Economics of higher education: a survey of the literature

Amir Azad Armaki
Department of Business Administration, Department of MBA, University of Stratford, Virginia, USA.
Email: Azad6@aei.com

Shahrooz Sedghgooyan
Instructor of Azad University, Shahriar Branch, Tehran, Iran. Email: shahroozsedghgooyan@yahoo.com

Manijeh Farahani
Master of Accounting, Department of Humanities, Parand Branch, Islamic Azad University, Tehran, Iran.
*Corresponding Email: Da.13mo@yahoo.com

Zohre Heidari
Master of Accounting, Department of Humanities, Parand Branch, Islamic Azad University, Tehran, Iran.
Email: Sima.green1397.tea@gmail.com

Mozhgan Yegane
Master of Accounting, Department of Humanities, Parand Branch, Islamic Azad University, Tehran, Iran.
Email: M_Yegane84@yahoo.com

ABSTRACT
The educational system, especially higher education, as the main engine of knowledge production and distribution in society, plays an important role in the development of economic activities by transferring technology through the training of specialized workforce and creating reforms related to its indigenization. The economy of education is the main highway to achieve sustainable economic growth and competitiveness. Higher education, as the main pillar of the society that produces, distributes and transmits knowledge, plays a major role in the economy. Education begins with a simple visit and conversation and takes place in the minds of people. In this research, an attempt has been made to interpret the position of economics of education, financial provision of universities, academic independence in universities, the role of educational economics in entrepreneurship, employment, etc., using a library method. Economically, various theories have been presented to explain the role of education. The theories of human capital, filter, riddle and indicator are the theories that have made the effectiveness of education the main focus of the controversy. Therefore, the category of the usefulness of education to economic-social consequences, it is caused by educational investment, which is in the form of personal and social returns, economic growth, increased productivity, improved income distribution, employability, improved health and hygiene, etc.

1. INTRODUCTION
Most of the economists emphasize the formation of physical capital and human capital as the main factors that determine economic growth and development. In the new theories of growth, the role of human capital on economic growth is emphasized more, and the educated manpower and his thoughts and ideas in the development and expansion of production technologies are introduced as the basis and axis of economic progress and growth. The quantitative concentration of capital including the formation of industrial units and machinery and the qualitative concentration of capital plays a fundamental role in the form of having more favorable education and health services and improving the level of science and skill, growth and development of society. Basically, the progress of a country will always be possible as long as the process of using modern methods continues. Modern methods do not only mean having new tools. In fact, modern methods will emerge following new and modern ideas (Gharebaghian, 2001). Today, the lever of development is not wealth and human power, but human science and effective management. Examining the experiences and achievements of the world’s leading organizations indicates that these pioneers and innovations are only possible with creativity, process, sharing, recording and dissemination of organizational knowledge. Knowledge management is an endless process that begins with a simple visit and conversation and take place in the angles of thoughts, beliefs and behavior of employees and eventually becomes a new way of life (Davari & Alizadeh Majd, 2016). The origin of the formation of these new and modern ideas is often higher education. For this reason, the higher education of every country plays a central and essential role in providing a suitable platform for the economic growth of that country. For this reason, the higher education of every country plays a central and essential role in providing a suitable platform for the economic growth of that country. Economic growth means the continuous increase of real national production per capita in a country, as a standard for measuring the economic performance of a society, and increasing its rate leads to the improvement of social welfare. From the point of view of classical theory, capital accumulation is the key to economic growth and development. In neoclassical growth models, capital and labor force are effective factors on economic growth (Bazargan, 2004). Among the vital and strategic measures and tools of higher education to face environmental changes, we can mention academic entrepreneurship and the development of an entrepreneurial university (Taherkhani et al., 2022). Research shows that the countries with powerful universities are the economic and industrial superpowers of the world and this power owes to the production of science and the commercialization of knowledge and technology by universities and scientific research centers. If the country’s universities reach the third generation level, we can promise economic progress and, as a result, tremendous political, military, social, cultural, etc. changes. This progress leads the country to the point of elevation of Islamic Iranian values; It should not be forgotten that entrepreneurial university is first of all an ideal structure and culture and we have to move in order to survive, otherwise we will see many crises in the future of the country (Alizadeh Majd et al., 2018). Education plays an important role in improving people’s quality of life, and the process of learning and education continues throughout human life, from birth to
adulthood and higher education levels (Esfandiar, 2020). The category of education, which plays an essential role in shaping and improving the quality of human resources, has been the focus of economists since the 2.5 centuries ago. In this way, the place of the topics presented in the economic literature regarding education has been based on its economic effects. Even after the formation of the economics of education (which emerged as an independent branch of economics in the early 1960s) and until the last two decades, such an attitude has surrounded the debates. The use of tools and theories for the production of educational products has been one of the major bases of economic theories only until the last two decades. According to these fundamental developments in the economics of education, studies on the general status of the economics of education or its status in a specific country or countries have been conducted by several researchers (Naderi, 2001).

In this field, there are two major topics, education and economy. Education in general helps to improve education in general to improve the level of knowledge and information of people. In addition, paying attention to appropriate methods of education and training and learning are one of the basic topics of education and training sciences. Economics, in its general sense, refers to the science of allocating limited resources among unlimited demands. The goal of the education system is summarized in two platforms: education of people and production of knowledge. The economic goals are related to economies of the individual and social perspectives. Firstly, education plays a great role in the economic success of individuals, companies and countries, both in the form of improving the quality of the trained workforce and in the form of knowledge generation through research conducted in educational centers. Such successes have caused economists to pay special attention to education, so that since the early 1960s, spending on education has been interpreted as investment instead of consumption and from that the categories of human capital and economics of education were born and these developments have left a tremendous impact on the progress of education (Kahrrodi & Asadi, 2015). Second, the resources available to achieve educational goals are limited. Therefore, mechanisms should be used so that these resources are best allocated to educational purposes. It is very important to use economic analysis tools and methods in this direction (Jones, 1997).

