

Higher Education in Turkey: Trends Towards Self-Steering Public Universities*

Türkiye’de yükseköğretim: Devlet üniversitelerinde özyönetime yönelik yeni eğilimler

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Özet

1980’li yıllardan itibaren, Yükseköğretim Kurulu (YÖK) ve devlet üniversiteleri arasındaki ilişki tartışmaların gölgesinde kalmıştır. Günümüzde, YÖK mevcut durumda bir değişiklik başlatmakta ve üniversite sisteminde özyönetime dayanan modelleri geliştirmektedir. YÖK Genel Kurulu’na sunulan ön raporda açıklandığı üzere finansal özerkliğin kritik öneme sahip bir yapıtaş olması nedeniyle yeni yönetim stratejisinin bir parçası olarak yeni fonlama modelleri geliştirilmelidir. Son otuz yıl içinde devlet ile üniversiteler arasında benzer bir reform yaşanan batılı ülkelerde, üniversitelerin devlet tarafından finansmanında formüle dayalı kaynak dağıtım modeline kıyasla performansa dayalı kaynak dağıtım modeline ağırlık verilmiştir. Formüle dayalı mekanizmalar finansmanı girdi değerlerine bağlarken, performansa dayalı fonlama modelleri kaynak dağıtımını çıktı değerlerine bağlamaktadır. Bu çalışmamızda, reform edilmiş yükseköğretim sistemlerinde alternatif fonlama modellerine değindikten sonra yeni bir fonlama modeli önermekte ve bu modelin Türkiye’deki yükseköğretim sisteminde işleyiş ve yönetimine ilişkin mekanizmaları tartışmaktayız.

Anahtar sözcükler: Devlet üniversiteleri, üniversitelerde kaynak dağıtım, üniversite yönetim stratejileri.

In the last decade, Turkish tertiary education has been a success in terms of country-specific standards. Between 2001 and 2011 according to data from the Turkish Statistical Institute, the participation in higher education^[1]

Abstract

Since the 1980s, there has been a long-running debate on the relationship between the Turkish Council of Higher Education and public universities. Today, the council is initiating a change in the status quo and developing models based on the self-steering of these universities. As indicated in the preliminary report that was recently presented to the General Assembly of the Council, new funding models must be developed as part of this new steering strategy since financial autonomy is a crucial component and of critical importance for self-governing universities. In the Western World, where a similar reform in the relationship between governments and universities took place in the last three decades, the governmental funding of universities mainly focuses on the performance-based allocation of resources rather than on the formula-driven allocation of resources. Formula-driven mechanisms link funding to input measures whereas performance-based mechanisms tie resource allocation to output measures. After discussing these alternative funding models found in the reformed tertiary education systems, we propose in this paper a new funding model and discuss the mechanisms for its governance and management in Turkish higher education.

Key words: Public universities, university resource allocation, steering strategies for universities.

increased from roughly 12% to 33% of the population. Despite the fact that this figure has almost tripled in the last decade, the tertiary education schooling rates are still at one of the lowest levels in the Western World. OECD Factbook

[1] <http://www.tuik.gov.tr/Gosterge.do?id=3644&metod=IlgiliGosterge>

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(2013)^[2] show that the population rate with tertiary education 2010 or the latest available date is 13.1% for Turkey whereas this rate is 30.7% for OECD countries on average. Considering the youngest age bracket between 25 and 34 years old population, the tertiary education attainment rates are 17.4% for Turkey and 37.8% for OECD countries on average.

In addition, the increase in participation rates in the Turkish higher education system does not necessarily mean that quality standards have risen along with it. The higher education system must respond to the challenge of meeting the demand of higher education in the growing population without sacrificing the quality of the higher education.

Thus, the funding of higher education and the allocation of resources have become key issues in education policies. The teaching and research performances of higher education institutions has also gained importance at the various levels of education policy management as governmental bodies that fund higher education must implement mechanisms that legitimize the allocation of resources through performance evaluations. Consequently, this will lead the Turkish higher education institutions to become more efficient and to be held accountable as the cost of funding research and teaching increases.

