THE TURKISH HIGHER EDUCATION SYSTEM IN THE 1990s

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Abstract - *This paper attempts to document the challenges facing the Turkish higher education system. Our analysis suggests that the nature of these problems and issues resonate closely with those that have sparked major reform initiatives in other parts of the world. Among the most important of these are the demand for enrollment expansion in the face of declining public resources; inadequate levels of teaching staff of high quality; inefficiencies exacerbated by shrinking public funding; the need for alternative ways of diversifying revenue sources; the problem of extremely tight governmental regulations and bureaucracies in the organisation and administration of higher education; and the deterioration of quality in many areas.*

Introduction

Higher education systems have been characterised by a dramatic worldwide restructuring since the early 1980s. This restructuring was sparked off by a series of events and developments, with the Oil Embargo of 1973 being the last kick by which industrialised countries sensed the need to develop new perspectives for their economies. Soon after, by the early years of 1980s, the political scene in these countries changed and parties advocating new liberal tones began to hold power (U.S., Britain, Germany, Australia). Consistent with the essence of their economic policies, they also raised doubts about public establishments, education, health and others based on efficiency and accountability measures. Drastic restructuring efforts followed in many nations in elementary and secondary education. Higher education was no exception.

In a series of articles titled 'Towers of Babble: Whatever Happened to Universities?' *The Economist* issued a critical evaluation of the modern university: Knowledge production activities are increasingly running out of the academe to non-academic research institutions, life-long learning is becoming important (and universities are apparently not ready to respond to this need), governments are more critical today about financing higher education and they make them accountable. In conclusion to such an analysis, the claim is made that what is needed is the 'Re-invention of the University' (*The Economist*, December 25, 1993-January 7, 1994).

In other words, for many national higher education systems in the world, the 1990s have been years of reflection and reform. The theme of accountability, for instance, is running strong in the American public higher education sector. Many contend that the 'golden years' of the 1960s which were characterised by unlimited growth with abundant finance capacity is no longer the case (Simsek and Heydinger, 1994). Over and above accountability, the restructuring of the American higher education sector has focused on the following five areas:

1. Restoring quality - given that during the years of growth and expansion, various aspects of quality (such as teaching, advising and orientation, services, campus facilities, etc.) eroded to such an extent that it could be said that American higher education became mediocre.
2. Accountability - in that legislatures and the public are more stringent on the unaccountable use of public monies, and they are more ready to raise questions about the direction and flow of public resources (Kerr, 1990: 9; Altbach and Finkelstein, 1996: 2).
3. The increasing deficits of Ph.Ds - in that 'demand for new faculty will rise faster than supply as faculty members employed in the 1960s began to retire and as enrollment start to rise again' (Kerr, 1990: 13).
4. Restoring the sense of community which has declined over the years due to competing interests and extreme professional specialisation.
5. Restoring the role of the university in the state's and nation's economic development and industrial competitiveness, a role which has now appeared under the name of 'partnership university' (Stauffer, 1990).

This state of flux is also symptomatic of many European national higher education systems, who either have gone through or are going through major reforms. In Germany, for example, the higher education system must cope with the difficulty of an ever-increasing student population demanding higher education. The scenario of expansion is not expected to be matched, however, by a corresponding level of resources allocated to higher education. We therefore have a situation where the number of students has almost doubled from 1975 to 1991, but where the number of teaching staff has increased only by 20%. This fact alone has serious implications for several aspects of higher education, including administration, organisation, curriculum, staffing, teaching, and research (Mitter and Weiss, 1993).

In the Netherlands, the Dutch government initiated a number of restructuring projects in 1985 to make the higher education system more efficient and effective, diversified, flexible, and adaptive. The first thing that was done to achieve this goal was to lift stringent government regulations and extensive control mechanisms on higher education institutions, thus giving greater autonomy to

institutions and encouraging diversification for the national system (Maassen and Potman, 1990).

Similar patterns of reform are observed in other traditionally centralised and bureaucratic higher education systems. The governments of Sweden, Austria and France developed plans to decentralise their higher education systems to make them more flexible, responsive, accountable and diversified. In all three systems, there is an apparent move away from the classical collegial system to a diversified market system (Brandstrom and Franke-Wikberg, 1992; Langer, 1990; *The Times Higher Education Supplement*, June 15, 1993).

Similar reform initiatives can also be observed in higher education in the Arab World, where education at all levels is highly centralised, with ministries maintaining tight control over curriculum, admission and recruitment. To remedy this, many Arab governments consider deregulation of the higher education system, and privatisation is increasingly on the agenda. Along with the strategy of privatisation, some Arab governments have freed up regulations in order to allow foreign universities to offer degree programmes either in collaboration with national institutions or through distance education mechanisms (Coffman, 1996).