There is a direct relationship between rapid economic, social and technological changes with increasing demand for higher education. The challenges of higher education during the last few decades are: Increasing the volume of requests for education, technological development, knowledge-based economy development and pressure on institutions to respond to idealistic needs and it is not the special attention of some universities especially in developing countries, to evolve in this field. Today, electronic education and learning is widely used by universities that use online education platforms. Considering the challenges of higher education and the potential of information and communication technology, for the application of technology in the process of higher education and reaching quality guidelines, it is necessary to move in a standard and appropriate way (Shakeri & Shokri, 2022). E-learning environments may help the teaching and learning process, but only if it is integrated into an appropriate educational framework (both academic and technical). Choosing the method of training, goals, access level, flexibility and finally management tips can be useful for optimizing resources. With the development of e-learning and the level of higher education in universities, it is necessary to evaluate and confirm the relevant issues (Alijpour et al., 2021). Today, due to the increasing increase of information and the growth and development of educational models and the transformation that has occurred in the concept of learning. Changing the approach of education from face-to-face methods to the process of electronic education in order to use electronic facilities and resources and virtual education has been very important. So that with the emergence of new technologies such as multimedia, teaching and learning have undergone changes and educational systems have turned from the independent approach of face-to-face education to an integrated approach (Esfamlari, 2020). The purpose of education is not only to make people literate, but also to increase logical thinking, knowledge and self-sufficiency. When there is a desire for change, there is hope for progress in any field. Today, the use of technology to facilitate learning is accepted among educational institutions (Kalaivani, A. 2014).

Traditional education has tangible unjustifiable costs (commuting, feeding, and (intangible) fatigue, reduction of useful time, etc.). Therefore, nowadays, with the development of the Internet and the provision of access to it, virtual education is expanding day by day (Marginson, 2016). Another type of education is receiving attention today, that is entrepreneurship education. Entrepreneurship education has a prominent role in increasing economic growth, and entrepreneurship graduates are the main players in the dynamism of the business environment (Saadat et al., 2021). Considering today's challenging world, mistrust has intensified and the life cycle of products has decreased, and university services as part of the social system cannot play the role of a peaceful island in society. Rather, it should play this role and it is one of the main pillars for the society. So universities should provide conditions in the society and deal with people who can save the economy from the crisis and create better conditions for the economy through entrepreneurship (Azma et al., 2015). Considering the young population of Iran, the limited resources and educational capacity in the country's current educational system, there is no doubt that the traditional educational system cannot meet the needs of the society. The new age requires the use of modern means of communication, the flexibility of human efforts and the expansion of virtual education and the penetration of remote facilities into the depth of communities with the aim of providing education through a new method is one of the shortcut routes that can achieve greater goals.

2. THEORETICAL FOUNDATIONS OF RESEARCH

2.1 The place of education in economic issues before the 60s

Until the 1960s, the education category was given scattered attention by economists. This attention has been in two directions. One is that education improves the quality of the workforce and the other is the recommendations and suggestions that economists have provided for the education system. William Petty is credited with the initial studies regarding the evaluation of the importance of education for improving the quality of human resources. In 1676 AD, he was engaged in assessing the loss caused by the loss of life in the war, and in his analysis, he considered the lost value to be dependent on the quality of the forces. More economic work is attributed to Adam Smith. On the one hand, he considered the skill of the labor force as the main source of progress and economic prosperity, and on the other hand, he believed that the efficiency of educational centers will increase with the increase of schools and universities. Adam Smith believed that in competitive conditions, teachers should be rewarded according to their work, and families should participate in this matter as private applicants for educational services. After Smith, Alfred Marshall seriously revived the category of economics and education and examined the relationship between the two. In his economic principles, he mentioned education as a national investment and believes that the conditions that make parents legally participate in education should be seriously examined (Naderi, 2001). In the middle of the 1930s, Walsh (1932) conducted the first experimental study in the framework of cost-benefit analysis. He was looking for the point that whether the educational expenses incurred by people for professional jobs were in the direction of investing for profit and in market relations and responding to the conventional motivations of the theory of capital or not. The general conclusion that he obtained from his experimental studies is that the abilities obtained through professional training are dependent on motivations such as the motivation of physical investment. According to his results, the investment in education and learning will continue until the return compensates the related costs and brings an expected profit. Until the end of the 1950s, economists focused on education and its economic importance. After that (that is, from the early 1960s), the way of dealing with issues was changed. The changes that occurred were the conditions in which the difference in the economic growth rate had attracted the attention of economists, since they could not find convincing explanations within the framework of conventional economic theories for the difference in growth between different
countries. This puzzle was the starting point of the serious determination of economists to pay attention to education in such a way that in (Schultz, 1961) and in (Denison, 1962) and in (Becker, 1952) by publishing the results of their studies, they tried to understand the nature of the growth of productivity and the growth of fluctuations. Explain with a new variable called education. In this context, other people such as Minser and Baker have evaluated the effect of education on the perceived difference of people, and Schultz and Baker have theorized the motivations of investing in people (Rogers, & Varachlin, 1991).

2.2 The evolutionary course of the attitude of economics to higher education

The First Stage: which is the embryonic period of economics began in the Renaissance period and was the basis of the scientific and cultural reconstruction of the society during that period. At this stage, economics did not have a special attitude towards higher education.

The Second Stage: At this stage, we enter the industrial revolution. In this period, pure capitalism and modern economics were established. In this course, we are faced with the classical school of economics and Adam Smith as the father of economics.

The Third Stage: Which is called as the century of protest, the European society is in the midst of social transformations and the formation of economics is in its initial stages. In this period, the main critics of the pure capitalist system such as Marx, Proudon and others came forward and put forward new ideas.