Taking this into consideration, the Council of Higher Education in Turkey has initiated a reform that will eventually develop models based on the self-steering of public universities. In this regard, a preliminary report was recently presented to the general assembly of the council. The report documented that new funding models must be developed as part of this new steering strategy since financial autonomy is a crucial component and of critical importance for self-governing universities.

In this study, the authors aim to discuss the challenges faced by governing bodies in charge of higher education and to present a model that will assist the council in its new strategy. In the second section, the authors will briefly discuss financing practices that have been implemented in reformed systems. Following that, performance-based funding will be discussed as an instrument in the change to transform the current higher education system into a better performing one. In the third section, a model will be introduced and proposed as a benchmark for the construction of this new financing system. And finally, section 4 provides our concluding remarks.

Tertiary Education Financing

Universities in the Western World have faced challenges in the past twenty years as budgeting constraints began to affect academic quality and rising educational demand, limiting the incentives to expand research and scholarship. As described by Massy (1996), problems that U.S. universities experienced in 1970s and 1980s following a long golden age of growth and prosperity for institutions and their faculty, represents a fitting example for the Turkish tertiary education system. This golden age –during which higher education participation rates in the United States climbed from single digits to 30 percent– came to an end when the governments were no longer able to provide funding at the levels that higher education institutions had come to expect and which were deemed necessary. It is not unexpected that a similar challenge for the Turkish higher education system might present itself in future, as a similar increase in participation rates and an expansion of the higher education system are taking place today. Barr (2005) summarizes the overall global tertiary education problems as:

“...universities are underfunded, raising worries about quality; student support is inadequate; the proportion of students from disadvantaged backgrounds is lamentably small; and the financing of universities in many countries is regressive, since the money comes from general taxation but the major beneficiaries are from better-off backgrounds.”

In another work, Barr (2004) gives Australia, Canada, New Zealand, and the United Kingdom as example countries for their reforms on financing higher education. Canada is praised for actively considering income-contingent loans. Australia is liberalizing her fixed tuition fees system where the same fees for all subjects applied at all universities. Australia also has income-contingent loans, but the loan incorporates an interest subsidy and does not cover living costs. New Zealand's attempts in the 1990s are found correct; however, costly interest subsidies had to be reintroduced as a result of electoral pressures in 2000. Most countries in Western Europe and the Nordic countries also address fees for tertiary education. In many European countries, tuition fees for higher education are a no-go area. Among these countries, British government's reforms in 2004 on fees, loans and access measures are shown as good practices and examples for other countries.

Considering Turkey's demographic structure, young population (30.1 years old on average as of 2012) and high demand for tertiary education,^[3] public funding of supplying this service is an important, strategic and difficult issue.

[2] <http://www.oecd-ilibrary.org/sites/factbook-2013-en/tables/factbook-2013-table194-en/index.html?contentType=&itemId=/content/table/factbook-2013-table194-en&containerItemId=/content/chapter/factbook-2013-77-en&accessItemIds=/content/chapter/factbook-2013-77-en&mimeType=text/html>

[3] According to Turkish Statistical Institute's 2012 Statistics there, are 6,405,552 and 6,186,089 people in the 14-19 and 20-24 age brackets.

■ Table 1 shows the education attainment data of 34 member countries of Organisation for Economic Co-operation and Development (OECD) as of 2010 or the latest year available. Unfortunately, Turkey has the lowest rates of tertiary education attainment among all member countries.

In the Western World, the reduction of public funding imposed reform on these universities, and as a result the universities have been changing their steering policies and demanding new allocation systems for public funds in order to increase their ability to compete in the academic world. These reforms have led these universities to transform themselves into autonomous entities.

