

The Role of Institutional Research in Facilitating Social Responsibility: A Conceptual Model

Tahereh Aghamirzaee Mahali¹ and Maryam Taghvae Yazdi^{2}*

Received Date: 02/07/2019

Accepted Date: 03/09/2019

Abstract

The present study explored aspects and parameters of institutional research (IR) and social responsibility. It offered a suitable model for university social responsibility through analysis of previous studies and comparative study of institutional research functions of sample universities. Document analysis was used to collect data. Descriptive analytic and correlational-comparative methods were used for data analysis. Aspects of social responsibility (educational, cognitive, economic, institutional, and social) and aspects of IR (communication, information authority, policy analysis, research and decision making, evaluation, responsibility) were identified. Consequently, a conceptual model for the role of institutional research in facilitating social responsibility was proposed.

Key Words: Social Responsibility; Institutional Research (IR); University Responsibility; Offices of Institutional Research (OIR).

Tahereh Aghamirzaee Mahali

Ph.D. Student of Higher Education Management, Department of Higher Education Management, Faculty of Humanities, Islamic Azad University, Sari, Iran.

Maryam Taghvae Yazdi

Associate Professor, Department of Educational Management, Sari Branch, Islamic Azad University, Sari, Iran.

Corresponding Author:
m_taghvaeeyazdi@yahoo.com

¹ - Ph.D. Student of Higher Education Management, Department of Higher Education Management, Faculty of Humanities, Islamic Azad University, Sari, Iran.

² - Associate Professor, Department of Educational Management, Sari Branch, Islamic Azad University, Sari, Iran.

*- Corresponding Author: m_taghvaeeyazdi@yahoo.com

Introduction

Higher education system as a pioneer system and policy determinant could cause development in social, cultural, and humanity aspects. The role of higher education institutions in modern world is immense, essential, and complex. A wide range of challenges and opportunities along with various political, economic, and social consequences have emerged. The most important issue is likely related to the changing attitude toward knowledge which has been highly affected by the role and responsibility of universities. A new generation of universities has recently been emerging which is called the fourth generation (Pawlowski, 2009). Fourth generation university defines a modern professional pattern for higher education institution which facilitates local and regional development. The main concern of university, besides worldwide participation, is local economy and its inseparable environment through establishing knowledge community. Therefore, the mission of fourth generation university is changing future and leading its inseparable environment (Pawlowski, 2009; Zuti & Lukovics, 2017).

The ability of self-revolution for the management of environmental changes is an internal feature of fourth generation university. In other word, university is constantly forming scenarios to revive and realize itself. The prominent characteristic of such an organization is continuous learning

and self-regulation. From the late 20th century, universities of developed countries have gained a quality that has distinguished them from the traditional university's understanding. This quality put university in a challenging but dynamic situation from both structural and functional aspect (Howard et al., 2012). Structural and functional qualities on one hand and rapid environmental changes and problems such as decrease in financial resources, information saturation, and fast technology development on the other hand has made decision making difficult for managers. Therefore, in research-based policy setting it is necessary to consider decision-making process and institutional research (IR) in order to prevent personal and emotional decisions (Volkwein, 2008). Moreover, social responsibility has been regarded as an increasingly important concept in the world; this is in turn part of competitiveness and sustainability in globalization process (Vasilescu et al., 2010). Nowadays, education for sustainable development is a necessity which could be efficiently used in monitoring responsibilities, preventing misuses, and improving university services. Institutional research is the source of transformations in university to analyze and make connection between collected information and internal and external university issues, to identify the complexities of the surrounding environment and constant interaction, and to find effective and practical solutions in

the direction of university responsibility and its social role in supporting social responsibility. So, increasing the responsibility request for the changing needs of society necessitates consideration of institutional research. Previous studies were mostly conducted on the role and inherent functions of institutional research.

