



Analysis of Entrepreneurial's Value Chain in Sport Science Students at Tehran Universities

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ABSTRACT

Purpose: Entrepreneurship is a process that plays a vital role in the continuity of national growth and even economic development of the world. Therefore, the goal of the present study was "Analysis the entrepreneurship value chain of sports sciences students in Tehran universities."

Methodology: The research method in the study was the descriptive- correlative type. The study's statistical population included all professors and graduate students of sports universities in Tehran (N=1000), among whom 270 individuals were selected using stratified random sampling proportionate to volume. The research tool was a researcher-made questionnaire based on a value chain model. Also, path analysis was used by Lisrel to design the model.

Findings: The results showed that the basic infrastructure of the sports entrepreneurship value chain directly affected support activities with a path coefficient of 0.67 and executive activities with a path coefficient of 0.53 ($P < 0.05$). Besides, value chain support activities of sports entrepreneurship directly affected executive activities related to sports entrepreneurship value chain with a path coefficient of 0.41 ($P < 0.05$). Due to the direct and indirect impact of basic infrastructure on organizational activities of the sports entrepreneurship value chain, the officials of Tehran universities must take appropriate measures to reinforce the essential infrastructure for graduate students of sports sciences in Tehran universities.

Originality: This article is valuable and unique because it analyzes the Value Chain of Sports Sciences Students in Tehran Universities.

Keywords

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1. Introduction

In its global perspective of higher education for the 21st century, the United Nations Educational, Scientific and Cultural Organization (UNESCO) has described modern universities. It is as follows a place where entrepreneurial skills are developed to facilitate the capabilities of graduates to transform them into job creators (UNESCO, 1998). Employment, including the employee of university graduates, requires several components, such as adapting their skills to the needs of the labor market (Khajeh Shah Kouhi & Sahneh, 2008). However, today, the existing structures in universities of our country have been formed to present specialized education to students, and less attention has been paid to strengthening and training entrepreneurship in students. So that present-day university graduates are often unfamiliar with basic educational concepts of entrepreneurship. In addition to the weakness of the university education system in teaching entrepreneurship concepts, the lack of complementary structures to create physical infrastructure to develop students' entrepreneurial spirit is another shortcoming of this system. That is the reason for the migration of university graduates to other countries, addressing graduate unemployment as a significant problem in the country. Also, according to the 20-year Perspective Document for Iran, the country's economy should be based on knowledge until 2025 with a science and industry-centered production infrastructure. The realization of this goal depends on the establishment of knowledge-based companies originating from educational centers and universities, "possessing advanced knowledge, capable of producing science and technology and relying on the superior share of human resources and social capital in national production." Therefore, university graduates must have acquired the necessary competencies in various fields related to entrepreneurship and commercialization of products and other matters related to the establishment and development of business (Mandalizade et al., 2016).

2. Theoretical background

Stevenson and Warn (2004) believe that entrepreneurship is a process in which opportunities are pursued by individuals either for themselves or for the organizations in which they work, regardless of the resources they control. An entrepreneur is a person who starts a small and new economic activity with their capital (Stevenson & Warn, 2004). The role of entrepreneurship in economic development does not lead to increased productivity and per capita income but instead involves establishing and initiating structural changes in social activities. This development is accompanied by growth and increased efficiency, which allows for division between different participants (Hisrich & Peters, 2002). The result of entrepreneurship in a society is a function of various factors, and the whole process cannot be considered. But its source lies in each of the activities performed during this process; therefore, it is necessary to identify the factors affecting entrepreneurship and how they interact to develop a roadmap for policy-making (Ahmad Amini et al., 2010). In this paper, the value chain model has been used to identify and determine the factors influencing the entrepreneurial development among graduate students of sports sciences studying in the universities of Tehran. The

goal of the value chain is to identify the systemic factors and conditions through which the value framework and firms can achieve higher levels of efficiency (Weijermars, 2010). The value chain is an appropriate tool to identify all of its activities and how they interact with each other. Each firm is a set of separate physical and technological activities for design, production, marketing and sales, distribution. These activities are the building blocks by which the firm creates a valuable product for its buyers so that all these activities are aggregated in the value chain (Ahmad Amini et al., 2010).

Michael Porter first introduced the concept of the value chain in 1985. He described a company's activities from the starting point, namely the supply of raw materials until the final product reaches the end consumer as a value chain. The values are added to the product or service in each of these stages or activities. In a general classification, Porter divided these actions into primary and support activities (Reisi, 2010). The primary activities at the bottom of the chain are involved in the physical creation of the product. Also, it's sold and transferred to the buyer. In each firm, the primary activities are divided into five general groups: input logistics, production, output logistics, marketing and sales, and services. Support activities promote initial actions through procurement, technology development, HR management, and enterprise infrastructure undertakings. Porter considers the activities of a company related to the product supply process to be the main ones and those leading to the conversion of input materials into the product and reinforces them to do the work as support activities (Porter & Millar, 1985). The value chain's initial design was based on the manufacturing industry and ignored the service industry. In addition, due to the differences in nature between production and services, some parts of the value chain may not be used in services and could be replaced by new dimensions (Ahmad Amini et al., 2010).

