# An Investigation about the Analysis of the Present Situation of the State Universities in Terms of Human Resources

## Assistant Prof. Dr. Ezgi Cevher, PhD

Department of Business Süleyman Demirel University Vocational School of Isparta Isparta, Turkey.

## Dr. Hasan Yüksel, PhD

Department of Labour Economics and Industrial Relations Süleyman Demirel University International Relations Office Isparta, Turkey.

## **Abstract**

The effective identification and implementation of the strategies in the universities which are in the field of higher education is based on a one-sized skilled manpower. At this point, the human element employed at the universities in academic and administrative areas is required to have different hardware in terms of knowledge and experience. In terms of the competition between the universities the strategic dimension of the human resources is possible by providing the selection, development, directing, rewarding, commitment and the motivation of the employees. In this study, the applicable strategic plans of the state universities in Turkey were examined in the field of human resources according to the content analysis considering "Strengths, weakness, opportunities and threats". The aim is to reveal that at which point the employees of the state universities operating in the field of higher education are insufficient or strong and to evaluate the development functions of the human resource with comments and suggestions within the framework of the higher education's human resource.

#### 1. Introduction

Human resources is one of the most important and valuable asset today. In terms of organizations a well-organized human resources management is needed to supply qualified human resources, to be employed in suitable jobs and to ensure a functional commitment to the organization. Exactly at this point the importance of the arrangements of human resource management increased. Now employees who can create value and can contribute are needed in the organizations. The important factors that must be owned in higher education in terms of universities are the essential knowledge and skills. Beyond the research and development against environmental changes and the technological, social and cultural integration, the field of human resources is required to be strong at the universities. In the study, in line with this, the present situation of the state universities in the field of human resources was questioned and these present situations were evaluated in the context of higher education strategies of Turkey. In the study, the findings for the present situation were supported by opinions and suggestions by taking the development functions of the human resource also into account.

## 2. An Investigation on the Function and Strategic Plan of the Human Resource Atpublic Universities

The effective management of the human resources is the whole of the workers and the function which provides the management of the human resources in any kid of organizational and environmental media in a way that is useful for the organization, individual and for the environment in accordance with the law (Kaynak, 1998: 16). The human resource at universities is an important factor not only in selecting the employees but at the same time in revealing the capacity and capability owned by the workforce that makes the difference.

The management of human resource involves the process of workforce selection, the placement of business units and the development of education (DeCenzo and Robbins, 1996:23). In this direction the development functions of the human resource which has importance strategically; workforce planning, training and developing managers, evaluating the capabilities of the workforce occurs from the creation of the corporate culture that gives direction to competition and creativity (ÜlgenMirze, 2010:291-293). In terms of the universities the important consideration in the field of human resources is the side facing the development function of the human resource of Turkey's education strategy. The significant improvements criteria defined for the state universities in the high education strategy are the academic autonomy, productivity and quality, efficient use of the resources, participation, communication and international relations. These criteria are described in Turkey's high education strategy in the following way: (<a href="http://www.yok.gov.tr/yok strateji kitabi.pdf">http://www.yok.gov.tr/yok strateji kitabi.pdf</a>, the High education strategy of Turkey, February, 2007, p. 147.)

- 1. **Academic Autonomy:** The fundamental principle is that the studies conducted in the field of research or education must be carried out freely without encountering the political, economic and religious persecution resulting from the state or society. The research and teaching staff should be able to execute their work (with the condition to comply with the law) without encountering any pressure in or outside of the university.
- 2. **Productivity and Quality**: Universities should target high productivity while performing their research, publications and teaching functions, for this purpose they should benefit from the "performance indicators" used in the measurement of productivity.
- 3. **Efficient use of the resources:** the problem of scale has a particular importance in terms of raising the productivities of the university and increasing the efficiency in the use of resources. Besides the number of faculties and departments, the fact that the number of students and faculty members reaches a very high level can be a cause that prevents efficiency. The "optimal scale" should be deemed important for the universities.
- 4. **Participation:** In high education the level of participation and channels needs to be increased and the horizontal relationships need to be strengthened. However, participation should not be seen as a principle above the principles enumerated previously but should be handled in an integrity balance with other principles.
- 5. **Communication:** Effective communication should be established both in inside and outside of the university. It is agreat responsibility for the administration of the university to be in communication with external stakeholders. In studies about inter-departmental communications and interdisciplinary the contribution of the inter-university employees should be provided.
- 6. International Relationships: The recently widespread exchange of students and staffs, the popularization of common research and education programs, the developments like the harmonization of the high education system are the matters that should be taken into account at all the management stages of the university system. The universities should encourage raising the number of student exchange, getting foreign faculty members and participating in multinational research projects.