Institutional research

Altbach and Kelly (1985) defined institutional research as a research conducted in higher education institutions for the purpose of data collection, institutional planning, and decision making (Altbach & Kelly, 1985). Volkwein (1999) listed four key roles for institutional research which were later known as traditional functions of institutional research, including: a) information authority and decision making, b) problem solution and c) policy analysis, d) evaluation and research (Volkwein, 1999). According to Ferren and Aylesworth (2001), institutional research encompasses various domains of three key roles of university (education, research, and social services) namely registration management, graduates rate, evaluation, curriculum development, and the outcome of educational system (Ferren & Aylesworth, 2001). Serban (2002) proposed knowledge management in universities as the fifth function of institutional research (Serban, 2002). In modern university research, the specialists of this system are regarded as supporters and facilitators of lifelong learning process and progress of university

knowledge, skill, and experience. Hence, they are considered as the agents of human resource development and improvement. According to Volkwein (2008), institutional research is organizational intelligence or a technical and vocational specialization with strong facilities and resources for policy-related research in higher education. Because of their knowledge management and help to university, offices of institutional research have been considered as a place for achieving learning organization model. University validation is one of the offices of institutional research functions (Volkwein, 2008).

Whitchurch (2008) discussed evolution in the practice of institutional research, which is the influence institutional research staff could have on sustainable development of higher education (Whitchurch, 2008). Leimer and Terkla (2009) added another function for institutional research that is scientific professional function (Leimer & Terkla, 2009). In the same way, Coughlin et. al, (2009) defined institutional research as all activities related to the comprehensive range of functions (educational, administrative, and supportive) which take place in a college or university (Coughlin et. al, 2009). Hutcheson and Kidder (2011) explained institutional research as the organizational self-study process of university (Hutcheson and Kidder, 2011). Webber (2012) conducted a research on the specialized function of institutional

research and explained the institutional research activities as; 1) data collection; 2) planning, evaluation, and analysis based on the combination of information related to theory, methodology, data analysis, priorities of university, and effective communication technique; 3) receiving support from university colleagues to have joint work on institutional research (Webber, 2012).

Torighi et al (2017) drew a matrix of institutional research in which, 24 elements of institutional research in goal continuum, (from improvement to development), and in organizational continuum (from administrative level to academic level) were divided to five main functions: accountability, decision-making and research, policy analysis, and information authority (Torighi et al., 2017).

Terenzini (2013) concluded that research-based evaluation should be done by university specialists with respect to organizational intelligence and three qualities namely 1) cognitive and analytic skill; 2) information analysis and statistical measurements; 3) cognitive method of experimental, quasi-experimental, qualitative, and survey studies (Terenzini, 2013). According to Lange et al., (2013), performance analysis is one function of institutional research (Lange et al., 2013). Borden et al., (2013) indicated that special interaction between institutional research and environment is an effective factor in university development (Borden et al., 2013). Analytic studies of

institutional research are very helpful in finding efficient and well-timed solutions for organizational issues. Taylor et al., (2013) argued that globalization has challenged university development and its competition in the world (Taylor et al., 2013). In this case, official researchers, higher education organization, and universities could have a part in investigating the issues related to this challenge and could warn managers about their effect on university and higher education. Other challenges of universities at global level are how to answer the increasing variety of social needs (with few public resources) and the increasing need to respond to these needs which requires focus on institutional research which plays an important professional role for university in a global competitive situation. Consequently, need for an institutional research team as a well-developed system of professional and specialized skills is felt more than before. It could be concluded that institutional researchers not only study the background of issues and problems but also interpret the existing organizational data to support decision making. Whitchurch (2008) found that people communicate within borders and help to develop a third space between professional and institutional domains. These changes imply that evolutions are occurring in higher education system and people with professional responsibilities are becoming more active in their own profession. To be more effective in

their profession domain, institutional research officials need to look beyond their surrounding environment and identify how various external factors, with effect on economy and society, could result in survival and sustainability in higher education institutions. Institutional research is no longer a means of data collection but the source of university evolutions for relating gathered information and

data to internal and external university issues. Also, it is the source of identifying the complexity of surrounding environment and its constant interaction, finding effectively practical solutions for university social responsibility and social development. The results of studies of 10 universities with offices of institutional research (OIR) are presented in Table 1.

