

Assessing the Situation of Creative Industries in Iran; With a Pathological Perspective

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Abstract:

In recent years, "creative industries" have attracted the attention of advanced economies, and each of them is trying to use it to achieve economic, political and security goals according to the unique functions of this industry. The growing importance of creative industries in policymaking shows the stimulating and facilitating role of these industries in the development path. However, it seems that few studies have been conducted in this field in Iran and therefore a clear picture of how it works is not available. Therefore, the present study has studied the situation of creative industries in Iran with a pathological perspective. In addition to documentary and library studies, the interview techniques were used to collect data in this qualitative study. The statistical population is all activists and experts in the field of creative industries that using purposive sampling method, 7 of them were selected as sample members. The data were first analyzed and coded, then by using "Fuzzy Delphi Method", the opinion of experts was agreed and the importance and weight of the 29 extracted categories were determined. The results show that while the capacities for the development of these industries are significant, the current situation of creative industries in Iran is far from the desired situation, which is mostly affected by the challenges and obstacles facing these industries in Iran which are described in this article.

Keywords: Creative Industries, Iran, Pathological Perspective

1- Statement of the Problem

In the world today, "creative cultural industries" have become the driving force of the economy of many countries and are considered as the main factor of development in their vision. One of these countries is Australia, which has focused its "cultural policy" on government policy in order to achieve development. According to the "Australian Centre of Excellence for Creative Industries and Innovation (CCI)", the gross domestic product of Australia's creative industries was \$ 31.1 million between 2007 and 2007, accounting for 2.8% of GDP. It is also worth noting that its share is higher than other industries such as water-gas-energy and communications in this country. Thus, the growth of creative industries has been faster than the economy for many years (CIE, 2009: 24-25).

According to the "United Nations Conference on Trade and Development" (UNCTAD), which is one of the most authoritative statistical sources in the field of creative industries, in 2015, China was the largest exporter of creative industries in the world with a revenue of \$ 125 billion. In 2019, at the 74th session of the UN General Assembly, 2021 was declared the International Year of Creative Economics for Sustainable Development. Indonesia was a major sponsor of the proposal, which was presented by a global group of countries including Australia, China, India, Indonesia, Mongolia, the Philippines, and Thailand (UNCTAD' report). According to UNCTAD reports, between 2012 and 2015, Iran's share in the export of creative industries in the world was negative 25.51. In the past decade, however, the country, like many countries in the world, has turned to the creative and cultural industries in its cultural and economic policies. The visible growth of the "creative ecosystem" is related to this issue. The "Soft Technologies and Identity Development Headquarters of the Vice President of Iran" is one of the most important sources of creative industries in the public sector, which provides many facilities to creative companies. In Iran until August 2021, about 1317 creative companies are registered and use the facilities of this headquarters and play a significant role in the creative economy. (Ecological Development Plan of Creative Companies, 2021) In the report of the Supreme Council of the Cultural Revolution in 2003, the ratio of GDP to cultural sector to total GDP was about 1.5 percent (Rafiei & Ardekani, 2008) and the share of value added in the cultural sector in relation to the total value added of the Iranian economy by 2017, has remained slightly more than 1 percent.

(Statistical Center of Iran). As can be seen, both the "government" and the "private sector" have built infrastructure for the development of creative industries in Iran. In addition, the national document for the

development of soft and cultural technologies was announced in June 2021 by the former president of Iran, Dr. Hassan Rouhani, exactly 3 years after its approval, and the 4-year vision of these industries was determined. So, the question is why, despite the creation of infrastructure and support, creative industries in Iran has not caused economic growth and has not been effective in GDP figures? What are the disadvantages of Iran's creative industries? In this research, an attempt is made to answer the mentioned questions.

2- Literature

2-1- From cultural industries to creative industries

Discussions of the cultural industries usually start from Theodor Adorno, who, with his colleague Max Horkheimer, first coined the term in 1947 with the essay 'The Culture Industry: Enlightenment as Mass Deception' (chapter 3 in Adorno and Horkheimer, 1979) (Potts, 2011). Adorno's subsequent writings - on film, radio, newspapers and (most notoriously) jazz and popular music – all re-affirmed the message that under monopoly capitalism, art and culture had now become thoroughly absorbed by the economy (O'CONNER, 2010, p:11)

The concept of creative industries was first mooted in Australia in the early 1990s in the context of a radical reformation proposal for arts and cultural policy funding mechanisms and justifications. It is nowadays associated with a bunch of breakthrough monographs by a largely unconnected group of scholars of the creative economy (for example, Caves 2000, Howkins 2001, Florida 2002) (Potts, 2011, p: 8).

Ten years later, when the British wanted to launch a vision for their country of reviving the so-called "Great Britain" empire in the 21st century, all their attention was focused on the cultural industry and for some reason they preferred to use the word "creative industries" like the Australian Government. The British preferred to use a new term that did not provoke political-cultural controversy in their society, instead of using the term "cultural industry", which could refer to the negative aspects of "cultural industry". To make a logical distinction between the cultural and creative industries, they also added several new branches of activity to the cultural industries. (Kiqbadi, et al., 2008: 14).

It can be said that the creative industries are the result of the activities of writers, artists, architects, musicians, and the manifestation of the spirituality of the people and the values that give meaning to life. Creative industries are the result of tangible and intangible factors through which people's creativity is manifested. These factors include language, religious customs, beliefs, places and historical monuments, literature, artworks, works in archives and document centers and libraries, etc., which can be presented in the form of creative industries (Zwing, 2005, p: 8). It is noteworthy that "creative industries" are sometimes used interchangeably with cultural industries and sometimes including cultural industries. In this article, we seek to examine the creative industries in Iran.

2-2- UNCTAD-classification-of-creative-industries

According to the various definitions and categories of creative industries, here we classify creative industries from the point of view of UNCTAD and we use the same category in the study of the damages of this industry in Iran



Figure 1: UNCTAD Classification of Creative Industries (Source: UNCTAD)

2-3- Research background

Simultaneously with the efforts of countries in the strategic planning of creative industries and the implementation of this strategy for development in various dimensions, research in this field has been associated with a high impact. The creative industries are the subject of research by many people around the world; Sometimes on a large scale and in terms of statistics, in small parts of the creative industries; Sometimes with a general look at the creative industries in the world and sometimes with a specific look at the role of creative industries in the development of a country. In Iran, this topic has been very much considered by researchers over the past decade, and efforts have led to the writing of many books, articles, and dissertations in this field, some of which focus on the creative industries in Iran.

Mohammadi, Madhoushi et al., In an article entitled "Explaining the effective components on the value chain structure of creative industries in Iran" which was published in 2017 in the scientific journal of management improvement, extracted the effective component on the value chain structure of these industries then, based on the structural-interpretive modeling method, these components were analyzed in two dimensions of main and support activities in terms of effective relationships.

According to the results of this research, the most important and effective components that should be considered in the value chain of creative industries and in the main activity are "system for supporting, cultivating ideas and creativity" and "system for attracting, finding talent and developing human resources". This issue has been introduced by many experts as a major weakness in the growth and development of this industry in the country (Mohammadi, et al., 2017).

Shavalpour and Kohani have researched the challenges of commercializing creative industries in Iran. They include factors such as strategic factors including lack of strategic attitude in the development of creative and cultural industries in the country, weak innovation system in each of the creative industries, insufficient

knowledge management mechanisms to transfer tacit knowledge from experienced owners to new actors, lack of appropriate financing system with these industries, legal and policy factors (including the weakness of the intellectual property system (copyright law), import of foreign goods, insufficient export supervision), economic factors (weakness of market research, weakness of marketing, lack of customer needs assessment and customer taste, small scale of production units and the lack of economies of scale, the weakness of the product customization system, lack of attention to branding at the international level, the luxury of the products of these industries and the problem of consumer purchasing power) and technical-operational factors (lack of updates and the use of traditional methods, lack of a single standard system, lack of communication between universities and research centers and manufacturers, inability to attract young manpower, lack of engineering consulting companies in the field of design) (Shavalpour & Kahani, 2014).