Regarding the most important studies in this field, Von Graevenitz et al. (2010), in his research, showed that holding entrepreneurship training courses for students has significant effects on their understanding of the talents and skills of entrepreneurs (Von Graevenitz et al., 2010). In examining the impact of entrepreneurship education on students' attitudes, Stamboulis and Barlas (2014) found that despite various obstacles, encouragement of students can be a way to overcome difficulties and direct the students on the path of growth and innovation (Stamboulis & Barlas, 2014). Moreover, in a study, Cohen et al. (2014) concluded that the context or experience of the individual is influential in shaping social entrepreneurship (Cohen et al., 2014). In addition, Ratten (2011) reviewed the social role of entrepreneurship in developing sports employment and pointed out that entrepreneurship has entered the vast environment of physical education and managed to create a new market of employment diversity (Ratten, 2011). Jansen et al. (2015) also studied how education, incitement, and turmoil encourage entrepreneurship. This study clarified the impact of student entrepreneurship encouragement on choosing a job as an entrepreneur. Several successful examples were presented, and a model of practical entrepreneurship among students was proposed, enabling universities to provide an environment to inspire entrepreneurship and helps them convince students to continue their careers as entrepreneurs (Jansen et al., 2015). Recently, González-Serrano et al. (2021) studied the impact of different cultures on the

entrepreneurial tendencies of sports sciences students in 356 universities from Spain and Portugal using the SEM method. Their results showed that significant cultural differences have a greater impact on the entrepreneurial tendencies of Portuguese students. However, students' main priority in both countries was entrepreneurship (González-Serrano et al., 2021). Ratten et al. (2021) reviewed the impact of the COVID-19 crisis on sports entrepreneurs. Their research assessed how sports entrepreneurs respond to this global crisis based on changing conceptual conditions. Their findings show that the sports industry can use the capacity of its unique entrepreneurial ecosystem to persuade collaboration (Ratten et al., 2021).

Concerning the essential domestic research conducted in this field, Farahani et al. (2014) showed a significant correlation between influential social, cultural, economic, political, educational, environmental, and international factors with the entrepreneurial spirit of the graduates (Farahani et al., 2014). In their research meant to prioritize the barriers to entrepreneurship among physical education students at the Shahid Chamran University of Ahvaz and examine the obstacles experienced while entering the labor market, Amini et al. (2014) showed that the highest weight for students was related to educational followed by individual barriers. The content of students' curricula and teaching methods were the most important factors identified in this study. Other factors were fear of losing their small capital, lack of self-confidence, and support for student entrepreneurs. Therefore, it seems that the purposeful reform of educational content and tangible support for students inspire students to become entrepreneurs (Amini et al., 2014). Keshavarz and Mehri Shendi (2020) also identified seven barriers to entrepreneurship in sports as follows: family, personality, upbringing, scientific-professional, financial, cultural-social, and legal (Keshavarz & Mehri Shendi, 2020). Mandalizade et al. (2015) showed a significant relationship between business infrastructure and training programs with the development of sports entrepreneurship; however, elements such as technology and policy-making have nothing to do with entrepreneurial action. As a result, strengthening and developing infrastructure factors has a significant role in developing sports entrepreneurship (Mandalizade et al., 2015). Mandalizade et al. (2016), in another study, decided to design a sustainable entrepreneurship model in sports and showed that the entrepreneurial attitude and mentality of individuals could affect the process of sustainable sports entrepreneurship by considering the institutions involved as well as the institutional environment. The results in economic, social, and institutional dimensions lead the sports community towards sustainable development. Also, the factors such as government support policies, entrepreneurial sports promotion by media, and proper training of practical and entrepreneurial skills could contribute to entrepreneurship and business continuity to achieve social and institutional goals for the country and the sports community (Mandalizade et al., 2016). Also, Mandalizadeh and Amiri (2021) introduced a framework supported by strategic thinking (as the heart of innovation capability development) and transformational leadership. They showed that the club process and the institutional environment combined with a holistic view and considering all the stakeholders of a football club could lead to innovation and create value (Mandalizadeh & Amiri, 2021). Memari et al. (2021) said that, like any other organization, attention to

information systems is a crucial element of the infrastructure of a great football club (Memari et al., 2021).

Today, sports are a suitable and assorted platform to create jobs and new opportunities for economic activity. By recognizing the fields of entrepreneurship in sports, new opportunities can be introduced to entrepreneurs and society to be used for socio-economic development (Foroughipour et al., 2007). Meanwhile, according to a report published by the Iranian Ministry of Cooperatives, Labor and Social Welfare in 2012, jobless graduates in physical education were 25,323, with an unemployment rate of 7.7%. Besides, according to the report of Office of the Global Entrepreneurship Watch (2011), the entrepreneurship index rate in Iran, especially among the educated people, is low and <1%, and there are more than 3000000 unemployed job seekers among whom a significant ratio (18.5%) hold university degrees. Therefore, the question arises: what are the reasons for high unemployment rates among sports sciences students even though sports is inherently productive and creates economic and entrepreneurial opportunities? And to which parts of the value chain are these causes related requiring more attention by the authorities? In fact, to remove these barriers and develop employment and entrepreneurship among sports science students, to which stages of this chain should more attention be paid to have a higher value?

Furthermore, the review of research conducted in the field of entrepreneurship in sports shows that most of these studies have focused on determining the personality traits of entrepreneurs as well as the structural and environmental dimensions affecting entrepreneurship. Amini et al. (2014); Farahani et al. (2014); Keshavarz and Mehri Shendi (2020); Mandalizade et al. (2015) showed that the central infrastructure is influencing the development of entrepreneurship, especially among students, has been studied to a lower extent. However, it is necessary to consider the primary and adequate infrastructure involved in entrepreneurship development to promote entrepreneurship in society. Therefore, the development and promotion of entrepreneurship are one of the urgent needs of the community to reduce the unemployment rate and identify the factors affecting entrepreneurship and the mode they interact with each other in the form of a chain of practical aspects. The question that arises here is: how is the value chain of entrepreneurship among graduate students of sports sciences in Tehran universities? And what basic infrastructure and support activities do this chain include? How and to what extent do these factors affect each other? The central hypothesis of the present study is that ignorance of the value chain of entrepreneurship in graduate students from sports sciences should be considered one of the most important reasons for the decline of entrepreneurship and consequent unemployment of students in this field. Therefore, the entrepreneurial value chain in sports can improve developing entrepreneurship in students of this major by fully understanding the process of entrepreneurship and better managing and planning this process and a more appropriate combination of different factors that create it. Consequently, the present study will help formulate and develop a sports entrepreneurship strategy by proposing the sports entrepreneurship value chain as a powerful tool for identifying the components of entrepreneurship and the mode they

interact with each other. Therefore, the goal of the present study was "Analysis the entrepreneurship value chain of sports sciences students in Tehran universities."

