

Policy Analysis of Spatial Planning in the Higher Education System of Iran; Policy Implications of Provincial Management Policies of the Higher Education System

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Abstract: Regional management and spatial planning of higher education in Iran is one of the important policy issues in the field of science, technology, and innovation. In February 2016, the Supreme Council of Cultural Revolution approved the country's spatial planning of higher education. Article 1 and 2 of this document directly refers to the regional management of higher education. In line with the implementation of the document, in October 2020, the Ministry of Science, Research and Technology approved the bylaw "Implementation of the National Spatial Planning of Higher Education - Provincial Management of Higher Education Institutions in the MSRT". In this research, by using the case study strategy, an attempt has been made to provide a policy analysis of the implementation of spatial planning of higher education documents, which led to the approval of the provincial management regulations of higher education institutions. The data used in this research are available documents, evidence, statistics, events, and narratives of 14 experts and policymakers. Based on the results of this research, the process of drafting documents, the commitment and expertise of the implementers of the document, and the integration of operational experiences and policy-making research during the implementation period have an important effect on the correct and faster implementation of national documents and macro policies related to them.

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1. Introduction

In recent years, regional management has received attention in the literature on science, technology, and innovation policies (Naghizadeh et al., 2021; Crescenzi et al., 2016). Especially after the decline of national approaches such as the national innovation system and the trend of policy and academic communities in large unions and countries (for example, the approach of smart specialization strategy in the European Union) (Asheim, 2019; Ranga, 2018), has increased the paying attention to regional management in STI sub-systems such as the higher education sub-system.

In Iran, since the 1960s, the topic of regional development and spatial planning has been discussed. After the Islamic revolution and especially from the third development plan, the serious emphasis on spatial planning can be considered as one of the major policy measures in this field. In the field of science, technology, and innovation, the topic of spatial planning has been seriously discussed in the last decade. The most important action in this field can be considered the approval of the Spatial Planning of Higher Education document (SPHE) in the Supreme Council of Cultural Revolution (SCCR) in 2016 (SCCR, 2016). Following the approval of these policies, the Ministry of Science, Research and Technology (MSRT) approved the bylaw "Implementation of the National Spatial Planning of Higher Education - Provincial Management of Higher Education Institutions in the MSRT" in 2020. (MSRT, 2020).

In this research, considering the approval of the SPHE document, it has been tried to analyze and investigate policy measures in line with the implementation of the document in the form of provincial management bylaw. The innovation of this research is in providing a correct and accurate narrative of how to implement a policy document in the form of a case study strategy, which has led to providing policy implications for researchers and policymakers for similar actions in the future. In the second part, the literature review of the research is presented. In the third part, the research methodology based on the case study strategy is

presented. In the fourth section, the results of the case study are explained. The last part is the conclusion of the research.

2. Literature Review

Paying attention to the characteristics of the region in the development of science, technology, and innovation is one of the axes of policymaking. Of course, the word region has different interpretations according to the spatial extent (Naghizadeh, 2019). For example, at the level of the European Union, the small countries of the Union are considered as regions. In countries such as Germany, the United States of America, and Canada, regions are defined mainly at the federal level. In countries like China or Iran, provinces are usually considered as regions in administrative policies. In most regional management models of higher education in the world, the regional level is similar to the regional level in political division (Naghizadeh, 2020). This means that if the country of Germany is governed federally, the regions in this country are also defined at the federal level. In the field of regional management of science, technology, and innovation, several theories such as regional innovation system (Cooke, 2002; Doloreux and Parto, 2005; Asheim and Coenen, 2006), learning regions (Morgan, 1997) and innovation regions (Elahi et al. al., 2012; Aydalot, 1986) have been proposed in the last 4 decades.

In all these patterns, the higher education subsystem and universities in general play a key role. The theory of smart specialization is one of the popular theories of recent years, especially in the European Union (Ranga, 2018). In this theory, the role of higher education in the process of entrepreneurship and the development of technological infrastructure is of key importance. Especially in this theory for developing and less developed regions, the role of universities in all three chains of science, technology, and innovation is key. Large countries such as Germany, the United States of America, and Canada have adjusted their policy, management, and supervisory systems at the federal level due to their federal structure (Naghizadeh, 2019). Of course, in different countries, the governance structure of the higher education system is different according to the characteristics of the countries, and even in the countries that use the regional management system, the governance model and the level of independence of

the universities are different according to the conditions of that country. What can be understood from the collection of international studies is that there is no single successful model in regional management (Naghizadeh et al., 2016) and different models can be successful according to the characteristics of countries.