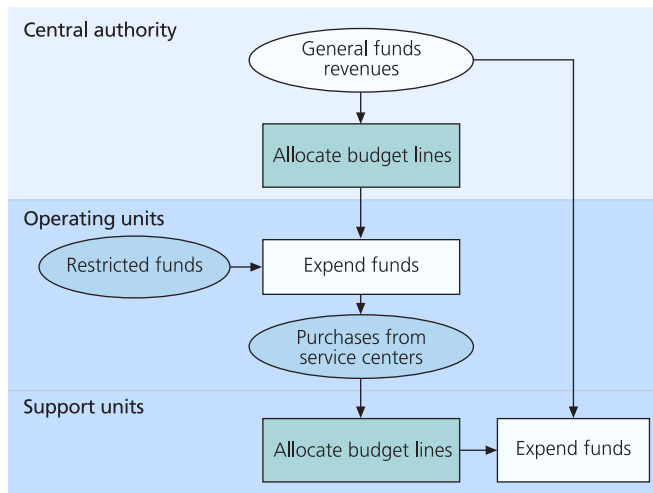
OECD (2012) analyses the private vs. public expenditures in tertiary educational institutions. In their report, they highlight the increase in total expenditure on educational institutions as a percentage of GDP from 5.34% to 6.22% between 2000 and 2009. Furthermore, the report emphasizes that this increase is both from public and private sources: In OECD countries, the private share in expenditure increased from 22.9% to 30.0% on average at the tertiary level. For Turkey, we do not have the private vs. public expenditure reported for the recent years. In 2000, public vs. private sources in tertiary education are 95.4% and 4.6%, respectively. Growing rates in both private and public sources of education is explaining that the increase in private expenditure is not tied to a decrease in public spending on education. Thus, a higher share of private expenditure for tertiary education institutions is not associated with more limited access to tertiary education or decreasing opportunities for students from less advantaged families. Following these trends and reforms in tertiary education, Clark (1998) brought the “Entrepreneurial University” concept where the entrepreneurial university transforms the management of the university into a self-steering, corporate-like structure in order to strengthen its ability to compete in the tertiary education system. Clark (1998) postulates that universities that position themselves in this new mode should possess five essential elements: a strengthened steering core, an enhanced development periphery, a diversified funding base, a stimulated academic heartland, and an entrepreneurial culture. The strengthened steering core of a university is particularly crucial to the reforms since the university leadership takes an important role in moving the university to this new entrepreneurial state by conveying the vision to the faculty and redistributing resources. Clark (1998) refers to this role as centralized decentralization. The development of new connections to outside sources by these new entrepreneurial universities is referred to as enhanced development peripheral. As Clark (1998) points out: “[T]hey variously consist of outreach administrative units that promote con-

■ **Table 1.** Tertiary education attainment as a percentage of total population (OECD, 2013).

	Whole population			25-34 age group
	2000	2005	2010	2010
Turkey	8.3	10.2	13.1	17.4
Italy	9.4	12.2	14.8	20.7
Austria	13.9	17.8	19.3	20.8
Mexico	14.6	15.0	17.4	21.8
Czech Republic	11.0	13.1	16.8	22.6
Slovak Republic	10.4	14.0	17.3	24.0
Portugal	8.8	12.8	15.4	24.8
Hungary	14.0	17.1	20.1	26.0
Germany	23.5	24.6	26.6	26.1
Greece	17.7	21.3	24.6	30.9
Slovenia	..	20.2	23.7	31.3
Iceland	23.2	30.5	32.5	36.2
Poland	11.4	16.9	22.9	37.4
Denmark	26.2	33.5	33.3	37.6
OECD	21.7	27.0	30.7	37.8
Estonia	..	33.3	35.3	37.8
Chile	26.8	38.5
Spain	22.6	28.2	30.7	39.2
Finland	32.0	34.6	38.1	39.2
Switzerland	24.2	28.8	35.2	40.5
Netherlands	23.4	30.1	32.4	40.8
Sweden	24.8	29.0	34.2	42.2
United States	36.5	39.0	41.7	42.3
France	22.0	25.4	29.0	42.9
Belgium	27.1	31.0	35.0	43.8
Israel	..	45.8	45.6	44.2
Luxembourg	18.3	26.5	35.5	44.2
Australia	27.5	31.7	37.6	44.4
United Kingdom	25.7	29.7	38.2	46.0
New Zealand	28.9	39.0	40.7	46.4
Norway	28.4	32.7	37.3	47.3
Ireland	18.5	29.1	37.3	48.2
Canada	40.1	45.9	50.6	56.5
Japan	33.6	39.9	44.8	56.7
Korea	23.9	31.6	39.7	65.0

The table shows tertiary education participation rates for member countries of OECD together with OECD averages. The first three columns give tertiary education participation rates of total population for 2000, 2005 and 2010. The last column shows the percentage rates for the young population between 25 and 34 years old age group. The last column is particularly important considering the future effect of tertiary education especially on employment. The table is sorted in terms of ascending order of tertiary education attainment rates in the young age group between 25 and 34 years. The row in bold letters show OECD averages.