The strategic planning gained a legal basis in 2003 in Turkey with the 5018 numbered law about the Public Financial Management and Control Law and this was made mandatory for public institutions. The purpose is to strengthen the link between the plan and policies with budgets (<a href="www.sp.gov.tr">www.sp.gov.tr</a>). The mission vision statements, aims goals, present situation analysis (SWOT analyses) are located in the strategic planning (Strategic Planning Guide). The obligation of Strategic Planning Preparation that became a legal requirement in terms of all public institutions and public universities has been fulfilled by all the universities in the recent years. The content of the plans is composed of the present situation analysis, mission and vision statements, goals and aims, strategies and of performance indicators and activities (Atan, 2008: 416). The universities prepare and implement their plans periodically in the axis of this title. This study was prepared by taking the strategic plan into consideration in terms of determining the status of the available human resources of the state universities. In this way, the current status of Turkey's human resources was revealed and was discussed in the framework of the human resource development strategies.

## 2.1. The Methods and Samples of the Research

The aim of this study was to identify the present situation of the state universities that operate in Turkey in the field of human resources and to evaluate these present situations in the context of the human resource development policy.

In the study 90 public universities out of the 108 operating in Turkey were analysed according to the content analysis by considering the strategic plans, human resources, current situations, "strengthens, weaknesses, opportunities and threats" and creating codes. With the analysis it was determined that at which points the universities failed in the field of human resources, at which points they were strong and which areas were seen as opportunities or threats and these were discussed in the context of the human resource strategy.

Data collection tools like observation, interview and document analysis were used for the research. The research is a qualitative study which monitored a process for setting out perceptions and events in a natural environment in a realistic and holistic manner (Yılmaz, 2001:5). Providing sensitivity for natural environment, a participant role owned by the researcher, having a holistic approach, providing the identification of the perceptions, being flexible and having an inductive analysis are the features that differentiate the qualitative analyses from quantitative analyses (Külekçi, 2013:371). As a scientific approach in the content analyses; the verbal, written and other messages which are contained in the materials are concerned as the research of social reality in terms of meaning or grammar objectively and systematically via classification, converting the numbers and inference (Tavşancil and Aslan, 2001:22). The prepared coding guidelines were developed to support the type by the researcher. These directives were examined by experts of this field. In this context, the created coding guidelines were reliable and valid. The validity of the directive scope was created by revised codes and sub-codes. The "present state analyses" data of the 90 state universities' strategic plans were quantified according to these codes with the help of SPSS based on the frequency distribution. The sub-codes of the human resource field containing human research activities which are related to the above mentioned main code which was human research oriented were taken into account. The main and sub codes creating the coding guidelines are given below:

## 1. Advantages (Strength)

- a. Experienced academic staff
- b. Increase in the number of academic staff
- c. Young academic staff
- d. Young, dynamic administrative staff
- e. Appointment, promotion and merit system
- f. Reward system
- g. Academic staff trained abroad
- h. Small number of students per instructor
- i. Increase in the number of scientific publication
- i. Increase in the number of project
- k. Increase in the scientific activities
- 1. Increase of the participation in scientific activities
- m. Close communication between student and academician
- n. Participatory Management approach

#### 2. Weaknesses

- a. Low number of academic staff
- b. Shortage in the number of administrative staff
- c. Lack of administrative staffs' qualifications
- d. Low number of technical personnel
- e. Excess in course loads
- f. Lack of in-service training
- g. Lack of performance principles
- h. Unbalanced distribution in the numbers of academic staff
- i. Low number of publication
- i. Lack of SCI
- k. Low number of projects
- 1. Lack of social amenities
- m. Weaknesses in internal communication
- n. Low budget allocated for scientific and academic projects

## 3. Opportunities

- a. Increase in teaching staff with knowledge of foreign languages
- b. Mobility of changing programs

#### 4. Threats

- a. Low charges for academicals and administrative staff
- b. Low motivation of academic staff
- c. Low motivation of administrative staff
- d. Failure in ensuring the continuity of the staff
- e. Academic staff preferring private universities
- f. Academic autonomy