Table 1: The features of Office of Institutional Research

Name of University	OIR Features
Harvard University	Collects, synthesizes, and analyzes institutional data to fulfill mandatory reporting requirements, support University decision-making.
British Columbia	Undertake research projects, provide reports, statistical information, analysis, advice in support of strategic planning, decision making
OHIO	Supports campus strategic and unit planning, Reports official campus statistics on students, Completes college guide questionnaires, Supports disciplinary and institutional accreditation and program review, Produces comparative analyses, Maintains OIR website with campus statistics and public disclosure information, collaboratively with other offices.
Georgia Institute of Technology	Develop and maintain comprehensive data and information systems required for institutional study, management, and planning, Provide in-depth, substantive analysis of selected topics upon request, Provide data and other support for the University’s planning process and associated review, evaluation, and assessment activities.
University of New Hampshire	Analyzes, interprets, and disseminates data and research findings related to the university’s enrollment and academic areas, Reports institutional data to federal agencies, accrediting bodies, professional organizations, higher education research entities, college guidebook and ranking etc., Produces strategic reports for university leadership analyzing the performance of UNH and its peers ,Coordinate surveys of students and recent alumni to provide insight UNH student experience and outcomes after graduation, Work collaboratively with stakeholders across campus to identify and share

University of South Carolina	Strives to make procedures and reports consistent, and yet also be responsive to changing internal and external demands.
California institute of technology	Collects, manages, integrates and analyzes of data to inform decision-making and resource allocation Support.
The University of Washington Tacoma	works to analyze, understand and report data used in institutional decision-making, IR supports a strong, decentralized data culture that helps our students persist, thrive, and achieve their dreams
Yale University	Serves as the official data collection and reporting body for institutional information at Illinois Institute of Technology, Reporting to the Vice Provost of Academic Affairs, OII meets federal and state reporting obligations, responds to external requests for institutional data, etc.
Massachusetts Institute of Technology	provides information and analysis to support the decision-making process, complies with reporting requirements of external agencies, and responds to ad hoc requests for information, Supports campus strategic planning and unit planning, support strategic planning for programs, departments, schools and colleges. This information is provided for general use, and also to help units respond to the questions posed in Phase III unit planning, Organizational Chart

Social responsibility

Universities, like other economic sections, are responsible for society (Karima, et al 2006). The capacity of responsibility means the ability to apply knowledge in justifying activities; in organization, it means the knowledge applied in individual learning, units and roles (Klimoski & Inks, 1990). To define organizational responsibility, it is necessary to have an exact and correct understanding of social responsibility. Forming a belief in social responsibility of organizations is the basis of the management of public issues. Social responsibility is an ethical behavior toward all stakeholders for organizational consequences

(Hopkin, 2004). Bamber et al (2005), in their classification of organization social responsibility, refer to its internal and external aspects. In this classification, internal aspects involve health and immunity of staff and managers' responsibility and cover a limited range of stakeholders while external aspects include interaction with local and social environment covering a wider range of stakeholders (Bamber et al, 2005). According to Ackerman (2005), responsibility should be in line with social purposes of organization and done in three domains including supreme management, headquarters specialists, and department managers (Ackerman, 2005).

Habibi, et al (2016) mentioned five basic aspects for social responsibility and responsibility model of university that are: humanitarian, economic, legal, ethical, and technological; the last one is added for the first time (Habibi, et al, 2016). Valleys (2014) has proposed the social responsibility model in 2008. This model is formed based on the management of university institutional effects and refers to topics such as the effects of university on society and environment and what to do to extract its positive effects. These effects are:

1-Internal organizational effects on university community and environment (organizational effects), 2- Scientific and academic effects related to individuals education (educational effects, 3- External organizational effects affecting society (social effects), 4- Scientific and academic effects related to science production (cognitive effects) (Vallaeyse, 2014). Ahmed (2012) found that people are aware of the necessity of the natural environment protection and the role of social responsibility in developing a responsible society. However, his findings showed that due to lack of action from university community, just being aware of these needs is not sufficient to develop social responsibility (Ahmed, 2012).