The Fourth Stage: It is the century of reform and reconstruction. This period is the maturity period of economics and during it the main branches of economics such as macroeconomics or microeconomics are formed and thinkers such as "Keynes" raise the need to guide the economy (Azimi, 1997).

2.3 Higher education expenses, consumption or investment

Proponents of the theory of human capital and the development and expansion of education believe in this basic point that education has a productive effect and role. It means that people's productive capacities increase as a result of education. These productive capacities bring many benefits to both individuals and society, which justifies devoting huge resources to education (Razavi, 1996). These investments, which are achieved as a result of allocating a lot of resources to education, increase the capacities and productivity of people so that they can reap the expected benefits from the area of this increase in productivity and the consequent increase in the efficiency of the investors. Therefore, the main idea of the theory of human capital is that the expenses that people spend on themselves in different ways are not for spending time and enjoyment, but for future material and non-material productivity. Therefore, in these behaviors, the future benefits justify the current actions, which in fact, is a waiver of a part of the current time consumption, and for this reason, the concept of capital is used in this regard. The study and analysis of this theory was the core of classical education economics. This branch of economics was born with Schultz's lecture at the American Economist Association in 1960. After the birth of the theory of human capital and the use of the concept of capital for educational expenses, the proponents of this theory were severely criticized. In the economics of education, it has been accepted that the expenses that the education system imposes on society and individuals are mainly considered as investments and the decision makers and politicians are hoping that with the realization of educational goals, innumerable benefits will be given to individuals and society (Naderi, 2001). Contrary to the proponents of the human capital theory, the consumption theory believes that education was only related to the benefits of the present time and did not have the role of investment. Learning is a necessary condition for effective change planning and management. Learning not only increases the chances of survival of the organization, but also provides a sustainable competitive advantage (Alizadeh majd & et al., 2020).

2.4 Financial provision of universities

In economics, several main questions must be answered. One of these questions is which economic system (market, centralized state economy, or any system in between) is more suitable for carrying out the optimal allocation? In the neoclassical economy, it is proved that the market system has the maximum efficiency and the way to achieve the optimum beam in the atmosphere of perfect competition. That is, the invisibility of the market has created a magical balance between the supply and demand of each individual and in this way answers the basic questions of the economy. But in practice, the market system fails in some cases. Based on Samuel Sen's synthesis and Musgrave's classification of three tasks, the market economy and the logical analyzes of the capitalist system fall in the four areas of allocation, distribution, stabilization and international economy. In this article, according to the subject of higher education, only two areas of allocation and distribution are mentioned. In terms of allocative efficiency, lack of clear information (exclusivity of information), collusion instead of competition, avoiding the costs of creating negative externalities or not achieving the benefits of positive externalities, The uneconomical production of public goods (such as national defense and public education) with hidden preferences and limitless consumption for private producers. It causes that in the market system, the efficiency of the system is disrupted, so that optimal allocation does not take place. The failure of the market in the field of providing free education requires the presence of the government, but due to the failure of the government in providing effective and complete financing of free education, it is necessary to provide another private solution for financing free education. Anyway, the general budget of the government and other ways of providing financial resources of universities are considered as university income, and in the process of providing educational financial resources, these resources are referred to as the function of generating university income. The shortage of government financial resources causes a change in the composition of financial resources and, as a result, a change in the pattern of providing financial resources or the function of the university's income (Saketi and Saiedi, 2009).

A change in the pattern of providing financial resources (income generation function) leads to a change in how these resources are allocated within the university. Because universities will look for other ways of providing financial resources to deal with the changes and reduction of the government's general budget, as well as goals such as improving the prestige of the university. Universities should gradually rely on non-governmental funds and generate income. This will cause the attention of managers and budget allocators to be directed to certain factors in the allocation of special incomes within the university (Saiedi, 2010). In this regard, a very important and challenging point that many researchers have pointed out is that changing the model of providing financial resources creates an implicit and hidden tension in the way resources are allocated within the university and it affects the type of allocation and budget consumption. For example, one of the tensions can be related to the choice between education or research in allocating resources. On the other hand, the government provides the cost of education because the formation of human capital is done through education and this capital can improve the production possibilities curve (which means improving living standards) and therefore, the increase of this capital is an incentive for the financial provision of universities by the government, so the government budget should be spent more on education. And university presidents (or budget decision-makers within universities) should allocate more funds to colleges for education; In other words, schools that have a larger number or ratio of students or faculty members should receive more funding, and variables related to these matters, such as the number of faculty members, should become significant in the pattern of allocation of financial resources among schools. However, the private funding providers who sign research credits and research contracts with the university mostly pursue research goals, so these resources should be allocated to the research activities of the schools; In other words, the schools that have more number or proportion of these cases should receive more funds and the variables related to these cases should become significant in the pattern of allocation of financial resources among the schools. In general, it can be said that the financial provision of the university affects how these resources are allocated to the schools and therefore, the pattern of allocating resources within the university is affected by the way financial resources are provided according to the conditions and the financial situation of the university (crisis conditions and lack or lack of...
2.5 Academic independence of the university