Few researches have been done in the field of spatial planning of higher education in Iran. Naghizadeh (2019) has addressed the challenges of implementing the SPHE document in Iran. In this research, 13 challenges were analyzed and investigated in three dimensions: regional management organization challenges, macro-level challenges of higher education regional governance environment, and political structure challenges. Ahanchian (2012) has analyzed the purpose of higher education and its role in science and technology policy-making. Kheiry et al. (2018) and Jahandideh et al. (2017) have addressed the implementation of the health SPHE document. Also, Naghizadeh et al. (2021) pointed out the role of universities in the regional development of technology and innovation in less-developed regions. Taghavi et al. (2016) investigated and assessed the need for skill training based on the spatial planning document in the industry sector. Entezari (2018) has investigated and analyzed the impact of universities on regional development in the country. Bouzari (2016) in a research titled "Higher Education Survey in the Geographical Area of the country" has analyzed the distribution of universities and students in the country from a survey point of view. Rashidi and Keyzouri (2018) investigated the interactive development of the university and the region. Also, in Iran, various development programs based on regional management and spatial planning have been implemented. The third construction program (1962-1967) with the policy of developing regional construction organizations and creating agricultural hubs was one of the important programs with an emphasis on regional management and spatial planning in the country. Before the revolution, the main policies were focused on agricultural and civil development sectors, and in the third plan, the creation of industrial hubs was considered, and from the fourth plan onwards, with the studies of Bettel and Sekaran Institute, physical and physical policies along with Research and spatial policies were proposed (Naghizadeh, 2021). In the post-revolutionary development plans, regional policies and management can be clearly seen from the fourth plan, and this approach has continued until the sixth development plan. Of course, in the

years 2005 to 2012, special attention was paid to the development policies in less developed provinces (Farajirad et al., 2013) and the same was followed in higher education to some extent. But due to the high attention to physical structures and insufficient attention to spatial and organizational dimensions, the implementation of these policies did not lead to a significant reduction of the distance between regions (Naghizadeh, 2019).

In Iran, the regional management structure of higher education institutions has a history of several decades in the Islamic Azad University and the Ministry of Health and Medical Education. However, after the drafting of the SPHE document in the 776th session of the SCCR on 8/3/2016 the MSRT was also obliged to move towards regional management based on the two articles 1 and 2 of the document. Based on this document, the country's higher education system was divided into 10 major regions in terms of territorial arrangement. The main policies of this document include the following 5 items (SCCR, 2016).

- ◇ First policy content: The MSRT must implement the management plan of each region within the framework of the approvals of the SCCR.
- ◇ Second policy content: The MSRT can merge and integrate higher education institutions to organize higher education units.
- ◇ Third policy content: The MSRT should prepare the rating and validation plan of the country's higher education institutions.
- ◇ Fourth policy content: The MSRT should formulate the mission-oriented plan of higher education institutions according to international, national, regional, and specific performance levels and implement it after approval.
- ◇ Fifth policy content: The MSRT should develop a comprehensive plan for the higher education admission and assessment system in all educational sub-systems and get it approved by the relevant authority.

MSRT (on 11/11/2020) by approving the bylaw for the implementation of the spatial planning of higher education system; The provincial management of higher education institutions (No. 176010) started the implementation of this regulation (MSRT, 2020) and three meetings of the provincial management council have been held until the end of September 2021.

The provincial management bylaw consists of 4 main articles. The key objectives included in the regulations include the following:

- ◇ Decentralization, delegating some decisions and implementing specific plans at the province level;
- ◇ Synergy of higher education institutions located in each province to increase efficiency and effectiveness and mission orientation;
- ◇ Participation of institutions as much as possible in decision-making of higher education in the country;
- ◇ More attention to the needs and more effective use of the opportunities, advantages, and capacities of the provinces;
- ◇ Improving the quality of decision-making in higher education according to the advantages of the provinces;
- ◇ Helping to adapt and balance the development of higher education institutions in the country;
- ◇ Reduction of bureaucracy caused by the centralization of decisions in the ministry by assigning some functions to the provinces;
- ◇ Creating coordination and exchange of experiences between higher education structures in each province;

Article 3 introduces the Central Council of Provincial Management of Higher Education, which is formed under the chairmanship of the Minister of Science, Research, and Technology, and Article 4 deals with the composition and functions of the Provincial Management Council of Higher Education, which is formed in the provinces.