Rus et al., (2014) argued that role of universities not only as an organization in which education and learning happens but also as a learning organization indicates that universities are able to have social

responsibility in the process of forming and improving professional progress (Rus et al., 2014). Mohamed (2015) proposed social responsibility framework with strategic management through protecting and sustaining perspective, objectives, values, missions, managerial systems, political analysis, prevention of actions, service evaluation, and promotion of social cooperation with stakeholders to meet present and future needs of society and natural environment (Mohamed ,2015). Universities, as science-based organizations, have an effective role in solving social problems especially fourth generation universities which are entrepreneur, creative, and pioneer by nature. So, in addition to developing its own scientific, economic and social performance, it is essential for university to focus on improving social life standards of individuals; prioritizing social concerns regarding the natural environment, social and humanitarian issues; and making organizational policies with respect to social responsibility (Übius & Alas, 2009). Achieving this needs research and development or IR which, in most countries, is the most suitable path for attaining the purpose of university responsibility. Because of variety of attitudes and interpretations of the concept of organizational social responsibility, there are different viewpoints regarding its aspects. Studies have proposed different classifications of aspects and components of social responsibility. One shared

thing among all studies is the focus of researchers on organizations' considering the natural environmental, economic, political, and social necessities. If higher education institutions need to be understood as high quality intuitions, they have to act as a socially responsible authority (Stanislavská et al., 2014).

Institutional research plays a crucial professional role in university international and competitive position. Previous studies on institutional research investigated the functions of institutional research. The present study investigates the external effects of institutional research with focus on the role and responsibilities of fourth-generation universities and the related university commitments. The study attempts to identify the aspects and parameters of institutional research by comparative study of the functions of institutional research offices (OIR). Through the investigation of previously proposed social responsibility patterns, this research proposes a conceptual model for the role of university in facilitating social responsibility.

Research Methodology

This study was conducted to identify the aspects and functions of institutional research, aspects and parameters of social responsibility, and to propose a conceptual model for the role of institutional research in facilitating social responsibility. Qualitative method has been used in this study. Descriptive-analytic method was

used for data collection and comparative-correlational method for data analysis. The first phase of the study was a library research of key words such as social responsibility, institutional research, university responsibility, higher education responsibility, and academic research process. Moreover, functions of offices of institutional research of 10 universities were collected. Data analysis was done using analytic classification of documents and identifying and extracting concepts of institutional research and social responsibility. The extracted concepts were coded, classified, and analyzed. The explanation of the relationship of each of the factors with each other is presented in the form of a model (the role of institutional research in facilitating social responsibility). In order to prove the validity of the research, the findings of this study were presented to seven experts of higher education in the fields of institutional research and social responsibility, and their point of view was applied.

Content and Document Analysis of Institutional Research

Through investigating and analyzing the articles contents on the institutional research features (Altbach & Kelly, 1985; Volkwein, 1999; Ferren&Aylesworth, 2001; Serban, 2002; Volkwein, 2008 ; Whitchurch, 2008; Leimer,2009; Coughlin et al, 2009; Hutcheson & Kidder,2011; Webber, 2012; Terenzini,2013; Taylor et al, 2013; Lange et al,2013;Borden et al,2013; Torighi et al, 2017) as

well as the OIR functions in the offices of institutional research in the selected universities (in Table

1), 6 Aspects, and 38 parameters were identified and presented in the table 2:

Table 2: Aspects and parameters of IR features with regard to the common cases

Aspects	parameters
Communication	1. Informing university priorities
	2. Communication with external organizations
	3. attracting participation of university colleagues
	4. considering criticisms and suggestions
	5. new ideas and viewpoints are taken into account
Information authority	6. receiving up-to-date information
	7. facilitating, sharing and transforming knowledge
	8. preparing and sending annual reports such as information letters, registration list, and student survival
	9. planning management, supporting and updating information systems
Policy analysis	10. Analyzing graduate association
	11. Constantly considering SWOT matrix with respect to future research fund
	12. Analyzing danger risk, objectives and programs risk
	13. Analyzing the effects and functions of social networks
	14. Annual graduates rate
Research and decision making	15. Analyzing new majors and courses and financial resource management
	16. Comparative studies and modeling
	17. Strategic planning
	18. Attitude evaluation
	19. Evaluation of higher education market
	20. Receiving up-to-date information
	21. Control of research in the way of solving problems and responding external needs
	22. The study and revision of curriculums and syllabi scientific
Evaluation	23. Policy suggestions, Pathology
	24. University effectiveness
	25. Educational and managerial evaluation and validation
	26. Management of constant and comprehensive quality
	27. Evaluation of students performance
Responsibility	28. Identification of corrective ways of efficiency
	29. Optimization of faculty members
	30. resource management
	31. financing management
	32. making key performance indicators for responsibility
	33. Providing diverse student and cultural services
	34. focusing on national and local properties and priorities
	35. Planning, evaluation and academic research, coherent and committed

- 36. solving industrial and economic issues of society
- 37. Directing processes and programs for the development of creativity, innovation and entrepreneurship
- 38. Paying attention to the results of surveys in the administration process

Content and Document analysis of Social Responsibility

Through investigating and analyzing the articles contents on the social responsibility (Klimoski et al, 1990; Hopkins,2004; Bamber et al,

2005; Ackerman,2005; Habibi,2016; Vallaeys,2014; Ahmad,2012; Mohamed,2015; Rus et al,2014; Stanislavská et al,2014), 5 aspects, and 24 parameters were identified and presented in the table 3:

Table 3: Aspects and parameters of university social responsibility

aspects	parameters
Organizational (university responsibility for environment and society)	1. Financial and non-financial support for the natural environmental Services, environment beautification
	2. Supporting technologies compatible with environment
	3. Repairing energy use pattern in university
	4. Creating an responsible organization culture and atmosphere
	5. Preserving the rights of gender and religion minorities
	6. Promoting social values and norms in organization
	7. Defining and identifying a social ideal for organization
Educational (valid education of professionals and citizens)	8. Professional, practical, and entrepreneur education based on environment needs
	9. Education of professional manners and social and individual roles
	10. Planning educational system structure for preparing responsible and effective citizens for human beings and society
Cognitive (social knowledge management)	11. Strengthening the relationship between science, society, and technology by social control and knowledge specification
	12. Science production to compensate cognitive shortcomings which prevent sustainable development
Social (university constant support of sustainable development)	13. Commitment to all stakeholders in organization,
	14. Organization as a responsible citizen,
	15. Improvement of social capital among students
	16. Organization empowerment against society pressures
	17. Organization internal affairs such as reporting, informing, public communicating, and researching
Economic (economic improvement)	18. University role in the increase of job opportunity for local residents through approvals
	19. Supports, and trainings
	20. The use of local producers and suppliers
	21. Legal payments to local institutions like insurance, taxes, and contractors salary
	22. Providing inexpensive and fair services to citizens

-
- 23. Financial clarification including not having financial trespass
 - 24. Creating job such as education, science-based companies and within-university jobs
-

Proposing Conceptual Model

Based on the identified aspects and parameters of institutional research and social responsibility, a

conceptual model of institutional research for facilitating social responsibility was proposed which is presented in Figure 1.

