

Higher Education Management in Pakistan (Challenges and Recommendations)**Madiha Salik^{1*}, ZHU Zhiyong¹ and LIU Baocun¹**¹Faculty of Education, Institute of International & Comparative Education, Beijing Normal University, Beijing, China 100875.**Abstract**

Higher education is central to development and a key to attaining the Millennium Development Goals. It is one of the most powerful instruments for reducing poverty and inequality and lays a foundation for sustained economic growth (World Bank, 2009). This article will investigate the higher education system of Pakistan, and how the dearth of quality and scarcity of effective management has influenced it. It will recommend how to meet current challenges and build a better educational system.

Key words: Quality, Higher education management, challenges, recommendations.

Corresponding author: salikqau@yahoo.com

1. Introduction

One of the major responsible factors of problems of higher education in Pakistan is management. Management has been biggest problem of Pakistan since independence. Even our political leaders are less educated so they have no idea how to manage the systems. Unskilled and inexperienced staff is being recruited by avoiding the merit so how can an inexperienced and unskilled man can run system properly. Ineffective management and policies in higher education can also hinder development. Higher education management in Pakistan today suffers from an overall paucity of quality. Much of this can be traced back to ineffective management, increased enrollments, a shortage of technology, antiquated instructional methods largely based on memorization, and misaligned incentives for teachers and students. Today, our universities face rapid growth. But, to increase quantity we have sacrificed quality. Sami'e (2008) differentiates between "massification" and "vulgarization". The former means balanced quantitative and qualitative development of a higher education system so that it provides equal opportunity for all applicants without social, economic, political, and cultural discrimination. The latter is a political appeal to massive social requests, and insists merely on quantitative expansion. There are numerous best universities in Pakistan that offer higher level education every year but despite all of this we are way behind from the world as concerned to education. 63 years of independence has been past but we are not able to find the right way of giving quality education. One of the major problems of higher education in Pakistan is our political leaders that are not well educated. Education system in Pakistan is not good as it should be in this latest technology of world therefore it is the reason plenty of Pakistani

students are getting education in foreign developed countries. After the creation of Higher Education Commission in Pakistan the standard of education developed as compare to the past. Higher Education Commission which is also known as HEC is playing vital role for the development of higher education. There are many factors responsible for problems of higher education in Pakistan. All know very well that resources regarding higher education are not enough in Pakistan but the problem is that we are not taking benefits of available resources in other words resources are not being utilized properly due to lack of unskilled, dishonest and less educated administration. The higher education in Pakistan has been distributed into different level and equality. Higher Education is different for poor ones and different for richer ones. There is no proper monitoring system in Pakistan to control the higher education system numerous educational institutions and universities opened now but the standard of higher education is not good at all. One of the major responsible factors of problems of higher education in Pakistan is management. Management has been biggest problem of Pakistan since independence. Even our political leaders are less educated so they have no idea how to manage the systems. Unskilled and inexperience staff is being recruited by avoiding the merit so how can a inexperience and unskilled man can run system properly. The management and control of higher education refers not only to the division of regulatory and decision-making powers between the higher education institutions and government but it also covers the internal management of higher education institutions. In addition, outside bodies such as local and regional government, social partners as well as representatives of business are involved in the planning of higher education. New internal governance and management practices are required in order to ensure the efficient functioning of universities. That means a new administrative philosophy and more effective participation of stakeholders, staff and students in governing bodies. The granting of greater autonomy to institutions, particularly in institutional governance, budget spending and course planning is intended to encourage an entrepreneurial spirit and thus promote efficiency, cost-effectiveness, flexibility and quality in educational provision (Eurydice 2000).