In today’s era, universities are considered as organizations that have many complexities. In this regard, the issue of granting independence to universities adds to this complexity (Jalali & Ghanbari, 2020). The issue of independence has long been one of the concerns of professors and academic authorities. Since the first days of the establishment of universities in the Middle Ages, independence or self-governance has always been one of the basic principles of educational institutions (Rahmani & Nasrabadi, 2001). Improving the quality of higher education institutions, planning efficient education and providing effective curriculum are key issues in higher education that can be achieved by delegating authority to universities and granting them independence. What is considered as university-oriented curriculum planning in the academic field is possible only with academic independence. The university-centered curriculum has been implemented as a strategy for decentralization and in line with the delegation of curriculum authority to universities (Ministry of Science, Research and Technology, 2000). Decentralization in higher education has been the concern of higher education in recent years, which unfortunately has not yet been realized in its true sense. Delegating authority and granting university independence, which is a manifestation of decentralization, leads to the justice of education, which is considered as the perspective of Iran’s higher education in the horizon of 1404 (Scientific Development Document, 2009; Comprehensive Scientific Map of the Country, 2011). The lack of structural independence in the university can lead to the content dependence of these scientific institutions on non-scientific organizations and this causes the universities to be dependent in setting and choosing the contents of their educational and research programs and come under the pressure of power and external institutions. Although in paragraph an of article 49 of the law of the fifth development plan, the issue of the independence of universities is considered (Zaker Salehi, 2009). However, with the emphasis of a number of researches on the inefficiency of the current system of higher education in Iran, the need to change the level of authority, academic freedom and independence of the country’s universities is clearly evident (Homayounfard, 2017). The findings of many studies show that independence is a key factor for attractive, effective and successful universities (Serkan Ödemiş et al., 2016). The independent university is a critical, theorizing and free-thinking center and documenting these activities and presenting them to the society and relevant professionals; Such a university will be effective in determining the country’s destiny and will provide the basis for development based on knowledge (Zahedi Asl, 2017). Nowadays, public universities suffer from a lack of independence, because most of the institutions are usually created by the government and controlled by the government (Sufean & Wong, 2014). Today, in the governance of universities, many governments intend to directly or indirectly increase their control over modern universities and their main activities (Woelert, 2014). Anyway, the issue of academic

2.4.1 Major sources of private income of Iranian universities

- Night time income
- Self-service income
- Income from holding the summer semester
- Rent of premises
- Research projects of academic faculty members
- Sale of livestock and agricultural products
- Income from the tuition fees of the graduate students’ scholarship
- Conducting examinations of departments and institutions
- Loan repayment
- Organizing conferences and seminars
- Virtual courses
- Selling books and magazines
- Sale of movable and immovable property
- Selling clinic services
- Bank interest
- Registration of transfer students

According to what indicators the costs are allocated to the university:

<table>
<thead>
<tr>
<th>Measurements</th>
<th>Explanatory variable</th>
<th>Theory</th>
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<tbody>
<tr>
<td>The total number of university students</td>
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<td>Size</td>
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<td>The total number of faculty members of the university</td>
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<td>Logical-political theory</td>
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<td>The total number of university employees</td>
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<td>The total number of university graduates</td>
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<td>The total number of courses in the university</td>
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<tr>
<td>The ratio of the total number of hours taught in the university to the faculty members</td>
<td>Efficiency</td>
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<td>The ratio of the number of articles (internal and external) of the university to the academic faculty members</td>
<td>Efficiency</td>
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<td>The ratio of the number of books, authors and translations of the university to the members of the academic staff</td>
<td>Efficiency</td>
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<tr>
<td>Index of professor to student ratio in the university</td>
<td>Size</td>
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<tr>
<td>Average class size (average number of students in a class)</td>
<td>Quality</td>
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<td>Average rating of professors (average rating scale)</td>
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<td>Scientific power</td>
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<td>University efficiency ratio based on Mousavi’s research (Mousavi, 2007)</td>
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<td>The amount of money attracted through external research projects</td>
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<td>The number of external research projects and contracts (with outside the university)</td>
<td>Scientific power</td>
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<tr>
<td>The ratio of the number of female students to the total number of university students</td>
<td>Variety</td>
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<tr>
<td>The ratio of female academic faculty members to all university academic faculty members</td>
<td>Variety</td>
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<tr>
<td>Tuition fees absorbed by the university (Ashar &amp; Shapiro, 1988)</td>
<td>Close to the market</td>
<td></td>
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<tr>
<td>University type (1-humanities, basic and technical sciences)</td>
<td>Virtual variable</td>
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Financial resources) (Saketi & Saeidi, 2009). Universities around the world use five sources for their funding:

- Government budget
- Selling educational and research services
- Student tuition
- People’s aid (endowments)
- Foreign aid

Table 1. Explanation variables for predicting the amount of budget allocation to the school (Azar, 2007)

According to the horizon of 1404 (Scientific Development Document, 2011). The lack of governance of universities, many governments intend to directly or indirectly increase their control over modern universities and their main activities (Woelert, 2014). Anyway, the issue of academic
independence in the higher education system of our country has been accompanied by many ups and downs and has seen various forms.

2.6 University as an intellectual institution

Let’s define intellectuals and intellectuals as guardians of the past and pioneers of the future and in this sense, let’s define him as a state that firmly stands on his history and tradition and is constantly thinking about the future and whether we consider it with a pragmatic reading - like Edward Saeed and Chomsky - the questioning role and permanent critic, the university will definitely have a place in the center of these concepts. With this description, the university is not a place of conflict between the tradition of the past and the novelty and transformation of the present; Rather, it will be an institution for interaction and conflict between these two situations, which will bring “indigenous” and “individual” modernity and drinking in a critical and questioning struggle towards the concepts, beliefs, traditional values of the society and the achievements of the modernized world. With this approach, the university can be the source of transformation in our society; Especially humanities. As evidenced by the historical experiences of transformation in the field of education and human sciences and the way of looking at man and recognizing his abilities, which can create transformation in other fields such as industry and technology, natural sciences. What is the guarantor of the emergence of such a situation, how can such a transformation be created? (Babajani, 2013).

Independence implies the belief that if higher education institutions are to serve the society in the best way, they should be free to determine their goals and priorities and implement them. At present, the understanding of academic independence implies a state where the university can be free from government constraints. To be able to manage its internal affairs freely, to allocate its financial resources, to provide income from non-governmental sources, to hire the required faculty according to its internal needs and, finally, to determine the educational and research conditions, for itself and in this way, academic independence refers to a situation where a higher education institution is allowed to manage its affairs without the direct interference and influence of forces outside the university (Keske et al., 2013).