3. Methodology

In this research, the main topic is the political investigation of how to form and realize the provincial management policy of higher education in the country. Considering that the behavior of the event cannot be controlled and it deals with how and why, the case study method was used (Yin, 2003, 2012). The case study method is one of the widely used methods in such research that seeks to examine

and analyze policies at the macro level (Naghizadeh et al., 2021).

The steps of the case study are based on the pattern of Yen (2012) by Figure No.

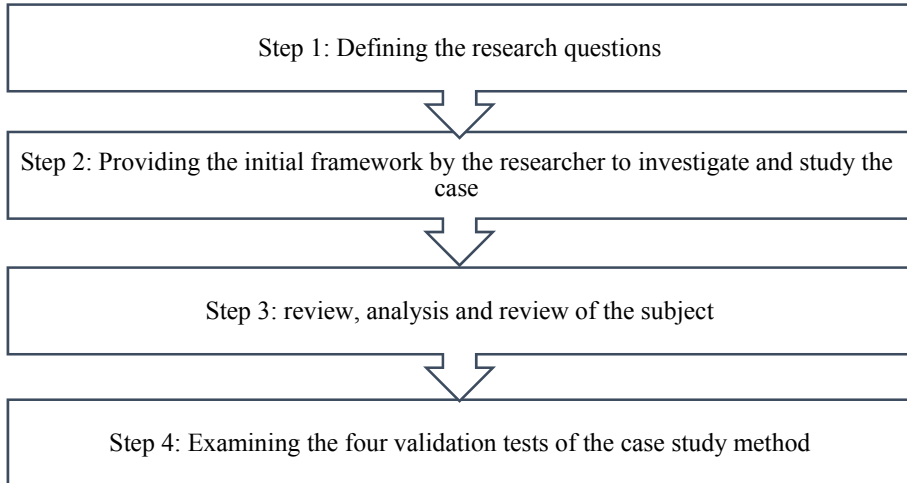


Figure 1. Case Study steps (Yin, 2012)

Proposing specific goals for the research and presenting them at the beginning of the case study is the first step in the case study method. In this research, the main goal is to investigate the policy formation of higher education provincial management policies. Then, to analyze the selected case, an analytical framework designed in three levels (according to Figure 2) is needed.

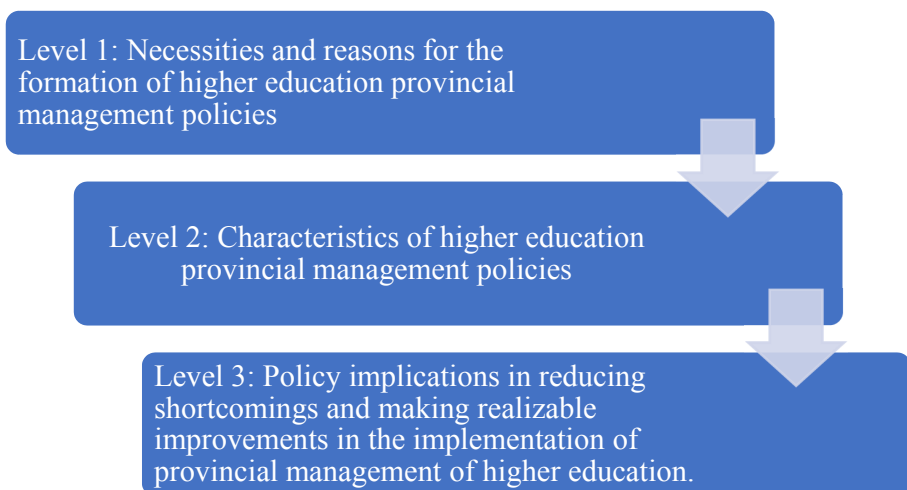


Figure 2. The analysis framework of the research

In the presented analytical framework, the historical necessities and reasons for the formation of higher education provincial management policies are examined at the first level. At the second level, the features of the provincial management policies of higher education are examined. In the third level, policy implications are presented to reduce the upcoming shortcomings and make realizable improvements in the implementation of the provincial management of higher education. The data used in this research are available documents, evidence, statistics, events, and narratives of 14 experts and policymakers.