## 2.2. The Findings of the Research and Discussion

In this study, the currents situation analyses (SWOT analyses) "Strengths, weakness, opportunities and threats" in the strategic plan of Turkey's 90 state universities were examined according to the main categories (codes). In the axis of these categories the sub-categories were prepared by considering the structure of human resources, the "present state analysis" located in the strategic plan were coded by using the data. The findings and the comments on the findings for the field of human resources in the present state of the State Universities' strategic plan are the followings:

**Table 1: The Strengths of the State Universities' Human Resources** 

STRENGTHS	Frequency		TOTAL	Percentage (%)		TOTAL
	Yes	No	TOTAL	Yes	No	TOTAL
Young Academic Staff	55	35	90	61,1%	38,9%	100%
Participatory Management Approach	52	38	90	57,8%	42,2%	100%
Experienced Academic staff	44	46	90	48,9%	51,1%	100%
Young dynamic administrative staff	30	60	90	33,3%	66,7%	100%
Increase in the number of scientific	27	63	90	30%	70%	100%
publications						
Close communication between the	26	64	90	28,9%	71,1%	100%
students and academics						
Increase in scientific activities	24	66	90	26,7%	73,3%	100%
Academic staff trained abroad	24	66	90	26,7%	73.3%	100%
Increase of the participation in scientific	20	70	90	22,2%	77,8%	100%
activities						
Increase in the number of projects	16	74	90	17,8%	82,2%	100%
Appointment, promotion and merit system	16	74	90	17,8%	82,2%	100%
Reward system	11	79	90	12,2%	87,8%	100%
Increase in the number of academic staff	6	84	90	6,7%	93,3%	100%
Low number of students per instructor	6	84	90	6,7%	93.3%	100%

Human resources were used as an important criterion in the competitive strategies. In the literature for the experienced personnel employment, the strategy of employing experienced/ trained personnel according to the competitive strategy scale developed by Dess and Davis in 1982 and 1984 (Bush, Sinclair, 1991:485), "the selection of experienced personnel" according to the strategies of the scale developed by Nayyar in 1993 in his work on production managers (Nayyar, 1993:1658), and the strategy of "employing an experienced and qualified personnel" according to the scale of Bourgeois (1980), Kim and Lim (1988) with Robinson and Pearce (1988) were located. In this direction, attention should be also paid for being qualified to give respond for the needs of the human resources of the universities and of many imaginable private and public institutions. The employment of experienced manpower begins at the first stage with the preference of equipped and qualified employees. The training of individuals with special characteristics continues with the regularly development and provision of education. When analysing the Table 1, it was stated that the 61.1% of the universities have "young academic personnel" and 33.3% have "young and dynamic administrative staff. The universities stating this case as superiority they consider young academic staff and young administrative staff as an advantage.

When considering in terms of learning and developing career, the power of the young brain is an important input but this condition may mean the "lack of faculty members" in terms of academic staff. Also in terms of experience the adequate distribution of the number of faculty members in the academic staff maybe also needed. If the administrative staff is young, a productive environment can be created in terms of the service quality. 48.9% of the universities determined experienced academic staff among their strengths. The rate of the universities who specified the "academic staff trained abroad" which supports experience and qualification among their strengths was 26.7%. The half of the universities sees themselves adequate about experience of the academic staff according to these findings. This experienced staff structuring can be caused by the presence of the faculty members.

The understanding of participatory management provides a competitive advantage not only in the universities but in all of the organizations too (Aktan, 2004:148). The 57.8% of the universities stated in the status report that they applied the participatory management and that this was a power. It is said that the employees working in a democratic and participatory environment at the university were active. Or this situation may mean that participation were in foreground at state universities. Including employees in many of the activities, receiving their ideas the implementation of this management style from the academic staff to the administrative staff was a favourable situation. The participative management can characterize the human resources as a development function. At the universities the effective execution of the research and development activities depends on the number of the scientific publications scanned in the universities' Extended Scientific Screening Index (SCI) or on the general number of the publication, on the project supported by organization such as DPT and Tübitak (Tosun, 2004:28). Scientific publications are considered as one of the output produced by human resource. When looking at Table 1. the increase in the number of scientific publications is 30% at the universities. This ratio is an indicator that shows that the academic personnel in state universities make effort to increase the scientific publication in the field of research and development. This situation is an indicator that shows that Turkey can be located on the world map of scientific publication. The increase of scientific activities was determined as the strengths of the universities but it stayed limited to 26.7%. It was observed that enough time was spent for the scientific activities in the field of research and development. It is clearly seen that this situation should be increased in Turkey's universities on the axis of the academic staffs' research activities and scientific studies. The publication activities can be increased by several national and international tangible or intangible incentives. Also when examining Table 1 it is seen that in 17.8 % of the universities increased the number of projects. Although this rate was specified as strength it is an indication that showed that the universities were insufficient in the field of research and development. The support of the project at national and international level should be increased for the state universities in Turkey.

