



2528-9705

Örgütsel Davranış Araştırmaları Dergisi
Journal Of Organizational Behavior Research
Cilt / Vol.: 3, Sayı / Is.: S2, Yıl/Year: 2018, Kod/ID: 81S2142



CONCEPTUALIZATION OF FACTORS CONTRIBUTION TO UNIVERSITIES STRUCTURE (CASE STUDY: TEHRAN PROVINCE BRANCHES)

Shahrooz FARJAD, Nader GHOLI GHORCHIAN*, Ali TAGHIPOUR ZAHIR

Department of Educational Management, Science and Research branch, Islamic Azad University, Tehran, Iran.

* Corresponding Author

Email: naghouchian@gmail.com

ABSTRACT

Across the world, universities research performance and capacity has become a vital theme in Higher Education Institutions. Need to effective structure to build the better research performance in any universities has been focused. It is necessary to identify factors shall be affect to effectiveness of research structures. This case study focused on Islamic Azad University (Tehran branches) with the purpose of identifying and ranking factors that influence the effectiveness of research structures in universities. Main research questions are as follows (1) What is effective research structure in Islamic Azad Universities? (2) What conceptual model of the proposed indicators can be suggested to IAU? A research sample include 274 faculty members in the 8 University branches were determined and selecting according to Morgan Table. After gathering data by questionnaire instrument, the data was analyzed by factors Analysis Method. The results of this study show that eight factors 80% have contributed in research structures effectiveness. The presented conceptual model indicated that factors respectively, clarity of research vision (0.72%), professionalism (0.71%), Research facilities (0.64%), Management style (0.62%), Research Infrastructure (0.61%), Evaluation Mechanism (0.60%), Networking and international collaboration (0.59%) and Research capabilities (0.56%) contribute in effectiveness of research structure. For the reliability and fitting of the model, with use of the goodness model, result of indicated that $\chi^2(1.63)$, CFI (0.93), RMSEA (0.019) and GFI (0.84). So, the finding of this study provides implications for Higher Education Institutions administrators in closer attention to key factors and further supporting research building.

Keywords: Research Structure, Effectiveness, Model, University, Islamic Azad University.

INTRODUCTION

An Organization structure is a framework of organization objectives and strategy. Every organization has its own structure based on the strategic goal in turn to operate efficiently. Now days, organizations cannot survive without a vision, mission, and beneficial structure which supports an organization to gain its goals (Mathur and Nair, 2016).

According to Bateman and Zeithaml (1990) and Gibson et al. (1994), organizations are social entities that are goal directed, deliberately structured activity systems with a permeable boundary. Griffin (1997) defines organizational structure as the set of elements that can be used to configure an organization.

Organizational effectiveness one of the key concept this study, so, we should be closely considering it. The importance of defining and measuring organizational effectiveness is crucial because organizational effectiveness is a significant indicator of direction, position and future of the organization (Vinitwatanakhun, 1998)

Effectiveness stresses the point that factors at the different levels of the organizational system contribute to an outcome. Also, Vinitwatanakhun (1998) asserts, organizational effectiveness can

be conceptualized as the extent to which an organization can adapt to the internal and external constraints and achieve the multiple goals of its multiple constituencies in the long run. further, Organizational effectiveness is a multifaceted complex concept (Razia, 2015).

Additionally, Higher education institutions as a Learning organization operate in complex environments with multiple internal and external constituencies. So, they are need to suitable and flexible and effective structures to face different Environments. In particular circumstance, universities as another organizations need to designing flexible research structure for attain good performance. The organizational structure of universities is an important guide to organizational activity. scholars of higher education have developed a variety of multi-dimensional models of organizational behaviour that also shed considerable light on university structure and process (Berger& Milem, 2000).

Singh (1991) and Sagimo (2002) as quoted by(Razia,2015), has been mentioned in order to be effective and achieve its goals, an organization must successfully respond to environmental factors. According to Randall and Jackson (1996), different structures arise in response to a variety of internal and external forces, including technological demands, organizational growth, environmental turbulence, size and strategy.

