

Evaluation of Effectiveness of Innovation Policies in Universities, (case of developing countries)

Seyed Kamal Vaezi, PhD
Ministry of Sciences, Research and Technology
Islamic Republic of Iran

Abstract

This study analyzes the innovation policy in universities based on a review of development program.

In an indirect process for determining the eligibility of higher education institutions to participate and create policy innovations in state development higher education programs it has directed that institutions are eligible for participation if they meet two fundamental conditions:

1-Be able to evaluate ,monitor, analyze and predict fundamental changes in science and technology in order to keep abreast of the global fundamental changes in science and technology.

2-Be able to develop priorities plan to organize technological activities of the country to reengineer nationwide development of science and technology and to provide a sustainable structure for higher education development program.

It emphasizes the choices made by monitoring and evaluation agencies at different times as how they would conduct evaluations and what standards they would use.

This issues and circumstances are surrounding the initial development of evaluation and monitoring and major changes in procedure and standards. Also attention is given to some of the challenges that presently are posing for evaluation procedures as growing complexity, globalization and advances in instructional uses of electronic technology allow new forms of higher education provision to emerge.

The exiting policies need to be re-examined, and new policies developed. While higher education innovations must be recognized, it is also true that monitoring agencies have greatly assisted their career. In this process monitoring agencies serve as a public brain system to advocate changes that will improve higher education practice.

Key words: Higher Education development, Innovation policies, Evaluation,.

Introduction

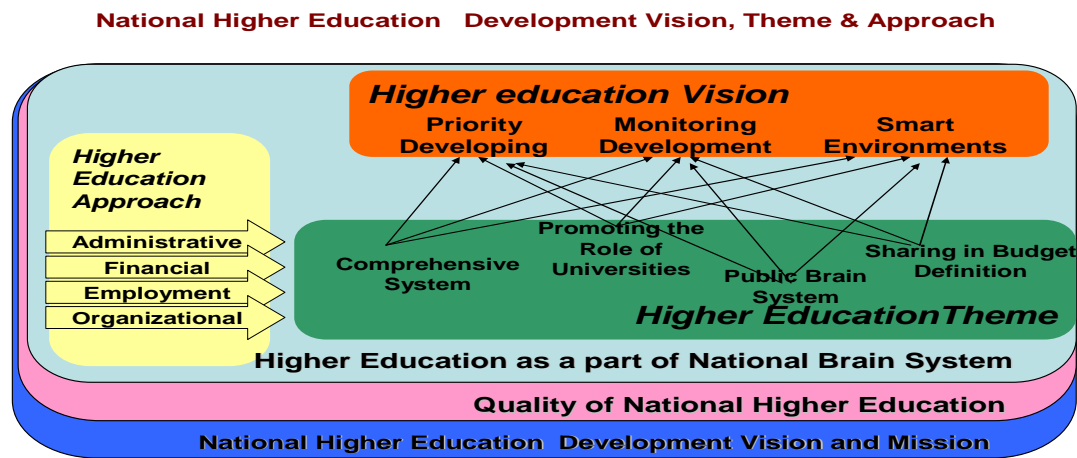
The introduction of evaluation as a policy instrument in higher education has been associated with the value of efficiency and the language of performance measurement and quality.(10) In some cases it has been focused on quality assurance systems. in other words it has strong affiliations with the concepts and methods of private sector management and with concepts that in themselves represent no substantive values on management itself.(14)

Sustainable development & improvement of every country is due training, preserving & maintaining its technological, educational, research & scientific assets, researches improvement, promotion scientific technological, higher education development of country and finally its widespread sustainable development.(11) Therefore identifying making contact and supporting this powerful stratum of the society in order to make

use of their scientific cooperation and participation in various fields to produce science and technology is a strategic trend for sustainable development based on a national research development program.(13) To achieve this objective in line with the state national development program, the monitoring and evaluation program approved to provide and direct higher education and appropriate organizations for producing science and technology through directing educational activities to achieve sustainable development of the country.(20)

The objective of this program is offering assistance, financial and spiritual supporting services to the state higher education section including legal and real ones in order that higher educational affairs bloom in accordance with production of sciences and technology and public utilization of higher education results in the country.(figure 1)

Figure 1



Through the development programs, research centers, universities and governmental research agencies have raised new questions about the quality and relevance of their systems and approach for program evaluation of higher education development program.(26)

This trend can be seen as a response to the increased size, complexity and diversity of the universities and higher education centers in terms of human resource capacity, administrative, financial, employment and organizational affairs.