tract research, contract education, and consultancy.” According to him, constructing patrons that share the rising costs of funding tertiary education provide universities with the means and ends to build a diversified funding base. Innovation is unevenly spread in the universities since the Science and Technology departments and the Economics and Business departments are the first to become entrepreneurial first and do so to the greatest extent. Thus, stimulating academic units



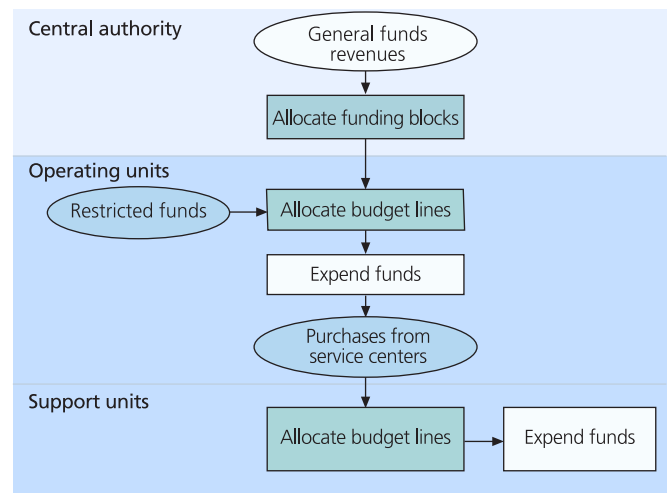
■ Fig. 1. Line-item budgeting process flow diagram. Source: Massy (1996)

and integration of an entrepreneurial culture strengthens substantive growth.

Tertiary education institutions need a decentralization management system for enterprising activities. Greater autonomy is more accountable since decentralized bodies undertake responsibilities for their operations and future plans. Entrepreneurial universities introduced a form of decentralized structures where the parts (departments) that constitute the whole (the university) assume responsibilities for their actions. The resource allocation systems of these decentralized universities are described in Massy (1996). A more centralized line-item budgeting system has been superseded as the allocation system by the implementation of incentive-based budgeting systems that give greater autonomy as well as greater accountability to the individual academic units.

Massy (1996) provided an overview of the fund allocations in four diagrams. These diagrams documented the places where funds are allocated and used. The delegation of power to initiate the transactions using these funds is also presented in the diagrams. These diagrams, taken from Massy (1996), are presented below. In the diagram, the central authority is the governmental budget authority. The operating entities are universities while the support units are service centers and auxiliaries.

Line-item budgeting refers to a budget where financial statement items are grouped by departments or cost centers and expenditures are based on historical needs. In line-item budgeting in tertiary education, as presented in ■ Figure 1, the central budgeting entity allocates the funds while univer-



■ Fig. 2. Performance responsibility process flow diagram. Source: Massy (1996)

sities receive grants and contracts as restricted funds. The main advantages of line-item budgeting are its simplicity and easy justification when there are conventional expenditure trends and little dispute among these well-established departments.

■ Figure 2 provides a diagram for performance responsibility budgeting. The main difference in this budgeting scheme from line-item budgeting is the allocation of the funds in blocks to universities along with the delegation of authority to university management to use them. Thus, in this model, those who possess the greatest knowledge of the process are the ones to decide on the line-item allocation. Also in this model, the size of the block grant is determined by a formula and then modified based on the past performance of the operating units as well as future projections and plans.

As documented in ■ Figure 3, central authority takes revenue lines instead of expenditure lines into consideration when revenue responsibility budgeting. A good example, as given in Massy (1996), is the tuition received from students enrolled in certain number of credit hours. The university management has the authority to expend this revenue to the best of their knowledge. Of course, not all revenues are expended in this scheme. Taxes are first collected by the central authority and then redistributed in the form of subventions. Revenue responsibility budgeting can enable the entrepreneurial capabilities of the university, allowing it to respond in a timely manner to market forces. In sum, revenue responsibility budgeting takes marketplace effects into account while performance responsibility budgeting is responsive to also