All the studies are based on a conceptual framework that identifies the variables and the relationships between them. This conceptual framework is the model by which the researcher presents theories about the relationships between the factors deemed to play an essential role in developing the problem. This theory may not necessarily be the researcher's word and could logically be derived from previous research on the issue. A general summary of the research background in this field shows that there has been no reference for the model of sports entrepreneurship value chain in all these researches. Also, the factors affecting entrepreneurship development have not been viewed in the form of a chain model. Therefore, in this study, the researcher intends to identify the factors affecting sports entrepreneurship in sports science students of Tehran universities based on the Porter value chain model. The value chain model is the primary tool for recognizing the competitive advantage and finding ways to improve the industry and the enterprise to help achieve standard solutions (Porter & Millar, 1985). According to the value chain model, this study considered three factors of basic infrastructure, support, and executive activities influencing sports entrepreneurship of graduate students from sports sciences in Tehran universities. The following conceptual model was developed based on theoretical foundations in entrepreneurship and value chain and reviewed the background of research conducted in this field. Therefore, according to the theoretical foundations and research background, the researcher used the following conceptual framework as a basic model to explain the entrepreneurial value chain of graduate students from sports sciences in Tehran universities.

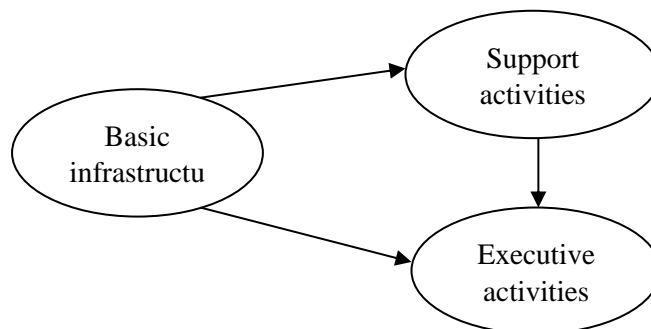


Figure 1. Conceptual framework.

3. Methodology

The present study was applied research, and the research method was the descriptive – correlative type. It is descriptive and field (survey) in terms of technique and data collection, respectively. The statistical population of this research consists of two parts: all professors of sports science in Tehran universities (N=41) who were selected by the complete census, as well as all graduate students of sports sciences from universities located in Tehran, including Tarbiat Modarres, Tehran, Allameh Tabatabai, Shahid

Rajaei, Shahid Beheshti, Alzahra and Kharazmi (N = 1000). The statistics of graduate students in sports sciences from Tehran universities were obtained by the researcher who visited the education department of these faculties before beginning the data collection stage. The number of students in each faculty for the research team was determined. In Modeling, one of the best methods to determine the sample size is selecting at least five samples and ten samples for each parameter (Nunnally, 1978). Therefore, 300 questionnaires were distributed. Finally, 270 usable questionnaires were statistically analyzed. The Proportional stratified method was used. The number of students based on faculty, the sample size of each group by the university, are presented in [Table 1](#):

Table 1. The size of population and research sample by each university.

Name of University	Population size	Sample size
Alzahra	150	27
Tarbiat Modarres	33	8
Tehran	300	80
Kharazmi	210	55
Shahid Beheshti	100	27
Shahid Rajaei	100	27
Allame Tatabaee	170	46

The tool used to collect information in this study is a questionnaire that was developed by the researcher based on the steps of the value chain model. Accordingly, while referring to theoretical foundations and background of research conducted in sports entrepreneurship, all influential factors in this field were extracted, and items were considered for each component by citing theoretical foundations and research background. These factors were arranged in the entrepreneurial value chain model (basic infrastructure, support, and executive activities). Then, a questionnaire was designed to confirm the face and content validity. So, it was submitted to 12 experts and professors of sports sciences who had a history of research or executive activities in sports and entrepreneurial activities. After inquiring and applying expert opinions, the content and face validity of the research tool was confirmed. Besides, in a pilot study on 30 graduate students of sports sciences in Tehran universities, the internal consistency of the questionnaire items was calculated using Cronbach's alpha method ($\alpha=0.864$). Since this value is >0.7 , the internal consistency of the questionnaire items is desirable, and thus the reliability of the data collection tool is confirmed.

The first part of the questionnaire includes questions related to the sample's demographic characteristics (age, sex, educational level, work experience). The second part is dedicated to the components of factors affecting sports entrepreneurship. This questionnaire consists of 58 questions which, based on the value chain model, has three branches. They include basic infrastructure (cultural, economic, physical, commercial), support activities (government policies and support, human resource management, consulting, entrepreneurial skills training), organizational activities (thinking and opportunity, developing a business plan, attracting and organizing resources, starting a

business, maturity, consolidating and leaving the business). A five-point Likert scale has been used (1. strongly disagree 2. disagree 3. neither disagree nor agree 4. agree 5. strongly agree).

To analyze the data, we used descriptive and inferential statistics. The descriptive statistics section employed central tendency, dispersion, and distribution indices to describe the research variables. First, demographic characteristics (age, sex, educational level, orientation, work experience) were described in the research samples. Also, in the inferential statistics section, KS statistical test was used to determine the status of data distribution, and Path analysis was employed to determine linear relationships. Statistical procedures were performed by SPSS and LISREL software at a significance level of $p < 0.05$.

4. Results

As can be seen in Table 2, among the professors, 53.7% of research samples (22 subjects) are in the age range of 31-40 years. Besides, 63.4% are male in gender, and 24.4% have 11-15 years of work experience. Also, among students, 54.3% of research samples (144 subjects) were female, and 78.5% were 20-30 years:

Table 2. Description of demographic characteristics of the research.