In a society full of miscellany, thoughts and beliefs, higher education means diverse things to dissimilar people. The pluralism of views is quite unavoidable and some would opine it should be like that only. According to Barnett (1992) there are four predominant concepts of higher education:

- Higher education as the production of qualified human resources. In this view, higher education is seen as a process in which the students are counted as “products” absorbed in the labor market. Thus, higher education becomes input to the growth and development of business and industry.
- Higher education as training for a research career. In this view, higher education is preparation for qualified scientists and researchers who would continuously develop the frontiers of knowledge. Quality within this viewpoint is more about research publications and transmission of the academic rigor to do quality research.
- Higher education as the efficient management of teaching provision. Many strongly believe that teaching is the core of educational institutions. Thus, higher education institutions focus on efficient management of teaching-learning provisions by improving the quality of teaching, enabling a higher completion rate among the students.

Higher education as a matter of extending life chances. In this view, higher education is seen as an opportunity to participate in the development process of the individual through a flexible, continuing education mode.

2. Influences on higher education due to lack of quality and effective management

Higher education is perceived as an important form of investment in home capital development. Higher education is recognized as a key force for modernization and development. This has caused an increase in the demand for its access, accompanied by a number of challenges. The reasons behind the lack of quality and effective management in higher education are many and varied. It is generally not one particular aspect of the service that results in poor quality, but a combination of factors that have a negative effect on students' learning. Factors such as leadership, vision and professional learning and development that contribute to high quality in some services are lacking or ineffective in poor quality services. Rigidly implemented routines poorly resourced or unsafe learning environments and inappropriate teaching practice are also actors in poor quality education. There is little sense or understanding by managers and or educators of what high quality looks like. Managers and educators lack the capability to change practice, often believing that their service is operating well, and are unaware of issues or risks to students. Dearth of quality practice is often entrenched and a lack of willingness or motivation to change prevails. Ineffective management can result from lack of experience. Some leaders, although technically qualified, take on the role too early in their careers or are without the necessary support to do the job well. Some people in leadership roles are not well informed about what constitutes effective practice. Often they do not seek or have access to opportunities to engage in relevant professional learning and development. A lack of quality and effective management has a negative impact on the management and operations of the higher education. Staffs do not have the guidance they need to operate as an effective care and education team. Poor teaching practices and ineffective management strategies result in students who appear bored and fractious and whose learning needs are not being met. This lack of professional support, mentoring and development is having a negative impact on higher education to provide appropriate education to young students.

3. Internal and external factors

3.1. Management. After the independence of Pakistan, many administrators operate by trial and error. There is little evaluation of managers' performance and little professional development. This assumption has been accepted that since they are specialist, so are professional managers. There is little opportunity to share experiences or transfer best practices from one university to another. There exists a stifling combination of over-centralized, bureaucratic administration with few fixed rules and regulations. Thus, managers are reluctant to act and do not effectively plan for the future. Noorshahi (2006) believes universities need

transformational leadership to replace bureaucratic management. In the end, to succeed universities must be competitive both nationally and internationally.

3.2. Rules and regulations. After the independence, planning and decision-making were centralized. Yet, there exist many stakeholder organizations which do not necessarily coordinate their work, such as: the Ministry of Science Research and Technology; the Ministry of Health and Medical Education; the Ministry of Teaching and Training; the Planning and Budget Organization; the Religious Education Center; the Cultural Revolution Supreme Council; the Expediency Discernment Council; and the Parliament of the Islamic Republic of Pakistan (Soltani, 2008, p.7). This proliferation of authority reduces transparency and puts managers under stress and doubt (Arasteh, 2001, p.41).

3.3. Unemployment among university graduates. Education encourages development and development encourages employment. But, few faculties are familiar enough with industrial and service enterprises to offer courses relevant to the job vacancies that exist (Rahmani, and Nazari, 2007, p.1) The most influential factor in Pakistan graduates' underemployment is a lack of alignment between their education and the needs of the labor market. However, some external factors, out of higher education's control, play a part, such as: a lack of entrepreneur culture; undeveloped private job-filling enterprises; relatively few job vacancies; and poor labor market planning (Eshagian, 2007; Today, women make up more than 60 percent of Pakistani university students. With more women in school and a later average age of marriage, the birth rate has declined. Nonetheless, women's employment has decreased in the last few decades, due to sex discrimination especially in industry, management, and high level positions. (Pakistan Labor Force Survey, 2001-2002)

3.4. E-learning in Pakistan. In the last decade, experts have founded an e-learning center in IT s Universities. The government plans to provide higher education centers throughout the country, especially in remote areas, and e-learning is a plausible method for providing the instruction. Other e-learning programs include Information and communication technologies diploma program short program (students can enroll here without any entrance examination but according to their interests.