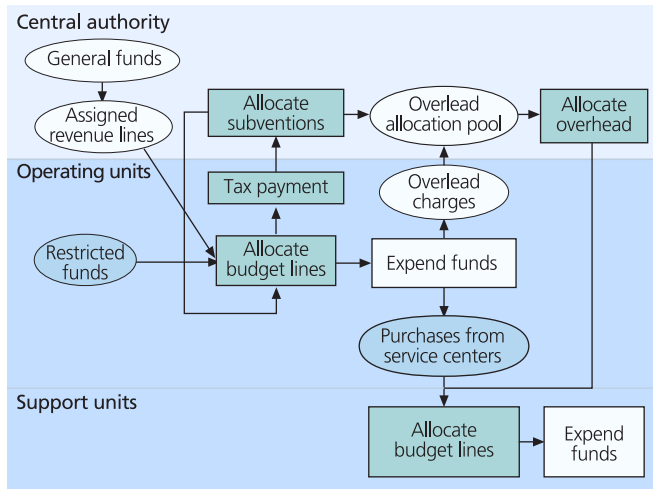


Fig. 3. Revenue responsibility budgeting process flow diagram. Source: Massy (1996)

intrinsic-values of universities that might not have strong market demand. Thus high intrinsic-value but low financial potential programs might be subsidized with low intrinsic-value but high financial potential programs with proper resource allocation.

Central authorities should answer the question of decentralization. Decentralization brings accountability. Revenue responsibility budgeting can be seen as privatization while performance responsibility budgeting is roughly an analog to performance-based funding. Value responsibility budgeting, as shown in **Figure 4**, takes on the best aspects of all three of the budgeting systems while mitigating their difficulties. This system provides a balance between market-driven discipline and the institution's intrinsic values. Salmi and Hauptman (2006)^[4] discuss in detail examples of the allocation methods in tertiary education systems across countries.

Funding Model Proposal

Each higher education institution is unique in the sense that each institution has a different organizational structure with different faculties, schools, and departments as well as different backgrounds, history, traditions, governing rules and principles, and procedures. Each institution has a different mission and sets different goals.

Because of this complexity of the higher education system, proposing a collective and complete model on how to channel financial resources within the tertiary education sys-

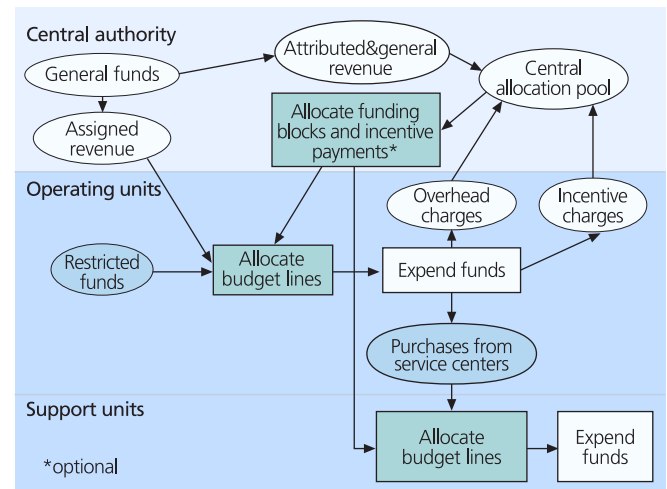


Fig. 4. Value responsibility budgeting process flow diagram. Source: Massy (1996)

tem can be impractical and unfeasible. However, we can propose some methods and procedures that may guide administrators in their decisions on resource allocation.

Revenues structures, financial resources, and expenditures vary widely among higher education institutions. Because of this complexity, a nationwide management of this system has become obsolete, with decentralization becoming the new global trend in education governance. Technopolis (2010) report presents a comparative study of Higher Education teaching funding methods in 6 different regions –Australia, California (USA), Denmark, the Netherlands, Spain, Sweden–for the Higher Education Funding Council for England (HEFCE). The study finds that governments have different objectives such as improving teaching quality, promoting innovation, fostering better management practices, and modernizing infrastructure. These governments use funding to steer the system in line with their objectives. In most countries, governments fund more than 50% of the system. This budget is allocated to the institutions mainly by the use of block grants. A funding formula that contains various elements that are put together is used to calculate the level of the block grant (input and output related) and historical trends or a mix between specified criteria and negotiations with government authorities. These criteria vary in how they are packaged together but the size of the institution still tends to be the dominant factor: number of enrolled students, number of first-year students, number of staff or number of academic staff are typical size-related criteria. These size factors are also typically weighted by

[4] Please see Annex 1 – Typology of Allocation Mechanisms on page 84 for a very detailed table showing each fund allocation method and the countries they are applied.



funding coefficients that intend to reflect costs per student by field of study and are often bundled together into tariffs covering a range of subjects. Within the block grants there are a number of other elements that are used in the calculation of grant level.