		30-20 2.4%	31-40 53.7%	40-51 34.1%	51-60 4.9%	60 and higher 4.9%
		One subject	22 subjects	14 subjects	5 subjects	Two subjects
Professors	Age					
	Gender	Female 36.6%	Male 63.4%			
	Work experience	15 subjects 1-5 years 19.5%	26 subjects 6-10 years 19.5%			
Students	Age	Eight subjects 20-30 78.5%	Nine subjects 31-40 17.4%	Ten subjects 11-15 years 24.4%	Five subjects 16-20 years 12.2%	Nine subjects >21 years 22%
	Gender	144 subjects Female 54.3%	126 subjects Man 46.7%	Nine subjects 41-50 3.3%	Two subjects 51-60 0.8%	
	Grade	238 subjects MSc 88.1	32 subjects Ph.D. 11.9			

Kolmogorov-Smirnov test was used to investigate how the data were distributed and determine the type of test. Based on the results of this test, because the significance level of all components was > 0.05 , the distribution of all data was normal and parametric tests were employed to test the statistical hypotheses related to them.

We asked professors and graduate students of sports sciences in Tehran universities to prioritize the elements of sports entrepreneurship. Then analyzed the results by Friedman's test. Based on the results of this test, the support activities obtained the first grade, then the organizational activities second, and the basic infrastructure third from the viewpoint of professors ($P < 0.05$). But from the students' point of view, executive

actions were obtained in the first grade, support activities second, and primary infrastructure third ($P < 0.05$). Friedman's test results are presented in Tables 3 and 4:

Table 3. Results of Friedman ranking test to prioritize elements of sports entrepreneurship value chain from the perspective of professors.

Row	Variable	Mean rank	Rank	X ²	DF	Sig
1	Support activities	2.22	1	7.366	2	0.025
2	Executive activities	2.12	2			
3	Basic infrastructure	1.66	3			

Table 4. Results of Friedman Ranking Test to prioritizing the sports entrepreneurship value chain elements from the perspective of students.

Row	Variable	Mean rank	Rank	X ²	DF	Sig
1	Executive activities	2.11	1	0.680	2	0.001
2	Support activities	2.08	2			
3	Basic infrastructure	1.81	3			

Furthermore, other results of the Friedman ranking test prioritize the basic infrastructure of the entrepreneurial value chain from the perspective of professors and graduate students from sports sciences in Tehran universities. Results indicated that the economic, commercial, cultural, and physical infrastructures were in the first to fourth ranks, respectively. Regarding the ranking of factors related to entrepreneurial value chain support activities, the results of the Friedman test showed that in the viewpoint of professors, government policies and support, entrepreneurship skills training, consulting, and human resource management are in the first to fourth ranks, respectively. Students' opinions differed only in the first two components, in which entrepreneurship skills training takes precedence over government policies and support. Besides, in terms of ranking the factors affecting the executive activities of the entrepreneurial value chain and among the aspects related to this component, having thought and opportunity was in the first ranks from the perspective of both professors and students, but attracting resources and organizing resources was the last priority.

After determining the ranks of entrepreneurial value chain elements from professors and graduate students of sports sciences from Tehran universities, the research variables were examined in LISREL software 8.2. The indicators related to good fit and measurement errors were specified. In this regard, three different indicators were used. By emphasizing these three indices, the model has a good fit and a high efficiency in describing the relationships between variables. Table 5 presents the indicators related to model fit that the researcher has given. As the results presented in this table show, considering the model fit indices in three categories of absolute, adaptive, and economic indicators, the research model, has a good fit that indicates the approval of the research model.

Table 5. Model fit indices.

	Fit index	Rate	Criterion	Interpretation
AFI	χ^2	189.111 with 112 freedom degree		Suitable fit
	P value	0.0654	>0.05	Suitable fit
	The ratio of χ^2 to the degree of freedom	1.688	1-3	Suitable fit
CFI	GFI	0.91	>0.90	Suitable fit
	TLI	0.92	>0.90	Suitable fit
	BBI	0.97	>0.90	Suitable fit
	CFI	0.97	>0.90	Suitable fit
PCFI	RMSEA	0.00024	<0.05	Suitable fit
	PNFI	0.81	>0.05	Suitable fit

Finally, the final model of the research is presented in [Figure 2](#).

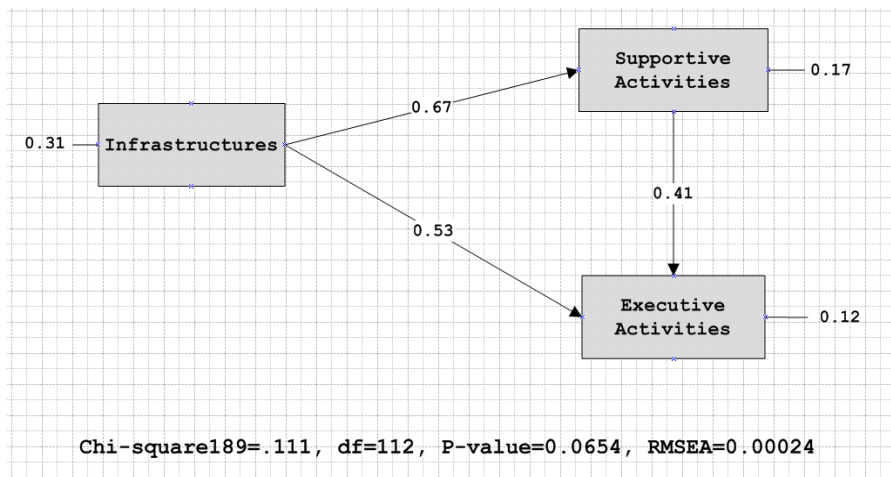


Figure 2. Diagram of path analysis and path coefficients in the final research model.

Based on the information presented in [Figure 2](#), it should be stated that the theoretical model of fit has appropriate empirical-theoretical assumptions in path analysis. We can interpret that the basic infrastructure of the sports entrepreneurship value chain directly impacts support activities ($pc= 0.67$) and organizational activities ($pc=0.53$) of the sports entrepreneurship value chain. Moreover, support activities of sports entrepreneurship value chain directly affect the executive activities of sports entrepreneurship value chain ($pc=0.41$), ($P<0.05$). The basic infrastructure of the sports entrepreneurship value chain indirectly affects the executive activities of the sports entrepreneurship value chain by influencing the support actions of the sports entrepreneurship value chain. The indirect impact of the basic infrastructure on organizational activities of the sports entrepreneurship value chain is less than the direct impact ($0.67 \times 0.41 = 0.274$).