In another study entitled "Pathology of creative industries with a user-centered innovation approach" conducted by Elnaz Siavashi et al., (2017), They examined the innovation and challenges of user-centered innovation in the creative industries. They categorize user-centric innovation strategies as follows:

- 1) Search strategy
- 2) Impression strategy
- 3) Cooperation strategy
- 4) Ecosystem
- 5) Examining the challenges of creative industries in each strategy

In another study entitled "Application of Grounded Theory in Designing the Impact Monitoring System for Creative Industries in Iran" (Shamli, et al., 2019) the modeling of the creative industry impact monitoring system at five levels of inputs, process, output, sequences, and effects has been investigated. The monitoring system, by continuously reviewing and evaluating the process and components of value production in the creative industry, shows the degree of achievement of predetermined goals at each point in time, as well as possible deviations.

Based on their research, Political effects, national development effects and identity effects have been identified as the three main categories of this system 15 central concepts have been identified under these 3 categories. In another study entitled Systematic pathology of the innovation system of cultural industries (application of institutional mapping and stakeholder analysis) (Ghazi Nouri et al., 2015), due to the existence of government institutions, public and private institutions active in the field of cultural industries in Iran, One of the requirements is the design and implementation of the cultural industry innovation system, the pathology of the network of institutions and the relations between them, and the best framework for this pathology is the innovation system framework. They believe that pathological studies in the field of cultural industries have been done mainly with a cultural approach and overseeing the cultural dimensions of these industries, and no attention has been paid to the industrial dimensions and their innovation system. Also, research in the field of innovation and pathology has not included cultural industries. Their research findings consist of two parts: institutional mapping and stakeholder analysis.

Despite the many studies that have been done in the last decade about cultural and creative industries in Iran, in none of them we see the study of the infrastructure formed in this field and the problems and damages of this industry despite our efforts. Therefore, in this research, we have tried to examine their capacities and pathology.

3- The situation of creative industries in Iran

Iran has always been a fan of "culture and art" for centuries, and Iranians are very fond of culture and art. On the other hand, cultural diversity, and the existence of various items in geographical dominance provide a good ground for the growth of creative industries. In the last two decades, many measures have been taken in the country to develop creative industries, which are mentioned here. Despite all policymaking, executive and support activities of government and non-government in the field of creative industries in Iran, the role of these industries in the economic development of the country is not significant. Here are some of the main organizations in charge of creative industries:

- 1) Vice President for Science and Technology, Soft Technologies, and Identity Development Headquarters
- 2) Vice President for Science and Technology Creative Ecosystem Development Program
- 3) Supreme Council for Cultural Revolution
- 4) Ministry of Culture and Islamic Guidance
- 5) National Computer Games Foundation
- 6) Organization for Comprehensive Audiovisual Regulatory in cyberspace
- 7) National Foundation for Digital Content Entrepreneurship
- 8) Iran Information Technology Organization
- 9) National Foundation for the Development of Cultural Technologies
- 10) Ministry of Cultural Heritage, Tourism and Handicrafts
- 11) Patent Center
- 12) Iran National Techno-Market
- 13) Export Development and Technology Exchange Corridor
- 14) Islamic Republic of Iran Broadcasting

It should be noted that in addition to the above, other organizations have direct and indirect executive responsibilities in this field, such as the Islamic Propaganda Organization, the Academy of Arts, municipalities, etc. As can be seen, in Iran there is no single organization in charge of creative industries. Each of these organizations has a separate program and budget. As mentioned, in recent years, the "Creative Ecosystem Development Program" has been a supporter and facilitator of the creative ecosystem in the country; Here, while introducing this program, we will study this ecosystem.

3-1- Creative Companies Ecosystem Development Program

According to the prosperity of the creative economy as a new approach in the field of economics, industry and culture that is trying to show the economic and cultural value of creative products as valuable products in the present era by creating links and interactions between these areas. In addition to the formation of knowledge-based companies in scientific and academic centers of the country, other parts of companies that are mainly active in creative industries, new services and digital space and the nature of their growth based on creativity, innovation and presentation of new business models are rapidly passing the growth stages. Therefore, the high capacity of creative companies in creating and flourishing employment in the country, as well as the lack of a coherent and centralized program to support companies active in the field of creative industries led the Vice President for Science and Technology to create and improve the environment of innovation and Entrepreneurship in order to develop the knowledge-based economy within the framework of the general policies of the resistance economy and the measures of the Supreme Leader by planning, presenting and approving a program called the ecosystem development program of creative companies to be more significant than before and establish and facilitate policy and support solutions in this area under the approved plan.

3-2- Objectives of the Creative Companies Ecosystem Development Program

- Development of innovation and entrepreneurship ecosystem in the country and promotion of the share of creative companies in the economy
- Quality development of jobs by supporting creative companies and creating jobs for young and educated people
- Creating and strengthening the brands of creative companies in the country's industries and cultural products and new services based on technology and innovation
- Solving the social problems and the basic problems of the country such as solving the problems of water shortage, drought, and waste, controlling bio pollutants, optimizing energy and water consumption and modifying the consumption pattern with creative and innovative approaches
- Strengthen international exports and cooperation in the field of creative industries and acquisition of innovative businesses

By August 2021, according to the statistics of the Creative Companies Ecosystem Development Program, 1222 creative companies, 104 principles and 12 brokers providing services to creative companies have been

registered. This program is the main thing that includes government support for creative industries in Iran (Creative Companies Ecosystem Development Program Site).

3-3- Creative Ecosystem Map of Iran

Here, after examining the policies and goals, infrastructure, and ecosystems of the creative industries in Iran, the researchers present a proposed map for the creative ecosystem in Iran with a review study. It should be noted that the “Headquarters for Culture of Knowledge-Based Economy”, has provided an infographic of the technology and innovation ecosystem, which is as follows:

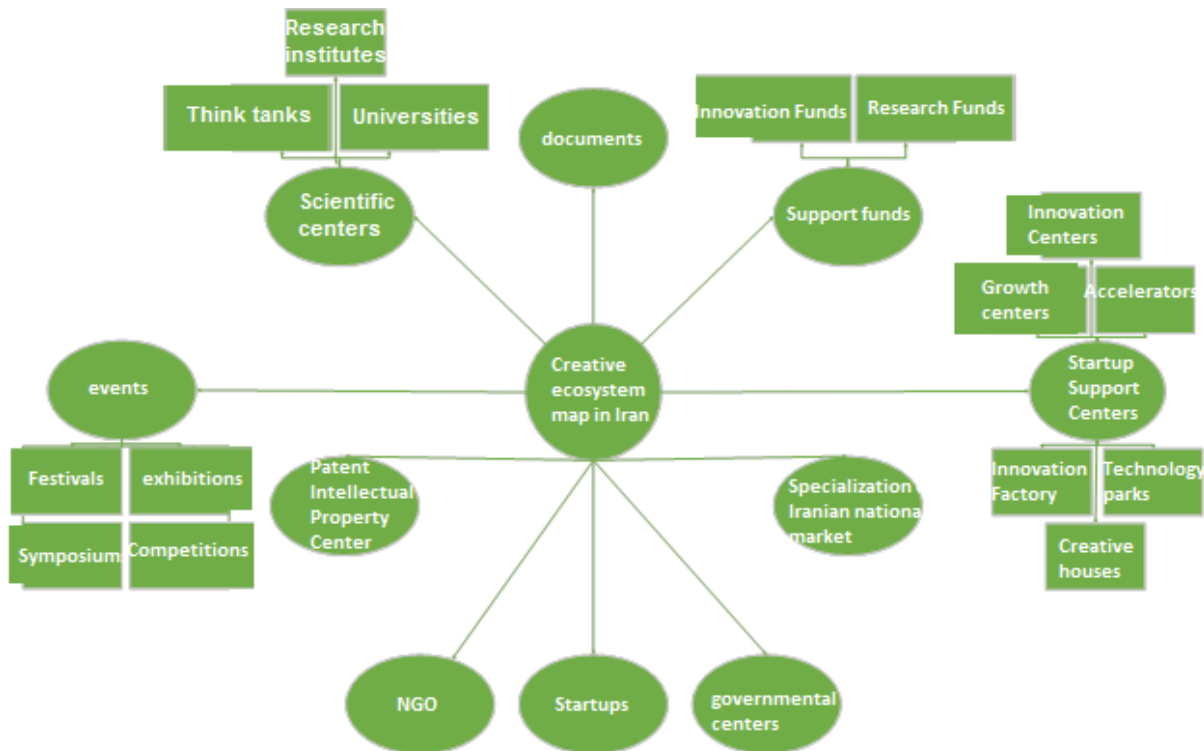


Figure 2: Drawn by researchers

3-4- Networking in the Creative Ecosystem of Iran

Despite all the above, it should be noted that in Iran, there are still no smart networks and key elements of the creative ecosystem in Iran, including interactions, synergies and overlapping points. But it is possible to use Iran Technology and Innovation Network (Iran TNET). With the support of technology and knowledge-based companies, innovative individuals, technology and innovation complexes, the network provides its members with legal benefits and support, and commercialization services, and provides a fertile ground for the development of technology and innovation ecosystems and capacity building for knowledge development and the synergy of the chain of ideas to the market. The network is not limited to legal protections, and will provide an opportunity for all elements, especially the private sector, to interact and integrate to develop a technology and innovation ecosystem. After introducing and examining the Ecosystem of creative industries in Iran, by introducing the statistical situation of this industry in the country, we will examine its damages.

3-5-Statistics of Iran from creative industries

One of the key issues in the field of creative industries in Iran is the lack of a responsible organization. Since different organizations such as the Ministry of Culture and Islamic Guidance, Deputy Minister of Science and Technology, Ministry of Cultural Heritage, and Tourism, etc. oversee this industry in Iran and the management and policy of these industries is not seen as a coherent whole, so, comprehensive statistics of these industries are not available and compiling these statistics requires the efforts of all trustees.

Due to the lack of standard definitions and concepts of this industry, lack of statistical framework, lack of statistics and information, as well as unclear methods of collecting statistics related to these industries, Upon the request of the Cultural, Commercial and Services Office of the Statistical Center of Iran, in 2010, the Statistics Research Institute prepared and compiled a statistical plan in order to define and determine specific work frameworks in a way that makes it possible to measure this industry.

. The purpose of this project is to identify and classify cultural industries, provide definitions and standard concepts of them, and study the methods of producing statistics. Unfortunately, in the last decade, comprehensive statistical reports of these industries have not been found even in the Statistics Center of Iran, the Chamber of Commerce, and other organizations. Only in the thirteenth section of the latest statistical yearbook of culture and science (2016) published by the Supreme Council of the Cultural Revolution (the main trustee of policymaking, regulation, and monitoring of the country's culture) is referred to as cultural industries and products and the indicators of this section do not include the comprehensive statistical system of the country's cultural industries

In a way, from the point of view of cultural economics, this statistical yearbook has not been seen. On the other hand, in the culture and art yearbook of the "Ministry of Culture and Islamic Guidance" (2019), a comprehensive report on creative and cultural industries is not mentioned with this title. Therefore, the lack of strong reflection of the statistics of creative and cultural industries in international documents such as "UNCTAD" is not unimaginable.

It is worth mentioning that the national document for the development of "soft and cultural technologies" mentions the establishment of a national system of statistics and economic information of cultural industries and products and soft technologies and a database of domestically produced products and activists of cultural industries and soft technologies, with the participation of public and non-governmental sectors.

3-6- Statistics of Iranian Creative Industries in UNCTAD documents

In 2008, 2010, 2016 and 2018, UNCTAD published 3 reports about Iran that the latest outlook entitled: "Creative Economy Outlook: Trends in international trade in creative industries " in the field of creative industries, which we describe in this section. It is worth mentioning that this report is the latest UNCTAD report in the field of creative industries. Unfortunately, in the 2016 document¹, UNCTAD did not provide any report on Iran.

In the 2018 document, which covers transactions from 2005 to 2014, 2011 reported the highest exports of creative industries with \$ 1,567.17 million and imports of creative industries with \$ 516.54 million. It is noteworthy that in the period 2007-2009 and 2012 to 2014, exchanges (exports and imports) in this report were zero. Another noteworthy point is related to the goods exchanged at two time points in 2005 and 2014. According to the diagram on page 240 of this report, the most exported products in 2005 are handicrafts and then design. The total value of exports of creative industries this year is \$ 810.13 million, which is equivalent to 56,252 million dollars (one hundredth) compared to the total exports mentioned in another UNCTAD report (Iran's overall trade profile in the statistics section of the UNCTAD site). During this period, exports of products such as audio-visual products, new media, visual arts, publishing and performing arts are zero. This ratio is 1.2 percent in 2010 (1,235.77 in 101 316 7). In a previous report, exports of these goods in 2014 were zero. Also in 2005, most of the imports of creative industries were related to visual arts, design, and publishing. The value of imports of creative goods this year is \$ 260.58 million, which is 0.6% of the total imports (\$ 40,041 million) in 2005. The ratio was estimated at 0.5 percent in 2010 (\$ 388.17 to \$ 65,404 million). Therefore, we have not seen a significant increase or decrease in the ratio of exports and imports of creative industries to total exports and imports over a period of 5 years, which means that we have not had a specific policy in the trade of creative industries. Imports, like exports in 2014, are zero. According to the report, the latest available statistics are for 2011. The report states:

“ In 2011, the last year for which data were available, creative goods exports stood at \$1.5 billion. Key exports included art crafts (carpets), which were worth \$600 million. Persian carpets date back over 2,500

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years. The Iranians were among the pioneer carpet weavers of the ancient civilizations.¹ In 2017, Tehran sold \$126 million worth of Persian rugs to the American market, but the new United States sanctions on Iran included the hand-woven carpets'' (UNCTAD, 2018: 239).

A separate study should be conducted to investigate the non-submission of reports in these two time periods or the reason for zero exchanges in this interval. The closest option is US sanctions against Iran. In another part of this report, the countries that traded with Iran in 2005 were: The United Arab Emirates, Germany, the United States, Iraq, Afghanistan, Italy, Japan, Azerbaijan, Switzerland, and Canada, respectively. The following chart shows the percentage of trade between Iran and other continents:

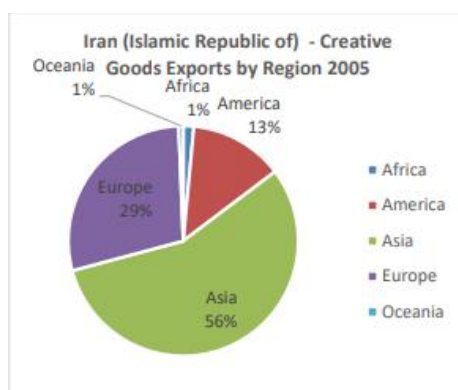


Figure 3: UNCTAD, 2018, p.240

In 2005, the last year in which such data are available, Iran's main creative goods export markets were Asia with 56% market share, followed by Europe at 29% and the Americas at 13%. In 2014, creative services exports stood at \$108 and imports at \$325 million. The Iranian film has survived, undergoing remarkable transformations in parallel with the wider changes in Iranian culture and society. Today, Iranian cinema is recognized as one of the most innovative and exciting in the world, and films from Iranian directors are being screened to increasing acclaim at international festivals (Unctad, 2018, p : 240).

Therefore, due to international sanctions against Iran and the negative growth rate in recent years and the consequent decline in Iranian income, we see fewer imports than exports of creative industries, and on the other hand, most of the countries trading with Iran in 2020 are limited to the countries of the Persian Gulf. Trade with other countries this year compared to the three-time indicators of 2005, 2010 and 2015 has a negative growth of 17.5%, and the effects of which can be seen in the reports related to the creative industries (UNCTAD, 2021).

5-3- Growth rates of creative goods exports and imports, annual, 2003-2015 Table summary

The table below, which is related to the growth rate of exports and imports of creative goods in the period 2003 to 2015, shows that despite the negative growth rate of exports and imports of these goods from 2012 to 2015, exports of handicrafts and visual arts continued to grow positively. It also shows the growth of transactions for design categories between 2003 and 2015. Therefore, these goods are known as competitive advantages of the Iranian creative industries market, and it is expected that more detailed planning will be done for its further growth.