With decentralization, responsibility for specific decisions is delegated to the institutions themselves, as is the case within the institutions for each subunit, be they faculties or departments. With this practice of creating centers of responsibility, each center is held accountable for specific activities.

The most common types of centers of responsibility in the higher education system are cost centers, where administrators with various different sets of responsibilities control costs. With private universities entering into the system, centers of responsibility that act as revenue centers or profit centers and where the administrator is responsible for generating service revenues or producing profit through the generation of service revenues and controlling costs can also be considered.

In the Western World, revenues of public universities include governmental funding that stems from legislations; tuition; research, education and consultancy contracts and grants; off-campus and on-campus operations, such as the campus bookstore, cafeteria, and laundry; and local funds that refer to those revenue sources kept in local banks. Similarly, in the Turkish system, a greater portion of the funding for public universities is coming from a line-item budget that was legislated into law by Parliament.

Revenues are also generated through revolving fund systems, for which very rigid controls are put in place by Ministry of Finance. The public universities are bound by strict rules in spending the revenues they generate through revolving funds, however. Likewise, local funds in Western universities and public universities are establishing philanthropic organizations or foundations to raise funds through donations and rendering services to society.

In general, the expenditures of the higher education system are categorized in three broad groups: instruction, research, and support services for both public and private institutions. Under support services, we can include the Centralized Computing Departments; the Accounting Department; and student services, such as the registrar's office, health services, construction and maintenance, gardening, utilities, the library, etc.

The current trend of the resource allocation process—namely, the shift from incremental budgeting and formula-based allocation towards performance-based allocation—has several reasons behind it. As with incremental budgeting, each unit is allocated—from the budget—the amount that will

cover their static costs if given an allowance for incremental costs that will cover inflation or other forecasted cost increases. However, the dynamic structure of the volatile environment can also lead to unanticipated shifts. Additionally, with incremental budgeting, institutions may have difficulty adapting to these dynamic, unpredictable conditions.

As with formula-based allocation, the formulas are generally based on the number of full-time faculty or on how many hours of courses are taught, making the allocation more flexible. However, formula-based models have been criticized as being treated as market-based allocation processes. Units that are more in-demand for students or companies are rewarded, but units that may be critical for the goals of the country or subunits that may be critical for the institution but that are not necessarily popular with students may be punished by the formulas used in allocation.

Among the reasons why performance-based allocation is advocated, however, is that there is a clearer line of goals communication with the unit or subunit administrators. Accordingly, decisions made at the lower levels of an administration are still made effectively and in line with the missions and overall strategy of the education system. As with decentralization, achieving goals in line with the long-term strategy of the country is conveyed to universities or the long-term strategy of the university is conveyed to faculties and departments so that unit administrators are familiar not only with the goals but also with their roles in achieving these goals. With this clearer picture, decision-makers will be able to better follow daily operations. Incentives given to out-performing units can motivate the achievement of objectives set in the strategy reports. However, performance targets should be set with caution; units should not be inclined to sacrifice quality of instruction or research in pursuit of the performance targets.

Consequently, with the decentralization of higher education, units are held accountable for their actions. Performance evaluation systems are thus established to provide feedback in order to understand how responsibility centers meet their targets. Thus, the delegated responsibility given to these decision-making authorities can be corrected by investigating whether the responsibility centers failed meeting their targets or whether the initially-set targets were too unrealistic and a modification of these targets is needed. In setting performance targets, benchmarking achievements against best practices in the higher education system will help decision makers.