2.7 Academic freedom and independence

The most important and basic guarantee for what happened; “Academic freedom and independence” and the recognition of this right for our academic community, academic independence means the independent and self-governing management of the university by the people of the university. Professors and students can take over the management of universities in a safe environment (Thorens, 1998). The perception of academic freedom among professors is mostly based on the union model and among students, more liberal and civil models are observed and compared to professors, students had more critical and liberal views on academic freedom due to the lack of organizational dependence on bureaucratic institutions and the reduction of capital at risk (Mohammazadeh et al., 2021). Therefore, in examining academic freedom, it is necessary to pay attention to all the situations and fields that hinder the realization of academic freedom or promote it. Also, factors such as the review of the constitution of that country, the amount of attention paid to academic freedom in the constitution, and the amount of legal support for academic members of that country should be taken into consideration. Knowing the factors and obstacles that limit academic freedom is effective in removing these obstacles and providing grounds for scientific growth and fulfilling professional responsibilities, and, as a result, contributing to the growth and development of the country (Khosravi et al., 2022).

The question raised here is, if the government is the main provider of the higher education budget in a country, does it have the right to interfere in the internal affairs of universities and disrupt their organizational independence. At least, the experience of Western and Northern Europe, including Britain, has shown that this is not necessarily the case. The main tendency of the advanced countries in providing the costs related to higher education is the presence of the government sector, while the universities of this country have the most organizational independence. So, the opinion that independence of universities is necessary for them to be independent from government funding is an illusion and not necessarily true. In many countries of the world, despite the fact that the government is the main provider of university budgets, it does not interfere in their organizational affairs and has minimal interference. In these countries, the presence of the government in higher education has mostly a supervisory aspect and encourages universities in providing the development goals of the society, justice in access to higher education and guaranteeing the quality of academic services (Thorens, 1998). Ways to institutionalize practical freedom and academic independence in the country:

- First, changing the view and eliminating the traditional and state-oriented view and policy making of higher education,
- Fixing the lack of financial and credit diversity of the university and improving financial techniques in them,
- Reforming the public policy system,
- Deregulating and expanding the powers of the Boards of Trustees,
- Strengthening the non-governmental sector and scientific associations,
- Self-evaluation,
- Independence of the university in choosing professors and students,
- Amending disciplinary regulations,
- Amending the bylaws of student and university organizations and activities,
- The right to free access to information and knowledge,
- Intellectual property,
- The possibility of free scientific balance with the global environment (Jones, 1997).

2.8 The role of higher education in job creation

Higher education has an important economic role and influences, because it represents an important type of investment in human resources, which contributes to economic development by providing and improving the knowledge, attitudes and skills needed by employees in various fields (Wood Hall, 1992). The role and position of higher education in this field can be clarified when we know that scientific forecasts and estimates depict rapid changes and advances in the field of technology and, accordingly, in the estimation of the economic institutions of society. Therefore, since higher education educates and prepares people with appropriate technical and scientific skills, it is considered one of the key elements in the link between scientific knowledge and its applications to realize economic progress (Azizi, 1999). Therefore, universities and higher education centers have effectively participated in the successful economic reconstruction and development of many developed societies in two ways: First, the training of human resources with quality from the scientific and technical point of view and in the necessary number; Second, creating an environment and conditions for research and development that makes sustainable progress in industrial development possible (Singh, 1991). However, the economic structure of its societies is changing so much that it increases new skills, abilities and capabilities. Therefore, it seems very important for the senior policy makers to understand the economic and industrial developments and changes and clarify how the higher education system can be adapted to these new conditions. Paying attention to this matter is effective to a large extent in reducing concerns about the widespread unemployment of graduates. For this reason, in order to respond to the demand of the labor market for skilled and efficient workforce, all countries have paid special attention to the category of higher education (Wood Hall, 1992).

The labor market is one of the most important markets in the economy due to its impact on other economic markets and its impact on them. The issue of the labor market in Iran’s economy indicates an imbalance due to various economic and social reasons. In this way, during the last decade, in the current wages, the amount of labor supply has increased over the amount of its demand and this gap has gradually increased, the result of which is the unemployment crisis and the lack of suitable employment for the workforce, especially young people and university graduates. Expert manpower is the most important development factor in any society (Hashemi Duran, 1999). The growth and even survival of
most economic activities depends on the issue of market share (Azad armak & Davoodi, 2023).

The optimal performance of the economic role of universities and higher education centers requires the policymakers of this system to have accurate and timely information about the needs and conditions of economic enterprises, which are rapidly evolving. It is obvious that the realization of this will lead to the strengthening of links and relations between universities and industrial centers, facilitating the exchange of opinions, experiences and suggestions between these two parties in order to improve the mechanism of education and preparation of students.

- Graduates of universities and higher education centers use the available job opportunities better and more, and the realization of this will lead to an increase in the external efficiency of the higher education system and a positive return for this investment.
- Another thing is that the managers of the industries get the opportunity to pay attention to the restoration and provision of the human force they need from among the graduates who fully have acceptable skills and abilities (Hashemi Daran, 1999).