Growth rates of creative goods exports and imports, annual, 2003-2015						
Other:	MEASURE - Annual average growth rate		ECONOMY ▼ World ◀▶		PARTNER - Iran (Islamic Republic of)	
PERIOD	2003 - 2015		2007 - 2011		2012 - 2015	
FLOW	Exports	Imports	Exports	Imports	Exports	Imports
PRODUCT	↑↓	↑↓	↑↓	↑↓	↑↓	↑↓
All creative goods	33.40	-7.76	6.48	-12.02	-25.51	-36.67
Art crafts	18.30	-10.69	0.90	-12.82	9.16	-15.92
Audiovisuals	..	..	..	..	..	..
Design	41.15	3.70	8.58	-16.21	-29.04	-67.74
New media	..	..	..	..	..	..
Performing arts	14.63	-17.67	0.26	-15.42	-15.04	-12.90
Publishing	3.59	-0.74	-7.46	22.31	-15.40	-31.48
Visual arts	34.08	-0.56	41.30	-4.84	8.72	-8.79

Figure 4: Growth rates of creative goods exports and imports, annual, 2003-2015

The table above, which is related to the growth rate of exports and imports of creative goods in the period 2003 to 2015, shows that despite the negative growth rate of exports and imports of these goods from 2012 to 2015, exports of handicrafts and visual arts continue to grow positively. In this table, we also see a growth in transactions for design categories between 2003 and 2015. Therefore, these goods are known as competitive advantages of the Iranian creative industries market, and it is expected that more detailed planning will be done to further grow it. One of the problems of Iran's economy is the smuggling of goods across borders, and since the statistics examined do not match the statistics of consumer goods in the hands of Iranians, especially in the import of creative goods. Real statistics seem to be affected by this economic dilemma. However, it was seen that there are no strong statistics on transactions in Iran's creative industries.

This is one of the harms of the creative industries in the country, and those in charge should make more efforts to provide these statistics, both nationally and internationally. We hope to see the growing growth of this industry in the country by 2025 with the announcement of the national document for the development of cultural and soft technologies and the establishment of the executive headquarters of this document in the Vice President for Science and Technology.

4- Methodology

In this study, to identify and evaluate the current situation of creative industries in Iran, the opinions of experts in the field of creative industries have been used. There are various methods for surveying, evaluating the present and predicting the future to help identify the current situation and decide on the desired future situation. One of these methods, which while maintaining simplicity, has high reliability, is the "Delphi method". The purpose of this method is to reach the most secure group agreement of experts on a specific topic, which is done using a questionnaire or a survey of experts. Today, the Delphi method has been developed in homology techniques that all have common features:

- 1) Protecting the full or partial personal information of experts from different groups via email, questionnaire, or interview
- 2) Duplicate field finding
- 3) Creating feedback in a statistical summary of experts for future appointments that is done in both traditional and fuzzy Delphi methods: In this research, fuzzy Delphi method has been used.

Fuzzy Delphi method:

Using this method to make decisions and consensus on issues where goals and parameters are not clearly defined, leads to very valuable results. An important feature of this method is the provision of a flexible framework that covers many of the barriers to inaccuracy and explicitness.

Many problems in decision making are related to incomplete and inaccurate information. The decisions made by experts are made based on their individual competence and mentally. Therefore, it is better to display data with fuzzy numbers instead of definite numbers; Because in the fuzzy Delphi technique, experts

usually present their ideas in the form of verbal variables. The implementation steps of the fuzzy Delphi method are in fact a combination of implementing the Delphi method and performing analyzes on information using the definitions of fuzzy set theory. As mentioned earlier, the present study, using the fuzzy Delphi method, seeks to provide a pathological analysis of the current situation of the creative industries in Iran.

Also in this research, the sampling method is judgmental (Nonprobability Purposeful); That is, the people selected for the sample were in the best position. This selected sample, which includes 7 people, consists of university professors, experts, and activists in the field of creative industries. It should be noted that the researchers were faced with repetition and saturation of data from the sixth interview onwards, so the interview process was interrupted after the seventh person. Since the present study focused on providing statistics and information to analyze the current situation of creative industries in Iran, it had not been studied in this way before. Therefore, developing existing knowledge and helping to plan and improve future decisions, it is a kind of applied research. According to the research design, it should be added that the data collection method in the present study is "descriptive research" (non-experimental) and two methods of documentary study and survey (using interview tools) have been used to collect information. In the data analysis section, first the interviews were analyzed, the codes and categories were categorized, and then the results were extracted using the fuzzy Delphi technique.

5-Data analysis and findings

5-1- Identify Creative Industry Indicators

In this section, the validation of the categories obtained from the qualitative analysis of specialized interviews is examined. A total of 131 indicators in the field of creative industries have been identified. Fuzzy Delphi method has been used to identify the final indicators. "Delphi analysis" is based on the views of 7 experts. Although experts use their mental competencies and abilities to make comparisons, it should be noted that the "traditional process of quantifying individual's perspectives" does not fully reflect the human thinking style. In other words, the use of fuzzy sets (using fuzzy numbers) is more compatible with linguistic and sometimes ambiguous human explanations, and therefore it is better to use long-term predictions and real-world decisions using fuzzy sets (Carmen, 2009). In this study, triangular fuzzy numbers (FTN) have been used to fuzzy the view of experts. According to the experts, we have collected the importance of each of the indicators with a fuzzy spectrum of 7 degrees.

Language variable	Fuzzy value	Triangular fuzzy equivalent
Very insignificant	$\tilde{1}$	(0, 0, 0.1)
Very insignificant to insignificant	$\tilde{2}$	(0, 0.1, 0.3)
Insignificant	$\tilde{3}$	(0.1, 0.3, 0.5)
Insignificant to moderate importance	$\tilde{4}$	(0.3, 0.5, 0.75)
Medium	$\tilde{5}$	(0.5, 0.75, 0.9)
Medium to significant	$\tilde{6}$	(0.75, 0.9, 1)
Important	$\tilde{7}$	(0.9, 1, 1)

Table 1: Seven fuzzy degrees' spectrum for index evaluation

The views of 7 experts on each indicator were collected and based on the spectrum in the table above, was "Fuzzification". In the next step, the views of experts should be collected, and various methods have been proposed to aggregate the opinions of the respondents. In fact, these aggregation methods are experimental methods that have been proposed by various researchers. Thus, in the present study, the fuzzy average of the expert's point of view has been calculated by using Equation 1.

Equation 1: Calculate the fuzzy average

$$F_{AVE} = \left(\left\{ \frac{\sum l}{n} \right\}, \left\{ \frac{\sum m}{n} \right\}, \left\{ \frac{\sum u}{n} \right\} \right)$$

The sum of the average of triangular and trapezoidal fuzzy numbers can usually be calculated by a definite value which is the best corresponding average. This operation is called "Defuzzification". There are several methods for defuzzification. In this study, the center of area method (Equation 2) has been used for defuzzification.

Equation 2: Defuzzification center of area method

$$DF_{ij} = \frac{[(u_{ij} - l_{ij}) + (m_{ij} - l_{ij})]}{3} + l_{ij}$$

(Zang and Tong, 1993)

Fuzzy average and defuzzification output the values for the indices are given in Table 2. A defuzzification value greater than 0.7 is acceptable, and any indicator with a score less than 0.7 is rejected (Wu and Fang, 2011). In the second round, no indicators were eliminated, which is a sign that the "Delphi rounds" are over. In general, to prove this point, the average scores of two consecutive rounds must be compared. If the difference between the two stages is much smaller than the threshold (0.2), the poll process will stop (Cheng and Lin, 2002; Habibi et al., 2014). A summary of the results of screening the indicators by "Fuzzification method" is presented below.