5. Managerial implications

Since the present study results showed that the basic infrastructures of the entrepreneurial value chain directly affect the support and executive activities of the sports entrepreneurship value chain, the support activities of the sports entrepreneurship value chain also directly influence the executive activities of the entrepreneurial value chain in sport. It is suggested that the esteemed officials of the Ministry of Science, Research and Technology consider curriculum planning of various disciplines, especially in sports science, by adopting strategies to improve and strengthen these two factors in their agenda. These are among the things that can change the intellectual structure of universities positively. In this case, we can expect the country's active population, especially sports science graduates tending to entrepreneurship and the creation of independent businesses, to solve unemployment in their community and contribute to economic prosperity in the country. Also, considering that financial and commercial infrastructures are recognized as the most critical infrastructures for developing sports entrepreneurship in graduate students of sports sciences from the perspective of professors and students, the esteemed authorities of MSRT must identify and provide financial and economic incentives. Also, access to capital and financial resources provides a suitable platform for the growth of entrepreneurial activities among students. In addition, due to the effectiveness of government policies and support in promoting the entrepreneurial activities of sports science students, the relevant authorities must provide appropriate grounds to reduce and eliminate restrictions. The obstacles in the entrepreneurial path of students and even eliminate and limit superfluous administrative rules and regulations related to this process and facilitate legal processes affecting the development of sports entrepreneurship. The results of this study can help relevant policymakers design effective strategies to identify the barriers that have the most significant impact on the entrepreneurial process, providing the necessary context for creating sports entrepreneurship. Also, [Elahi et al. \(2021\)](#) argued that the economic findings of their study suggest that the sports mega-events have many consequences, including employment creation, increased investment, increased prices, improved infrastructure, increased tourism, and urban reconstruction for the host communities ([Elahi et al., 2021](#)). [Nazari \(2021\)](#) also argued that the sport tourism industry effectively creates employment and income in the host area if the sport tourism industry is developed and appropriate infrastructure is created. Furthermore, the growth of the tourism industry, business development, quality of life, infrastructure improvement, and action are essential opportunities for organizers to hold a sporting event ([Nazari, 2021](#)).

6. Discussion and conclusion

In a world where the domain of science is expanding rapidly, entrepreneurial human resources are the most crucial asset for the growth and development of a country. This requires serious attention to entrepreneurship education, in other words, "training of

entrepreneurial people." Also, sport in our country is evolving and developing, and this mobility can provide suitable grounds for entrepreneurial activities and sports. Sport is a convenient and diverse platform to create jobs and new opportunities for economic activity. By recognizing entrepreneurship in sports, new opportunities can be introduced for social and economic development to entrepreneurs and society. Therefore, the goal of this study was to "analyze the entrepreneurial value chain of sports students in Tehran universities."

The present study results showed that the basic infrastructure of the entrepreneurial value chain directly affects the support and executive activities of the sports entrepreneurship value chain. The present study's fundamental infrastructures of the sports entrepreneurship value chain include cultural, economic, physical, and commercial infrastructures. The results concerning the impact of economic factors in the present study align with (Terjesen, 2008). They are consistent with the results of Rezaei (2011, October 11-12) and Mandalizade et al. (2015) in terms of the effect of basic infrastructure in general (Mandalizade et al., 2015; Rezaei, 2011, October 11-12). For example, Terjesen (2008) enumerated the factors influencing the development of entrepreneurship in sports: economics and economic issues related to businesses, access to various types of capital, and infrastructure. Rezaei (2011, October 11-12) also examined the structural barriers to developing entrepreneurship in sports and identified the lack of adequate infrastructure for the sports business as one of the structural barriers to developing entrepreneurship in sports (Rezaei, 2011, October 11-12). Mandalizade et al. (2015), in a study, concluded that strengthening and developing infrastructural factors play an essential role in the development of sports entrepreneurship in the country (Mandalizade et al., 2015).

All these studies emphasized the role of fundamental infrastructure factors in entrepreneurship development. In the present research, the role of basic infrastructure as an influential factor in developing entrepreneurial activities is seen. In addition to directly influencing the executive activities of the entrepreneurial value chain, these infrastructures also indirectly affect the executive activities through support activities. In ranking the components of this infrastructure, both professors and students believed in the presence of economic infrastructure, namely easy access to capital and financial resources, tax breaks, and free or low-interest loans for inaugurating new businesses. Also, having financial support and economic incentives, attracting investment, and sufficient economic power on the part of people are highly effective in starting a new business. In justifying the findings of this part of the research, economic infrastructure is one of the most critical infrastructures influencing the entrepreneurial value chain. The society and environment in which the government's economic policies and financial issues are implemented by commercial institutions directly affect entrepreneurial activity.

After economic infrastructures, business infrastructure is in second place in promoting the entrepreneurial value chain from the perspective of professors and students of sports science. These infrastructures involve careful attention to the type of market and its analysis and investigation of the tastes and needs of consumers in the target community, accurate marketing of sports products and services. Findings of this part of research indicate that to facilitating the entrepreneurial value chain in the field

of sports, it is necessary to scrutinize the consumers of this field, their needs and wants, and to categorize the consumers of sports services and goods in terms of requirements, wishes, tendencies, and desires.

After economic and commercial infrastructures, both professors and students recognized cultural infrastructures as influential factors and their third priority. Also, the cultural and maturity level of the society in starting an enterprise and accepting a new business, hardworking, low expectations, and moral commitment of entrepreneurs are necessary to promoting sports entrepreneurship in media and magazines. Also, its advertisement by influential and important people in sports and the culture and development of attitudes in students toward doing entrepreneurial activities are among the factors that play a cultural role in the development of entrepreneurial activities in sports.