One of the necessities of the communication age is the ability to establish effective communication both with external and internal stakeholders in corporate sense. The importance of the communication established with the external environment by the staff is also important for the universities. The contact with the students established by the academic staff is important especially in terms of education and training. Because the best education is the education, that establish contact communication with the students (Büget, 2008:310). When analysing Table 1, 28.9% of the universities mentioned the "close communication between the student and academicians" as strength. When considering the attitudes and behaviours of the academics considered as an important criterion in the quality of services offered to students, the communication with the students in this area should be taken into consideration and the relation between the students and academics need to be improved.

It was stated that 17.8% of the universities applied the "appointment, promotion and merit system" for their employees. The rate of the universities which applied the reward system is 12.2%. When evaluating these rates it was seen that the universities did not applied the appointment and promotion system sufficiently in a transparent manner in terms of the employees' motivation and did not pay enough attention for rewarding. However, reward and incentive is one of the basic productivity tools in terms of human resources and it is very important to take them into consideration. The state universities in Turkey are proposed to be more sensitive in these critical issues.

The criteria of "the number of students per faculty member, the number of student per research assistant was used as one of the quantitative evaluation of the education quality at the universities (Tosun, 2004: 21). This ratio was 6.7% at public universities.

The increase of this ratio which was considered to be quite low for the universities was very important both in terms of service quality provided to the students and also in terms of time allocated for scientific research. Because the small number of students will increase the time spent with the student, to practise advising and to give priority to scientific research and publication activities.

Frequency Percentage (%) **WEAKNESSES TOTAL TOTAL** Yes No Yes No Low number of academic staff 62 28 90 68,9% 31,1% 100% Low number of administrative staff 57 33 90 63,3% 36,7% 100% 34 90 37,8% 100% Lack of social amenities 56 62,2% 31 59 Low number of projects 90 34,4% 65,6% 100% Lack of in-service training 100% 31 59 90 34,4% 65,6% Weakness in internal communication 31.1% 28 100% 62 90 68.9% 27 100% Low qualifications of the administrative 90 30,0% 70,0% 63 staff 27 Excess in the course loads 30.0% 70.0% 100% 63 90 28,9% 26 Shortage of technical staff 64 90 71,1% 100% Low budget allocated for the scientific 22 68 90 24,4% 75,6% 100% projects Lack of performance principles 22 68 90 24,4% 75.6% 100% The unbalanced distribution 9 10.0% 100% the 81 90 90.0% academic staff Low number of publication 13 77 90 14,4% 100% 85,6% Lack of SCI 84 90 6.7% 93.3% 100% 6

Table 2: The Weaknesses of Public Universities' Human Resources

The 68.9% of the state universities stated "Low number of academic staff", 63.3% "Low number of administrative staff" and 28.9% "Low number of technical staff" as weakness. The universities asserting themselves as sufficient in qualifications and experience did not found themselves adequate in terms of quantity. In order to correct this, the right should be given to the universities to employ more academic staff. This depends directly on the costs of staff and on the budget allocated by the state for the universities and on the allocation of staff.

The "lack of amenities" for human resource was among the weakness at the universities. 37.8% of the public universities talked about the lack of social activities for the staff. The execution of social activities for those working at the universities and in a way that they can benefit from it is a key element in the motivation of the employees, because at the same time the employees may want to have enjoyable social life outside their working hours in the campus.

34.4% of the universities stated "low number of projects" and 24.4% stated "low budget allocated for the scientific projects" as weaknesses as well. The contribution of the universities in scientific and social meaning can be expressed by the projects carried out within the scope of research and development studies. The insufficiency of the projects in the field of research and development can be prevented only with national and international support. The increase in the project allowances by the state may provide support by national and international organizations for the project.