But there remain many challenges (Fayaz, 2004; Arasteh (2004, pp.3–5) describes them as follows:

- a poor infrastructure of equipment, facilities, and service, such as proper cables, high-speed Internet, and advanced computer systems;
- few curriculum designers or faculty members experienced in e-learning;
- unreliable telecommunication services;
- students' poor understanding of English; and
- doubts about open- and equal-access to information and information technology.

3.5. External factors

3.5.1. University- industry gap. According to UNESCO, higher education has three functions: knowledge production (research); knowledge transfer (education); and knowledge distribution (service).Pakistan's educational system is based on knowledge transfer, with little concern for research and services. Soltani (2008, p.5) believes the most important challenge in this respect is the lack of demand from industry. About 70 percent of industry is state-run, with the private sector so undeveloped and weak it cannot afford to invest on research. The state-run sector fulfills its needs by purchasing technical information from developed countries with its oil profits. In such a situation there is no need for R&D as all needs can be met from outside sources (Mo'een, 2004). Another factor may be cultural. Pakistani culture advocates individual works, or family aggregations. By contrast, developed countries' culture supports teamwork and venture investing in ideas that are most likely to win. In Pakistan, some early steps have been taken to support new methods of investing, team building, long-term capital return expectancy, and entrepreneurship training.

4. Key factors in Higher education Management of Pakistan

For successful governing and management activities at least four main criteria can be emphasized:

1. clear institutional goals and tasks,
2. fixed deadlines for their realisation,
3. sufficient financial conditions,
4. increased accountability and diversification of funding sources, and
5. strong collegiate and personal commitment to the aims of the institution.

Accountability is required because of the cost of mystification, the need to account for and prioritise public expenditure and hence the pressure to ensure value for both private and public monies. Beside a general pressure to identify clear lines of accountability within higher education systems, the second aspect of accountability is as just as important: to assure students (and the families that support their studies) that the programme of study is organised and run properly and that an appropriate educational experience is both promised and delivered. A third factor is the generation of public information about the quality of universities and programmes. This can be important and useful information for funders and for potential users (such as prospective students and graduate recruiters) as well as for the labour market (employers). The diversification of funding sources is proving to be the best option for higher education institutions in order to allow them to comply with academic quality requirements. The key actors in this process are unquestionably the leaders and governing bodies of higher education institutions. Consequently, it is very important that these people shall be endowed with managerial expertise. Moreover, the continuous development of their managerial abilities by different initiatives (mobility courses, further education courses, PhD courses) is just as important. In the day-to-day routine of any higher education institution numerous decisions are constantly being made. These will range from routine decisions to those involving major policy issues. The powers and responsibilities set out in the charter and statutes of higher education institutions provide the framework within which the whole decision-making process takes place.

The following list of examples can illustrate the variety of general responsibilities of management and governing bodies:

Board of governors are responsible for (Warner – Palfreyman 2000):

- the determination of the educational character and mission of the institution and its activities;
- the effective and efficient use of resources, the solvency of the institution and the safeguarding of its assets;
- approving annual budgets of income and expenditure;
- the appointment, evaluation, suspension and dismissal of people in senior posts and determination of pay and conditions of service for these senior posts;
- setting a framework for the pay and conditions of service for all other members of staff;
- The appointment of external auditors.