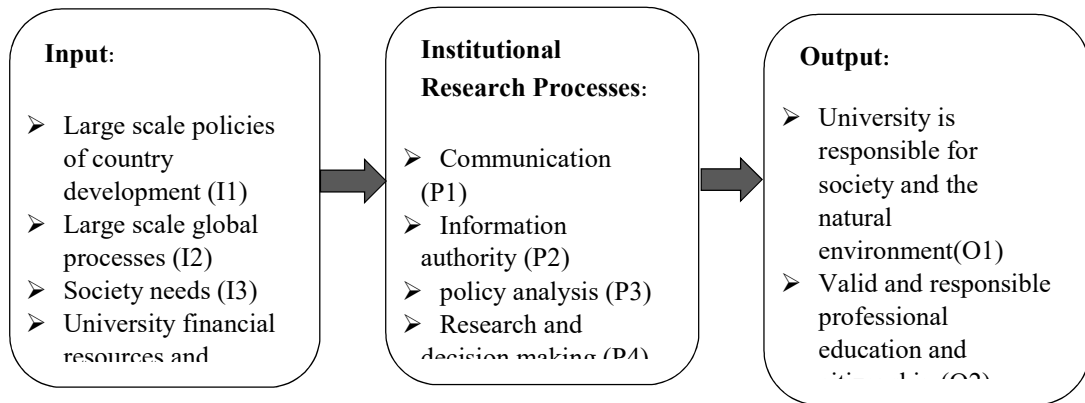


Fig 1: Facilitative model of institutional research in social responsibility

According to the model in Figure 1 and inputs of large scale policies of country development (I1), large scale global processes (I2), society needs (I3), university financial resources and science development necessities (I4), the following processes and outputs are considered:

P1: For implementing institutional research process in universities, communications should be considered so that university priorities are informed and communication with external organizations, attracting colleague participation, considering criticisms and suggestions and new ideas and viewpoints are taken into account.

P2: It is the second step in which processes such as receiving update information, facilitating, sharing and transforming knowledge,

preparing annual reports such as prospectus, registration list and student survival rate, support planning management, and updating information systems are conducted to gather information for managers’ optimal decisions.

P3: In policy analysis process, educational research, and entrepreneur practices, science and technology management, stakeholders and graduated association, financing, the effects of social networks, pros and cons, opportunity and risks, university purposes and programs in respect with future research fund, annual graduate rate, and new majors and courses should be analyzed.

P4: Fourth step is research and decision making in which university policy makers propose programs, curricula and syllabi, scientific and political suggestions

and strategic planning according to belief survey and needs analysis of internal and external stakeholders, and the study of successful models. P5: Evaluation as the fifth step has a key role in quality management and constant improvement of programs through evaluation and validation of educational and managerial programs and identification of corrective solutions for efficiency.

P6: The last step is responsible institutional research. Awareness, responsibility, and total commitment of university community toward wants, needs, and expectations of internal and external stakeholders of university are among the effects of institutional research. Evaluation, clear, exact, well-timed, and continuous report of university performance causes trust, satisfaction, support, and participation of stakeholders in university management.

After doing the above-mentioned processes in university, the university outputs are as follows:

O1: University is responsible for society and the natural environment with financial and non-financial supports for the natural environment services and its beautification, supporting and providing technologies compatible with the nature, correcting energy use models, creating a responsible atmosphere, preserving the rights of gender and religion minorities, promoting society norms and values, identifying a social ideal.

O2: University is responsible for valid education of professionals

and citizens through practical and professional training suitable for society needs and social and individual roles, and planning the educational structure to educate effective and responsible citizens.

O3: University environment manages social knowledge with strengthening the relationship between science, society, and technology, and specification and production of knowledge for compensating cognitive shortcomings that prevent sustainable development.

O4: University environment with commitment to all stakeholders, responsible and accountable as a citizen, strengthening social capital among student, ability and capacity to respond to community pressures, the existence of inter-organizational mechanisms for social accountability, such as reporting, information, public relations and research to strengthen sustainable development.

O5: University causes economic development of society through increasing job opportunities, using local producers and suppliers, legal payments to local institutions, providing inexpensive services to citizens, and clarifying finances.