The four characteristics proposed to evaluate the quality of a case study should be realized (Naghizadeh et al., 2021). Internal validity in case studies refers to the reliability and validity of research findings and results (Yin, 2003). The use of multiple sources and interviews has led to the realization of internal validity in this research. Also, the triangulation consensus (which in this research was carried out through interviews, documents, series of evidence, and events) increases the internal and external validity based on the view of Eisenhardt (1989). Construct validity means choosing the right operational scales for the studied concept (Yin, 2012). Yin (2012) considers the methods of achieving construct validity to be the collection of documents from different sources, a chain of evidence, and the use of key informants to study and critique the report, and all three tools have been used in this research. Also, in this study, the protocol of case study interviews and creating a database has been done, and the reliability of the research is increased by this means.

4. Review and Analysis of Provincial Management of Higher Education System in Iran

Various necessities and reasons led to the formation of the country's SPHE document and provincial management bylaw in MSRT. Ministry of Health and Medical Education and Islamic Azad University had experiences in the regional management of higher education before the approval of the country's SPHE document. The experiences of the regional management of higher education in the country in this section based on the information extracted from two reports on the strategy of geographical expansion of higher education in Ministry of Health and Medical Education of the Islamic Republic of Iran, the policy document and

the operational guide for the implementation of the document (Ministry of Health and Medical Education, 2015) and the mission Orientation in the education of medical sciences, the model of the establishment of transformation packages in the education of medical sciences (Ministry of Health and Medical Education, 2016) expresses part of the experiences of the field of regional management. The regional management of the Ministry of Health and Medical Education is not only in the field of higher education, and a large part of the benefits of this management are in the treatment and implementation sector (Naghizadeh, 2020).

Among the key goals of regional management in the Ministry of Health are the training of specialized human resources by the needs of the country in the medical sector, the targeted development of higher health education in the territory, the participation of different parts of the country in the training of human resources, and the increase of localization in the admission of students, increasing the employment of health sector human resources in less developed areas, increasing the authority of medical sciences universities in extra-provincial sectors. In this regard, the policies and executive regulations of the spatial planning of higher education in health were approved in the 762nd session of the SCCR on 28/04/2015 (SCCR, 2016).

In this context, one of the interviewees stated: "In the issue of regional management of higher education, the Ministry of Health was the leader and first it gave its draft document to the SCCR. It had operational experience in this field and based on this for years it was working as a model and in a way they got their current operations approved by the council" (INT 1). Of course, along with the experience of the Ministry of Health and Medical Education, the country's policy documents and the government's attention to the issue of justice in higher education and the country's 5-year development plans also led to an increase in requests from the MSRT to provide spatial planning document for higher education. One of the managers of the ministry at that time stated, "The Ministry of Health presented the draft of the document. We also formed working groups in the ministry in different departments. However, since the Ministry of Health had given the draft and the MSRT was late, the results of the working group were not summarized well in the MSRT and the MSRT gave the draft document to the council (INT 2). The draft document was reviewed and the MSRT initially proposed 9 regions.

One of the managers of the MSRT stated: “We first proposed 9 regions, then in one of the meetings it was suggested that since the Ministry of Health has 10 regions, we should also make 10 regions. That is why Khuzestan province is divided into separate regions” (INT 2). In February 2016, the country’s SPHE document was approved by the SCCR. The document provided high authority to the MSRT. However, the main articles of this document can be considered as articles 1, 2, and 3. One of the interviewees stated: “The body of the Ministry of Science was not justified in relation to the document that they had presented. Even the deputy of education at the time, who had the biggest role according to the rule, was not justified in the way of its implementation, at least in appearance. Every article of the document became known as one title in the ministry and was divided among different departments. Articles 1 and 2 became known as regional management.” (INT 3).

Based on this, the MSRT started limited measures, including the submission of the report of the administrative, financial, and resource management deputy on 20/12/2016 (MSRT, 2017). Of course, the actions of the MSRT were far from the expectations of the Secretariat of the SCCR. In 2016 and with the election of the new Minister of Science, Research and Technology, the issue of implementation of the SPHE document was demanded by the SCCR in a more serious way. One of the managers of the MSRT at the time stated: “The Secretariat of the SCCR (in the strategic headquarters of the comprehensive scientific map of the country and the commission that was formed for this matter) complained about this report and consider the submitted reports insufficient” (INT 4).