5-2- Results of defining creative industries

Indicators	Fuzzy average of the first round	The final value of the first round	Fuzzy average of the second round	The final value of the second round	The difference between two rounds	Result
Production cycle of creative services or goods	(0.971,0.9,0.743)	0/871	(0.971,0.871,0.7)	0/848	0/023	Agreement
The cycle of distribution of creative services or goods	(0.986,0.921,0.779)	0/895	(0.957,0.85,0.664)	0/824	0/071	Agreement
Consumption cycle of creative services or goods	(0.986,0.907,0.757)	0/883	(0.943,0.829,0.629)	0/800	0/083	Agreement
Creative industries depend on thought	(0.957,0.864,0.686)	0/836	(0.986,0.921,0.779)	0/895	0/059	Agreement
Creative industries have a knowledge base	(0.986,0.907,0.757)	0/883	(0.986,0.95,0.821)	0/919	0/036	Agreement
Creative skills are considered creative industries	(1,0.957,0.836)	0/931	(0.957,0.836,0.643)	0/812	0/119	Agreement
Creative industries mean creating value based on creativity	(0.971,0.914,0.764)	0/883	(0.986,0.921,0.779)	0/895	0/012	Agreement
Industry, the first side of creative industries	(0.943,0.843,0.65)	0/812	(1,0.914,0.771)	0/895	0/083	Agreement
Culture, the second side of creative industries	(0.957,0.864,0.686)	0/836	(0.943,0.829,0.629)	0/800	0/036	Agreement
Innovation, the third side of the creative industries	(0.957,0.836,0.643)	0/812	(0.943,0.857,0.671)	0/824	0/012	Agreement
Commercialization of scientific products is in the field of creative industries	(0.957,0.85,0.664)	0/824	(0.971,0.9,0.743)	0/871	0/047	Agreement
Commercialization of cultural products is in the field of creative industries	(0.971,0.871,0.7)	0/848	(0.986,0.936,0.8)	0/907	0/059	Agreement
Commercialization of social products is in the field of creative industries	(0.957,0.85,0.664)	0/824	(0.943,0.814,0.607)	0/788	0/036	Agreement
Digital businesses and cyberspace are examples of creative industries	(0.971,0.914,0.764)	0/883	(0.986,0.921,0.779)	0/895	0/012	Agreement
The audio-visual industries are examples of creative industries	(0.986,0.907,0.757)	0/883	(0.957,0.85,0.664)	0/824	0/059	Agreement

Handicrafts, tourism and cultural heritage are examples of creative industries	(0.943,0.814,0.607)	0/788	(0.971,0.9,0.743)	0/871	0/083	Agreement
Visual arts and performing arts are examples of creative industries	(0.957,0.879,0.707)	0/848	(0.957,0.85,0.664)	0/824	0/024	Agreement
Games, toys and entertainment are examples of creative industries	(0.943,0.843,0.65)	0/812	(1,0.943,0.814)	0/919	0/107	Agreement
Design and architecture are examples of creative industries	(0.986,0.95,0.821)	0/919	(0.971,0.914,0.764)	0/883	0/036	Agreement
Publishing is an example of a creative industry	(0.943,0.814,0.607)	0/788	(0.957,0.864,0.686)	0/836	0/048	Agreement
Medicinal plants and traditional medicine are examples of creative industries	(0.957,0.85,0.664)	0/824	(0.986,0.921,0.779)	0/895	0/071	Agreement
New business models are examples of creative industries	(0.971,0.871,0.7)	0/848	(0.971,0.914,0.764)	0/883	0/035	Agreement
Prioritizing creative industries is one of the tasks of policy-making institutions	(0.971,0.9,0.743)	0/871	(0.971,0.886,0.721)	0/860	0/011	Agreement
Determining examples of the country's creative industries is one of the duties of policy-making institutions	(0.957,0.864,0.686)	0/836	(0.971,0.914,0.764)	0/883	0/047	Agreement
Market needs are one of the criteria for prioritizing creative industries	(0.957,0.85,0.664)	0/824	(0.957,0.879,0.707)	0/848	0/024	Agreement
Economics is one of the criteria for prioritizing creative industries	(0.971,0.914,0.764)	0/883	(0.971,0.914,0.764)	0/883	0/0	Agreement
Sustainable revenue generation is one of the criteria for prioritizing creative industries	(0.971,0.871,0.7)	0/848	(0.986,0.921,0.779)	0/895	0/047	Agreement
Examples of creative industries must have a national and indigenous definition	(0.957,0.879,0.707)	0/848	(0.957,0.864,0.686)	0/836	0/012	Agreement
Examples of creative industries are based on cultural capacities.	(0.957,0.879,0.707)	0/848	(0.957,0.85,0.664)	0/824	0/024	Agreement
Creative industry priorities are more important than examples	(0.957,0.85,0.664)	0/824	(0.971,0.9,0.743)	0/871	0/047	Agreement
The global definition of creative industries is based on art	(0.943,0.829,0.629)	0/800	(0.957,0.879,0.707)	0/848	0/048	Agreement
Iran's definition of creative industries is based on culture and art	(0.943,0.843,0.65)	0/812	(0.971,0.914,0.764)	0/883	0/071	Agreement

Table 2: Summary of results from screening of indicators by fuzzification method

5-3- Current situation of creative industries in Iran

Indicators	Fuzzy average of the first round	The final value of the first round	Fuzzy average of the second round	The final value of the second round	The difference between two rounds	Result
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Weak communication	(1,0.929,0.793)	0/907	(0.971,0.886,0.721)	0/860	0/047	Agreement
Internet filtering	(0.971,0.9,0.743)	0/871	(0.971,0.914,0.764)	0/883	0/012	Agreement
Expensive currency	(0.971,0.886,0.721)	0/860	(0.957,0.879,0.707)	0/848	0/012	Agreement
Multiple internal constraints	(0.971,0.914,0.764)	0/883	(0.971,0.9,0.743)	0/871	0/012	Agreement
Sanctions	(1,0.957,0.836)	0/931	(0.957,0.864,0.686)	0/836	0/095	Agreement
Low flexibility	(0.986,0.921,0.779)	0/895	(0.957,0.85,0.664)	0/824	0/071	Agreement
Repetition of everyday life	(0.957,0.85,0.664)	0/824	(0.943,0.857,0.671)	0/824	0/0	Agreement
The type of industry is one of the effective factors in the growth of creative industries	(0.957,0.864,0.686)	0/836	(0.957,0.879,0.707)	0/848	0/012	Agreement
The nature of industry users / customers is one of the factors influencing the growth of creative industries	(0.7,0.543,0.371)	0/538	0.000	0/0	0/538	Deleted
The supply conditions of creative goods / services are one of the factors for the growth of creative industries	(0.971,0.914,0.764)	0/883	(0.971,0.857,0.679)	0/836	0/047	Agreement
Terms of use of goods / services are one of the factors for the growth of creative industries	(0.986,0.921,0.779)	0/895	(0.943,0.843,0.65)	0/812	0/083	Agreement
Restrictive laws and frameworks are obstacles to the growth of the creative industry	(0.971,0.871,0.7)	0/848	(0.971,0.9,0.743)	0/871	0/023	Agreement
Economic complexity is one of the factors informalizing the creative economy	(0.971,0.886,0.721)	0/860	(0.957,0.864,0.686)	0/836	0/024	Agreement
Economic bureaucracy is one of the factors in informalizing the creative economy	(0.971,0.857,0.679)	0/836	(0.971,0.914,0.764)	0/883	0/047	Agreement
Strict frameworks are one of the factors that make the creative economy informal	(0.971,0.9,0.743)	0/871	(0.971,0.886,0.721)	0/860	0/011	Agreement
Lack of transparency is one of the factors that make the creative economy informal	(0.986,0.95,0.821)	0/919	(0.986,0.95,0.821)	0/919	0/0	Agreement
Lack of measurement of the economy of some businesses is one of the reasons for the inconsistent statistical system with UNESCO	(0.957,0.864,0.686)	0/836	(0.971,0.886,0.721)	0/860	0/024	Agreement
The non-transparent tax system is one of the reasons for the inconsistent statistical system with	(0.957,0.893,0.729)	0/860	(0.971,0.871,0.7)	0/848	0/012	Agreement