It also reviews the effect and roles of monitoring and evaluation on the ways that universities and higher education centers do their research activities.

This paper reviews several new developments in higher education development program with special attention to the issues that accrediting state long term innovation program for monitoring and evaluation policy and practice.

Context and issue

This study analyzes the reasons for evaluation and monitoring and also the problems that policy makers are confronting in the process of monitoring and evaluation of state higher education development program, evaluation and monitoring procedures and standards, including the different innovative actions taken by agencies and association. (Figure 2)

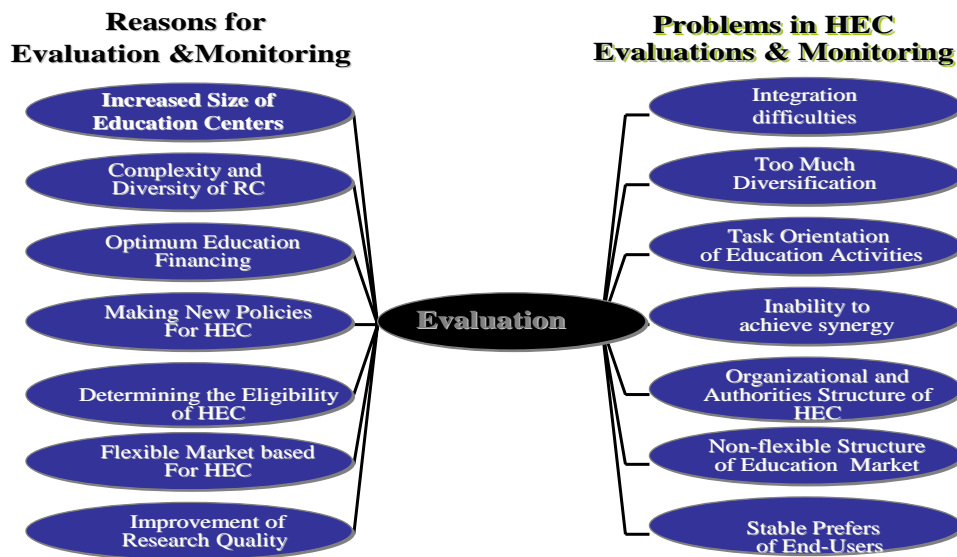


Figure 2: Reasons and Problems for evaluation of innovation management in higher education

In this paper attention is given to the questions of decentralization and independence of universities and research centers in terms of administrative, financial, employment, human resource management policies and organizational affairs which can facilitate the national trend of higher education program.(4)

Critical elements for innovation management in higher education system is the use of standards to evaluate and monitor the research development program. Four aspects of the development of programming accreditation are distinctive.(23)

1-Changes in out put of higher education system:

- Implementation of new strategies
- Managing new executive programs.
- Designing new organizational structure and also financial assessment.
- Designing a functions evaluation system for all level of higher education.
- Time limited monitoring and evaluation.

2-Changes in in-put of higher education system:

- Optimum management of higher education financing.
- New definition of short term higher education programming.
- Define new tasks for liner higher education manager.

3-Bouracracy decreasing of higher education system:

- Privatization of higher education activities.
- Capacity building in higher education systems to meet national needs.
- Making new chances for higher education competencies.

4-Defining interational approach between human resources of higher education centers and research agencies:

- Making new links between bureaucracy and higher education leadership.
- Pay attention to policy making for higher education activities.
- Acceptance of the social and political character of higher education centers.

For evaluation and monitoring focusing on input oriented approach there are four standards based on key elements consideration.(figure 3)

Standard 1: Defining structure purpose and higher education objectives.

- Standard 2: Defining the methods of achieving higher education objectives through core functions.
- Standard 3: Developing and applying resources and organizational structures to ensure sustainability.