In this regard, one of the managers at that time of the steering headquarters of the comprehensive scientific plan of the country explained the reason for this delay as follows: “Mr. Dr... did not believe the SPHE document at all. He was just wasting time until to deliver his position” (INT 5). According to the need to implement the document and the request of the council’s secretariat to provide more serious measures, the MSRT entrusts the mission of investigating the implementation of the country’s SPHE policy to the National Research Institute for Science Policy (NRISP).

One of the interviewees explains how this mission was assigned to the NRISP as follows: “The head of the institute at the time was an adviser to the minister

and participated in the meetings of the Council of Deputies. In these meetings, the issue of governance and spatial planning issues were raised. The subject of the science, technology, and innovation governance system was transferred to me. On January 22, 2018, we had a meeting of the working group, where some senior managers of the ministry and experts came. In that session, the locum tenens of the minister said that the main issue is regional management, not the governance of science, technology, and innovation, and now the NRISP should consider to this issue. They didn't even have coherent documentation for this issue, although nearly 2 years had passed since the approval of the SPHE document. Not only in Articles 1 and 2, they had not explained the issue for implementation in almost any article" (INT 6).

After this meeting in February of 2018, two mission-oriented research projects were defined in NRISP (INT 7), focusing on the issue of spatial planning of higher education in the country.

In general, the policy implications to speed up and increase attention to the implementation of the country's SPHE document from the end of 2017 and the beginning of 2018 in the MSRT can be:

- a: The pressures of the strategic headquarters of the comprehensive scientific map of the country to the MSRT;
- b: Programs of the Minister of MSRT at the time to the parliament and policy-making bodies,
- c: Playing a greater role of the locum tenens of minister (instead of the educational deputy) and
- d: Assigning the mission to NRISP and the participation of researchers who are experts in regional management.

In addition to the following reasons, the Supreme Leader's speech on June 10, 2018, and the complaint about the lack of proper progress of this document in MSRT is also considered as one of the milestones in the implementation of the document.

In September 2018, four reports were delivered by the NRISP to the MSRT, and these reports were sent directly by the Ministry to the Secretariat of SCCR. These four reports included the report of the current situation and identification of priorities and challenges, the review of the functions of the MSRT and the

functions that can be delegated to the regions, the draft of the regulations of the regional management of higher education institutions and the formulation of the regional management structure. One of the interviewees stated: “We received the reports. They were good reports and it was clear that work had been done. They had especially given a transformation map, which was good, and they had also stated the challenges” (INT 8).

One of the key people in the mentioned mission stated: “We delivered the reports and had a meeting with the Deputy of Education in the Ministry of Science and explained the issues. A working group meeting was also held with the deputy of education and his advisor. The work was entrusted to Dr. Rahimi in the department of education. We explained the issue, but Dr. Rahimi’s opinion was the studies that have been done are enough and the operation should be started. Of course, he was more focused on organizing institutions (merge and integrate). Of course, the issue in the ministry was a little weak. The main reason was that most of the main managers of the ministry were not familiar with the regional management of higher education and its mechanisms, and sometimes because of this, they delayed the implementation” (INT 6).

According to the study conducted by NRISP, 13 main challenges were identified. One of the most important main challenges mentioned in this report was the lack of homogeneity of the regions and the lack of compatibility with the country’s political governance structure with the regions identified in the SPHE document. In this report, it is mentioned: “In general, from the point of view of the interviewees, if the structure of the regions remains the same as the 10 regions foreseen in SPHE document, the challenge of budgeting, financial management and the mismatch of the regional management structure of the universities with the governmental regional structure remain as challenges with a high level of complexity to solve” (Naghizadeh, 2020).

In July 2019, the deputy of education of MSRT changed and the new deputy of education did not accept the accountability of spatial planning. One of the interviews stated: “The new deputy of education of the ministry mentions that the deputy of education cannot take on this task. All departments should be involved in regional management” (INT 9). Of course, their point of view is functionally correct. For this reason, in November 2019, the Minister of MSRT for the first time

selected a consultant and special representative of the Minister to organize the higher education institutions based on the SPHE document.