Discussion & Conclusion

The conceptual model proposed in this study could be generalized to be used in developing countries. Through institutional research, countries could guide studies and academic performances for increasing interactions between university and society and industry, and effective response to

surrounding environment. Additionally, as improving the institutions' structural drawback is the first priority in these countries, universities could help institutions by institutional research and optimization of development processes. The present study investigated the aspects and parameters of IR and social responsibility and proposed a conceptual model for facilitating role of institutional research in social responsibility. Findings of the study showed that the following inputs act as facilitating processes and help universities to make decisions and roadmap: macro-level policies of country development, world processes, society needs, university financial resources, science development through institutional research processes including communication, information authority, policy analysis, research and decision making, evaluation, responsibility with respect to increasing number of students and competition, international higher education, rapid changes in technology, changing stakeholders 'expectations, reduction in finances, and complexity of institutional management and decision making. This leads to social responsibility regarding environment, society, professional and citizen education, social management of science, social participation, and comprehensive support of sustainable development and economic progress. It is expected that university as an organ providing the highest level of education influence social and

economic changes and cause progress in different aspects of society. Universities need a facilitator and practical guideline for implementation and strategic management of functions and responsibilities in different domains of three main functions i.e. education, research, and social services. The most important one is social responsibility that needs institutional research with its key professional role in a competitive and global situation. Institutional research affects knowledge-based economic development and country progress by promoting research at universities, improving culture of research, problem solution, and research-based decision making among academic people, especially managers. Establishing offices of institutional research could facilitate the process so that balancing the results of educational system with society needs through needs analysis and social responsibility in university educational system is considered as a basis of sustainable development of countries. Due to the key role of institutional research and its functions in the world's top universities, including collecting information and analyzing information to support the decision-making process, responding to external requests on social responsibility of the university, such as professional responsibility toward society, and integrated support for sustainable economic development, it is proposed that offices of institutional research be established. Making a dynamic and

interactional connection with international institutions and experienced universities, optimizing successful experiences of international universities, and using their scientific and practical experiences are important in eliminating trial and error cycle and in achieving optimal goals. Future studies can evaluate this model in different societies to both confirm the model and investigate additional aspects of the issue.

References

- Ackerman, John M. (2005). Social accountability in the public sector: a conceptual discussion (English). Participation and civic engagement paper; no. 82
- Ahmad, J. (2012). Could a university act as a corporate social responsibility (CSR) driver? An analysis. *Social Responsibility Journal*, 8(1), 77-86.
- Altbach, P. G. Kelly, D. H. (1985). *Higher education in international perspective*. London, Mansell.
- Bamber, C.J. Boyes, J. Sharp, J.M. & Gould, E. (2005). April. Beyond The Quality Management Paradigm: A UK Case Study Perspective on Corporate Social Responsibility. In 49th EOQ Congress. April (pp. 25-27).
- Borden, V.M. Calderon, A. Fourie, N. Leporie, B. & Bonaccorsi, A. (2013). Challenges in developing data collection system in a rapidly evolving higher education environment. *New Directions for Institutional Research*. 157, 39-58.
- Coughlin, M. A. Hoey, J. & Hirano Nakanishi, M. (2009). Sector differences in the role of institutional research in informing decision making and governance in higher education. *Asia Pacific Educ Rev*. 10, 69-81. <https://link.springer.com/article/10.1007/s12564-009-9003-6>.
- Ferren, A. & Aylesworth, M. (2001). Using qualitative and quantitative information in academic decision making. *New Directions for Institutional Research*. 112, 67-83.
- Habibi, N. Vazifehdust, H. & Jafari, P. (2016). Upgrading Islamic Azad University social accountability factors. *IRPHE*. 22 (2):125-145[in Persian].
- Hopkins, M., (2004). Corporate Social Responsibility: An Issues Paper. International Labor Office. Geneva Working Paper. No.27. <https://ssrn.com/abstract=908181> or <http://dx.doi.org/10.2139/ssrn.908181>
- Howard, R.D. McLaughlin, G.W. & Knight, W.E. (2012). The handbook of institutional research. Oxford: John Wiley & Sons.
- Hutcheson, P. Kidder, D. (2011). *The national interest: The college and university in the United States in the post-World War II era* In: Smart J., Paulsen M. (eds) Higher Education: Handbook of Theory and Research, Springer, Dordrecht, 26, 221-264.
- Karima, R. Oshima, Y. & Yamamoto, K. (2006). Identification of subjects for social responsibility education at universities and the present activity at the University of Tokyo. *Environmental sciences: an international journal of*

environmental physiology and toxicology, 13(6), 327-337.