Also, linking universities Structure with its Effectiveness very important issue. Organizational effectiveness is one of the most critical functions of the higher education system. According to the New England Association of Schools and Colleges (2011), an organization is a system of governance that facilitates the accomplishment of its mission and purposes and supports effectiveness and integrity through its organizational design and governance structure.

In the present study, universities research effectiveness is conceptualized by eight factors. This proposed conceptualized model allows formulating a theoretical model of the determinants of universities structure effectiveness.

So, with consider to above mentioned, we have need to statement the problems. Building favorable relationships between a universities structure and its contributes to desirable organizational performance and outcomes such as organizational effectiveness. Consequently, understanding the relationship between research structure and processes is a core requirement for gauging organizational effectiveness.

therefore, this study, examined the relationship among various structural constructs in universities (including eight key factors) that are applicable to institutions of higher learning in Islamic Azad Universities in Iran and its impact on research structure effectiveness.

MATERIAL STUDIED

Numerous researchers have analyzed the nature of structure and its influence on effectiveness in organizations. It would be fruitless to examine effectiveness without considering the various structural characteristics that might be related to forms of effectiveness.

The growing body of comparative organizational studies is guided by a conceptual scheme that facilitates comparability among organizations with respect to effectiveness and that guides the empirical steps of operationalization and quantification.

Organizational structure has multiple dimensions. The literature suggests that the nature of organizational structure in industrial versus post-industrial firms could be distinguished as mechanistic (inorganic) versus organic (Daft, 1995; Lawrence and Lorsch, 1967; Nemetz and Fry,1988; Parthasarthy and Sethi, 1992; Zammuto and O'Connor, 1992). Organizational



structure is partly affected by the firm's external environment (Bourgeois et al., 1978; Duncan, 1972; Lawrence and Lorsch, 1967).

Since organizational effectiveness is one of the most complex issues in the study of organizations, many difficulties arise when we attempt to define it. Generally, effectiveness has been defined as in definition by Barnard, effectiveness is the degree to which the organization accomplishes its specific objectives. Mathur and Nair (2016) believe that organizational structure as a framework help to obtain strategic goal and operate efficiently. They are claimed that basic forms of organization structure classified to four kinds: line organization, line & staff organization, functional organization and committee organization.

The three main theoretical perspectives on organizational effectiveness are (1) the goal-based approach, (2) the system approach, and (3) the multiple approaches. Considerable differences exist among theoretical (and empirical) approaches.

The system approach defines organizational effectiveness in terms of an organization's bargaining position, as reflected in the ability of the organization, in either absolute or relative terms, to exploit its environment in acquiring scarce and valued resources.

Several observers have argued that the structure of an organization is closely related to its context, and that much of the variation in organizations might be explained by structural or contextual factors.

The literature review indicated that several factors related to structural effectiveness. For example, Zheng et al. (2010) explained that knowledge management mediates the impact of organizational structure and strategy on organizational effectiveness. Sparrow and Hiltrop (1997) also add that autonomy in decision-making is vital to organizational effectiveness. Researches show that the intellectual capital is affected by organizational structure in organizations. So, in order to improve intellectual capital in the organization, we need a knowledge based structure.



METHODS/ AND TECHNIQUES

The research was carried out in 8 branches of Islamic Azad Universities. Stratified random sampling proportionate to the selection of the 300 respondents. Consequently, a total of 274 respondents were sampled from faculty members. The primary data for the study was obtained through a questionnaire. Secondary data was obtained from existing literature under the topic and title of study. So, first, the Principal Components Factor Analysis (PCA) was used to determine the factor structure of the constructs.

The research methods which were used in this study are: library research to access the theoretical framework and the related literature; Survey method to collect, classify, describe, and analyze the data have been used. The population under investigation in this study consist of faculty member and teachers who work in the branches and educational centers in 8 branches of Islamic Azad University of Tehran Province.

The 5-level rating scale questionnaire was designed and inspected by the specialists before pretesting for quality inspection was conducted. All items of questionnaire got .940 .978 of Cronbach alpha coefficient. These constitute the strong evidence showing high content validity and reliability of the research in instrument.