The head or chief executive of the institution (rector, vice-chancellor) is responsible for Warner - Palfreyman 2000):

- Making proposals to the Board of Governors about the educational character and mission of the institution, and implementing the decisions of the Board of Governors;
- The organisation, direction and management of the institution and leadership of its staff;
- The appointment, assignment, grading, appraisal, suspension and dismissal of staff other than the holders of senior posts; and determination – within the framework set by the Board of Governors – of the pay and conditions of their service;
- The determination, after consultation with the Academic Board, of the institution's academic activities, and the determination of its other activities;
- Preparing annual budgets of income and expenditure, for consideration by the Board of Governors, and for the management of budget and resources, within the estimates approved by the Board of Governors.

These examples illustrate the importance of understanding the role of managers and their relationship with committees when one is considering the part played by committees in decision-making. But decision-making in practice, although the constitutional framework of universities vests much of the significant power regarding formal decision-making in committees, cannot provide an efficient and effective way of making decisions in higher education institutions. There are some factors to be considered that make committees an inefficient means for rapid decision-making (Warner- Palfreyman 2000). Firstly, committees operate to a timetable that is governed by the need for committees to report to other committees, such as the senate or academic board and council or board of governors within regular meetings. Secondly, there are considerable numbers of people in committees who have many demands on their time. That means a constant pressure to reduce the number of meetings. Given the need for speed in many university matters, it often seems to be impractical to wait for the next scheduled meeting of council before a decision on a case is made. Informal processes in decision-making have become more prominent in recent years for a variety of reasons. Among these can be mentioned the increasing complexity of higher education institutional business, the pressure of deadlines and timetables that do not match committee

timetables and the demands on the time of individuals. Informal processes are widely used to carry out consultations and to obtain information and feedback prior to a decision being taken. Another characteristic phenomenon is the growing use of project teams or task forces to sort out particular problems and come forward with solutions (Warner – Palfreyman 2000).

5. Recommendations

First of all it is the responsibility of government of Pakistan to think something out of box for development of higher education. Education needs proper guidance and financial assistance. Government should open trainee institutions in which training will be given to the teachers and professors. A good part of financial budget should be spent on education because it is education that makes country develop. Education should be the same for every taste of people. These were all the major problems of Higher Education in Pakistan and even we cannot compare our educational system to undeveloped countries due to fewer standards. If we want the solution of higher educational problems in Pakistan will have to do some something ourselves.

In the time available, the Task Force has identified for immediate attention of policy makers the following crucial recommendations that apply principally to universities and can bring about significant change. The recommendations are based on principles that apply to both public and private sector institutions.

5.1. University Governance and Management

- Universities are the pillars of the higher education system. They must have autonomy from all extraneous influences in order to govern and manage their academic, administrative, and financial functions. In particular, universities must have autonomy to develop their academic programmes; recruit, assess, and develop their faculty; and select, train and educate their students. The present organizational structure, including the Senates and Syndicates, has too many weaknesses of which the principal one is an inadequate separation of governance from the functions and responsibilities of management.
- In order to ensure accountability for institutional performance, each university must have a strong and independent governing or policy making body that may be called a Governing Board (GB) appointed by the Chancellor from candidates nominated by a nominating committee of the Board, and an independent system of management that is accountable to it. The Chief Executive Officer of the university (Vice Chancellor or Rector or President) must be identified through a formal and open search process, and appointed by the Chancellor from a selection of candidates recommended by the GB.

5.2. Central Coordination and Support for Quality

- The University Grants Commission (UGC) was established in 1974 by an Act of Parliament for maintaining standards of education and uniform policy aimed at bringing about national unity and cohesion. Assessment of financial needs of universities, disbursement of grants, and building institutional capacity are also amongst its functions. With no control on funding the UGC nevertheless serves as a transmitter of the universities' annual budgetary

requests to the Ministry of Education and distributor of Federal government's grants to the universities, generally less than requested and not always delivered on time. This has contributed to the erosion of its credibility with universities.