Higher education, employment, women and the position of women in the economy have always changed with the changes that have taken place in the construction and functioning of the family in modern society, and the social base of women has also changed. Industrialization and urbanization have given women the opportunity to work outside the home. Also, the urban environment has helped the freedom of women before and during marriage. In developing countries, due to patriarchy and the lack of suitable educational opportunities for women, they suffer from illiteracy more than men. Education in these societies creates new forms of thinking and expands people's viewpoints and understanding of the world. It also expands opportunities for women's education by changing men's and women's attitudes and finally creating opportunities for women to access job opportunities for them. Mending and modernization in developing societies have been associated with specific changes in the role of women in all aspects of social life. Developments in the economic field, along with industrialization and modernization of technology, move to the benefit of women as well as men based on acquisitions (Mosafa, 1996). On the other hand, due to the increase in the number of women in higher education, the labor market cannot meet the needs of the female population, and in the near future we are facing a crisis of unemployment among educated young women. On the other hand, one of the most important criteria for measuring the degree of development of a country is the importance of education that is required in various scientific, economic, social, and political fields. Women's employment as one of the components of economic development is always evaluated and measured and it is a form of introspective planning of the country. It can be said: the development of a person in work life, career, social, personal and cultural issues are all the result of investing in education. Therefore, according to the human development index, which is the basis for measuring human empowerment and the role of specialized training in supplementary education in this empowerment should be paid more attention to the presence of girls in supplementary education courses, at least in order to meet the need of the economy sector for specialized and efficient manpower (Hadian & Heidarpour, 1999).

### 2.9 The role of higher education in entrepreneurship

As can be inferred from the definition of entrepreneurship, an entrepreneur performs three main activities:

- Creating a business
- Product innovation
- Employment generation

In national growth and development, the entrepreneur presents himself as a driving force and engine of economic development by creating an entrepreneurial value chain. Therefore, in advanced countries, appropriate support policies have been adopted to strengthen entrepreneurial traits in individuals and to maintain the entrepreneurial spirit at the community level (Gibb & Davies, 1990). In today's world, entrepreneurial scientists and entrepreneurial universities give a new shape to the academic space by turning knowledge into intellectual property. Today, universities have a share in the companies established by academic members. In search of intellectual property and publication of articles and scientific fame, they are more than their findings, and university scientists have turned into investors and entrepreneurs. In each of their missions, universities are moved from an individual point of view to an organizational point of view. Job creation requires entrepreneurship programs, especially in higher education environments, so university activities, while playing a role in the production of science and knowledge at the work level, should have a huge contribution to the overall development and technological innovation of the country. Therefore, the universities should be led towards entrepreneurial universities by developing strategic plans. This requires a suitable platform along with structural and non-structural measures and the development of entrepreneurial management thinking in academic environments, which fortunately has its background in the country (Gibb & Davies, 1990).

#### 2.10 The role of the higher education system in the development of economic activities

The educational system, especially higher education, as the main engine of knowledge production and distribution in the society by creating a new technology or by transferring technology through the training of specialized workforce and making reforms related to its indigenization, plays an important role in the development of economic activities. Also, the higher education systems along with the training of experts and entrepreneurs in various industrial and service fields, by increasing the level of general income of the society through the employment of people with high education in higher education, in addition to increasing the purchasing power of the society, causes an increase in per capita taxes received by the government and as a result, it provides an increase in the government's income, and in this way, it leaves many positive effects on the economic conditions of the country. Also, increasing tourism and export incomes by attracting foreign students and creating an entrepreneurial spirit and increasing the flexibility and perseverance of students in economic activities are other important effects of higher education on the development of economic activities (Mattoon, 2008). Innovation in university management before the industrial revolution, the paradigm of manual production was dominant in all organizations, including educational institutions. The problems caused by manual production led to the emergence of the paradigm of mass production. Organizations that work according to this paradigm share characteristics such as high concentration, inflexibility and relatively automatic operations (Drucker et al., 1997). These organizations traditionally focus on production, especially a high value on machines and facilities and place little value on the knowledge of employees or the special wishes of customers (Goldman et al., 1995).

In response to the demand of the environment during that period (Industrial Revolution), higher education institutions responded to the paradigm of mass production. The great need of industries for workers during the industrial revolution made the number of people in need of university education to increase. A large number of higher education applicants quickly affected higher education systems and universities. The university could no longer limit itself to teaching a limited number of people in a room. The manual system related to the agricultural era (small number of students and multiple bases) was not responsive to these environmental and economic conditions. The paradigm of mass production was a clear and appropriate solution to address the environmental and economic conditions. The paradigm of mass production was dominant in all organizations, including educational institutions. The problems caused by manual production led to the emergence of the paradigm of mass production. Organizations that work according to this paradigm share characteristics such as high concentration, inflexibility and relatively automatic operations (Drucker et al., 1997). These organizations traditionally focus on production, especially a high value on machines and facilities and place little value on the knowledge of employees or the special wishes of customers (Goldman et al., 1995).
paradigm of mass production is no longer suitable to meet the unique economic, political and social expectations of the higher education system of this era and the era of management through goals and hierarchy or through predetermined logic and precise controls has come and traditional methods are no longer responsive. Meanwhile, agility is the basis of a new paradigm that has the power to explain and justify the existing conditions of universities, and the university should move towards the use of agility components as an innovative approach in university management (Kumar & Motwani, 1995).

2.11 Economics of higher education in the era of Corona

During the Corona epidemic, the higher education system of all countries, including Iran, was affected by the crisis. The prolongation of the time period of the corona epidemic caused the universities of different countries to adopt strategies to continue their educational activities. The most common solution of universities in facing the crisis was to replace electronic training instead of face-to-face training. The change in the way of education brought consequences for the higher education system of countries and created opportunities and problems for universities (Biriya, 2022). Due to the role of universities in promoting the development indicators of societies, governments have taken over part of the financing of universities and scientific centers in order to solve the inefficiencies of the higher education market. The increasing demand for higher education and the severe budgetary restrictions of governments have led to the privatization of higher education and obtaining financial aid from international institutions. Although this situation is different according to the country or educational sector (government or non-government) but the unsustainability of universities’ financial resources is a global issue such that in the last two decades, these organizations have received less financial resources than their anticipated expenses from governments. But in Iran, due to the limited development of government higher education centers in the last two decades, the share of universities and higher education centers from government aid has decreased. In addition to the structural problems of the economy of higher education, especially the limitation of government resources and the high dependence of universities on government resources, in recent months, with the widespread spread of Corona, universities have reduced part of their educational, research and service activities, which has caused greater instability of financial resources (Zeraat et al., 2020).