The World Bank and UNESCO have recently conducted studies on general trends in world higher education systems. The 1994 World Bank document titled '*Higher Education: The Lesson of Experience*' diagnosed the problems of higher education in the following areas: *low quality* stemming from expansion in enrollment with limited resources; *inefficiency* in terms of waste of public resources, programme duplications and high drop-out rates; *inequity* in terms of higher public subsidies in favor of higher education compared to primary and secondary education; and, *management and institutional leadership* in higher education (Kent, 1996: 3). The UNESCO document, on its part, tracks out three important trends in the world's higher education systems, namely enormous quantitative expansion, inadequate diversification of institutions and academic programmes, and financial constraints for an ever expanding system (Kent, 1996: 3).

All in all, there are various common themes running across reform efforts in individual national higher education systems as we reported above. Some of these common themes can be summarised as follows:

1. *Quality vs. Quantity:* While many higher education systems are facing an increasing demand for higher education services, systems also are struggling to maintain quality.
2. *Centralisation vs. Decentralisation:* In traditionally centralised systems where there have always been stringent government regulations and control, there is a consistent worldwide trend towards a more decentralised, flexible and

autonomous configuration. This trend can be characterised as a move from classical bureaucratic/collegial structures to a market orientation. In some systems that have traditionally been identified with a loosely coupled, market orientation, there are signs of increasing government interventions in terms of imposing more accountability measures and standards, as is the case with the American higher education system.

3. *Monopolisation vs. Diversification:* In many countries where the higher education system has traditionally been dominated by public institutions, there are signs of reform either in the form of privatising public education or developing incentives for private and non-governmental organisations to enter into the higher education sector, in some instances, even inviting foreign institutions.
4. *Specialist vs. Interdisciplinary orientation:* Traditional academic specialisation is giving way to interdisciplinary approaches in research and teaching. This eventually will have an enormous impact on the internal organisation and processes in higher education institutions. It is reasonable to expect that such structures and processes must be diversified and decentralised to allow more interchange and collaboration among the faculty members in different fields.
5. *Public funding vs. Cost sharing:* Government subsidies for higher education are no longer abundant anywhere. In developing countries in particular - where access to higher education is limited and where only the well prepared can get through - there is a widespread belief that public subsidies for higher education are covertly channelled to the wealthy. Cost-sharing, as a means of supplementing limited public resources, is therefore appearing on the agenda of many countries which had never considered such mechanisms before.

The Turkish higher education system: an overview

It is important to provide a brief overview of the development of Turkey's higher education system before making connections between the trends outlined in the previous section, and the present state of the Turkish university sector. In Turkey, Turgut Ozal came to power in 1983 following two years of military rule. He was quick and successful in implementing his right wing, liberal policies, focusing in particular on the economy, and banking, telecommunications, transportation and other services. Within less than a decade, the face of the country was dramatically transformed, much to the surprise of many foreign agencies and individuals. However, in contrast to his counterparts in other nations, education and higher education were not high on the priority list of Ozal's reform agenda,

except in terms of several loan agreements with the World Bank concerning tertiary education and the establishment of the Council of Higher Education to coordinate activities of higher education institutions in the country. Although higher education does not have a long history of change, the need is apparent and voiced by various circles of reform minded individuals and establishments since the early 1990s.

According to Guruz et al. (1994, 151), when the Turkish Republic was founded in 1923, the Turkish higher education system and its institutions (with the exception of the Istanbul Technical University) had not evolved 'naturally' as it had done in Europe, namely on the foundation of institutions that had evolved over centuries as a result of experience and of struggles. Many institutions were merely transplanted from the European system by the Revolution's reformist leaders.

The period of formation (1773-1946)

We do not find a strong tradition of higher education in the Ottoman Empire. The first higher education establishment was founded in 1773 as a military institution in engineering for the Navy right after the defeat of the Ottoman Navy at the hands of the Russians. Several years later, a higher section of this institution was founded, and following the Revolution this became the Istanbul Technical University. The foundation year of this single establishment proves that Ottomans lagged 800 years behind Europe, considering the fact that prototypes of modern European higher education institutions were founded in the 11th and 12th centuries (University of Bologna in 1088 and University of Paris in 1160) (Guruz, et al., 1994: 151).

Numerous unsuccessful attempts were made to establish institutions of higher education between 1827 and 1900. The Ottoman University was founded in 1900, offering programmes in law, medicine, religion, literature and biology. This institution was to be later reorganised under the name of Istanbul University after the Revolution.

Robert College was founded by the American missionary Cyrus Hamlin in 1863 in Istanbul. It was first opened as a liberal arts college under the ordinance of the State of New York. In 1912, engineering departments were added to the College's academic programmes. In 1971, Bosphorus University was founded in 1971 on the original campus of Robert College,

As Guruz et al. state, the emergence of the modern Turkish higher education system coincides with the War of Independence, which was followed by the proclamation of the Turkish Republic in 1923. Until this date, all higher education establishments were located in Istanbul, and there was no single higher education institution in the rest of the country. After Ataturk's designation of Ankara as the

capital city of the Republic, the School of Law (now the Faculty of Law at Ankara University), the Gazi Institute of Education (now Gazi Faculty of Education at Ankara University), and the School of Agriculture (now the Faculty of Agriculture at Ankara University) were established in 1924, 1926, and 1930, respectively.

