

## The role and position of universities in the provincial ecosystem of knowledge-based development: Theoretical framework and its application for West Azarbaijan province

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### ABSTRACT

National development is the result of local and provincial development. In today's era, which is known as the age of knowledge, local and provincial development takes place only within the framework of the provincial ecosystem of knowledge-based development. In many developed countries, universities are the most important actors and beneficiaries of this ecosystem. But the role and position of Iranian universities in this type of ecosystem is not very clear and it seems that they do not have a favorable role and position. Therefore, the purpose of this article is to verify this hypothesis. For this purpose, the technique of "stakeholder interaction analysis" and the study data of West Azarbaijan province have been used. The findings of the research show that the universities of West Azarbaijan province do not have a proper role and position in the knowledge-based development ecosystem of this province. In fact, such an ecosystem is very poorly formed in this province.

**Keywords:** Knowledge-based Development Ecosystem, Regional ecosystem of Knowledge-based Development, Knowledge Ecosystem, Innovation Ecosystem, Entrepreneurship Ecosystem.

## Introduction

Comprehensive globalization and the emergence of the global knowledge economy over the past half century have changed the role and position of various economic and social institutions. Universities are among the institutions that have changed a lot in this process; So that they have come down from their ivory tower and served their environment. Today, universities in advanced countries contribute to the economic, social, cultural and political development of their environment by producing, distributing, transforming, promoting and applying new scientific and technological knowledge. This is despite the fact that Iran's universities and science and technology centers are isolated and do not serve their environment and do not play a worthy role in the development of the city and province where they are located.

Now, two questions are raised: 1- Why provincial universities in Iran are not contributing properly to the development of their ecosystem? 2- How can the role and position of Iranian universities be improved in provincial development?

The aim of this research is to answer the above questions. For this purpose, the theoretical foundations of "knowledge-based development", the model of "knowledge-based development ecosystem", mixed research approach (descriptive-normative), mixed research method (qualitative-quantitative; documentary-field) and the data of West Azerbaijan Province were used. For this purpose, the theoretical foundations of "knowledge-based development", the model of "knowledge-based development ecosystem", mixed research approach (descriptive-normative), mixed research method (qualitative-quantitative; documentary-field) and the data of West Azerbaijan Province were used.

The theoretical basis of this research is the theory of knowledge-based growth and development. According to this theory, the formation of a knowledge-based development ecosystem at any level of Living environment is a necessary and sufficient condition for socio-economic development at that level of the Living environment. The formation of a knowledge-based development ecosystem at one level of the Living environment requires the formation of at least 7 smaller ecosystems for information development, learning development, human development, knowledge development, innovation development, entrepreneurship development, and governance development. The formation of these ecosystems also requires the knowledge-based interaction of six groups of development stakeholders (i.e., universities, households, commercial companies, government organizations, public organizations, non-governmental organizations, and the media). Universities are important and focal stakeholders in these ecosystems. The interaction of universities with other stakeholders has a decisive role in the formation of these ecosystems.

Based on the theory of knowledge-based development, the following hypotheses can be expressed in relation to the answers to the above two questions:

- 1- The reason for the lack of proper contribution of provincial universities to their Living environment is the lack of formation of the provincial ecosystem of knowledge-based development.
- 2- By cultivating the provincial ecosystem of knowledge-based development, the role and position of universities in provincial development can be improved.

## Methodology

To test the hypotheses raised above, the descriptive-normative approach and the mixed method (documentary-field; qualitative-quantitative) have been used at the level of the province (West Azarbaijan province). The required data has been obtained through document analysis and a researcher-made questionnaire with a sample size of 30 experts. It should be noted that documentary data has been used to verify the questionnaire data of knowledge-based interactions of universities with other stakeholders. The status of interaction based on the knowledge of the stakeholders with each other is measured as follows:

- 1- The excellent status of knowledge-based interaction = 5
- 2-good status of knowledge-based interaction=4
- 3- The average status of knowledge-based interaction = 3
- 4- Moderate to low level of knowledge-based interaction = 2
- 5-Weak status of knowledge-based interaction=1
- 6- The state of lack of interaction based on knowledge = 0

The average score of the university's knowledge-based interaction with other stakeholders indicates the intensity of the knowledge-based interaction in the ecosystem. Basically, a strong knowledge-based ecosystem is formed when the intensity of knowledge-based interaction is moderate (3) or higher.