According to the professors and students of this field, physical infrastructures were in the last rank among the basic infrastructures of entrepreneurial value chain development. These infrastructures are geographical conditions, demographic arrangement of the society, the existence of telecommunication infrastructures, and facilities and welfare equipment. In completing the findings related to the basic infrastructure of the entrepreneurial value chain, although the basic infrastructure and environmental conditions play an essential role in entrepreneurship development, most studies in this regard are scattered and descriptive, only emphasizing a few aspects of the environment. More importantly, most investigations have not paid enough attention to the needs of entrepreneurs as the most important stakeholder of the environment and have not described the environmental conditions in creating new ventures. Proximity or remoteness to major urban centers affects the transportation costs of inputs and outputs and effectively disseminating information and innovations. Natural resources, suitable climatic conditions, topography, and even landscapes of the region provide opportunities for environmental use and exploitation of resources that affect entrepreneurship development. The protection of unique landscapes and environmental features facilitates traditional and old production methods, and these factors lead to the development of entrepreneurship. Infrastructures such as living facilities (water, electricity), services, tolls and taxes, laws, and regulations also play crucial roles in developing entrepreneurship.

In addition, the results showed that the support activities of the sports entrepreneurship value chain directly affect the executive activities of this chain and are, in turn, influenced by the basic infrastructure. Regarding practical support activities in the entrepreneurial value chain, support acts in the sports entrepreneurship value chain have a contributory role and are mainly performed by individuals and organizations other than the entrepreneur. It includes government policies and support, human resource management, financial and tax support, consulting, and entrepreneurship skills training. The government's policies and support have many items, including removing and reducing restrictions and barriers to entrepreneurship by the government. Also, more things are essential, such as eliminating cumbersome laws and regulations and public and distance education by the media to entrepreneurs. We can suggest the establishment of centers for growth and encouragement of people to self-employment, facilitating legal processes that affect the development of entrepreneurship in tax

payment, obtaining a license, company registration, and insurance. Human resource management refers to selecting qualified candidates, motivating, justifying, and educating entrepreneurs, communicating with entrepreneurs, and providing a method for evaluating their performance. The purpose of financial and tax support is providing facilities by banks and giving loans to entrepreneurs, public offering of stocks and bonds, offering tax exemptions, and reducing the administrative, financial, and legal steps of banks to lend money to entrepreneurs. Consultation means advising and guiding people with business-oriented ideas, counseling on the optimal use of technology in business, discussing and preparing a business plan on the laws of various companies, current and future legal issues, instruction in the field of financing methods for starting a business, establishing a small business consulting clinics in universities, informing students about the nature of sports sciences field and future working conditions.

Entrepreneurship skills training includes writing technical skills, oral and verbal communication and interaction with the environment, and business management skills. Also, we can add instructing individual entrepreneurial skills for internal control and order, risk-taking, innovation, and change management ability, which affect individuals' desire to undertake entrepreneurial activities. The results of this part of the research are in line with those of (Azimzadeh et al., 2014; Farahani et al., 2014; Karlis, 2006; Mandalizade et al., 2016). For example, Azimzadeh et al. (2014) argued that developing related laws and regulations, tax policies, simplifying administrative procedures, financial support, and lending are essential. And they suggested entrepreneurship promotion and education, informing and advising entrepreneurs, creating the necessary infrastructure, and encouraging financial businesses, all of which were influenced by the same or similar topics in the present study. In their research, Farahani et al. (2014) also considered the social, cultural, economic, political, educational, environmental, and international factors and entrepreneurial spirit of the graduates as effective in this respect. In the case of macro factors, his research findings were consistent with the main infrastructures obtained in the present study. Mandalizade et al. (2016) considered factors such as supportive policies by the government, media encouragement of entrepreneurship in sports, and proper training of applied and entrepreneurial skills. He argued that the factors affecting the process of sustainable entrepreneurship in sports are present in this research in some way or other and are thus in agreement with the current study's findings. In Karlis (2006) research, the most critical factors influencing entrepreneurship in sports were skills, knowledge, and experience for young entrepreneurs. Furthermore, a public sector support program for small businesses and the amount of investment, and having a business support program for small size enterprises and the amount of investment are consistent with the findings of the support activities and economic infrastructure in the present study. The results of Friedman's test also indicated that government policies and the level of support for entrepreneurial actions by the government and teaching entrepreneurial skills to individuals play essential roles in shaping entrepreneurial activities; however, consulting and human resource management components play minor roles.

In justifying the results and the efficiency of support activities in the entrepreneurial value chain, support activities signify backing and sustenance services that facilitate the

process and help entrepreneurs achieve their goals. The more conducive the business environment for entrepreneurship, the more likely it is that new businesses will emerge and develop. When the social environment appreciates entrepreneurship, there are a variety of opportunities for entrepreneurs, people have enough knowledge and skills to start and run a business, and they will perhaps be encouraged to start a business and feel good upon launching a business. Thus, governments both directly and indirectly influence the development of an environment that can support entrepreneurship.