The Council of Higher Education of Turkey (2007) Strategy Report addresses new philosophies with a long-term focus. Similarly, most universities in Turkey have their own

strategic plans. Strategic plans examine the overall mission and vision as well as internal and external factors that can threaten or create opportunities for the accomplishment of the missions. In a typical university strategic plan, one can find what is planned for the next five years, the amount of resources needed to achieve the goals, and the sources of funding or financial support necessary for these activities. Because the structure of universities is, ideally, horizontal rather than vertical or hierarchical, the procedure of designing these strategic plans requires consensus through participation.

The stakeholders of the higher education system must participate in the strategy formation studies and they should reach a consensus when making decisions. Only after a consensus on the mission and the goals is reached will the key performance indicators for the allocation of resources be feasible and efficient. Key performance indicators can be used to assess how higher education institutions or the subunits in these institutions are achieving their goals.

The following are among some of the previously-used key performance indicators for higher education:^[5]

- Entry ranking of enrolled students
- Credit hours completed/credit hours attempted
- Employment rate of graduates
- Starting salary of graduates
- Proportion of graduates enrolled in graduate study programs
- Student evaluation results
- Average number of years before student graduation
- Research and development publications
- Patents
- Research funding
- Master's theses and doctorate theses

In determining the best key performance indicators, one has to consider the limitations of these measures. The indicators should not only focus on the short-term achievements; long-term performance should not be neglected. In order to adequately assess the performance of a unit, using lag indicators –which only reveal results of past decisions– do not reveal much about how current decisions may affect future performances. In other words, lead indicators of how current decisions will shape future performances are also needed in performance evaluations.

University strategic plans should play the most important role in choosing the best key performance indicators for their subunits. Knowing their role in achieving the mission that is clarified in the strategic plan, each division can then under-

stand what is expected from them and focus on the activities that will lead them in the right direction. Without such a vision, the key performance indicators would not be internalized and accepted within the organization. Hence, establishment of a new funding system based on key performance indicators would definitely require universities to question their existence, role, and strategy in every level. Key performance indicators would be a means of disclosing the university's strategy to its stakeholders.

Using only a single or too few key performance indicators may encourage employees to find alternative ways of improving their key performance indicators in undesirable or unethical ways. The system should be both transparent so that everyone can follow it and also fair enough to distinguish underperforming and high-achieving divisions.

Conclusion

Tertiary education is a labor-intensive service industry that transforms resources into services. Since universities exist for the benefit of society at large by assessing educational attainment and fostering research, they cannot price their services to cover their costs as service companies do in an open market.

Furthermore, the instruction responsibility of universities cannot be avoided even though the unit costs are rising. The increasing demand for tertiary education has recently led to a growing number of newly established public universities in order to meet this demand. The shrinking share of public funding going to universities due to the fast growing number of public universities as well as the labor-intensive characteristic of public education services that may lead to a funding crisis necessitate a discussion on new ways to fund tertiary education.

So what is next for Turkey? Financial autonomy and self steering of institutions are the common answers given by all the countries that have experienced similar difficulties, an approach that the strategy report prepared for the Council of Higher Education of Turkey also prescribes for the Turkish tertiary education system.

A base allocation of public funding prepared using a simple and transparent formula on which a consensus of all the stakeholders can be attained must be accompanied by a performance-based budget that encourages new initiatives, triggers competitiveness, and attracts external funds to the university. In formation of this important fund allocation formula, the stakeholders of the higher education system should be participating in the strategy formation studies. For the model and system to work in a feasible manner and efficiently, a consensus should be reached when making decisions.

[5] Hattie (1990) gives an extensive list of performance indicators in tertiary education.



In the proposed model, key performance indicators can be used both in allocation of funds and also in comparison of targeted goals and realized performances. However, in determining the best key performance indicators, there should be a balanced approach where the focus is not only on the short-term achievements but also on the long-term performance. Furthermore, a transparent system where users are satisfied for its fair distinction between underperformed and overperformed divisions is necessary. One other possible handicap of the system can be in usage of only a single or too few key performance indicators as employees might be encouraged to find alternative ways of improving their key performance indicators in undesirable or unethical ways.

University strategic plans play an important role in choosing the best key performance indicators for their subunits in the proposed model. Subunits can focus on the expected goals and concentrate in those activities that are expected from them. The proposed model which supports establishment of a new funding system based on key performance indicators requires universities to question their existence, role, and strategy in every level.

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