



The Infrastructure, Peripheral, Organizational and Market Relations in the Iranian Sports Industry

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ABSTRACT

Purpose: Nowadays, exercise plays an essential role as economic activity in the economic development of different communities. In most countries, it is considered a trade and necessary industry. This industry is wide-ranging and has many sectors that can be recognized as an industry.

Methodology: Researchers in this study using a researcher-made questionnaire with 71 items whose content validity and validity were confirmed by exploratory and confirmatory factor analysis test in SPSS software version 21, subsections, infrastructures and relationships between them and introduced a model for the Iranian sports industry.

Findings: The two-way correlation of these infrastructures shows that other factors can grow and improve it with one weakness. Paying attention to this classification and their relationships creates a helpful platform for managers to make decisions. Based on the findings, managers can plan according to the interrelations of each subdivision.

Originality: Researchers have introduced a new classification for the relationship between factors related to the sports industry by presenting a new perspective in this article, thus introducing a new basis for decision-makers in the sports industry.

Keywords

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1. Introduction

Nowadays, sports have grown relatively fast and played an important role as economic activity in producing and consuming sports products and the economic development of different communities. Therefore, sport is considered a trade and important industry in most countries and has a remarkable financial place (Stotlar, 2013). However, sport is not considered an industry in some countries' economies, including Iran. It causes the lack of recognition of this revenue-generating industry in the economic system of these countries (Eschenfelder & Li, 2007). To maintain profitability, the managers in this industry must be aware of challenges related to the supply chain, including suppliers, producers, merchandisers, and consumers. It must be balanced with entering new markets, increasing the club's value, and maximizing media exposure (Memari et al., 2020). The global sports market can be segmented into North America, South America, Europe, Asia-Pacific, Middle East, and Africa submarkets. North America is still the most significant market for the sports industry, accounting for 32.5% of the global transactions in 2018 (Zhang et al., 2021). If we do not include sport as a distinct industry, it means we do not pay attention enough to the economic potential of this industry. So, it makes some aspects of the sports industry fade and be unknown, which has a significant share in generating national revenue in other countries.

Using definitions and standard classified concepts in industries presents a clear and explicit explanation of the economic structure of each (Affairs, 2008). A specified financial system facilitates the collection of required statistical data in the industry. Access to this accurate and comprehensive information facilitates the preparation and implementation of social and economic programs and precise assessment for planners. Economic effects are essential variables that many previous studies have paid particular attention (Elahi et al., 2021). So, our sport's lack of a robust structure reduces agility in senior managers' process and implementation and evaluates the sports organization's plan. Also, the lack of accurate statistical data can disrupt research projects related to sports that make the development of the sports industry face problem. Because 60% of the world population lives in Asia, in recent years, professional sports organizations in developed economies have made concerted efforts to reach billions of potential fans (Zhang et al., 2021).

Regarding the alleged role of the sports industry in all sectors of the so, it society from health to entertainment, from political and social to cultural and economic seems, it is time to take a look at the overall state of the sports industry to have a general description of it. We hope that the strength and weaknesses of this model reveal more decisions to make the Iranian sports industry stronger.

The research aims to identify and explain the spheres and infrastructures of Iran's sports industry to better understand the structure by knowing these dimensions in the best way. This model demonstrates the new aspect of the sports industry, and it can provide a new frame for the future of the sports industry. So, the following research is interested in finding out the answer to this question: "What are the spheres and infrastructures of the sports industry?" And "What are explaining infrastructures of each of these spheres?" On the other hand, when we know how the constructive spheres of

this industry are classified, one crucial question will have appeared. How is the general view of the activity has done in the sports industry of Iran?

2. Theoretical background

In recent years, the economic impact of sport has attracted many researchers, including: (Kim et al., 2017; Wang et al., 2018). But are all of the general and detailed aspects measurable distinctly? Is it possible to accurately test the different parts of this industry without knowing any spheres and their infrastructures?

Over the past fifty years, research about the sports economy has shown economic growth of this industry (Maennig, 2017). What is the sports industry? So far, there is no clear and appropriate answer to this question, even though many efforts have been made by sport management researchers and interns of the sports industry. On the other hand, sport management researchers have not agreed yet. Despite many efforts that have been made by some researchers, including: (Li et al., 2001; Meek, 1997) and (Pitts et al., 1994), management researchers have not agreed yet about the definition of the sports industry.

So it seems that recognition of spheres and the infrastructures of the sports industry has become an essential task for sports experts (Eschenfelder & Li, 2007).

Because not having an accurate and specific definition is causing an error, and it is not expected that managers and researchers plan correctly. Also, (Brenda & Stotlar, 1996) tried to improve strategic marketing planning by partitioning of sports industry (product model- market). Eschenfelder and Li (2007) said: Pitts and his colleague did not describe the connection between different sectors, only presenting a general outline of the sports industry and making a general category.