Regarding the role of executive activities in entrepreneurial value chain, it should be said that executive activities in sports entrepreneurship value chain are separate actions that a person or entrepreneurial organization should do and include thought and opportunity (ability to create ideas and identify sports business opportunities, detect the strengths and weaknesses of existing businesses, accurately identify market and consumption needs), business plan development (having a marketing plan for sports businesses, conducting technical and financial reviews and surveys in the field sports businesses, analysis of opportunities and threats in the environment of sports businesses, attracting resources and organization (having personal financial resources, financing through borrowing, the ability to dominate the external environment and available resources for management sports businesses, familiarity with the ways to prevent disorder in the management of sports businesses), maturity, stabilization and exit from the business (capacity to analyze the position of the sports business, ability to take responsibility for solving business problems). Therefore, individuals or organizations starting and running businesses need to be well aware of their strengths and weaknesses because entrepreneurship and the ability to create and develop a business is associated with individual skills and talents of entrepreneurial organization or individual. They must have confidence, perseverance and determination, enthusiasm and hardworking, thoughtfulness, risk-taking ability, and need for progress. Also, we can add more sections such as creativity, innovation, flexibility, positive response to challenges, independence, forward-thinking, dynamism and leadership, versatility (knowledge of production, market, machinery, and technology), responding to suggestions and criticisms, profitability, insight and agility, and optimism to be able to achieve more success. The results of this part of the research are in line with those of (Cohen et al., 2014; Ekrami et al., 2014; Keshavarz & Mehri Shendi, 2020). All three mentioned studies align with the present study regarding individual factors as influential executive factors in entrepreneurship development. In his research, Cohen et al. (2014) considered the context or experience of the individual to be efficient in shaping social entrepreneurship. In the Ekrami et al. (2014) study, creativity, independence, influence, externality, commercialization talent, flexibility, success, and learning are factors affecting entrepreneurship (Ekrami et al., 2014). Keshavarz and Mehri Shendi (2020), in a study on analysis of barriers affecting entrepreneurship in sports, concluded that family, personality, upbringing, scientific-professional, financial, cultural-social, and legal obstacles influence the development of entrepreneurship in sports (Keshavarz & Mehri Shendi, 2020).

Since the present study population was only students of sports sciences in Tehran universities, we suggested that the entrepreneurial value chain between physical education and non-physical education students be compared. We also recommended that the entrepreneurial value chain in a specific geographical area be examined. In addition, it is suggested that the factors affecting the supply chain of sports entrepreneurship be investigated.

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References

- Ahmad Amini, Z., Amani, M., & Saghezchi, M. (2010). Identification of effective factors on Entrepreneurship development by a value chain perspective. *Quarterly journal of Industrial Technology Development*, 8(14), 35-48. http://jtd.iranjournals.ir/article_888.html?lang=en
- Amini, M., Jamshidi, R., & Heydarinejad, S. (2014). Prioritization of entrepreneurship barriers of physical education students by TOPSIS method. *Research on Educational Sport*, 2(6), 15-32. https://res.ssrc.ac.ir/article_188.html?lang=en
- Azimzadeh, S. M., Ehsani, M., Kordnaeij, A. A., & Kozechian, H. (2014). Identifying a conceptual model for starting-up small and medium sized sport enterprises. *Sport Management Studies*, 6(22), 189-208.
- Cohen, K. E., Morgan, P. J., Plotnikoff, R. C., Callister, R., & Lubans, D. R. (2014). Fundamental movement skills and physical activity among children living in low-income communities: a cross-sectional study. *International Journal of Behavioral Nutrition and Physical Activity*, 11(1), 49. <https://doi.org/10.1186/1479-5868-11-49>
- Ekrami, M., Safari, S., & Ghalamkari, M. (2014). Developing the Entrepreneurship Factors among Municipality Staff (The case of the municipality of the district 7 of Tehran). *Urban Economics and Management*, 2(6), 55-71. https://iueam.ir/browse.php?sid=1&a_id=67&slc_lang=en
- Elahi, A., Gholampour, S., & Askarian, F. (2021). The Effects of Sports Mega-Events on Host Communities: A Systematic Review of Studies in Three Recent Decades. *Sports Business Journal*, 1(1), 13-30. <https://doi.org/10.22051/sbj.2021.36862.1007>
- Farahani, A., Ghasemi, H., & Mohammadi, N. (2014). The study of Environmental factors affecting the entrepreneurial spirit of students graduate in Physical Education. *Applied Research on Sport Management*, 2(3), 61-74. https://arsmb.journals.pnu.ac.ir/article_80.html?lang=en
- Foroughipour, H., Mozafari, A., & Ashraf, F. (2007). Evaluation and introduction of the most important entrepreneurial priorities in sports from the perspective of those involved in sports. *Research in Sports Science*, 5(16), 55-68. <https://www.sid.ir/fa/Journal/ViewPaper.aspx?ID=89922>
- González-Serrano, M. H., González-García, R. J., Carvalho, M. J., & Calabuig, F. (2021). Predicting entrepreneurial intentions of sports sciences students: A cross-cultural approach. *Journal of Hospitality, Leisure, Sport & Tourism Education*, 29, 100322. <https://doi.org/10.1016/j.jhlste.2021.100322>