Key Elements for national Higher Education development program

Key elements	Requirement
Fundamental Conditions and Eligibility	<ul style="list-style-type: none"> •Be able to monitor the national Higher Education •Be able to develop priorities •Comprehensive Assessment System •Promoting the role of Scientific associations •Involvement in decision making process •Sharing in GDP and the state Budget
Decentralization	Independence in administrative, financial, employment and organizational affairs of national higher Education development
Role Definitions	<ul style="list-style-type: none"> •Effectiveness oriented approaches roles. •Efficiency oriented approaches roles.
Effectiveness Oriented Approach	<ul style="list-style-type: none"> •Changes in the design and performance of higher education agents. •Provide effective bridge between the functional elements. •Understanding national needs for national development. •Exiting evaluating systems. •Devoting a large proportion of resources to the higher education section.
Efficiency Oriented Approach	<ul style="list-style-type: none"> •Change in national development objectives. •Giving priority to a research development program of rural transformation. •Complexity •Globalization •Instructional uses of electronic technology

Figure 3:Key elements for Establishment of National Higher education Innovative system

Standard 4: Creating a national commitment for higher education development.

In this case different views can be offered about the overall roles and impact of evaluating and monitoring systems in higher education development program especially based on the governmental monitoring agencies. There are five comprehensive roles: economics, business, end-users oriented roles, governmental oriented roles and cultural ones.(19)

Policies and programs

Monitoring agencies have played a steering role in the area that is helping higher education centers to find methods that adapt to new demands without imposing restrictions or demands for immediate action. (1) This view related to the central role

of the overall structure of the national higher education development program. At the same time it can also be acknowledged that monitoring agencies have been very instrumental in spurring structural change and improvement within institutions of national higher education. This trend is based on development of strong internal systems of education and self-assessment. (2) It relates to an institution's overall mission has served a helpful role in shaping educationally useful innovation. The emphasis they place on developing good evidence has supported better decisions and better planning for new higher education challenges and programs.

To understand the full picture for research evaluation, it is necessary to look at a range of governmental roles in higher education development program. Government is responsible for the financial support of a large portion of the nation's higher education centers especially those carried on by universities. It is responsible too for the great majority of the higher education grants and loans that support national level higher education. Notably, however despite this expansion of the central role, agencies have come to play in supporting the higher education programs while reserving significant oversight responsibilities to the governmental agencies itself.(3)

The monitoring and evaluation role of government is technically a narrow one, which begins with the necessity that the government must determine whether a higher education institution is eligible to participate in national higher education programs especially development of higher education and if they can achieve the targets.

In an indirect process for determining the eligibility of research institutions to participate in state development higher education programs it has directed that institutions are eligible for participation if they meet two fundamental conditions: (15)
1-Be able to evaluate, monitor, analyze and predict fundamental changes in science and technology in order to keep abreast of the global fundamental changes in science and technology.

2-Be able to develop priorities plan to organize technological activities of the country to reengineer nationwide development of science and technology and to provide a sustainable structure for research development program. Some observer believe that this monitoring role of the states is gradually expanding To understand another dimension of monitoring and evaluation role and its impact it is necessary to look within higher education to the varied internal processes that support quality assurance and over time the maintenance and improvement of higher education quality.

Increasingly too it has become normal practice for most state universities and research centers to employ strategic management procedures: identifying priorities, planning carefully to promote those priorities, monitoring operations more closely and establishing various benchmarks and indicators for their own use. This increased self-security extends not only to administration but also to research programs and is conducted wholly apart from monitoring.(7)

It is necessary to consider that public and private higher education centers have a significant role in innovation cycle of developing countries.(25)

Application of new public management paradigm as a comprehensive trend is a systematic approach for transferring from the hierocracy system to a flexible market based structure to achieve efficiency and effectiveness in the higher education development program.

In this process there is a consideration on the education management instead of education career and the necessity of education functional evaluation and also distribution of responsibilities.(18)

The need for evaluation

The implementation of an evaluation and monitoring plan thus entails a wide area of public and private educational activities. A systematic method evaluation of education both short term and long term is an essential means of plan implementation.