Another weakness is the lack of in-service training. Universities should give importance for the educational and professional development of the academic and administrative staff, should give support with in-service trainings or with scientific activities and meetings for the academics. It is sure that they can provide competitive advantage through the effective and efficient use of the human resources which is accepted as the basic of the success in the development and through the training in this direction. In this context, the public universities mentioned also the qualitative inability of the administrative staff. 30% of the universities expressed the lack of qualifications in the administrative staff in the status report. These inadequacies can be covered with in-service training.

An atmosphere of trust should be formed that meets the needs and information of the employees within the communication of the organization.

Therefore, providing a healthy internal communication had a great importance in terms of efficiency and effectiveness (Peltekoğlu, 1998: 261-263).31.1% of the universities stated weakness in internal communication. This weakness can be removed by ensuring inter-departmental communication, spreading interdisciplinary studies, establishing close communication between the academic and administrative staff.

30% of the universities stated excessive course load as weakness for the academic staff. Excessive lesson hours reduce the time allocated for research and development therefore the number of publications will be reduced too. While analysing Table 2, "lack of publication" was also specified among the weaknesses. The ratio of the universities which mentioned the lack of scientific publications scanned in the "Extended Scientific Screening Index" for publishing was 6.7%. A reduce in the lesson hours of the academic staff can be provided but this is only possible with the increase in the wage of the academic staff, because the academic staff get their salaries in line with the lesson hours. The increase in the number of publishing may provide also more time allocated for research and development.

The lack of performance principles at the universities was also among the weaknesses. Making academic and administrative evaluation and the principles of the performance is important in terms of the employees. The development of a reward system based on the performance principles can cauterize.

OPPURTUNITIES	Frequencies		TOTAL	Percentage (%)		TOTAL
OPPURIUNITIES	Yes	No	IOIAL	Yes	No	IOIAL
Increase in teaching staff with	3	87	90	3,3%	96,7%	100%
knowledge of foreign languages						
Mobility in exchange programs	53	37	90	58,9%	41,1%	100%

Table 3: The Opportunities in the Human resources of the Public Universities

When analysing Table 3, the field which was seen as opportunity by the universities was the mobility of exchange programs. Through the exchange programs which is an indicator of the international cooperation many of the faculty members are able to work abroad. The increase of this type of programs will ensure the strengthening and the infrastructure of the foreign languages of the academic and administrative staff. In addition, due to the exchange programs the instructors will have the opportunities to take part in international projects. At the universities that see exchange programs as opportunity, an increase in the academic staff who speaks foreign languages may be in question too. The universities stated this criterion as an opportunity in terms of themselves.

THREATS	Frequency		TOTAL	Percentage (%)		TOTAL
	Yes	No	IOIAL	Yes	No	IOIAL
Low charges	47	43	90	52,2%	47,8%	100%
Failure to ensure the continuity of the	34	56	90	37,8%	62,2%	100%
staff						
Low motivation of the academic staff	22	68	90	24,4%	75,6%	100%
Low motivation of administrative staff	22	68	90	24,4%	75,6%	100%
Academic personnel prefer private	18	72	90	20,0%	80,0%	100%
universities						
Academic autonomy	6	84	90	6,7%	93,3%	100%

Table 4: The Threats in Human Resources of the Public Universities

The low wages of the employees was perceived as a threat in terms of state universities. 52.2% mentioned this as a threat and expressed that due to the low wages they failed to provide the continuity of the staff. The state taking measures in this regard depends on paying better wages to the staff. 24.4% of the universities saw the loss of academic staff's motivation as a threat. This element of threat can be based on low charges too. Again, the low fees paid to the academic staff in state universities results that the academic staff will prefer the private universities. The rate of the universities facing with this threat was around 20%. This threat can be removed by the improvement in fees made by the state and by the transparent policies applied by the universities. 6.7% of the universities perceived academic autonomy as a threat. The academic autonomy of the public universities was restricted by the No 2547 Law of the High Education. The academic autonomy can be removed from the threats by the improvements in this law.