Klimoski, R. & Inks, L. (1990). Accountability forces in performance appraisal. *Organizational Behavior and Human Decision Processes*, 45(2), 194-208.

Lange, L. Saavedra, F.M. & Romano, j. (2013). Institutional Research in Emerging Countries of Southern Africa, Latin America and the Middle East and North Africa: Global Frame works and Local practices. *New Directions for Institutional Research*. 157, 23-38.

Leimer, C. & Terkla, D. G. (2009). Laying the foundation: Institutional research office organization, staffing and career development. *New Directions for Institutional Research*. 143, 43-58.

Mohamed, A.T.E. (2015). A framework for university social responsibility and sustainability: the case of south valley university, Egypt. *World Academy of Science, Engineering and Technology, International Journal of Social, Behavioral, Educational, Economic, Business and Industrial Engineering*, 9(7), 2370-2379.

Pawlowski, K. (2009). The 'Fourth Generation University' as a Creator of the Local and Regional Development. *Higher Education in Europe*. 34 (1), 51-64.

Rus, C.L. Chirică, S. Rațiu, L. & Băban, A. (2014). Learning organization and social responsibility in Romanian higher education institutions. *Procedia-Social and Behavioral Sciences*, 142, 146-153.

Serban, A. M. (2002). Knowledge management: The fifth face of institutional research. *New Directions for Institutional Research* 113, 105–112.

Stanislavská, L.K. Kvasnička, R. Kuralová, K. & Margarisová, K. (2014). Social Responsibility of Higher Educational Institutions—the Comparison of the View of Students and Potential Students. *Journal on Efficiency and Responsibility in Education and Science*, 7(3-4), 95-99.

Taylor, J. Hanlon, M. York, M. (2013). The evolution and practice of Institutional Research. *New Direction for Institutional Research*. 157, 59-75.

Terenzini, p.T. (2013). On the nature of Institutional Research Revisited: plus ca change...? *Research in Higher Education*. 54(2), 137-148.

Torighi, J. Arefi, M. Yamani Douzi Sorkhabi, M. & Marjaei, H. (2017). Comparative Study of Institutional Research: Presenting Matrix of Institutional Research, 6(11), 33-53 [in Persian].

Übuis, Ü. & Alas, R. (2009). Organizational culture types as predictors of corporate social responsibility. *Engineering economics*, 61(1).

Definition. *Higher education in the world*, 5, 88-96. <http://www.guninetwork.org/>.

Vasilescu, R. Barna, C. Epure, M. & Baicu, C. (2010). Developing university social responsibility: A model for the challenges of the new civil society. *Procedia Social and Behavioral Sciences*. 2, 4177-4187.

Volkwein, J. F. (1999). The Four Face of Institutional Research. *New directions for Institutional Research*.104, 9-19.

Volkwein, J.F. (2008). The foundations and evolution of institutional research. *New Directions for Higher Education* 141, 5-20.

Webber, K. L. (2012). The Role of Institutional Research in a High Profile study Of Undergraduate Research. *Research in Higher Education*. 53(7), 695-716.

Whitchurch, C. (2008). Shifting identities and blurring boundaries: The emergence of third space professionals in UK higher education. *Higher Education Quarterly*. 62(4), 377–396.

Zuti, B. & Lukovics, M. (2017). New Functions of Universities in Century XXI towards “Fourth Generation” Universities. academia.edu, 9: Paper. ID: 20371078. San Francisco, California.