Evaluating the national higher education system for developing strategic priorities towards science, research and technology emphasizing on decentralization and independence of universities and research centers in terms of administrative, financial, employment and organizational affairs .It also devising a comprehensive assessment system for research and technological affairs in national level for improving information technology through supervision of higher education programs for promoting the role of scientific associations and higher educations organizations through their involvement in the decision-makings and supervision processes and also planning to boost the share of public and private research in the GDP and the state budget.(6)

In this process supporting the implementation of state-run research projects by universities and research centers as a means to diversify their financial resources and also encourage faculty members and students(graduate and undergraduate) to play more effective parts in national higher education activities are a strategic career.(9)

Research results

The research key finding involving strategic innovation policies and roles stipulated in the national development plan in higher education sector:

- Updating higher education matter subject in conformity with the diverse national needs and authorizing universities and research centers to develop their carrier and innovate approaches in order to train more skillful, innovative and independent human resources.
- Developing and strengthening the Centers of Excellence in the pioneer universities and research centers.
- Expanding international collaborations to make more efficient use of global higher education achievements and to have easy access to the international scientific achievements.
- Making a more efficacious internal and external assessment system.
- Modifying the structure of national higher education system via authorizing higher education centers in order to provide a more dynamic, flexible, and competitive and integrated system.
- Providing secure financial resources for national higher education .
- Developing and strengthening the spirit of research and scientific thinking in the society.
- Making regular and continues effort in order to respond to the present and future needs.
- Increasing the national sovereignty through the process of higher education and technological development.
- Organizing the higher education and development facilities in order to make connection between university skills, sources and research and also industrial centers.
- Giving effective orientation to the scientific society of the country toward the research in needed majors.

- Planning and creating the suitable ground in order to make the results of training applicable and commercial.
- Creating suitable research and scientific environment for absorbing domestic and foreigner scientists and specialist.
- Promote the technical knowledge of specialists. in order that creativities and innovations in technology emerge.
- Getting access to the latest information and technical knowledge in order to acquire and create superior technology in the area of international competition.
- Disseminating culture and organizing the collective research activities making use of the facilities.
- Giving suggestions about the suitable strategies for absorbing and transferring technical knowledge.
- Creating balance between the higher education development program plan and that of the nation's, paying attention to societal needs, development ratio and higher education quality enhancement both in public and nonpublic center.
- Multiplying the ways and fostering public cooperation to offer new paradigm national research to be responsive to the ever increasing research demand for higher education promotion.

The recommendations in this paper have been compiled from the monitoring protocols, policies and procedures submitted by governmental monitoring organizations.(1)

These recommendations focus on project level monitoring .Organization should consider reviewing their governance arrangements in wider systems context to ensure that the organization is able to achieve higher education governance based on a hierarchy of policy making to stipulate standards of roles , practice, higher education manual to assign responsibilities and finally standing operation procedure to achieve uniformity of the performance of a specific function.(15)

Thus monitoring organization should consider reviewing policies and procedures as well as governance practice, and also ensure that research governance and research monitoring align closely and practically with other appropriate and procedures such human resource policies, finance policies, health and safety policies and complaints etc.(13)

All research activity should be monitored routinely. In addition, a project might be audited if there is any suspicion of reduced research governance standards in a project. Monitoring and auditing should link together within an organization and both provide vital research governance information and safeguards.

By using a systems analysis approach based on role definitions, the problems of development and utilization of national research development program can be monitor in logical perspective. This perspective fall into two major categories:

- Those relating o effectiveness oriented approach.
- Those relating to efficiency oriented approach.

The first set of roles can be verify by making some changes in the design and performance of agencies providing various kinds of researches and also research monitoring actions and also to provide effective bridge between the functional elements.(16)

In this process monitoring and evolution of research development program should be better balanced and more effectively geared to the national needs for national development.

Based on the state national development program a large proportion of resources are devoting to the research section and it could be served best by improving the efficiency of the exiting evaluating system.

The second set of categories can be alleviated by a major change in national development objectives which would give very high priority to a research development program of rural transformation.

Operational Aspects

This paper reviews the evaluation and monitoring and also applied experiences in the national development research program in some detail. It emphasizes the choices made by monitoring and evaluation agencies at different times as how they would conduct evaluations and what standards they would use.