## 3. Results

When examining the assessments (SWOT analysis) of the situation in the strategic plans of the 90 state universities in Turkey, half of the universities assumed themselves adequate about the "qualifications of the academic staff", the findings on staff structuring was formed by "young academics" were reached. More than half of the universities have participatory management approach. In the dimension of providing close relation between the student and academics there was a partial success at state universities. When considering these high rate findings it can be said that the universities considered the criteria of participation and communication in the context of the strategy in High Education in Turkey. However the fact that the academics are not productive enough in scientific sense can be realized from the low number of publication and projects. For the prevention of this, the criteria of "efficient use of sources" and "productivity and quality" may be considered. In addition, the efficient use of resources in the universities can be achieved by the budget allocation provided by the state. In this way the number of academic and administrative staff seen as weakness can be increased too. In the same way the number of technical staff can be increased too. The strategic criteria of "productivity and quality" can be applied by providing in-service training, reducing the lesson hours with the increase of the budget allocated for scientific projects. These deficiencies listed among the finding of weaknesses can be resolved. The mobility of exchange programs which has the biggest rate can be converted again into advantage in terms of human resources. The strengthening of the foreign languages' base can be achieved and the international project cooperation can be improved due to this. The "low wages" paid to the employees which is located among the threats findings, again if it integrates with the effective resource allocation strategies many of the threats can be disposed. When evaluating the findings of the study the development of these mentioned strategies intended for the threats and weaknesses can be useful in terms of the universities. The strategies intended for the strength and opportunities within the scope of High Education will keep the universities constantly alive.

## References

- Aktan C. C. ve Vural İ.(2004), Rekabet Gücü ve Rekabet Stratejileri, Türkiye İşverenSendikaları Konfedarasyonu Yayını
- Bush R., ve Sinclair S.,(1991) "A Multivariate Model and Analysis Of CompetitiveStrategy in the Usa HarwoodLumberIndustry", Forest Science, Vol 37, No:2; June, pp. 481-499
- Büget U. (2008), Türkiyenin 2023 Vizyonunda Vakif Üniversiteleri Kongresi, AtılımÜniversitesi Yayınları, Ankara
- DeCenzo D.A. ve Robbins S. (1996), Human Research Management, 5 ed., John Wiley and Sons
- Kaynak T., (1998) İnsan Kaynakları Yönetimi, İstanbul Üniversitesi İşletme İktisadı Enstitüsü Yayınları, Yay. No: 406, İstanbul
- Karabağ Solmaz F.(2008), "Strateji Ve Endüstrinin Firma Performansına Etkisi:
- Türkiye'nin Öncü Sanayi İşletmeleri Üzerine Bir Araştırma", Çukurova Üniversitesi , (Yayımlanmamış Doktora Tezi). 2008
- Külekçi, E. (2013). 4+4+4 Eğitim Sistemi Kapsamında Birleştirilmiş Sınıf Uygulamasına İlişkin Öğretmen Görüşlerinin Değerlendirilmesi. Eğitim ve Öğretim Araştırmaları Dergisi Journal of Research in Education and Teaching, Cilt:2 Sayı:2, pp. 369-377.
- Nayyar R. P.(2011), "On The Measurement Of The CompetitiveStrategy Evidence From A LargeMultiproduct U.S. Firm, Academy Of Managemet Journal", Vol 36, No 6, pp. 1652-1669 Peltekoğlu F.(1998), Halkla İlişkiler Nedir, İstanbul Beta Yayınları
- Tayşancıl E., Aslan, E.(2001), İçerik Analizi ve Uygulama Örnekleri, İstanbul: Epsilon Yayınları, İstanbul
- Tosun H. (2004) , Yükseköğretimde Mevcut Durum Performans Değerlendirme ve Yeniden Yapılanma, Ankara Ticaret Odası Yayınları,Ankara
- Ülgen H. ve Mirze K.(2010), İşletmelerde Stratejik Yönetim, Beta Basım, Ekim
- Yılmaz, S. (2011). İlköğretim Dördüncü Sınıf Öğrencilerinin "Birlikte Çalışma"ya İlişkin Algıları Ahi Evran Üniversitesi Eğitim Fakültesi Dergisi. Cilt 12,Sayı 1,pp. 1-14.
  - (http://www.yok.gov.tr/yok\_strateji\_kitabı.pdf, Türkiyenin Yükseköğretim Stratejisi, Şubat 2007, s.147) (Stratejik Planlama Kılavuzu, 2006, (www.sp.gov.tr)