Therefore, the data to be analyzed in this study include eight factors and 95 related indicators influences to Effectiveness Research structures. The present study utilizes factor analysis technique for estimating the model of research structure effectiveness.

Also provides a conceptual model to determine the factors influencing the effectiveness of the tool AMOS factor analysis was used.

RESULT

The result of the study shows that in the proposed conceptual model, all of the 8 factors with 95 related indicators affected to effectiveness of research organizational in universities.

In accordance with the model, the factors were surveyed almost 80% have contributed in research structures effectiveness.

With use AMOS technique and Principal Components Factor Analysis, determined factors included as follows:

Factor ranking (1th): Research Realistic and clear vision factor in universities 0.72% contribution accordance view point of faculty members in independent variable. Thus order of four indicators based on achieved points scored: clarity of Islamic Azad University vision, focus to role of science and technology in country developments plans, the development of scientific development plan, solving problems based approach to research results have been studied.

Factor ranking (2th): professionalism factors with 6 related indicators respectively Stability in university management, create and strengthen a culture of self-assessment and self-improvement, improving teamwork skills in research issue, review of management style and decision-making Universities, identify research needs based on geographical regions and Research considered as a professionalism in educational system. All of these indicators 0.71% has been explained the effectiveness of the organizational structure.

Factor ranking (3th): Research facilities with attention to 8 related indicators 0.64% contribution in research structures effectiveness. Receive priority research of different organizations, create equipped laboratories, update of curriculum in various discipline, training of researcher in universities, drive research projects to the determined research mission, facilitate of technology transfer, establish of scientific associations, Identify and solve problems outside the University as key indicators in this factor has been ranked.

Factor ranking (4th): Management factor in research centers and university with 38 indicators 0.62% contribution in research structures effectiveness. Indicators of these factors such as increases of private sector role in research, coordination of research structure with society demands, formulating optimal research strategy in universities, encourage of organizations to invest in research, reengineering, knowledge management, attention to entrepreneurship, Knowledge-based start-up companies, Commercialization of research results, focus to Scientific research centers ,attention to research productivity, budgeting, flexible and virtual structures, faculty members involvement in research, evaluation of research quality, Membership in international research centers, and etc.

Factor ranking (5th): research infrastructure: this factor has 16 indicators included attention to organizational learning issue, fitness of research structure with new technology, Fund financial support for researchers, legislation of protecting laws to researchers, update data bank in universities, have a systematic approach, create optimal space cooperation, establish Science and Technology Parks, focus to knowledge management 0.61% the model.



Factor ranking (6th): evaluation mechanism: selection of optimal research strategy continues evaluation of research centers and on the job training for faculty members to update them has 3 indicator of evaluation mechanism factor that 0.60% contribution in the proposed model.

Factor ranking (7th): Networking and international collaboration have 14 indicators achieve 0.59% contribution in the Model. Indicators distributed of Grants between researchers, research attainable goals symmetric with faculty, departments and faculty members as researcher, networking colorations among researchers and research centers, use of virtual communications, involvement of departments in research process, attention to creativity and innovation, freedom and independence in university, delegation of authority and decentralization, Experts participation in decision-making, research Team building use of related scientific experts.

Factor ranking (8th): research capability building indicators included establishing formal and informal networks, attention managers to research results; organizational culture encourages research, institutional capability building for branding, collaboration between different research centers and capability in individual, organizational and society levels. Overall, this factor was 0.56% role in explaining the dependent variable.

The mean and standard deviation and variance for each variable is presented in Table 1.

Table 1. Summary statistic (Mean standard deviation and variance)

Factors	Sample Size	Range	Mean	Standard deviation	Variance
Management Systems	274	2.51	3.5187	.75164	.565
Providing Infrastructure	274	2.63	3.5883	.68189	.465
Teams & Network collaborations	274	5.64	3.6233	1.02188	1.044
Research Process Facilities	274	2.73	3.5575	.81324	.661
Research Vision	274	3.00	3.1013	.68774	.473
Capacity Building	274	3.14	3.5057	.78751	.620
Professionalism	274	3.17	2.7457	.77509	.601
Evaluation systems	274	2.67	3.5730	.67617	.457



As shown in the above table, the 8 factors affecting in effectiveness of universities structures are analyzed. In this study, we try to using factor analysis Method. Also, to analyze the data using SPSS software with descriptive methods have been used. All of the 95 items in the Questionnaire focused to 8 key factors that based on literature Review shows affect in the research structure of universities.