- The Task Force recommends that a central body is needed for facilitating quality assurance of higher education in both the public and private sectors, and linking funding by the Federal Government for public universities to the quality of performance, akin to the principle used by the Higher Education Funding Councils in the U.K.
- The central body is conceptualized as the focal component of a network of independently governed institutions that provides diversity of expertise and promotes synergy and efficient utilization of the country's resources for higher education and research. It is conceptually different from the UGC and would replace it, and would be called the Higher Education Commission (HEC), with the following salient features:
 - a) To plan, develop and accredit public and private sector institutions of higher education.
 - b) To raise funds for itself and for higher education.
 - c) The HEC would be governed and managed independently as an autonomous body linked to the Ministry of Education.
 - d) HEC should have the capability of receiving, managing and being accountable for block grants provided by the Ministry of Finance.
 - e) In order to ensure accountability for institutional performance, the HEC must have a strong and independent Board of Governors appointed by the President from candidates nominated by a nominating committee of the Board, and an independent system of management that is accountable to it.
 - f) The Chairman of the Board, functioning in an honorary capacity, should have the rank of a Minister of State.
 - g) The appointment of the Chairman and members of the Board, as well as the Chief Executive Officer, should be based on merit, free from political, bureaucratic or other extraneous influence.
 - h) The Chief Executive Officer (CEO), the only full-time Board member, must be identified through a formal search process, and appointed by the President from a selection of candidates recommended by the Board of Governors.

5.3. Funding

- Universities in Pakistan require significantly more financial resources than the current allocations. In the proposed higher education system, with improved financial management, provision for funding should be made through an annual review of a three year rolling budget, and the development of permanent sources of support such as endowments.
- Further study is required to determine the financial requirements for improving the quality of higher education in colleges.
- Funding from the Federal Government to all public sector universities for recurrent costs in 2001-2002 is Rs 2.9 billion (salaries, 75%; utilities, 8%); in addition, the developmental grant is Rs. 0.4 billion. The allocation for research is Rs 0.04 billion, 1.2% of the total grant. The self-generated income of universities is approximately Rs 3.2 billion. Thus, the total

funds available are about Rs 6.5 billion. The Task Force recommends an enhancement of the Government grant by Rs. 5 billion annually in order to improve recruitment and retention of competent and qualified faculty and staff; develop infrastructure for research; provide adequate libraries, electronic access to information and communication, equipment and maintenance; and refurbish the dilapidated physical facilities.

- The Task Force recommends that the Provincial Governments should also contribute to the funding of universities.
- Creation of an endowment of Rs. 20 billion will provide about Rs. 1.6 billion annually to support research, faculty and staff development, and facilitate financial assistance to deserving students.
- Tuition and fees, which currently cover a rather small portion of costs, should reflect the real cost of an educational programme, but should neither be the main source of institutional funding nor an impediment to access for those who cannot afford the cost of education and subsistence. The full cost of the academic programmes should be stated in the student's bill, with institutional subsidies clearly indicated, so that students and parents are made aware of the extensive support they are receiving.
- Fund-raising by individual universities must take place, and the Government should provide matching grants as an incentive, as is the case in most parts of the world.
- To provide incentives for philanthropy, tax exemptions by the Government for donations and endowments are recommended.

5.4. Faculty and Staff

- Current emoluments are grossly inadequate to recruit and retain good quality faculty and staff. Emoluments should be de-linked from the Government's Basic Pay Scales, and should be appropriate for recruitment and retention of quality teachers and staff. Provision for in-service training is a critical requirement for improved performance.

5.5. Research

- Research is conspicuous by its absence in our seats of higher learning. Research is a critical activity and must be assigned a high priority by making a major allocation of funds, creation of endowments and an enabling environment. The capacity of faculty and students for research should be enhanced.
- Linkages with business and industry are essential not only for employment of graduates but also for relevance of curricula and research, and should be accorded a high priority. In addition, synergy should be sought through financial incentives provided by the government to encourage funding of higher education.