An incident deserves attention here because of its importance as a turning point in the Turkish higher education system. A Swiss professor, Albert Malche, was invited to Turkey to evaluate the status of Istanbul University in 1932. Professor Malche raised awareness of the need for a body that would be responsible for the University. He also pointed out that the University was distant and isolated from society. Following the evaluation of this report, Law 2252 was legislated in parliament in 1933 in order to reform the higher education system in a number of ways. Among the aspects that were focused on, one could mention organisational and administrative structures, teaching, research, academic programmes, and operations. Some new terms - such as 'rector' (president), 'dean' and 'faculty' - were used for the first time (Kisakurek, 1976, 18-19). Due to these and other developments, it could truly be said that 'The 1933 reform is indeed the beginning of the history of modern university in Turkey' (Guruz et al., 1994: 153).

Between 1933 and 1946, three new faculties were founded in Ankara, namely the Faculty of Language, History and Geography (1937), the Faculty of Science (1943) and the Faculty of Medicine (1945).

The period of growth (1946-1973)

The year 1946 is considered another turning point in the history of Turkish higher education. Law 4936 which was promulgated in that year granted Universities autonomy in governance, including the authority to elect rectors and deans.

After the 1950 elections, the new government opened new universities on the American Land Grant model, with the belief that the high-quality technical personnel that were needed by the country would be better educated within the framework of this model. These universities - the Egean University (1955), the Black Sea Technical University (1955), the Middle East Technical University (1956), and Ataturk University (1957) were designed to be campus universities. However, except for the Middle East Technical University, the other three universities later evolved much like other typical Turkish universities due to the fact that they were placed under the governance of the Ministry of Education. In addition to that, they were supervised and supported in the foundation years by the academic personnel of Istanbul and Ankara Universities, who were traditional and conservative in their approach. Only the Middle East Technical

University has successfully evolved in a manner that is consistent with the original foundational idea, and it is now one of the several prestigious universities in the country (Higher Education Council 1996: 3). Until 1976, it was governed by a Board of Trustees.

Law 1750 was promulgated in 1973, setting up, for the first time, a Higher Education Council to coordinate and plan the higher education system. The Law did not focus on funding and internal administrative structures of universities, which were in fact quite archaic. Its main purpose was to regulate the higher education system in terms of administration, coordination, control and planning at the national level.

The period of unregulated growth (1973-1981)

Law 1750 was however largely ineffective for a number of different reasons. University personnel tended to see the coordination and planning function of the Higher Education Council as a threat to academic freedom, and a strong resistance to interference was put up. As a result, between 1973 and 1981 the system continued to grow in an unplanned manner. For example, ten new universities were opened outside of three big metropolitan cities (Istanbul, Ankara and Izmir), with each university administering its own admission procedures. The increasing number of universities in different provinces of the country, together with variations in admission criteria and procedures, became a serious problem for students. They had to travel from university to university, from province to province to apply for admission and to sit for examinations. To solve this, a Student Selection and Placement Center was established in 1974.

Over the years, this uncontrolled growth created a serious problem for the higher education system containing various kinds of institutions of higher learning with different goals, duration and status. Four major categories of institutions were observed in this period (Guruz et al.1994: 156):

1. Four-year undergraduate programmes provided by faculties in universities;
2. Four-year undergraduate programmes provided by Academies of Engineering and Architecture, of Economics and Commerce, and of Art (these were independent establishments which had no relation with universities);
3. Two-year higher vocational institutions and four-year academies of sports supervised by various ministries and by the Ministry of Education;
4. Three-year teacher training institutions run by the Ministry of Education.

There was clearly a need to regulate and consolidate the system, a task that was embarked upon in 1981.

The period of regulation and consolidation (1981-1995)

The higher education enrollment rate out of the relevant cohort age was only 5.9% in the academic year of 1980-81, far behind many developing countries comparable to Turkey. For instance, the higher education enrollment rate during that same year was 37.7% in South Korea, 27% in Greece and 17.8% in Syria. In addition to that, only 17 out of every 100 university students were able to complete their university education. 10% of all first year students were dropping out at the end of the their first academic year, while 33% of all entering students were dropping out in their second, third and fourth years of study. It was widely recognised that universities were not using their full capacity, that there was a serious unequal distribution of academic staff among the universities, and that universities were functioning without any clear visions for the future needs of the country, besides being detached from each other (Higher Education Council 1991: 1). The need for regulation was clear. This time, partly due to the 1980 military takeover, the academics could not muster enough strength to block reform initiatives as they had done in the past, on the basis of arguments in favour of academic freedom and autonomy. In 1981, The Higher Education Law 2547 was put into effect.