Figure 1.the conceptual Model

In accordance with the above Model, eight key factors include 95 Indicators explain and constituent 0.80% of the effectiveness of Research structure in Islamic Azad Universities. This model presents key factors weights in independent variable (Effectiveness of Research) and goodness of Model.

The model indicated that respectively, clarity of research vision (0.72%), professionalism (0.71%), Research facilities (0.64%), Management style (0.62%), Research Infrastructure (0.61%), Evaluation Mechanism (0.60%), Networking and international collaboration (0.59%) and Research capabilities (0.56%).

Also, for the reliability and fitting of the model, with use of the goodness model, result of indicated that X²(1.63), CFI (0.93), RMSEA (0.019) and GFI (0.84).

The finding of this study provides implications for Higher Education Institutions administrators in closer attention to key factors and further supporting research building. Also, the proposed conceptual Model will be providing some useful information about the research structure designing for Islamic Azad university braches and other Higher Education Institutions.

The following table presents the indices related to the model's fit:

Table 2. Model, s fit indices

Index	Rate	interpretation
X ²	1.63	High fit (less than3)
CFI	0.93	High fit (more than 0.9)
RMSEA	0.019	High fit (less than 0.08)
GFI	0.84	High fit (less than 1)

For the reliability and fitting of the model, with use of the goodness model, result of factor analysis indicated that X²(1.63), CFI (0.93), RMSEA (0.019) and GFI (0.84). so four indices of goodness or fit indicate presented model's fit and empirical data. Therefore, desirability adaptation id provided for the designing model and empirical data can approve it as a appropriate model for the research structure effectiveness.

Thus, the goodness of fit statistics consisted of Chi square statistic(X²), Comparative Fit Index (CFI), Root Mean Square Error of Approximation (RMSEA) and Goodness of Fit Index(GFI).

DISCUSSION:

Traditionally, the study of organizational design (Burton and Obel, 2004; Burton, DeSanctis, and Obel, 2006) has been influenced by structural contingency theory. As is well known, the contingency theory approach to organizational design strongly emphasizes the consequences for performance of structural fit (or misfit) (Donaldson, 2001).

This study aims to investigate the most important interfering factors which create effectiveness of Research structures in universities. The most important eight factors which are used for conceptualize the model include Management systems in universities, providing Research infrastructures, Research process facilities, Research Vision, capacity Building, Professionalism and Evaluation systems.

Results show that the all eight factors have a positive effect in effectiveness of research structures. As mentioned earlier, the study focuses on the research structures in universities and their relationship with research effectiveness. The study population includes all the Faculty members and researchers of IAU (274persons). The Faculty members classified random sampling; and the

data was collected through the distribution of one Researcher-Made questionnaire with 95 Question among Faculty members. The current research we use Exploration factor analysis in AMOS Software.

The questions addressed in this paper were summarized in the important: What is the most appropriate form of determining research structures amongst and within universities? What Factors and Indicators are influencing in the structure? Finally, what conceptual model of the proposed indicators can be suggested to IAU?

CONCLUSIONS:

It describes a framework for understanding the relationships between dimensions of organizational structure and related indicators of organizational effectiveness especially higher Education Institutions. All factors were surveyed, which significant affect to universities effectiveness. The findings of the study suggest that the all of the eight factors have contributed to the research structure effectiveness.

The aim of the study is to identify, demonstrate and weighting the importance of various indicators of research structures which in turn have become significant components in determining effectiveness of research structures universities.