One of the interviewees stated: "In the Ministry, most managers thought the minister has appointed a special representative for whole articles of SPHE document. In practice, the same thing happened. Of course, the locum tenens of the minister was trying to make a balance between the missions assigned to NRISP and special representative of the minister" (INT 10). The draft of the regional management bylaw, which was provided to the ministry in September 2018, was discussed more seriously in the winter of 2019. "The special representative of the minister had prepared a bylaw that seemed to have been given to the deputies, but it had not been noticed by the deputies. After this draft was given to us we realized that the discussion of the bylaw had become serious in the ministry. Different meetings were held and the responsibility of drafting regional management bylaw was assigned to NRISP." (INT 6).

According to the policymakers in this research, one of the policy implications that paved the way for the formulation of policy regulations in this field was the intersection of experiences and policy studies. The narration of one of the managers of the ministry in this field is as follows: "The report of the NRISP is very good in the challenges section and has valuable points" (INT 11). One of the researchers of NRISP narrates as follows: "In our research, we had concluded that in different countries where the regional management of higher education has been carried out, the regions defined in higher education are similar to the regions in political governance. This means it is logical that operations should be carried out at the provincial level in Iran and the ten regions play a coordinating role. In my opinion, the Ministry of Health was not successful in the field of regional management in the field of education. The Ministry of Health has a high degree of control over the universities because the universities are the executive representatives of the Ministry. Based on experience, the emphasis of some managers of the Ministry, especially the Minister and his special representative, was on managing at the province level. Our studies also confirmed this fact. This caused us to present the draft of the provincial management bylaw in the meeting of the council of deputies in March 2020. I think it was the 5th edition." (INT 6).

Based on this, the MSRT, following the approval of the implementation of the

SPHE document at the provincial level. In the 131st session dated 26/5/2020, the steering headquarters of the comprehensive scientific map of the country approved the following text:

“To implement the organizing plans (institutes and fields) as best as possible, the MSRT can plan and implement regional planning and regional management at the provincial scale”.

In parallel with the approval of this plan, in June 2020 the adviser and special representative of the minister in the organizing of higher education institutions was also appointed as the deputy of research and technology of the MSRT. This led to the acceleration of provincial management of higher education. One of the drafters of the bylaws (INT 6) stated that the final version of the approved bylaw was the 18th edition. On November 11, 2020, the bylaw for the implementation of SPHE document-provincial management of higher education was approved in MSRT in 4 articles and 9 notes. The duration of the approval of this bylaw from the notification of the mission to NRISP was approximately 3 years.

The 4 policy points mentioned in the provincial management were important:

- A: In this bylaw, while maintaining the legal independence of the universities, it was emphasized that the activities related to the MSRT or neglected provincial functions should be transferred to the provinces.
- B: At the national level, the central council of provincial management of higher education is formed with the presence of the minister, deputy ministers, heads of higher education sub-systems, selected universities of the provinces, and two experts. This council is one of the largest higher education policymaking councils at the government level after the Islamic revolution.
- C:** At the provincial level, for the first time, a council structure was formed with the presence of all higher education institutions and higher education subsystems for regional policy making.
- D: Due to the maturity level of the provincial councils, it was decided that the functions that can be delegated to the regions will be gradually delegated by the central council.

Regarding the second feature above, one of the narrators stated: “In the meeting of the working group on drafting the bylaw, one of the deputy ministers emphasized that the Council of Universities, which existed before the Islamic

Revolution and has not yet been abolished, can also replace the Central Council. But after the investigations that were done, its revival was ruled out” (INT 12). Also, regarding the fourth feature, one of the interviewees stated: “Until the 16th edition, the functions that could be delegated were in the draft bylaw. However, some deputies said that this led to the inflexibility of the bylaw. For this reason, it was removed in the final version and its delegation was left to the Central Council. Of course, now that I think about it, I see that it was a correct decision, although I was against it at the time” (INT 6).

According to the information received from the Secretariat of the Central Council of Provincial Management of the MSRT (NRISP), three meetings of the Central Council have been held until the end of September 2021, and almost all provinces have held at least one meeting of the Provincial Council.

5. Conclusion

In the conducted research, policy implications were presented for the implementation of the SPHE document as a policy document in the country. Of course, researchers can present additional policy implications from various perspectives in future studies, building upon the narratives conducted in this research. The SPHE document is one of the most significant policy documents in the country’s higher education system after the Islamic revolution. Its articles 1 and 2, which emphasize regional management, are particularly important in this document. The implementation process of this policy can be divided into five time periods (Figure 3).