This Law came to be considered as one of the most comprehensive higher education provisions since the 1933 reform. It related to many domains of higher education, including the revitalisation of the Higher Education Council as an intermediary body to regulate and coordinate the system, the creation of a number of new concepts (such as graduate schools, a department-based academic organisation, academic promotions based on international publications), and the introduction of such structural changes as the consolidation of 166 different higher education establishments under 9 new universities, and transforming teacher training institutions into faculties offering four-year programmes within a university setting. As the Turkish Higher Education Council has recently noted,

> 'With the reform, a unified system of higher education was introduced and a coherent and interrelated pattern of institutional diversity created. All the academies, teacher training institutes and vocational schools were reorganised; while some of them were, where viable and convenient, amalgamated to form new universities, some were transformed into new faculties and affiliated to the universities in their own regions. Thus, with the establishment of nine more state universities in 1982 and one foundation university in 1984, the total number of universities rose

from 19 to 28. In 1992, 24 new state universities were established in different regions of the country. At present, there are 61 universities altogether in the country, four of which are private' (Turkish Higher Education Council, 1996b: 2).

Since the publication of this report, seven new private universities were established - all in Istanbul, bringing the total number of Turkish universities to 68.

Within a decade, i.e. between 1981 to 1991, the number of students enrolled in four-year university programmes increased five times, from 41,574 to 199,571. Enrollment rates increased from 5.9% to 9.6%. The number of teaching staff increased by 65% from 20,917 to 34,469. The number of assistant, associate and full professors went up from 4905 to 11,070, an increase of 126%. At the same time, the reform had a positive impact on the quality of higher education in terms of number of students per teaching staff and the graduation rate. The number of students per teaching staff was 84 in 1978, 46 in 1981, and despite a substantial increase in enrollment, the number of students per teaching staff dropped to 39 in 1991. The graduation rate increased from 50% to 80% in science and engineering, and from 70% to 90% in health sciences.

The Turkish higher education system in the 1990s: issues and constraints

The issues that the Turkish higher education system must address in the late nineties can be categorised under the following headings: (1) Pressure for further expansion and inefficient distribution of enrollment in various kinds of post-secondary institutions; (2) demand for qualified teaching staff in adequate numbers; (3) shrinking public resources, inefficiency and diversification of funding for higher education; (4) organisational and management issues including institutional diversification, and (5) quality. Each of these will be tackled in turn in the sections below.

Pressure for further expansion and inefficient distribution of enrollment in various kinds of post-secondary institutions

Although enrollment rates in Turkish tertiary-level institutions have increased exponentially, there is still an increasing demand for higher education. According to the Student Selection and Placement Center data, the number of applicants for higher education increased from 361,158 to 1,389,776 within the fourteen

years from 1983 to 1996. This figure shows that the total number of university applicants has increased almost four times. The number of students actually enrolled in higher education programmes, including those enrolled in the Faculty of Distance Teaching, increased from 105,246 to 384,885 between 1983 and 1996. Although the capacity of higher education expanded 2.5 times for formal (full-time, institution-based programmes) and 10 times for non-formal education (primarily through distance teaching), the gross age-cohort enrollment rate is still 12.2% for formal education and 21% overall (i.e. including non-formal education). In this sense, Dundar and Lewis (1996: 11) are correct when they note that 'Turkey has one of the lowest higher education participation rates among comparable developing and OECD countries'.

The problem of demand for higher education will be exacerbated due to the expected increase in enrollment rates at the secondary education level. These were 32% in 1985-86, but increased to 48% in the academic year of 1994-95. It is projected that this trend will continue over the next years. In sum, as the Higher Education Council notes, given that Turkey has a low enrollment rate in higher education, and given that the trend of increasing participation in secondary schooling is expected to continue, 'the Turkish higher education must inevitably grow without sacrificing quality' (Higher Education Council, 1996a: 15).

There are a number of possible ways to address the potential for growth: increasing the number of higher education institutions, both state and private; increasing the capacity of current higher education institutions; increasing the capacity of non-formal education; and increasing the number of two-year programmes, including two-year post-secondary vocational and technical schools (Dundar and Lewis, 1996, 3).

With regards to the creation of new universities, the number of institutions increased from 19 to 28 (including the first private university in the country) in 1984. Twenty four new state universities and seven private universities were established in 1992 and in 1996 respectively, so that, as noted earlier, the total number of universities in Turkey is now 68. Establishing new universities is far from remedying the problem because of the inherent problems with 'supply side policies'. For example, as Dundar and Lewis (1996) have pointed out, such policies cause internal inefficiencies given that most of the newly established universities in the country have higher costs of instruction as well as higher unit costs per student than the older universities. Moreover, 'although the number of institutions and students have more than tripled in the decade between 1970 and 1996, the amount of recurring public resources allocated to higher education has only increased in real terms by about 15% to 20%' (Dundar and Lewis 1996: 5). Thus, dividing a little pie into even further pieces ends up detracting from the relatively high quality instruction offered by older institutions.

Concerning the capacity increase in current higher education institutions, Guruz, et al. (1994: 168) report that from 1983 to 1992, there was a 42% enrollment increase in formal education, and within one academic year (1992-93), the capacity was increased by another 33%. The authors state that 'the Turkish higher education system has already exceeded the optimal capacity at the four-year, undergraduate level' (Guruz et al. 1994: 168). This is to say that any further push for capacity increase in formal higher education will undoubtedly damage quality. One could argue that the diversification of higher education through increasing the share of private and non-governmental institutions should be seriously considered. Today, the share of these institutions in the total higher education enrollment is about 2%. However, since these institutions currently aspire to play an élite role, a sudden and significant increase in their enrollment figures is not expected in the foreseeable future. So, the burden for capacity increase will substantially be on the public sector of the higher education in the near future.