5.6. Curriculum

- Serious reconsideration should be given to the current practice of early specialisation in schools (starting in grade 8), and the inclusion of general education in programmes in order to prepare candidates for critical and moral reasoning, effective communication, and self-

directed life-long learning. Such enrichment of curricula will encourage good citizenship, adaptability, and innovation, thereby facilitating the continuous renewal of economic and social structures relevant to a fast-changing world.

- There is a felt need to develop a long term strategy for higher education if Pakistan, a nation of 140 million people, is to become competitive in the rapidly emerging global economy, and occupy its rightful leadership role in the Muslim Ummah. For international comparability, universities should aim for awarding a Bachelor's degree after 16 years of education instead of the current requirement of 14 years. Initially, a 4-year Honours Bachelor's degree should be an essential requirement for admission to a Master's programme.

6. Recommendations on additional assignment

In addition to its formal Terms of Reference, the Task Force (Improvement of Higher Education in Pakistan March 2002 by the Task Force) was asked to consider the following issues by the Chief Executive's Secretariat (Appendix 11).

6.1. National Education Testing Service (NETS)

- The Task Force does not favor the establishment of NETS. It feels that the long term and sustainable solution lies in reliable assessment of school education. The current SSC and HSC examinations test for memorization and recall, thereby promoting rote learning, which is detrimental for understanding and application of knowledge, and poor preparation for higher education.
- It would be more appropriate to provide a reliable alternative examination system at the SSC and HSC levels that can significantly improve education in general rather than to establish a national testing service for the purpose of selecting candidates for higher education. Such an initiative to promote improvement of school education could be accomplished through a private-public endeavor.

6.2. National Council for Accreditation and Quality Assurance (NCAQA)

- The Task Force does not favor the establishment of the Council and recommends that the HEC undertake the role of accreditation as a component of its quality assurance function.

6.3. Ministerial Responsibility for Higher Education

- The Task Force is of the view that education must remain with a single ministry, the Ministry of Education, while drawing resources from across the board. Education is a continuum across primary, secondary, higher secondary, and tertiary levels. Its generic purposes are not discipline specific. The support and accountability for educational functions, whether in the domains of knowledge concerning natural, biological, numerical, and social sciences, and humanities, are logically the responsibilities of the Ministry of Education.

6.4. Conditions for Degree-Awarding Institutions in the Private Sector

6.4.1. Considering the importance of the long-term viability of institutions of higher education and their impact on society and nation building, the Task Force recommends close scrutiny of the credentials of sponsors of new institutions in the private sector, effective provisions for accountability, transparency of governance and management, and maintenance of their quality. Although the recommendations of the Task Force were requested for institutions in the private sector, the principles are also valid and recommended for application to degree-awarding institutions in the public sector.

7. Issues requiring follow-up

7.1 The Task Force considers that the following important issues need to be studied further:

- a) Curricula
- b) Review of colleges with regard to their functions, funding, governance, and management
- c) Professional education and its relationship to universities, and quality assurance by the HEC and professional councils
- d) Funding requirements of institutions of higher education in the light of the restructured system
- e) Requirements for supporting research in universities.
- f) Assessment of academic achievement, and its use for the selection of students for higher education
- g) Development of a reliable database on higher education

8. IMPLEMENTATION

1 The Task Force recommends the appointment of a Steering Committee in order to develop a plan for implementation in accordance with the recommendations, to oversee the drafting of necessary legislation and establish the HEC.

2 The implementation should be phased, beginning with the establishment of the HEC. While this activity is in progress, universities should be encouraged to improve the efficiency of their management, and review the membership of their structures under the current universities Acts, and be provided appropriate guidance.

.3 The search for identifying appropriate candidates for the Boards of Governors of the HEC and universities should begin.