## Findings

The results of the documentary, qualitative and quantitative study in this research show that the interaction of the university with other stakeholders in West Azerbaijan province in the processes formation of information development, learning, knowledge development, human development, innovation, entrepreneurship and governance is weak. Therefore, the ecosystems of information, learning, human development, knowledge, innovation, entrepreneurship, governance and knowledge-based businesses were not well formed in West Azerbaijan province. Therefore, the provincial ecosystem of knowledge-based development in this province has not been properly formed. Considering that the necessary and sufficient condition for provincial development is the complete formation of this ecosystem, the reason for the lack of proper contribution of provincial universities to their Living environment is the lack of formation of the provincial knowledge-based development ecosystem.

The results of quantitative data analysis of stakeholders' knowledge-based interactions in the framework of the ecosystems models of information, learning, human development, knowledge, innovation, entrepreneurship, governance and knowledge-based businesses show that universities does not have a worthy place in any of the sub-ecosystems of West Azarbaijan province. Therefore, they do not get a proper place in the integrated model of knowledge-based development ecosystem. Considering that universities mainly contribute to socio-economic development within the framework of the provincial ecosystem of knowledge-based development, upgrading the position of universities in provincial development requires fostering the ecosystem of knowledge-based development in this province.

## Conclusion

According to the above discussion, the knowledge-based development ecosystem of West Azarbaijan province needs to be nurtured. Its breeding process has six stages and 30 actions, some of which are proposed to local government organizations.

### 1- Strengthening the stakeholders of knowledge base development

- Creation of "Provincial Development Beneficiary Network" for the implementation of the comprehensive provincial development program by the "Provincial Supreme Council" in cooperation with Urmia University and the Provincial Management and Planning Organization.
- Paying attention to the potential of non-governmental organizations to manage citizen demands and grievances in the province by the governorate of West Azarbaijan province;
- Facilitating the establishment and activity of non-governmental organizations and using their potential to manage citizenship and identity demands by the Governorate of West Azarbaijan Province.

### 2- Cultivating knowledge-based innovation and entrepreneurship ecosystems

- Creating a culture for innovation and entrepreneurship and building knowledge-based economic ecosystems; This work should be done with the management of the "Provincial Supreme Council" and the cooperation of the provincial universities and other stakeholders of the related ecosystems.
- Granting a license to knowledge-based entrepreneurship and the expansion of knowledge-based industries in the province based on clean industries and suitable for the purpose of the province by the organization of industry, mining and trade;
- Encouraging industrial units to allocate a part of their production to knowledge-based products and upgrade the technology of these units by the organization of industry, mining and trade so that they can enjoy the support and facilities of the Innovation and Prosperity Fund.
- Avoiding issuing exploration permits to non-experts and re-examining inactive mining permits of the province by the Mining, Industry and Trade Organization of West Azarbaijan Province.
- Creation and development of industrial clusters in accordance with the document of land preparation of the province by the organization of industry, mining and trade of West Azarbaijan province;

### 3- Cultivating governance ecosystem

- Facilitating and strengthening the activities of the think tank of the province and the formation of specialized working groups according to the issues and different parts of the province by the West Azerbaijan Governorate;
- Identifying the harms, problems and challenges of different areas of the province by the think tank of the province in cooperation with the universities of the province and attracting more participation and interaction of the elites of the province with managers and experts of executive bodies.

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