Expanding the capacity for non-formal education can be another alternative for increasing enrollment in higher education. Non-formal education has grown phenomenally since the 1981 reform. For example, from 1983 to 1993, the number of students admitted to higher education programmes increased from 105,246 to 324,402. The share of non-formal education in the same period jumped from 14.2% to 47.8%. That is, about half of the total enrolled students in post-secondary education is composed of enrollment in the Faculty of Distance Teaching. The increase in the period of 1983-93 is 934%, a tenfold difference. Moreover, the share of non-formal education in post-secondary enrollment has always been very high in Turkey, and it ranks second after Thailand (50%) in world national systems (Guruz et al. 1994: 168; Higher Education Council 1996a: 21). In this sense, rather than further increasing the enrollment in non-formal education, it needs to be substantially reduced considering the fact that demand for non-formal education is in decline (whereas there were 575,220 places available for admission, only 167,933 registered in non-formal education programmes).

The last alternative that could be explored to broaden the capacity of the higher education sector is to increase the number of two-year post-secondary vocational and technical schools. The number of students attending two-year vocational-technical post-secondary institutions was 126,347 in the 1995-96 academic year. The share of this sector in the total higher education enrollment is 13%, which is one of the lowest rates compared to other comparable national systems. For example, this ratio is 22% in South Korea and 63% in Singapore (Higher Education Council 1996a: 20-21). Many observers of the Turkish higher education sector generally agree that a substantial increase in the share of the two-year vocational and technical post-secondary enrollment is the only viable

solution to expand the capacity in formal higher education (Guruz et al., 1994; Dundar and Lewis, 1996).

Demand for qualified teaching staff in adequate numbers

Since the 1981 reform, there has been considerable success in increasing the number of teaching staff in the Turkish higher education system. The number of total teaching staff increased from 19,757 to 50,259 between 1983 and 1995, a 154% increase. Excluding research assistants, instructors and other full time teaching personnel, the number of academic personnel (full, associate and assistant professors) rose from 6,826 to 16,317 in the period of 1984-1995, a 139% increase in academic staff with Ph.D.s (Higher Education Council, 1996a: 28-29; Guruz, et al., 1994: 181-82).

Despite these dramatic improvements in the number of teaching staff, student/faculty ratios as a better indicator of quality in higher education need to be examined. Concerning this, student/faculty ratio was 25 in formal education in 1980, and 24 in 1994, a slight decrease. This is still alarming considering the fact that Turkey again scores second after Thailand (the ratio is 29) in terms of student/faculty ratio. This ratio, for example, is 12 in Brazil, 18 in France, 15 in the United States, 10 in the UK, and 7 in Japan (Guruz, et al., 1994: 183; Dundar and Lewis, 1996: 19).

Two other points deserve attention at this stage. Besides a faculty shortage in general, the problem is even more urgent in some fields such as education, economics, management, electronics, biotechnology, molecular biology, informatics, fotonics, robotics, ceramics and composite materials (Guruz, et al., 1994: 188).

Three strategies can be used to solve the problem of faculty shortage: joint graduate programmes between advanced and newly established universities, providing scholarships for following degree courses abroad, and changing the mission of some high ranking universities into élite research institutions.

As to joint graduate programmes between advanced and newly established universities, the Higher Education Council amended a regulation in 1983 to make the higher education system more flexible to allow inter-university degrees and programmes. Under this regulation, research assistants, especially those working at newly established universities, are allowed to enroll in the graduate programmes of more advanced universities. Only 723 individuals benefited from this regulation since 1983. The policy has not been as successful as expected due to several reasons: first is the lack of the necessary material conditions, since there is no support mechanism designed for students' residence in host universities. Given that all advanced universities are located in the largest metropoles of

Turkey, it is very costly for students to pay high rents. Second, there is no financial aid offered to students to cover expenses incurred in the preparation of their thesis. In addition to this, instruction in two of these advanced and most sought-after universities (i.e. the Middle East and the Bosphorus Universities) is in English and students need to reach the required level of English proficiency. The regulation does not specify who has to pay for the tuition in English. Third, there are no manadatory provisions in the regulation. As a result, in many newly established universities, research assistants are assigned courses to teach and administrators are reluctant to provide such an opportunity to their research assistants.