Figure 3. Time frames for the implementation of the bylaw of the provincial management of higher education

Based on this, it is evident that the SPHE document in the MSRT was not

drafted correctly and there was a lack of belief and expertise to implement it. As a result, almost 2 years after the document was approved, no significant action was taken in the MSRT to implement it. Carrying out a research project during the period of 2018-2019 and presenting the reports on challenges and solutions significantly contributed to the implementation of the document.

The policymakers' perspective, combined with benchmarking other countries and accurately recognizing the challenges, will result in the MSRT exiting its state of inactivity. The third time period can be considered as the dissemination of policies and requirements through specialized meetings, seminars, and conferences. This period of time highlights the need for policy analysts to go beyond just providing policy analysis. They should also actively promote the underlying policy foundations and conduct thorough analyses to establish the necessary prerequisites for policy implementation. The most significant achievement during this period is the approval of the steering headquarters for the comprehensive scientific mapping of the country and the provision of the opportunity to implement provincial management by the MSRT. The fourth step is to finalize the bylaw and gain the support of the senior management of the ministry for its implementation. The participation of key individuals, such as deputy ministers or ministry managers, will help facilitate the implementation of the document during this period of time. The final stage involves implementing the bylaw, and its effectiveness should be investigated through further research in the future.

What can be considered as the key lessons of this research are four key policy implications?

Policy Implication 1: Merely approving macro policies is insufficient. The process of drafting a policy document is also important and key to facilitating the implementation of the document.

This policy implication can be considered the main one. The investigation of the subject in this research shows that the proper drafting of policy documents has a significant impact on expediting and facilitating their implementation.

Policy Implication 2: The commitment and expertise of macro policy implementers play a key role in its implementation. Simply being responsible for implementing policies is not enough; there is a need for evidence-based policy-making to translate macro policies into operational ones.

The second policy implication refers to the importance of supporting the use and development of research and policy institutions to ensure the correct implementation of macro policies. In this research, it is well known that a significant amount of time is lost during the implementation of policies due to the gap between translating macro policies into executable executive measures.

Political Implication 3: The intersection of policy research and practical experiences facilitates and accelerates the implementation of macro policies, thereby increasing their quality. This process involves transforming them into implementation bylaws and operational policies.

Policy Implication 4: Senior executives of institutions must be aware of and committed to implementing macro policies and ensuring their effective implementation.

The third and fourth policy implications emphasize the importance of targeted interaction between practitioners and researchers, as well as the commitment of practitioners. It should be noted that the commitment of the executors is not just an order. One of the effects of the first policy implication is to create a commitment among executives to implement the policies. In conclusion, it is recommended that the impact of implementing the mentioned policy be examined to inform future reforms in higher education policy implementation.

References

- Ahanchian, M. (2012). Analyzing the disparity between science policies and the regional planning of higher education in Iran [In Persian]. *Journal of Science and Technology Policy*, 5(1), 73-86.
- Asheim, B. (2019). Smart Specialisation, innovation policy and regional innovation systems: What about new path development in less innovative regions?. *Innovation: European Journal of Social Science Research*, 32(1), 8–25. <https://doi.org/10.1080/13511610.2018.1491001>
- Asheim, B., & Coenen, L. (2006). Contextualising Regional Innovation Systems in a Globalising Learning Economy: On Knowledge Bases and Institutional Frameworks. *Journal of Technology Transfer*, 31, 163–173.
- Aydalot, P. (1986). *Milieux Innovateurs en Europe*. Paris: GREMI.