3. RESEARCH BACKGROUND

In this section, we will examine the studies that have been done inside and outside the country regarding the research area of this article.

| Table 2. A summary of domestic and foreign researches |
|---|---|---|---|
| **Row** | **Authors/year** | **The purpose of the research** | **Findings** |
| 1 | Biriya, Sohella, (2022) | Higher education in the era of Corona in Iran and the world | Despite the problems in electronic education, universities should benefit from the resources of such education and follow the combined face-to-face and non-face-to-face education in future policies. |
| 2 | Khorsand et al. (2022) | Academic freedom in the academic environment, challenges, strategies and consequences | The lack of sociological study of academic freedom in Iranian universities, especially the study of bottlenecks and obstacles limiting academic freedom, the strategies of faculty members in facing these bottlenecks, as well as the consequences of its lack, is clear and arguable. |
| 3 | ghaderi, Maryam, Shokri, Zahra, (2021) | Examining virtual training in the era of Corona and the purpose of the type of training, its advantages and disadvantages using combined and traditional methods and the effects of technology. | The educational package designed is effective in reducing anxiety and fear of corona disease among language learners. |
| 4 | Alipour, Nasrin & Norouzi, Dariush & Nourian Mohammad, (2021) | Designing the pattern of components affecting the quality of electronic learning environments. | Using content analysis, 29 subcategories were identified and the components of the e-learning environment that were extracted using content analysis in 7 dimensions, they include learner, teacher, curriculum approaches, teaching-learning process, content of education, physics of electronic learning environment and evaluation. To check validity and reliability of coding, from reliability which include four criteria of believability, reliability, confirmability and transferability were used. |
| 5 | Mohammadzadeh et al., (2021) | A qualitative analysis on the representation of the experiences of the beneficiaries of the institution of science in Iran | Referring to the five themes of freedom in education and research, reducing the hegemony of opinion, freedom of academic speech, independence of the university and freedom for scientific ability and prosperity in its results And they stated that the understanding of academic freedom among professors was mostly based on the guild model and among students, more liberal and civil models were observed And compared to professors, students had more critical and liberal views on academic freedom due to the lack of organizational dependence on bureaucratic institutions and the reduction of capital at risk. |
| 6 | Jalali & Ghanbari, (2020) | Explaining the ideal criteria of academic independence and its effects on Iran’s higher education from a legal perspective | The desired criteria of academic independence include structural independence, content independence, financial independence, comprehensiveness of accountability and independence in decision making. Also, universities’ agility, leadership in the field of science and technology, university-centered, more accurate response to external stakeholders and negative effects due to the lack of preparation of the necessary platform for granting academic independence have been considered as the effects of academic independence for the field of higher education. In general, it can be said that decentralization and giving authority to universities in the field of related matters is one of the basic priorities of higher education in achieving the ideals envisioned for those institutions in the vision of 1404 And it is necessary for the trustees of higher education to help solve issues related to granting independence to universities by adopting measures and solutions and facilitating the necessary conditions for it. |
| 7 | Esfandiari, Roghayeh, (2020) | The process of teaching and checking its quality in both face-to-face and virtual ways | It is necessary to consider both face-to-face and non-face-to-face methods, or in other words, virtual and online methods, to improve the quality of education and not to shut down education and learning. In so-called, a combined method can be used, which includes the advantages of both methods and will be complementary to each other, and will cause a proper overlap and to some extent eliminate the defects of both methods and will lead to the advancement of the high goals of education. |
The quality of stakeholders' participation in university management has a significant impact on knowledge creation and the development of information databases. The increase in inflation and the persistence of a price increase are important factors in the economy.

The experts have agreed on the four dimensions of organizational, financial, scientific, and employment independence as the dimensions of university autonomy. And the political process in various countries, the governance of the country's higher education system, the centralization of government decision-making system, financial and employment restrictions, specific factional and party prejudices are among the most important obstacles in the way of university independence research, and governments play a fundamental role in all these cases.

The concept of university independence, legal principles, obstacles, and limitations. Realizing the long-term vision of the system and achieving the expected scientific and technological position in the region is not possible without the existence of a dynamic and efficient university.

An analysis of the privatization of higher education economics. The higher education system, along with the training of expert and entrepreneurial forces in various industrial and service fields, by increasing the level of general income of the society through the employment of highly educated people in higher education. In addition to increasing the purchasing power of the society, it has led to an increase in per capita taxes received by the government and as a result, an increase in the government's income. And in this way, it leaves many positive effects on the activities of economic enterprises.

Developing a model for university management with an approach based on foundational data theory. Today, university leadership is accepted as a common concept among university stakeholders, including policymakers, politicians, and families. The consequences related to increasing the quality of stakeholders' participation in university administration can be divided into three parts: increasing efficiency and effectiveness, improving performance and increasing accountability.

The variable number of faculty members has the largest positive coefficient in the function of allocation of financial resources to faculties. The variable of the number of students was not significant and it showed that the allocation of financial resources is not done per capita in the university.

The type and nature of university autonomy and independence. First: independence is not absolute but relative. Secondly: Autonomy never means independence from the government (political independence). Traditional regulatory systems rooted in state bureaucracy tend to return even when they are eliminated or modified. In the absence of new and replacement monitoring systems, this tendency will intensify.

Challenges of using performance indicators in performance-based budgeting for universities. The establishment and institutionalization of this system in the state universities of the country is facing various challenges, some of which are rule of law and binding, and the limitations of the centralized financial system and government budgeting, which gives little room for scientific approaches. Unpreparedness of university administrations, difficulty in defining educational, research and service performance indicators, lack or lack of comprehensive information databases within universities, complexity of measuring educational, research and service quality and not following up and establishing university strategic plans.