Concerning the scholarships for degrees abroad, it has widely been documented that graduate education has always been weak in Turkish higher education institutions. For example, the number of total graduates of Ph.D. programmes increased form 805 to 1,352 in 1985 which was much lower than the increase in undergraduate enrollment. So, it was obvious that domestic institutions were unable to solve the problem of faculty shortage. To remedy this problem, the Higher Education Council initiated a policy in 1987 to provide scholarships for Masters and Doctoral degrees for research assistants working at universities. Since 1987, the number of total students sent abroad for graduate degrees increased gradually. By 1995, this number was 3,090. However, the approximate monthly cost of a student studying abroad is about $US1,800 (the cost is about one fourth of this in a good Turkish university), which equals to an annual cost of $US42 million (Higher Education Council, 1996a: 39). This is, no doubt, a very high cost, and the Higher Education Council is now considering utilising a number of high ranking local institutions by providing them with institutional incentives such as a reduction in intake of undergraduate students, and extra funds for research and graduate education. There is also a serious proposal to create a two-tier higher education system in which there will be some élite research universities (currently no more than 4 or 5) and, the rest will be composed of mass teaching institutions. This issue is elaborated further in the discussion of organisational and management issues that the Turkish higher education system has to confront.

Shrinking public resources for higher education funding and the need to reform a public funding scheme of higher education

Although the Higher Education Council was established at the end of 1981 and started operating fully thereafter, it was only in 1983 that the higher education budget was separated from the general budget of the Ministry of National Education and that the Higher Education Council has become an autonomous authority responsible for coordinating university budgets.

The main source of income for the universities and their affiliated institutions is the State subsidy allocated for each fiscal year by Parliament. This sum is based on the budget proposals which the Higher Education Council submits through the Council of Ministers, and which is arrived at by taking into consideration the individual budget proposals of the universities themselves. The budget thus allocated for each university mainly consists of two parts, infrastructure investments and recurrent expenditures. Infrastructure investments are coordinated by the State Planning Organisation, and it is upon the initial approval of this agency that allocations are made for infrastructure investments (Higher Education Council, 1996b: 20). It is evident that the system of financing of higher education in Turkey is inefficient, based as it is on negotiated, incremental line-item budgeting. It hardly provides opportunities for wise and efficient use of resources, and greatly reduces accountability. For example, in 1993, in a typical institution's budget, 62% went to personnel salaries, 10% to other recurrent expenditures, 23% to investments, and 5% to transfers (Guruz et al., 1994: 201). The prescription is quite clear: developing a different funding scheme by which institutions are allowed to use resources flexibly, and, in turn, would be held accountable.

In Turkey, public spending per person in education reached the highest level ever in the history of the modern Republic of $US114 in 1993, then dropped to $68 in 1996. In the same period, appropriation for education from the national budget decreased from 22% to 9.8%. The ratio of appropriation for education to GNP dropped from 4% to 3%. The higher education's share of the national budget was 4.1% in 1993, and 2.6% in 1996. By the same token, the ratio of higher education appropriation to GNP decreased from 0.9% to 0.8% in the same period (Higher Education Council, 1996a: 53).

Public spending per student in formal education stayed almost constant from 1981 to 1990 ($US2,100), and dropped sharply since 1993 ($US1,509 in 1996). This clearly indicates that the public financing capacity for higher education has not kept up with the enrollment increase especially in recent years. As Dundar and Lewis (1996) observed, this funding problem has seriously weakened the quality of higher education in many respects.

To tackle this problem, policy-makers have considered diversification of funding primarily through cost-sharing with students. 'About 97.5% of all the funding for higher education in Turkey currently comes from public funds and these funds consume about one-quarter of all public outlays in education. Even as a majority of all students in higher education have historically come from middle- and high-income families, there has been little success in cost-recovery through tuition. Higher education is essentially no-to-low cost and almost totally financed by the central government in Turkey' (Dundar and Lewis, 1996: 16). According

to 1995 Higher Education Council data, the share of student tuition in total university budgets constitutes only 3.5%. 'Although a national tuition policy was introduced through legislation in 1984 and such fees could be generated from undergraduate students for up to 25% of recurrent expenditures of the university, this policy was never implemented' (Dundar and Lewis, 1996: 17).

What is even more striking is that the 3.5% income collected through tuition fees is primarily spent in subsidising student services rather than for instructional purposes. For example, 50% of this income was spent for nutrition, 18% for health, 4% for sport, 4% for housing, 4% for cultural activities, and 4% for other social services in 1995 (Higher Education Council, 1996b: 57). On top of this small amount of tuition, almost 40% of all students receive interest-free loans for their payments, 40% receive interest-free credit for personal expenses, and 30% live in highly subsidised units. As a result, private rates of return to higher education in Turkey are estimated to be very high, much higher than in many developing countries (Dundar and Lewis, 1996: 17). The picture is quite clear, and cost recovery schemes must be implemented through higher tuition and fees which should be close to 20% to 25% of recurrent expenditures as stated in the 1984 legislation. This becomes even more critical considering the fact that students' share of total recurrent expenditures is much higher in other countries comparable to Turkey. For example, it was 26% in Chile, 25% in Indonesia, 23% in South Korea, 20% in Spain and Israel, 15% in the Philippines, 9% in Taiwan, and 5% in India in 1992 (Guruz et al., 1994: 246).

