to create BSC and how to embody the objectives, criteria and activities. These tables, which are the most important output of the study, should be redesigned by universities according to their vision, mission and strategic plans. The BSC to be created will be an important roadmap to universities. This is confirmed by both international and national literature (Al-Zwyalif, 2012; Naoufel and Boutora, 2017; Fijałkowska and Oliveira, 2018; Pietrzak, Paliszkiewicz and Klepacki, 2015; McDevitt, Giapponi, and Solomon, 2008; Umashankar and Dutta, 2007; Furuzan, 2019; Erkul, Derekoy and Ayhun, 2015; Hocalar, 2008; Guner and Memis, 2020).

4. CONCLUSION

In this study, the data of the 2015-2019 strategic plan prepared by Adiyaman University are placed in the 4 dimensions of the BSC and a model has been developed for how the Balanced Scorecard can be. Kaplan and Norton's BSC model is used for the calculation of performance indicators. The BSC is a management tool that expresses the vision, strategy and actions of the organization. The BSC provides feedback on the process and includes the aim of continuously improving external factors, strategic performance and results. As a result, it can be said that BSC to be applied in universities can provide participation, transparency and accountability in universities, thus increasing efficiency and productivity. The BSC for universities, as in the case of Adiyaman University, is a tool that can provide:

✓ administrators of universities to evaluate the system;
✓ more planned and efficient use of financial resources for educational activities, administrative services and scientific activities;
✓ Increase satisfaction of student, academic staff and administrative staff;
✓ an increased competition between universities about quality education and better performance.

REFERENCES