UNESCO						
A large part of the creative economy is informal	(0.957,0.893,0.729)	0/860	(0.986,0.921,0.779)	0/895	0/035	Agreement
Part of the creative economy is underground	(0.971,0.886,0.721)	0/860	(0.957,0.879,0.707)	0/848	0/012	Agreement
The existence of a huge capacity of young educated manpower is one of the factors contributing to the growth of creative industries in Iran	(0.957,0.893,0.729)	0/860	(0.986,0.907,0.757)	0/883	0/023	Agreement
The result of cultural resources can be one of the factors contributing to the growth of creative industries in Iran	(0.943,0.857,0.671)	0/824	(0.943,0.843,0.65)	0/812	0/012	Agreement
The digital economy of platforms can be one of the factors contributing to the growth of creative industries in Iran	(0.971,0.886,0.721)	0/860	(0.957,0.85,0.664)	0/824	0/036	Agreement
Cultural consumption and global demand can be factors in helping the growth of creative industries in Iran	(0.929,0.821,0.614)	0/788	(0.929,0.821,0.614)	0/860	0/072	Agreement
Improving the economic situation is one of the factors contributing to the growth of creative industries in Iran	(0.971,0.886,0.721)	0/860	(0.986,0.95,0.821)	0/919	0/059	Agreement
Increasing cultural consumption is one of the factors contributing to the growth of creative industries in Iran	(1,0.957,0.836)	0/931	(0.957,0.85,0.664)	0/824	0/107	Agreement
Lack of acceptable growth now	(0.971,0.871,0.7)	0/848	(0.943,0.829,0.629)	0/800	0/048	Agreement
High expectations and hope for the future growth of creative industries in Iran	(0.971,0.886,0.721)	0/860	(0.971,0.871,0.7)	0/848	0/012	Agreement
There is a big gap between the current situation and the favorable situation of creative industries in Iran	(0.957,0.864,0.686)	0/836	(0.971,0.871,0.7)	0/848	0/012	Agreement
Having a very small share of creative industries in the Iranian economy	(1,0.929,0.793)	0/907	(0.971,0.886,0.721)	0/860	0/047	Agreement
With the advent of platforms, creative industries in Iran are expanding	(0.957,0.864,0.686)	0/836	(0.957,0.864,0.686)	0/836	0/0	Agreement

5-4- The role of creative industries in public development

Indicators	Fuzzy average of the first round	The final value of the first round	Fuzzy average of the second round	The final value of the second round	The difference between two rounds	Result
The nature of creative industries is one of the reasons for the effective role of creative industries in public development	(0.957,0.879,0.707)	0/848	(0.971,0.9,0.743)	0/871	0/023	Agreement
The creative industries market is one of the reasons for the effective role of creative industries in public development	(0.986,0.907,0.757)	0/883	(0.986,0.936,0.8)	0/907	0/024	Agreement
The lack of dependence of creative industries on many raw materials is one of the reasons for the role of creative industries in public development	(0.957,0.864,0.686)	0/836	(0.943,0.814,0.607)	0/788	0/048	Agreement
Creating high added value by creative industries is one of the reasons for the role of creative industries in public development	(0.943,0.843,0.65)	0/812	(0.986,0.921,0.779)	0/895	0/083	Agreement
It plays an important and stimulating role in public development worldwide	(0.971,0.9,0.743)	0/871	(0.943,0.857,0.671)	0/824	0/047	Agreement
Creative industries in Iran are not the cause of development	(0.957,0.85,0.664)	0/824	(0.971,0.886,0.721)	0/860	0/036	Agreement
Creative industries have political functions and consumption in both dictatorial and democratic societies	(0.957,0.864,0.686)	0/836	(0.986,0.907,0.757)	0/833	0/047	Agreement

These industries have security functions and consumption	(0.957,0.85,0.664)	0/824	(0.957,0.864,0.686)	0/836	0/012	Agreement
These industries have economic function and consumption	(0.957,0.85,0.664)	0/824	(0.957,0.85,0.664)	0/824	0/0	Agreement
These industries have cultural functions and consumption	(0.943,0.829,0.629)	0/800	(0.957,0.85,0.664)	0/824	0/024	Agreement
These industries have social functions and consumption	(0.986,0.936,0.8)	0/907	(0.971,0.914,0.764)	0/883	0/024	Agreement

5-5- Facilitators and barriers to the creative industries

Indicators	Fuzzy average of the first round	The final value of the first round	Fuzzy average of the second round	The final value of the second round	The difference between two rounds	Result
Active global communication, facilitator	(0.943,0.829,0.629)	0/800	(0.943,0.829,0.629)	0/800	0/0	Agreement
National innovation system, facilitator	(0.986,0.921,0.779)	0/895	(0.957,0.864,0.686)	0/836	0/059	Agreement
Economic competitiveness, facilitator	(0.957,0.879,0.707)	0/848	(0.957,0.85,0.664)	0/824	0/024	Agreement
Information transparency, facilitator	(0.986,0.907,0.757)	0/883	(0.957,0.864,0.686)	0/836	0/047	Agreement
Participatory policy-making facilitator	(0.986,0.879,0.714)	0/860	(0.986,0.907,0.757)	0/883	0/023	Agreement
Technological and communication infrastructure, facilitator	(0.929,0.807,0.593)	0/776	(0.986,0.936,0.8)	0/907	0/131	Agreement
Establish appropriate protection laws, facilitator factor	(0.971,0.9,0.743)	0/871	(0.957,0.864,0.686)	0/836	0/035	Agreement
Training of promoters of creative industries, facilitator	(1,0.914,0.771)	0/895	(0.943,0.843,0.65)	0/812	0/083	Agreement
Add marketing attachments to creative industry disciplines, facilitator	(0.957,0.85,0.664)	0/824	(0.943,0.829,0.629)	0/800	0/024	Agreement
Increasing the consumption of cultural industries through the	(0.971,0.9,0.743)	0/871	(0.957,0.85,0.664)	0/824	0/047	Agreement

media, a facilitator						
Amending and updating new trade-related laws, facilitator	(0.971,0.886,0.721)	0/860	(0.971,0.9,0.743)	0/871	0/011	Agreement
Amending and updating tax-related laws for new businesses, facilitator	(0.986,0.907,0.757)	0/883	(0.971,0.914,0.764)	0/883	0/0	Agreement
Amending and updating customs laws related to new businesses, facilitator	(0.957,0.836,0.643)	0/812	(0.986,0.936,0.8)	0/907	0/095	Agreement
Development of supportive and appropriate rights for platforms, facilitator	(0.971,0.914,0.764)	0/883	(0.971,0.871,0.7)	0/848	0/035	Agreement
Media and social networks, the facilitator	(0.971,0.914,0.764)	0/883	(0.943,0.829,0.629)	0/800	0/083	Agreement
Lack of transparency of red lines in the field of creative industries	(0.971,0.929,0.786)	0/895	(0.971,0.9,0.743)	0/871	0/024	Agreement
Outflow of money and capital due to lack of transparency of red lines	(0.986,0.907,0.757)	0/883	(0.986,0.907,0.757)	0/895	0/012	Agreement
Lack of opportunity for the creative industries to flourish due to the low tolerance of both the executive apparatus and the society	(0.957,0.879,0.707)	0/848	(0.957,0.864,0.686)	0/836	0/012	Agreement
Lack of capital attraction due to high regulatory risk and high ambiguity in this area	(0.971,0.9,0.743)	0/871	(0.971,0.871,0.7)	0/848	0/023	Agreement

5-6- Leading creative industries in the field of economics

Indicators	Fuzzy average of the first round	The final value of the first round	Fuzzy average of the second round	The final value of the second round	The difference between two rounds	Result
Lack of transparency is an obstacle to ranking creative industries in Iran	(0.986,0.907,0.757)	0/883	(0.986,0.921,0.779)	0/895	0/012	Agreement
Lack of	(0.943,0.843,0.65)	0/812	(0.971,0.871,0.7)	0/848	0/036	Agreement

accurate and comprehensive statistics is an obstacle to ranking creative industries in Iran						
The activity and underground and informal income of some activists in this field is an obstacle for ranking creative industries in Iran.	(0.986,0.907,0.757)	0/883	(0.986,0.921,0.779)	0/895	0/012	Agreement

5-7- Creativity ecosystem

Indicators	Fuzzy average of the first round	The final value of the first round	Fuzzy average of the second round	The final value of the second round	The difference between two rounds	Result
The creative ecosystem has contributed to the development of creative industries	(0.543,0.364,0.207)	0/371	0.000	0/0	0/371	Deleted
It is not possible to determine the role of this ecosystem in the development of creative industries	(0.957,0.85,0.664)	0/824	(0.986,0.936,0.8)	0/907	0/083	Agreement