As has already been intimated earlier, the funding mechanism for public higher education (negotiated, incremental line-item budgeting) in Turkey has to be changed to make the system more efficient and accountable. The findings of the Dundar and Lewis study (1996) based on an extensive analysis of the system indicate that the Turkish higher education is highly inefficient. Guruz et al. (1996) suggest that the Turkish higher education system must get away from a highly inefficient funding scheme of negotiated, incremental line-item budgeting. Instead they propose that university budgets should be simplified by omitting unnecessary details through a 'lump sum' appropriation scheme. Through this, they state, university administrators will become the owners of their budgets, and this would lead to a much wiser use of resources, under some accountability measures supervised by an intermediary body, such as the Higher Education Council.

Organisational and management issues including institutional diversification

An organigram of the Turkish higher education hierarchy would show the Higher Education Council at the very top. The Council is made up of 24 members, including the president. This also constitutes the Higher Education Council

General Assembly which is the main decision and policy-making body. Among the 23 members, 8 are selected for the Executive Committee that ensures the execution of policies adopted, and implementation of resolutions passed by the General Assembly. Moreover, in order to maintain close cooperation and collaboration with the universities, an Inter-university Board and a Rectors' Committee function for the coordination and planning of higher education policies. Since its inception as the coordinating and supervising body of higher education in 1981, the Higher Education Council has always been an issue of debate in academic and public as well as political circles.

In the 1960 Constitution, a purely collegial approach was accepted for universities, where the appointment of rectors and deans was made on the basis of elections. Some refer to this organisational pattern as 'an academic oligarchy' (Clark, 1983). Especially between 1973 and 1980, universities did not effectively respond to changes in society, and they became introverted, isolated, and inert. The 1981 reform accepted the principle of the appointment of rectors and deans, and did away with elections. As can be expected, the 1981 reform provisions concerning such structural changes promoted by the Higher Education Council were met with a strong resistance by a sizeable portion of faculty in universities.

The financing pattern of higher education, as outlined above, involves a heavy State involvement in institutional and college-level operations. This, in turn, explains another aspect of the Turkish higher education which is dominated by State authority – what Clark (1983) refers to as a 'bureaucratic model.' Drawing on Clark's typologies, Guruz et al. (1994) conclude that the Turkish higher education system is one which is controlled both by State authority (hence, the 'bureaucratic model') and an academic oligarchy. Taking their cue from Clark's 'coordination triangle', whereby a third dimension is market or society (the entrepreneurial university), the same authors propose that the Turkish higher education system should move in the direction of the market, and adopt the entrepreneurial university model.

As reported earlier, many national higher education systems which were traditionally dominated by both state authority and academic oligarchy (such as France, Sweden, Austria, Italy, and several institutions in Arab countries) have adopted reforms in the direction of decentralisation and institutional diversification, thus hoping to make their university systems more aligned with market forces. There are several points that almost all similar reform initiatives uniformly accept. First, primarily through flexible funding patterns, universities are given more autonomy in institutional and financial operations. Second, while shifting a great deal of decision-making to institutional levels, intermediary bodies are created to make the institutions more accountable to society by various coordinating, supervision, planning and control strategies. Third, to weaken the

classical public dominance (which has led to inefficiencies) in higher education, institutional diversification is strongly sought either through privatisation or permitting the private and non-governmental institutions to enter into the higher education sector.

All these three provisions are seriously considered in Turkey today. First, there are legislative proposals to make the Turkish higher education institutions more autonomous in spending the appropriated public funds as well as to have them diversify their income sources. Second, the Higher Education Council will function as an intermediary body to develop performance and accountability measures and to oversee the system based on social priorities. This requires redefinition of the role of the Higher Education Council which is currently associated with unnecessary bureaucratic matters. Third, institutional diversification is also on the move. The Turkish Parliament has recently legislated the establishment of seven private universities, with several other requests for permits to set up other such institutions waiting in line.

As to the institutional diversification, there are also proposals to diversify the public higher education by creating a two-tier system out of the current public and private institutions. One of the tiers will consist of élite research institutions, and the other will be mass teaching institutions. The need has arisen from various trends and developments in the Turkish higher education system. On the one hand, it is commonly believed that to rely primarily on degrees abroad is not a feasible way to solve the critical faculty shortage in universities. Part of the reasons are its enormous monetary cost, and the difficulty of finding qualified people who have necessary language skills to study abroad. On the other hand, an important source of inefficiency in the Turkish higher education system originates from newly established public institutions (Dundar and Lewis, 1996). Furthermore, since all universities are treated equally in appropriations of public funds (sometimes newly established institutions are indeed favoured over the older ones because of their substantial needs for infrastructure), advanced and highly developed institutions lose their highly qualified faculty and research potential.

As Dundar and Lewis stated (1996), all universities (newer or older ones) in Turkey uniformly aspire to the role of teaching and research at the same time. However, research, for instance, requires a critical mass of qualified faculty with less teaching load and high expenditures for laboratory and other materials. In order to reduce inefficiencies and to respond to the problems stated above, Guruz et al. proposed that some older and internationally recognised universities should be made 'centers of excellence' with different funding and administrative schemes. They also identified five universities that could carry out this function successfully: the Middle East Technical University, Bosphorus University, Hacettepe University (primarily in medicine and health sciences), Istanbul

Technical University, and Bilkent University. Except for Bilkent University, the other four universities are public institutions (Guruz et al., 1994: 238).