This paper briefly summarizes the eight key factors that effect to effectiveness of research structures in Higher Education context. The goal of the research was to identify and priorities of key factors and indicators that influence in research structure of universities and research centers.

we consider the factors have contributed 0.80% in research structures respectively: determine of research vision and mission, professionalism among researchers, facilitating the research process, management style of universities and research centers, providing of research infrastructures, evaluation systems, focus on Teams and network collaborations, and capacity building in individual, teams and institutional levels.

The result of study show that all these of factors contribute and effect on research structures. So, the results of this study can be useful to decision-maker in better management of universities and research centers.in other words, the eight factors that identified in this study key role to effectiveness any research structures.

References

- Bateman, T. S., & Zeithaml, C. P. (1990). *Management: Function and Strategy*, Boston: Irwin Inc.
- Berger, J. B., & Milem, J. (2000). *Organizational Behaviour I Higher Education and Student Outcomes*. In j. C. Smart (Ed.). *Higher Education: Handbook of theory and Research*, XV. New York: Agathon.
- Bourgeois, L.J., McAllister, D.W., Mitchell, T.R., 1978. The effects of different organizational environments upon decisions about organization structure. *Academy of Management Journal* 21, 508–514.
- Burton, R. M. and Obel, B., 2004, *Strategic Organizational Diagnosis and Design: The Dynamics of Fit*, Third Edition, Springer/Kluwer Academic Publishers.



Burton, R. M., DeSanctis, G. and Obel, B., 2006, *Organizational Design: A Step by Step Approach*, Cambridge University Press.

Daft, R.L., 1995. *Organization Theory and Design*, 5th ed. West Publishing Company, St. Paul, MN.

Donaldson, L., 2001, *The Contingency Theory of Organizations*, Sage, Thousand Oaks.

Duncan, R.B., 1972. Characteristics of organizational environments and perceived environmental uncertainty. *Administrative Science Quarterly* 17, 313–327.

Gibson, J. L., Ivancevich, J. M., & Donnelly, J. H. Jr. (1994). *Organizations: Behaviour, Structure, Processes* (8th ed.). Boston: Richard D. Irwin.

International Journal of Humanities and Social Science Invention ISSN (Online): 2319 –7722, ISSN (Print): 2319 –7714www.ijhssi.org || Volume 4 Issue 8 || August. 2015 || PP.15-25.

Lawrence, P.R., Lorsch, J., 1967. *Organization and Environment*, Harvard Graduate School of Business Administration, Boston.

Mathur, Poornima, Manju, Nair. *Organization Structure a Key to Driver to Competitive Advantage*. *International Journal of Management and Commerce Innovations* ISSN 2348-7585 (Online) Vol. 3, Issue 2, pp: (348-356), Month: October 2015 - March 2016, Available at: www.researchpublish.com Page | 348 Research Publish Journals

Nemetz, P.L., Fry, L.W., 1988. Flexible manufacturing organizations: implication for strategy formulation and organization design. *Academy of Management Review* 13 (4), 627–638.

New England Association of Schools and Colleges (2011). *Organization and Governance*.

Parthasarthy, R., Sethi, S.P., 1992. The impact of flexible automation on business strategy and organizational structure. *Academy of Management Review* 17 (1), 86–111.

Randall, S. S., & Jackson, S. E. (1996). *Human Resource Management –Positioning for the 21st century*.

Razia, Mbaraka. *A Comparative Analysis of Organizational Structure and Effectiveness between Public and Private Universities: A Case of University of East Africa Baraton and Moi University in Kenya*. *International Journal of Humanities and Social Science Invention* ISSN (Online): 2319 –7722, ISSN (Print): 2319 –7714www.ijhssi.org || Volume 4 Issue 8 || August. 2015 || PP.15-25www.ijhssi.org

Vinitwatanakhn, W. (1998). *Factors Affecting Organizational effectiveness of Nursing Institutes in Thailand* (PH. D Dissertation). National Institute of Development Administration, Bangkok, Thailand.



Zammuto, R.F., O'Connor, E.J., 1992. Gaining advanced manufacturing technologies' benefits: the roles of organizational design and culture. *Academy of Management Review* 17 (4), 701–728.