This issues and circumstances surrounding the initial development of evaluation and monitoring and major changes in procedure and standards, respectively. Also attention is given to some of the challenges that presently are posing for evaluation procedures as growing complexity, globalization and advances in instructional uses of electronic technology allow new forms of research provision to emerge.(17)

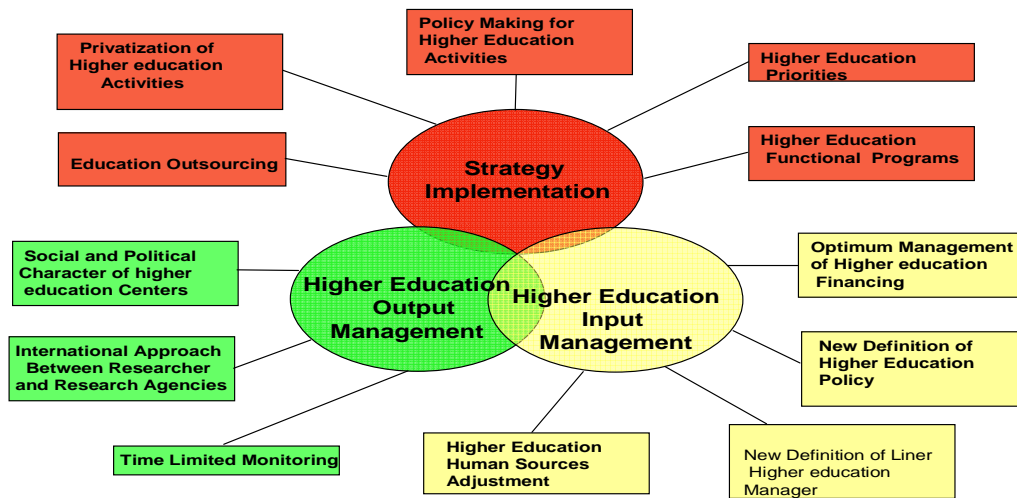
The exiting policies need to be re-examined, and new policies developed. While research innovations must be recognized, it is also true that monitoring agencies have greatly assisted their career. In this process monitoring agencies serve as a public brain system to advocate changes that will improve research practice.(20)

For national research development program monitoring and evaluation agencies need necessary process of innovation and ability of response to changing circumstances to move forward in a national oriented way. These centers may experiment with new approaches but must submit their plans to an outside review by other public or non-public evaluation agencies.

The recommended items for monitoring should be assessed alongside an organization's role for national project, including whether they are fulfilling the responsibilities including monitoring commercial research.(figure 4)

Figure 4

Functional Model for Identifying Monitoring and Evaluation Roles in Higher Education Development program



By such methods, monitoring and evaluation agencies not only guide the development of innovative practices but they also serve to lend credibility to emerging forms of research innovation. They need to set certain terms of good practice and encourage certain types of practices, while other practices are discouraged or banned. This represents a soft approach for:

- Achieving mechanisms for carrying out national development plan in research sector:
- Formulating a long term comprehensive plan to train specialized manpower at different levels of public and non-public researches sectors to coordinate the National Research Program with the needs of the country.
- Diversifying the development policies via drawing up separate and integrated plans for research national process.
- Determining centers of Excellence to encourage scientific innovations and to develop knowledge and technology.

Conclusion

Based on the state national development program a large proportion of resources are devoting to the higher education section and it could be served best by improving the efficiency of the exiting evaluating system.

The second set of categories can be alleviated by a major change in national development objectives which would give very high priority to a higher education development program of rural transformation.

It emphasizes the choices made by monitoring and evaluation agencies at different times as how they would conduct evaluations and what standards they would use.

This issues and circumstances are surrounding the initial development of evaluation and monitoring and major changes in procedure and standards. Also attention is given

to some of the challenges that presently are posing for evaluation procedures as growing complexity, globalization and advances in instructional uses of electronic technology allow new forms of provision to emerge.

The exiting policies need to be re-examined, and new policies developed. While research innovations must be recognized, it is also true that monitoring agencies have greatly assisted their career. In this process monitoring agencies serve as a public brain system to advocate changes that will improve research practice.

For national research development program monitoring and evaluation agencies need necessary process of innovation and ability of response to changing circumstances to move forward in a national oriented way. These centers may experiment with new approaches but must submit their plans to an outside review by other public or non-public evaluation agencies.