9. CONCLUSION

The Task Force firmly believes that implementation of the recommended changes, the principles of which apply to both public and private institutions will result in significant improvement in the quality of higher education in Pakistan. Quality management is essential for the survival of institution in the industry. Every institution has different parameters to measure the quality of education. Setting up standards is the most crucial activity of an education institution. However if the institution identifies correct components then quality is achievable. The new frameworks are particularly meant to modify the old relationships between governments and higher education institutions, allowing for university autonomy and accountability and fostering the development of

democratic processes in universities. The framework created in this research paper is an attempt to identify the instruments that leads to a greater outcome. Due to the intense competition in the industry, every institution is facing threat. The main idea is to maintain an appropriate system with quality standards. Thus exercising efficient activities leads to the best results. All the recognized institutions should develop their own quality management unit. The creation of such quality management in the university will encourage the institution to adopt self assessment methodology and guidance in detail to the institutions relating to the quality standards and policies. It will then also help the institutions scan their entire system from pedagogy to the course development.

References

- Arasteh, H.R. (2001), *Modiriat dar daneshgahhaye vabaste be MSRT: Challesha va kastiha*. [University management in universities dependent to MSRT: Challenges and deficiencies], *Quarterly Journal of Research and Planning in Higher Education*, Vol.7, No.384, P.41
- Arasteh, H.R. (2004), *Daneshgah majazi: Chalesha va kastiha* [Virtual university: Challenges and deficiencies], *A Survey on Quality Elevation in University Education, Higher Education Planning and Research Institute*, PP.3-5
- Barnett, R., 1992. Improving Higher Education: Total Quality Care, Buckingham:SRHE&OU.BSI, 1991.Quality Vocabulary Part 2: Quality Concepts and Related Definitions. London: BSI.
- Eshagian, M. (2007), *Barrasi rabete amuzesh va eshtegal* [A survey on education and employment relations]. *The First Meeting of Employment and Higher Education System*, Vol.1

EURYDICE (2000) *Two Decades of Reform in Higher Education in Europe: 1980 onwards* /Eurydice Studies/ Chapter 7: Areas of Reform in Higher Education, pp 171-183. and Chapter 2: Management, Finance and Control, pp 87-107.Eurydice, European Unit, Brussels, Belgium

Fayaz, E. (2004), *Chaleshhaye fara ruye amuzesh aali* [Higher education facing challenges]. *Center of Research for Computerized Islamic Sciences*", CRCIS. Vol.118, P.12 (published Jan 16, 2004)

Mo'een, M. (2004), *Mavane' tose'eye elmi Iran* [Barriers of Iran's scientific development], *Higher Education Encyclopedia*, Vol.2, PP.786-791

Noorshahi, N. (2006), *Rahbari tahavolgara dar amuzesh aali* [Transformational leadership in higher education], *The Letter of Higher Education*, Vol.18, Retrieved May 5, 2009 from <http://www.irphe.ir/Fa/Letter/LetterPDF/LetterHE-18/Name%202018/NOSHAHI.doc>

Rahmani, R., & Nazari, A. (2006), *Chalesh eshtegal faregotahsil daneshgahha* [Higher education challenges regarding employment of graduates], *Collection of Articles in the First Meeting of Employment and Higher Education System*, Vol.1, P.23

Sami'e, H. (2008), *Barrasi vijegihaye toude'e shodan amuzesh aali dar Iran* [A survey on characteristics of massification in higher education of Iran, from experts' point of view], *Dissertation of Master's Degree in Sociology*, P.125

Soltani, B. (2008), *Moruri bar chaleshaye asli amuzesh aali va jahat giri ayandeh* [A review on essential challenges of higher education, research, technology, and future orientation], *Higher Education Planning and Research Institutes, Ministry of Science, Research, and Technology*, PP.5-6

WARNER, D. – PALFREYMAN, D. (ed.) (2000) *Higher Education Management, The Key Elements* (pp 79-90.) The Society for Research into Higher Education & Open University Press, London, UK

World Bank, The, (2009), “Education and the World Bank” Retrieved September 6, 2009 from www.worldbank.org/education