The economics of education and its place in Iran's higher education system. Despite the long history of education economics and the recognition of the country's authorities on the importance of education issues from an economic point of view, on the one hand, and the numerous problems that are affecting the education system and the country's economy On the other hand, paying attention to the economy of education does not have a special and worthy position in the educational and university system of Iran. There is no economic education trend in the economic education centers that will train the relevant specialists and on the other hand solve the many problems that the country is suffering from in this field.

Investigating the sources of economic growth (labor and capital) in the form of an econometric model, Economic Vice-Chancellor of the Ministry of Economy, Tehran (Persian). There is a disproportion between the increase in wages and the labor force in Iran's economy, often the wages are adjusted with the increase in inflation And regardless of the productivity factor and the real contribution of the labor factor in increasing production or change.

Independence of the future university. Universities are gradually opening their place under the economic, social and political structures of many countries of the world, they are always considered as major employers in many regional labor markets and provide continuous and suitable job opportunities.

Economic development and the share of women in the labor force: the case of Iran 1375-1385. Tehran: Jamit Quarterly. There is a strong relationship between economic development and the share of women in the labor force, and other factors such as some macroeconomic variables, demographic factors, and cultural and ideological factors are effective in the size of the share of women in the labor force.

Higher education in Iran and its role from the perspective of economics and development issues. Higher education represents an important type of investment in human resources that helps economic development by providing and improving knowledge, skills and attitudes. Higher education certainly not only promotes knowledge but also creates new knowledge with research, technological and scientific advances, thus universities and other higher education institutions have a double share in the economy.

An exploratory study of university autonomy: a comparison of Turkey and some European Union countries. There was a significant relationship between variables such as the proportion of higher education in the population, job opportunities for graduates, the number of articles published in international indexed journals, and the academic performance of academics from top-ranked countries in the field of organizational, financial, staff and university independence. Autonomy is a key factor for attractive, effective and successful universities.

Higher education and its growth. Most seemingly qualified people don't face major problems in the job market, but instead often get a position that is slightly less than what they are trying for And vice versa: the usual version of the human capital model considers the value of education too literal and limited. Thus, it misses the transformative interrelationship between highly educated populations and the nature of work.

University autonomy: what academics think about it. To a large extent and contrary to popular belief, public universities still enjoy a high degree of autonomy in several components. Especially in determining the...
In this article, the research method has been carried out as a review and library study, and internal and external studies show that the current state of the country’s higher education economy was investigated and higher education has always played a big role in the economy as a producer of manpower, it definitely not only causes new research, technological and scientific knowledge. In this way, universities and other institutions of higher education have a double share in the economy, and despite the problems in electronic education, universities should benefit from the resources of such combined education (face-to-face and virtual) and should be followed in future policies.

4. DISCUSSION AND CONCLUSION

Examining the factors affecting progress and development in advanced societies shows that all these countries have powerful and efficient education. The crystallization of education is in the training of committed, scientific, expert and skilled human forces. In today’s world, where science and technology with rapid growth and progress in the world are considered as an important and fundamental factor in the process of economic, social and cultural growth and development of human societies, Educational institutions and systems play an important and significant role. Increasing attention to the type and expansion of education is an undeniable necessity that is caused by the rapid pace of change in various fields of economic, social and other activities of societies and not paying enough attention to it will eventually create many bottlenecks and problems for the economic and social development of the society. In the past, education was basically part of the government’s duty and its cost was 100% funded by the government. In the last decade, we witnessed the entry of people and the private sector into the field of education. The departments that made a good contribution in this field, this presence, along with the formation of different concepts such as entrepreneurial universities, gradually made the focus on income generation more serious for universities, in such a way that planning to realize this goal is now a priority for all universities. Considering the needs of the universities, the government is far from providing them, but we should not magnify this issue. We have to find other ways to cover the expenses and try to change the rules and regulations and facilitate the movement, so that the universities can cover their expenses from the GDP. Research activities are the driving engine of the country’s economy; Researches that should be paid attention to and efforts made to make them efficient in the society, provide income generation for universities.

Higher education is a vital mechanism for socio-economic advancement among aspiring individuals and an important driver of economic mobility in our society. Additionally, an educated workforce is critical to our nation’s future economic growth. Companies and businesses need a highly skilled workforce to meet the demands of today’s competitive global economy. Higher education operates through a complex public private market with many different individuals and institutions participating in it. While post-secondary education has become increasingly important, there are also growing concerns about the cost and affordability of higher education. The move from largely public higher education to a more privately funded system is one aspect of a changing intergenerational bargain. Previous generations of students attended state-funded colleges, funded by massive taxes on older generations. Now, students and their families increasingly pay their own fees, given the prevailing view that education is a private investment rather than a public good. Individuals alone may not be able to finance this high-return investment in higher education, and the economic benefits of higher education suggest that a purely private financing market will lead to underinvestment in education. Therefore, there is an important area for the role of government in higher education. As budgets at all levels of government are likely to remain under pressure, policymakers will continue to face trade-offs between education and other public priorities, and it is critical that we all be well informed about the impact of higher education on individuals and society. Also, higher education, as the main engine of knowledge production and distribution in the society, plays an important role in the development of economic activities by transferring technology through the training of specialized workforce and creating reforms related to its indigenization. The economy of education is the main highway to achieve sustainable economic growth and competitiveness. Higher education, as the main pillar of the society that produces, distributes and transmits knowledge, plays a major role in the economy. Also, the higher education system along with the training of experts and entrepreneurs in various industrial and service fields with increasing the level of general incomes of the society, by employing people with high education in higher education, in addition to increasing the purchasing power of the society, it has caused an increase in per capita taxes received by the government and as a result, an increase in the government’s income. And in this way, it leaves many positive effects on the activities of economic enterprises.

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