The recommended items for monitoring should be assessed alongside an organization's role for national project, including whether they are fulfilling the responsibilities including monitoring commercial research.

By such methods, monitoring and evaluation agencies not only guide the development of innovative practices but they also serve to lend credibility to emerging forms of higher education innovation. They need to set certain terms of good practice and encourage certain types of practices, while other practices are discouraged or banned. This represents a soft approach.

References

1-Association of European Universities.1997,Institutional evaluation as a tool for change,Geneva,CRE.

2-Barker, Linton (2000). "Customer-Focused Government", Public Services Productivity Panel. UK.

3-Bernnan, J.1990.Quality Assessment in the public Sector in Britain., peer review and Performance Indicators: Quality Assessment in British and Dutch Higher education

4-Council for Higher Education Accreditation,(2003),Quality Review, Washington DC

5-Dumond E. J. (2000), "Value Management: An underlying framework", *International Journal of Operations and Product Management*, Vol. 20, No. 99, PP. 1062-1077.

6-El-Khawas,E.2001."Developing a strategy for quality assurance".In:chapman,D.and Austin,A.(editors).Higher education in developing world. New York

- 7-EI-Khowas E,(2001),Accreditation in the USA,Origins,Developments and Future Prospects,UNESCO,Paris,France
- 8-Fu, Tony & Yu, Lay, (2000). "Toward A Theory of Entrepreneurial State" *International Journal of Social Economics*, Vol. 8, No. 9.
- 9-Glanfield, Stephen (2001). "Improving Customer Access and Delivering Citizen Focused Services', Stroll District Council.
- 10-Henkle,M.1998,Evaluation in Higher Education:Conceptual and Epistemological Foundations,European Journal of higher education,Vol 33,No.3 pp.285-298.
- 11-Institute for Research and Planning in Higher Education,(2003)Higher Education In Iran,A National Report,Tehran,Iran
- 12-International Development Research Center(1986), With Our Hands,IDRC,Ottawa,Canada
- 13-International Development Research Center(1982),Financing Educational Development,Proceedings of an international seminar held in Mont Sainte Marie,Canada
- 14-Macintyre,A,1981,After virtue:A study in Moral Theory,London,Duckworth
- 15-Middle States commission on Higher Education,Designs for excellence:Handbook for institutional self-study,seventh Edition,Philadelphia,PA:MSA.
- 16-Mierlo, Van, (2000). *Public Entrepreneurship As Innovative Management...*, Presented at 65th Annual Conference of South Economic Association.
- 17-Morris, Michael H. & Jones Foard F., (1999). "Entrepreneurship In Established Organization", *Entrepreneurship Theory and Practice*, Vol. 24, Issue 1.
- 18-. OPSR / Office of Public Service Reforms(2002), Report: "Principles of Customer Feedback and Idle Framework for Research in Public Service".
- 19-Salmi,J.,(2001)."Higher Education at a turning point."In:chapman,D.and Austin,A.(editors),2001,Higher education in the developing world, New York:Greenwood
- 20-Schiavo, Lucalo (2000). Quality Standards in the Public Sector, *Public Administration*, Vol. 78, Issue 3.
- 21-Supreme Council of the Cultural Revolution(2003),Articles os association of fund for supporting the researches in country,SCCR Resolution,Tehran,Iran
- 22-United Nations,(2003),Common Country assessment for the Islamic Republic of Iran,Tehran,Islamic Republic of Iran

23-Vaezi,Seyed Kamal (2005),"Application of Knowledge Management in Organizational Management" International Congress of ICEB,Hong Kong

24-Vaezi, Seyed Kamal, (2003), "A new approach to public Management", International Conference on management, sharif University of Technology, Proceeding,Tehran,Iran

25-Vaezi ,Seyed kamal (2004),Privatization of Higher Education in the Islamic republic of Iran, The congress of Privatization of Higher Education :Challenges and Quality Perspectives, University of Hyderabad, India.

26-Vaezi,Seyed Kamal (2006),A review of monitoring and evaluation roles in research development program.,Higher Education Forum,UNESCO,Paris

27-Van Vught,F;Westerheijden,D,1993.Quality Management and Quality Assurance in European Higher Education:methods and mechanisms,Luxembourg,office of the official publications of the European Commission.