- Bouzari, S. (2016). Higher education spatial planning in the geographical area of the country [In Persian]. **Journal of Research and Planning in Higher Education**, 22(2), 49-75.
- Cooke, P. (2002). *Knowledge Economies Clusters Learning and Cooperative Advantage*. London: Routledge.
- Crescenzi, R., Luca, D., & Milio, S. (2016). The geography of the economic crisis in Europe: National macroeconomic conditions, regional structural factors and short-term economic performance. *Cambridge Journal of Regions, Economy and Society*, 9, 13–32. <https://doi.org/10.1093/cjres/rsv031>
- Doloreux, D., & Parto, S. (2005). Regional innovation systems: Current discourse and unresolved issues. *Technology in Society*, 27, 133–153.
- Eisenhardt, K. (1989). Building theories from case study research. *The Academy of Management Review*, 14(4), 532-550. <https://doi.org/10.2307/258557>
- Elahi, S., Naghizadeh, R., Ghazinoori, S. S., Manteghi, M. (2012). The identification of mainstreams of regional innovation development by co-word analysis methodology [In Persian]. *Journal of Improvement Management*, 6(3), 136-158. http://www.behboodmodiriat.ir/article_42796.html?lang=en
- Entezari, Y. (2018). Analyzing the impact of university on regional development in Iran [In Persian]. *Journal of Research and Planning in Higher Education*, 24 (2), 1-25.
- Farajirad, K., Kazemian, G., & Eftekhari, R. (2013). Pathology of regional development policies in Iran: An institutional approach [In Persian]. *Management and Development Process Quarterly*, 26(2), 27-58. <http://jmdp.ir/article-1-1733-en.html>
- Jahandideh, A., Nasl Saraji, G., Kazemi, Z., Jabbarzadeh, M., Ghadrdoost Nakhchi, E., Abdoli, Z., Riahi Poor, Z., & Jomeei, M. (2019). The study of the circumstances of medical sciences units of Islamic Azad University in the academic year of 1395-96 based on Territorial Planning of Higher Education [In Persian]. *Tebvatazkiyeh*, 27(4), 311-323.
- Morgan, K. (1997). The learning region: institutions, innovation and regional renewal. *Regional Studies*, 31, 491–503.
- Ministry of Health and Medical Education (2015). *The geographical development strategy of Health educational system in I.R.Iran, the document of policies and operational guide* [In Persian]. May 2015.
- Ministry of Health and Medical Education (2016). *Missionary in Medical Science Education, Patterns of Deployment of Transformational Packages in Medical Education* [In Persian]. Summer 2016.
- MSRT (MSRT). (2017). *Regionalization document of universities and higher education centers of the country* [In Persian]. Summer 2017.

- MSRT (MSRT). (2020). Implementing regulations Iran's Higher Education System Spatial Management Document - Provincial management of higher education institutions in the MSRT [In Persian]. Retrieved from www.msrt.ir.
- Naghizadeh, R., Elahi, S., & Manteghi, M. (2016). The framework of technological innovation development in the regions of Iran; the case study of bio, nano, aero and ICT [in Persian]. *Journal of Science and Technology Policy*, 9(1), 43-59. <https://dorl.net/dor/20.1001.1.20080840.1395.9.1.5.7>
- Naghizadeh, R. (2019). A policy framework for the challenges of implementing regional higher education management in Iran [In Persian]. *Quarterly Journal of Research and Planning in Higher Education*, 25(3), 99-122. <https://journal.irphe.ac.ir/article-1-4027-en.html>
- Naghizadeh, R. (2020). Developing an operational and policy model for the regional structure of university management. Research project report published in NRISP.
- Naghizadeh, R., Allahy, S., & Ranga, M. (2021). A model for NTBF creation in less developed regions based on the Smart Specialisation concept: The case of regions in Iran. *Regional Studies*, 55(3), 441-452. <https://doi.org/10.1080/00343404.2020.1736539>
- Naghizadeh, R. (2021). The policy framework of Technological catch-up of industrial firms in less developed regions. *Journal of Technology Development Management*.
- Rashidi, M., & Keyzouri, A. (2018). Designing a model for analyzing the development of regional universities by using Interpretative-Structural Modeling Approach [In Persian]. *Journal of Research and Planning in Higher Education*, 24(4), 45-69.
- Ranga, M. (2018). Smart Specialization as a strategy to develop early-stage regional innovation systems. *European Planning Studies*, 26(11), 2125–2146. <https://doi.org/10.1080/09654313.2018.1530149>
- SCCR. (2016). Iran's Higher Education System Spatial Management Document [In Persian]. Retrieved from <https://sccr.ir>.
- Taghavi, Z., Sadatai, M., Kakooi, M., & Jamshidi, A. (2016). Skills training needs assessment based on land use planning document in industry section (case study: Qaemshahr & Sari) [In Persian]. *Skill Training*, 4 (14), 83-102.
- Yin, R.K. (2003). *Case study research, design and methods*. Sage Publications.
- Yin, R.K. (2012). *Applications of case study research*. Sage Publications.



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