Quality

Observers of the Turkish higher education system generally agree that enrollment growth between 1980 and 1995 has resulted in a substantial decline in quality in many respects: quality of instruction, quality of both undergraduate and graduate programmes, quality of faculty, quality of research and publication, quality of student services and educational materials, and the quality of physical facilities. Dundar and Lewis report the following in this respect:

> 'We found, for example, that the average rate of faculty research and publication has declined as faculty have been added to the expanding number of institutions. We also found that almost all faculties have assumed a joint undergraduate and graduate education mission and that many of the new programs and faculties have had very low graduate enrollments. In several cases, the new schools barely had senior academic faculty to staff their undergraduate programs to say nothing about staffing their graduate programs, Indeed, it does appear that quality has been diminished in many institutions... The quality of faculty and staff has also declined as a result of 'poor quality' graduate programs, lack of faculty development, and limited opportunities for international experience and exchange' (Dundar and Lewis, 1996: 18).

Part of the reason for a decline in quality is the unplanned growth of public higher education in recent years, with as many as 24 new universities being established in the early 1990s. On top of declining public funding for higher education, there exists a serious waste in the system. For example, there is great deal of programme duplication among the universities geographically located in close proximity. All institutions assume the mission of both undergraduate and graduate programmes, as well as teaching and research. As Dundar and Lewis (1996) note, resources devoted to administrative and support services exceed the resources spared for academic purposes in some institutions (in many institutions, the number of administrative and support personnel is higher than the teaching staff).

These quality issues can be partially solved by developing strategies to make the system more efficient. For this, some radical strategies should be developed to streamline and channel the resources towards some specified strategic priorities. A restructuring effort in a public institution is instructive in this respect.

The Middle East Technical University, under the leadership of its new president, initiated a plan to realign the priorities of the university. Priorities of the university were defined to strengthen graduate programmes, to increase the quality of research and publications by some objective indicators that would, in turn, be used for faculty promotion, to increase the quality of instruction through some measurable performance indicators. As part of the plan, some seemingly inefficient and small undergraduate departments were closed or merged with other programmes. A substantial cut in the population of undergraduate students is planned until the year 2000. For wiser use of resources, objective resource allocation patterns were developed within the framework of possibilities permitted by the present legal structure, and university revolving funds were channelled to prespecified areas of research, library, and communications infrastructure (Simsek and Aytemiz, 1998). Similar institutional reform efforts need to be encouraged and disseminated within other institutions the system.

Summary and conclusions

No higher education system is an island, an entity in a vacuum. All higher education systems are influenced by national as well as international trends and developments. Internationally, new ideas, practices and policies are quickly disseminated from one system to another, so that higher education has more learning opportunities in today's world than in past decades when national boundaries were much more rigidly defined. Besides this international spread of trends, each higher education system has also the capacity to produce reform ideas by carefully analyzing the anomalies which are developed by country specific forces, trends and changes. In other words, both internal and external dynamics shape the future of higher education. Interestingly enough, similar sorts of anomalies have led to similar sorts of prescriptions in the reform efforts of many higher education systems in the 1990s.

In this paper, we attempted to document the challenges facing the Turkish higher education system. Our analysis suggests that the nature of these problems and issues resonate closely with those that have sparked major reform initiatives in other parts of the world. Among the most important of these are the demand for enrollment expansion in the face of declining public resources; inadequate levels of teaching staff of high quality; inefficiencies exacerbated by shrinking public funding; the need for alternative ways of diversifying revenue sources; the problem of extremely tight governmental regulations and bureaucracies in the organisation and administration of higher education; and the deterioration of quality in many areas.

Policies and strategies to meet these challenges resemble closely those adopted in other countries which have faced similar sorts of problems. The general pattern of reform moves in the following direction: to strengthen quality without sacrificing the demand for quantitative expansion, any further expansion of formal four-year university programmes must be curtailed, and excess quotas, as some argue, should be channelled to two-year vocational and technical post-secondary programmes. Moreover, to strengthen quality, measures must necessarily be developed to change the public funding scheme for higher education. Financial responsibility must be shifted to institutional levels, intermediary bodies should be created to maintain system-wide efficiency and accountability, and the national higher education system should be streamlined to overcome duplication. Critical faculty shortage can be solved by both utilising degrees abroad programmes and expanding the capacity and increasing the quality of graduate programmes especially in advanced older universities. Declining public resources for higher education can be compensated through cost sharing or cost recovery mechanisms (that is, higher tuition rates and fees) as well as easing the regulations to allow institutions to aggressively seek external funding.

To sum up, the worldwide trends in higher education that were outlined in this article are generally valid for the present state of higher education in Turkey. It is evident that there is a move from quantity to quality, from centralisation to decentralisation, from public monopoly to institutional diversification, and from public subsidy to cost recovery.

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