5-8- The role of sanctions in the export of creative industries

Indicators	Fuzzy average of the first round	The final value of the first round	Fuzzy average of the second round	The final value of the second round	The difference between two rounds	Result
No investor entry	(0.929,0.807,0.593)	0/776	(0.957,0.85,0.664)	0/824	0/048	Agreement
Significant effect of sanctions on micro and sub-economies due to individual	(1,0.914,0.771)	0/895	(0.971,0.9,0.743)	0/812	0/095	Agreement
Sanctions have a significant impact on macroeconomics	(0.986,0.936,0.8)	0/907	(0.943,0.843,0.65)	0/812	0/095	Agreement
Declining handicraft exports	(0.929,0.793,0.571)	0/764	(0.986,0.907,0.757)	0/883	0/119	Agreement
Decreasing the number of	(0.929,0.793,0.571)	0/764	(0.929,0.821,0.614)	0/788	0/024	Agreement

tourists entering and leaving						
Limit the placement of animation on global sharing platforms	(0.957,0.864,0.686)	0/836	(0.957,0.864,0.686)	0/836	0/0	Agreement
Restrict the placement of games on global sharing platforms	(0.971,0.871,0.7)	0/848	(0.986,0.936,0.8)	0/907	0/059	Agreement
Restricting and tightening tourism-related turnover	(0.971,0.9,0.743)	0/871	(0.986,0.921,0.779)	0/895	0/024	Agreement
Restrict international shipping	(0.957,0.85,0.664)	0/824	(0.957,0.864,0.686)	0/836	0/012	Agreement
Limiting international cooperation	(0.943,0.857,0.671)	0/824	(0.971,0.886,0.721)	0/860	0/036	Agreement
Borderlessness is a unique feature of these industries	(0.957,0.85,0.664)	0/824	(1,0.971,0.857)	0/943	0/119	Agreement
Availability, a unique feature of creative industries	(0.464,0.286,0.164)	0/305	0.000	0/0	0/305	Deleted
Cost-effectiveness is a unique feature of these industries	(0.986,0.921,0.779)	0/895	(0.943,0.843,0.65)	0/812	0/083	Agreement

5-9- Statistics of Iran's creative industries in UNESCO

Indicators	Fuzzy average of the first round	The final value of the first round	Fuzzy average of the second round	The final value of the second round	The difference between two rounds	Result
Incorrect statistics of creative businesses operating in villages and all cities	(0.929,0.807,0.593)	0/776	(0.971,0.914,0.764)	0/883	0/107	Agreement
Lack of interest of micro-industrial businesses to provide information to relevant institutions	(0.957,0.879,0.707)	0/848	(0.957,0.864,0.686)	0/836	0/012	Agreement
Lack of transparency and accurate information on the turnover of creative industries	(0.986,0.907,0.757)	0/883	(0.971,0.9,0.743)	0/871	0/012	Agreement
Lack of a single	(0.943,0.857,0.671)	0/824	(0.957,0.85,0.664)	0/824	0/0	Agreement

database of creative industry activities in Iran						
Vice President for Science and Technology; It is one of the providers of statistics on Iran's creative industries to UNESCO	(0.971,0.9,0.743)	0/871	(0.986,0.921,0.779)	0/895	0/024	Agreement
Sanctions have contributed to the failure to provide accurate statistics on Iran's creative industries to UNESCO	(0.664,0.486,0.307)	0/486	0.000	0/0	0/486	Deleted
The Ministry of Culture and Guidance, and the Cultural Heritage and Tourism Organization are among the providers of statistics on Iran's creative industries to UNESCO.	(0.957,0.893,0.729)	0/860	(0.957,0.879,0.707)	0/848	0/012	Agreement

5-10- The future of creative industries in Iran

Indicators	Fuzzy average of the first round	The final value of the first round	Fuzzy average of the second round	The final value of the second round	The difference between two rounds	Result
Identify and respond to market needs, an effective factor in the growth of the economic index	(0.957,0.864,0.686)	0/836	(0.929,0.793,0.571)	0/764	0/072	Agreement
Infrastructure development, an effective factor in economic growth	(0.971,0.914,0.764)	0/883	(0.971,0.871,0.7)	0/848	0/035	Agreement
Reform of legal, commercial and governmental structures, an effective factor in the growth of the economic	(0.986,0.921,0.779)	0/895	(0.971,0.9,0.743)	0/871	0/024	Agreement

index						
Supporting knowledge-based and creative companies, an effective factor in economic growth	(1,0.929,0.793)	0/907	(0.986,0.921,0.779)	0/895	0/012	Agreement
In the political-security view of the creative industries, economics is of secondary importance	(0.971,0.886,0.721)	0/860	(0.971,0.9,0.743)	0/871	0/011	Agreement
From a political-security perspective, political security goals and interests are defensive	(0.971,0.857,0.679)	0/836	(0.957,0.879,0.707)	0/848	0/012	Agreement
This view currently dominates the creative industries in Iran	(1,0.929,0.793)	0/907	(0.957,0.836,0.643)	0/812	0/095	Agreement
The present and the future will not be the same	(0.986,0.936,0.8)	0/907	(0.971,0.9,0.743)	0/871	0/036	Agreement
Socio-cultural perspective: advancing the socio-cultural goals of society	(0.957,0.864,0.686)	0/836	(0.929,0.807,0.593)	0/776	0/06	Agreement
Economic perspective: increasing consumerism	(0.986,0.921,0.779)	0/895	(0.943,0.843,0.65)	0/812	0/083	Agreement
Economic outlook: increasing exports	(0.971,0.914,0.764)	0/883	(0.986,0.921,0.779)	0/895	0/012	Agreement
Economic view: capital increase	(0.986,0.921,0.779)	0/895	(0.971,0.9,0.743)	0/871	0/024	Agreement
Economic view: Money takes precedence	(0.986,0.893,0.736)	0/871	(0.971,0.9,0.743)	0/871	0/0	Agreement

Based on the results of the first round, we must say that the indicators of "the nature of users / customers of the industry is one of the effective factors in the growth of creative industries"; "The role of the creative ecosystem in the development of creative industries" and "Availability, a unique feature of creative industries" and "The role of sanctions in failing to provide accurate statistics on Iran's creative industries to UNESCO" were removed. Other indicators were used for the second-round analysis. Fuzzy Delphi analysis continued for the indicators remaining in the second round. At this stage, 127 indicators were evaluated based on the views of experts. In the second round, no indicators were eliminated, which is a sign that the

Delphi rounds are over. Based on the results, it was found that in all cases the difference is less than 0.2, so the Delphi rounds can be completed.

5-11- Ranking of the main categories of creative industries

To conduct a comparative analysis and to ensure the results of prioritization, the main categories of creative industries have been prioritized by "Sawara method". In the Sawara method, experts first arrange the criteria in order of importance. The most important criterion is placed first and gets a score of one. Finally, the main categories of creative industries are ranked based on the average values of relative importance. Therefore, first, the main categories of creative industries were ranked according to their importance. Then, the relative importance of each main category compared to the previous categories was determined. These values are listed in the "Mean Relative Meaning" column, which is the same as (S_i) . In the third step, the coefficient (K_i) is calculated from the Sawara method. To calculate the initial weight of each criterion, the following equation is used:

$$Q_i = \frac{Q_{i-1}}{K_i}$$

$$Q_1 = 1$$

$$Q_2 = \frac{Q_1}{K_2} = \frac{1}{1.16} = 0.862$$

$$Q_3 = \frac{Q_2}{K_3} = \frac{0.862}{1.31} = 0.658$$

These values are listed in the "Initial weight" column. To calculate the final weight, the linear normalization method is used according to the following equation:

$$W_i = \frac{Q_i}{\sum Q_i}$$

In this way, the final weight of each element is obtained. A total of 29 sub-categories have been considered for the creative industries. These categories are also ranked according to the rider method. The results are presented in the table below:

Benchmark code	Medium relative importance	Kj	Initial weight	Normal weight
Obstacles and challenges of creative industries in Iran	1	1	1	0/1068
The role and negative effects of sanctions on the creative industries	0/08	1/08	0/926	0/0989
Causes of inconsistency of UNESCO assessments and reports of Iran's creative industries with reality	0/13	1/13	0/819	0/0875
The current situation of creative industries in Iran in general	0/05	1/05	0/78	0/0833
Reasons for the impossibility of ranking creative	0/06	1/06	0/736	0/0786

industries in the field of Iranian economy				
Factors contributing and facilitating the creative industries in Iran	0/17	1/17	0/629	0/0672
The role of creativity ecosystem in the development of Iran's creative industries	0/11	1/11	0/567	0/0605
The duty of policy institutions	0/05	1/05	0/54	0/0576
Causes of statistical system inconsistent with UNESCO	0/09	1/09	0/495	0/0529
The scope of creative industries	0/12	1/12	0/442	0/0472
Features of political-security-defense view of creative industries	0/21	1/21	0/365	0/039
Commercialization; One of the main pillars of creative industries	0/18	1/118	0/31	0/0331
Creativity; One of the most important features of creative industries	0/25	1/25	0/248	0/0265
Causes of insignificant and unacceptable connection of creative industries with the world	0/18	1/18	0/21	0/0224
Criteria for prioritizing creative industries	0/31	1/31	0/16	0/0171
Causes The important role of creative industries in increasing GDP and, consequently, development	0/04	1/04	0/154	0/0165
Factors influencing the growth of creative industries	0/11	1/11	0/139	0/0148
The difference between the global definition and the Iranian definition of creative industries	0/21	1/21	0/115	0/0123
Functions and effective and powerful role of creative industries in public development	0/09	1/09	0/105	0/0112
Examples of creative industries	0/013	1/013	0/104	0/0111
Factors contributing to the expansion and	0/09	1/09	0/095	0/0102

growth of creative industries in Iran				
Features of socio-cultural view of creative industries	0/12	1/12	0/085	0/0091
Features an economic look at creative industries	0/22	1/22	0/07	0/0075
The three sides of creative industries	0/31	1/31	0/053	0/0057
Unique features of creative industries	0/07	1/07	0/05	0/0053
Factors affecting the economic growth of creative industries in the future	0/011	1/011	0/049	0/0053
Providers of statistics on Iran's creative industries to UNESCO	0/09	1/09	0/045	0/0048
Creativity of creative industries on the cycle of production, distribution and consumption of goods and services	0/21	1/21	0/037	0/004
Factors of informalizing the creative economy	0/04	1/04	0/036	0/0038

Table 3 - Ranking of sub-categories of creative industries

- The category "Obstacles and Challenges of Creative Industries in Iran" with a weight of 0.1068 is in the priority.
- The category of "role and negative effects of sanctions on creative industries" with a weight of 0.0989 is in the second priority.
- The category "Causes of inconsistency of UNESCO assessments and reports of Iran's creative industries with reality" with a weight of 0.0875 is in the third priority.
- The category "Current situation of creative industries in Iran in general" with a weight of 0.0833 is in the fourth priority.
- The category "Reasons for the impossibility of ranking creative industries in the field of Iranian economy" with a weight of 0.0876 is in the fifth priority.
- The category of "contributing factors and facilitators of creative industries in Iran" with a weight of 0.0672 is in the sixth priority.
- The category "The role of creativity ecosystem in the development of Iran's creative industries" with a weight of 0.0605 is in the seventh priority.
- The category of "duty of policy institutions" weighing 0.0576 is in the eighth priority.
- The category of "causes of inconsistent statistical system with UNESCO" with a weight of 0.0529 is in the ninth priority.
- The category of "creative industries" with a weight of 0.0472 is in the tenth priority.
- The category "Characteristics of political-security-defense view of creative industries" with a weight of 0.039 is in the eleventh priority.
- The category "Commercialization; one of the main pillars of creative industries" with a weight of 0.0331 is in the twelfth priority.
- The category "Creativity; one of the most important features of creative industries" with a weight of 0.06565 is in the thirteenth priority.

- The category "Causes of insignificant and unacceptable connection of creative industries with the world" with a weight of 0.024 is in the fourteenth priority.
- The category "Criteria for determining the priority of creative industries" with a weight of 0.0171 is in the fifteenth priority.
- The category "Causes of significant shortcomings of creative industries in GDP growth and consequently public development" with a weight of 0.0165 is in the sixteenth priority.
- The category of "effective factors in the growth of creative industries" with a weight of 0.018 is in the seventeenth priority.
- The category of "difference between the global definition and Iran's definition of creative industries" weighing 0.0123 is in the 18th priority.
- The category "Functions and effective and powerful role of creative industries in public development" with a weight of 0.0112 is in the nineteenth priority.
- The category of "examples of creative industries" with a weight of 0.0111 is in the twentieth priority.
- The category of "factors contributing to the expansion and growth of creative industries in Iran" with a weight of 0.0102 is in the twenty-first priority.
- The category of "characteristics of socio-cultural view of creative industries" with a weight of 0.0091 is in the twenty-second priority.
- The category "Features of the economic view of creative industries" with a weight of 0.0075 is in the twenty-third priority.
- The category "Three sides of creative industries" with a weight of 0.0057 is in the 24th priority.
- The category "Unique features of creative industries" weighing 0.0053 is in the twenty-fifth priority.
- The category "Factors affecting the growth of economic indicators of creative industries in the future" with a weight of 0.0053 is in the twenty-sixth priority.
- The category "Providers of Iranian Creative Industry Statistics to UNESCO" with a weight of 0.0048 is in the 27th priority.
- The category of "Creativity of creative industries on the cycle of production, distribution and consumption of goods and services" with a weight of 0.004 is in the 28th priority.
- The category "Factors of informalizing the creative economy" weighing 0.0038 is in the 29th priority.

Conclusion

As mentioned earlier, the main purpose of this study is to identify the current situation of creative industries in Iran with a pathological perspective. To achieve this, the Delphi method and interviews with experts in this field, information was obtained which, after analysis, became the basis for answering the research questions. The results showed that despite extensive efforts in the ecology of Iran's creative industries, various policies of relevant institutions, Iran's availability of desirable resources for sustainable activity in the competitive market of creative industries and the presence of potential talents, these industries still have a large share in global markets. And also do not have in the domestic economy. Experts have mentioned the reason for this in several cases, which are mentioned as indicators in the tables in the text. The most important of these factors are:

- sanctions (which do not attract investors, the problems of financial turnover, the recession of the tourism industry, the recession of the animation and computer games industry that are not allowed to share internationally)
- The recession of handicraft exports Cumbersome laws and bureaucracies
- poor communication
- Internet filtering
- lack of transparency, informal and underground economic activities in the creative industries

On the other hand, it seems that if the current view of the creative industries in Iran, which is a security-political view, changes and moves more towards the economic view and along with the socio-cultural view, a bright future for this industry in Iran is predicted.

Another noteworthy result in this study is the lack of accurate statistics and a clear picture of the situation of creative industries in UNESCO that, the reasons for this are incorrect statistics of creative businesses in all

villages and cities, unwillingness of micro-industries to provide accurate information about their business, lack of transparency in the actual turnover of creative industries and lack of a single database of creative industry activities. These factors have made it impossible for any of the experts to provide an accurate ranking of the creative industries in Iran, or at least to score points depending on their activities.

Experts also consider the most important factors facilitating the activities of these industries in Iran to be participatory policymaking, transparency of information, violation of sanctions and active global communication, enactment of protectionist laws, and development of technological infrastructure.

In the continuation of the research, the main categories were ranked by Sawara method, which was identified as "Barriers and Challenges of Creative Industries in Iran", "Role and Negative Effects of Sanctions on Creative Industries" and "Causes of Inconsistency of Assessment and UNESCO Reports", "Iran's creative industries with reality" with the highest weights, respectively, gained the first to third ranks in the opinion of experts, which indicates that these three issues have played the most important role in the current situation of creative industries in Iran. And have the most impact. In other words, these three categories are the most important concerns in the field of creative industries in Iran, and the indicators of each of these categories are also stated in detail in the table of indicators.

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