- Hisrich, R. D., & Peters, M. P. (2002). *Entrepreneurship*. McGraw-Hill/Irwin. <https://books.google.com/books?id=PzxEAAAAYAAJ>
- Jansen, S., van de Zande, T., Brinkkemper, S., Stam, E., & Varma, V. (2015). How education, stimulation, and incubation encourage student entrepreneurship: Observations from MIT, IIT, and Utrecht University. *The International Journal of Management Education*, 13(2), 170-181. <https://doi.org/10.1016/j.ijme.2015.03.001>
- Karlis, G. (2006). The future of leisure, recreation and sport in Canada: a SWOT for small sized enterprises. *The Sport Journal*, 9(2). <https://www.cabdirect.org/cabdirect/abstract/20073146765>
- Keshavarz, L., & Mehri Shendi, S. (2020). Analysis of the Barriers to Entrepreneurship in Sport from the Perspective of M.A Students of physical education and sport sciences at the University of Tehran. *Applied Research in Sport Management*, 9(4), 163-169. <https://doi.org/10.30473/ARSM.2020.7324>
- Khajeh Shah Kouhi, A., & Sahneh, B. (2008). The Role of Higher Education in Economical Development. *Higher Education Letter*, 1(3), 125-138. http://journal.sanjesh.org/article_29829.html?lang=en
- Mandalizade, Z., Ehsani, M., & Honari, H. (2016). Developing Sustainable Entrepreneurship Model in Sport Based on the Grounded Theory. *Journal of Sport Management*, 8(5), 709-725. <https://doi.org/10.22059/jsm.2016.60443>
- Mandalizade, Z., Ehsani, M., Kozechian, H., & Honari, H. (2015). The Environmental Factor Affecting on Sport Entrepreneurship. *Sport Management Studies*, 7(29), 99-116. https://smrj.ssrc.ac.ir/article_433.html?lang=en
- Mandalizadeh, Z., & Amiri, M. (2021). Designing a Conceptual Framework for Innovation Capability Development in Iranian Football Premier League. *Sports Business Journal*, 1(1), 101-117. <https://doi.org/10.22051/sbj.2021.36841.1006>
- Memari, Z., Rafei Boldaji, S., & Pouyandekia, M. (2021). How is the Football Schools Franchise Using a Valuable Approach to Revenue-Generating Capacity in Iranian Football Clubs? *Sports Business Journal*, 1(1), 31-44. <https://doi.org/10.22051/sbj.2021.36864.1008>
- Nazari, R. (2021). The Analysis of Strategic Ecology of Sports Tourism. *Sports Business Journal*, 1(1), 153-162. <https://doi.org/10.22051/sbj.2021.36941.1009>
- Ratten, V. (2011). Sport-based entrepreneurship: towards a new theory of entrepreneurship and sport management. *International Entrepreneurship and Management Journal*, 7(1), 57-69. <https://doi.org/10.1007/s11365-010-0138-z>
- Ratten, V., da Silva Braga, V. L., & da Encarnação Marques, C. S. (2021). Sport entrepreneurship and value co-creation in times of crisis: The covid-19 pandemic. *Journal of Business Research*, 133, 265-274. <https://doi.org/10.1016/j.jbusres.2021.05.001>
- Reisi, A. (2010). *Strategic Analysis of Steel Value Chain in Iran*. [Master Thesis, Tarbiat Modares University]. Tehran, Iran.
- Rezaei, F. (2011, October 11-12). *Investigating the structural barriers to entrepreneurship development in sport from the perspectives of managers and sport entrepreneurs of Mazandaran province*. Iran's first Entrepreneurship Student Conference, Tehran University, Tehran, Iran. <https://civilica.com/doc/185950>
- Stamboulis, Y., & Barlas, A. (2014). Entrepreneurship education impact on student attitudes. *The International Journal of Management Education*, 12(3), 365-373. <https://doi.org/10.1016/j.ijme.2014.07.001>
- Stevenson, E., & Warn, R. (2004). Australian government. *Development Defense*.

- Terjesen, S. (2008). Venturing Beyond the Marathon: The Entrepreneurship of Ultrarunning and the IAU World Cup in Korea. *Asian Business & Management*, 7(2), 225-241. <https://doi.org/10.1057/abm.2008.2>
- UNESCO. (1998, 9 October). *World Declaration on Higher Education for the Twenty-First Century: Vision and Action*. World Conference on Higher Education in the Twenty-first Century: Vision and Action, Paris, France. <https://unesdoc.unesco.org/ark:/48223/pf0000141952>
- Von Graevenitz, G., Harhoff, D., & Weber, R. (2010). The effects of entrepreneurship education. *Journal of Economic Behavior & Organization*, 76(1), 90-112. <https://doi.org/10.1016/j.jebo.2010.02.015>
- Weijermars, R. (2010). Value chain analysis of the natural gas industry: Lessons from the US regulatory success and opportunities for Europe. *Journal of Natural Gas Science and Engineering*, 2(2), 86-104. <https://doi.org/10.1016/j.jngse.2010.04.002>



تحلیل زنجیره ارزش کارآفرینی دانشجویان علوم ورزشی دانشگاه‌های تهران

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کلیدواژه

زنجیره ارزش
زیرساخت‌های اساسی
فعالیت‌های اجرایی
فعالیت‌های پشتیبانی
کارآفرینی ورزشی

نوع مقاله

پژوهشی اصیل

چکیده

هدف: کارآفرینی فرآیندی است که نقش حیاتی در تداوم، رشد و توسعه ملی و حتی اقتصادی جهان ایفا می‌کند. بنابراین، هدف تحقیق حاضر "تحلیل زنجیره ارزش کارآفرینی دانشجویان علوم ورزشی دانشگاه‌های تهران" بود.

روش: جامعه آماری پژوهش شامل کلیه اساتید و دانشجویان تحصیلات تکمیلی علوم ورزشی دانشگاه‌های تهران (۱۰۰۰ نفر) بوده که با استناد به جدول کرجسی و مورگان و به شیوه نمونه‌گیری طبقه‌ای متناسب با حجم و تصادفی، از بین آن‌ها ۲۷۰ نفر جهت انجام این پژوهش انتخاب شدند. ابزار تحقیق نیز پرسشنامه محقق ساخته بر اساس مدل زنجیره ارزش بود. همچنین، در طراحی مدل از مدل‌سازی معادلات ساختاری (SEM) استفاده شد.

یافته‌ها: یافته‌های پژوهش نشان داد زیرساخت‌های اساسی زنجیره ارزش کارآفرینی ورزشی به صورت مستقیم با ضریب مسیر ($PC=0/67$) بر فعالیت‌های پشتیبانی و با ضریب مسیر ($PC=0/53$) بر فعالیت‌های اجرایی تأثیر دارد ($P<0/05$). همچنین، فعالیت‌های پشتیبانی زنجیره ارزش کارآفرینی ورزشی به طور مستقیم و با ضریب مسیر ($PC=0/41$) بر فعالیت‌های اجرایی زنجیره ارزش کارآفرینی ورزشی تأثیر داشت ($P<0/05$). با توجه به نقش اثرگذار مستقیم و غیرمستقیم زیرساخت‌های اساسی بر فعالیت‌های اجرایی زنجیره ارزش کارآفرینی ورزشی، لازم است مسئولین دانشگاه‌های تهران اقدامات متناسب در جهت افزایش سطح زیرساخت‌های اساسی دانشجویان تحصیلات تکمیلی علوم ورزشی دانشگاه‌های تهران انجام دهند.

اصالت و ابتکار مقاله: از آنجا که مقاله حاضر، زنجیره ارزش کارآفرینی دانشجویان علوم ورزشی دانشگاه‌های تهران را تحلیل می‌نماید، ارزشمند و منحصر به فرد است.

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