Therefore, Meek (1997) classifies the sports industry into three spheres. Eschenfelder and Li (2007) said that: Meek's structure may create ambiguity, just because the foundation of his model is cost-based and does not include all the economic activity that the companies and sport-driven organizations involved. The Iranian sports industry has 18 categories: facilities, equipment, events, human resources, business, economic, and government (Aghaei shahri et al., 2018). The sports industry today exists within the social-economic achievements and power of a society. In essence, it should adapt to the new living conditions, work conditions, and how business is being conducted. Today, it is necessary to invest more in the offer of the sports industry (athletes, results, equipment, equipment, facilities, diagnostics) to be more efficient in the form of the final product on the market. The industry must adapt to the conditions of the world market (supply and demand) (Savić et al., 2018).

Eventually, (Li et al., 2001) present a more advanced model of the sports industry whit six secondary subsections. This model represents sport producer companies as a core of the sports industry, and the other organizations have been created to support, fabricate, facilitate, produce, manage or advertise this core (Li et al., 2001). In a proposed Iranian football business paradigmatic model, there are six parts: human resources, financial resources, relationships, organizational structure, infrastructure, and

processes, which provide the conditions necessary for optimally offering football (Memari et al., 2020)

These three models have common traits, and all of them provide us with some methods for categorizing industry in general. Each of these models is meaningful for this industry but also help us to know if a particular business is appropriate for this industry or not and how this industry is related to the other industry sectors. Having more information about the industry you are active in and the relationship between your business and the other business, whether direct or indirect, will help you make a decision and develop competitive strategies (Pitts & Stotlar, 2007). Supposing the relations between the industry elements can be helpful when we don't have the data and statistics on the industry activities. So, we can hope that theoretical and statistical models produce an appropriate starting point to present a general perspective of this industry.

3. Methodology

The present research did in two qualitative and quantitative sections. In the qualitative section, a list of the most crucial variable in the sports industry was prepared by reviewing the scientific sources. Then, the most repetition and emphasis. Experts confirmed the validity of the questionnaire. In the quantitative section, inferential statistical methods were used to analyzing the information. Researchers selected 263 experts, including science committee's members, Sports experts working in the governmental department affiliated to Ministry of Sports and management committee's members of federations, the national team coaches, and finally athletes/ champions to answer the survey. The sampling quality index was $KMO=84/0$. The questionnaire, including 71 items, was ready to use, which are scored by a Likert scale (1: very low, 2: low, 3: medium, 4: high, 5: very high). Five professors of the university confirmed the content validation of the questionnaire. Also, the liability coefficient of the questionnaire was at 953/0 by using Cronbach's alpha ($>01/0P$). Then for the second time, analyzing the exploratory factor onto 18 infrastructures was carried out, and infrastructures were classified into four spheres.

We used exploratory factor analysis with the varimax rotation method to identifying the total capacity of the infrastructures and domains. The quorum of acceptance criteria for variables was obtained at least 3/0. The respondent did not know any boundaries between researchers. Then, the Structural Equation Modelling (SEM) was used to confirm the relations between infrastructures and domains. The KMO index and Bartlett test were used to examine the adequacy of the exploratory model.

4. Results

Demographic information

According to research findings, the most frequency was related to 39-40 years old, people with 1/36%, the master degree and higher to 6/69%, 10-20 years of experience

in the sport with 6/23% and the most frequency in sports activity belong to the respondent of sports expert with 4/30% of the total sample frequency.

Regarding the importance of the infrastructure and factor loading, seventy-one items of the questionnaire; the sports industry of Iran was affected by 18 infrastructures.

These 18 infrastructures are classified into four spheres to identify the macro sphere by re-testing the exploratory factor analysis, the amount of KMO index according to chart number one, in both exploratory factor analysis The Bartlett's test confirms the use of this method.

Table 1. Bartlett and KMO index test results.

Exploratory Factor Analysis for 71 items	
KMO	0.84
Chi-square	12423.144
Degrees of freedom	2556
Sig	0.000
Exploratory factor analysis for 18 infrastructure	
KMO	0.885
Chi-square	1993.063
Degrees of freedom	153
Sig	0.000

In Table 2, the areas of the exploratory model and explanatory infrastructure are introduced:

Table 2. Areas of the country's sports industry and descriptive infrastructure and their factor loadings.

Areas	Infrastructure	Factor load
Peripheral areas	Technology related to the sports industry	0.68
	Cultural affairs related to the sports industry	0.43
	Economic activities related to the sports industry	0.80
	Government	0.52
Organizational areas	Public and private organizations active in the field of sport	0.65
	Human resources	0.72
	Relationship with industry	0.25
	Sports goods and services	0.67
Sports market areas	Market:	
	Revenue from marketing activities	0.48
	Business activities	0.35
	Retail	0.42
	Operating costs	0.69
	Sport function:	
	Sport Tourism	0.73
	Proceeding from the public and recreational activities.	0.54
	Places and Sports Facilities	0.55
Event	0.39	
Backup areas	Sport media	0.75
	Sport Medicine	0.67

Confirmatory factor analysis was used to confirm the relationship between areas of the sports industry infrastructure.

Table 3. Fit index of the first-order factor analysis.

Cmin/DF	RMSEA	PNFI	CFI	IFI
2.60	0/078	0.63	0/907	0.903

According to the results, Fit indices show that the confirmatory factor analysis model is appropriate.

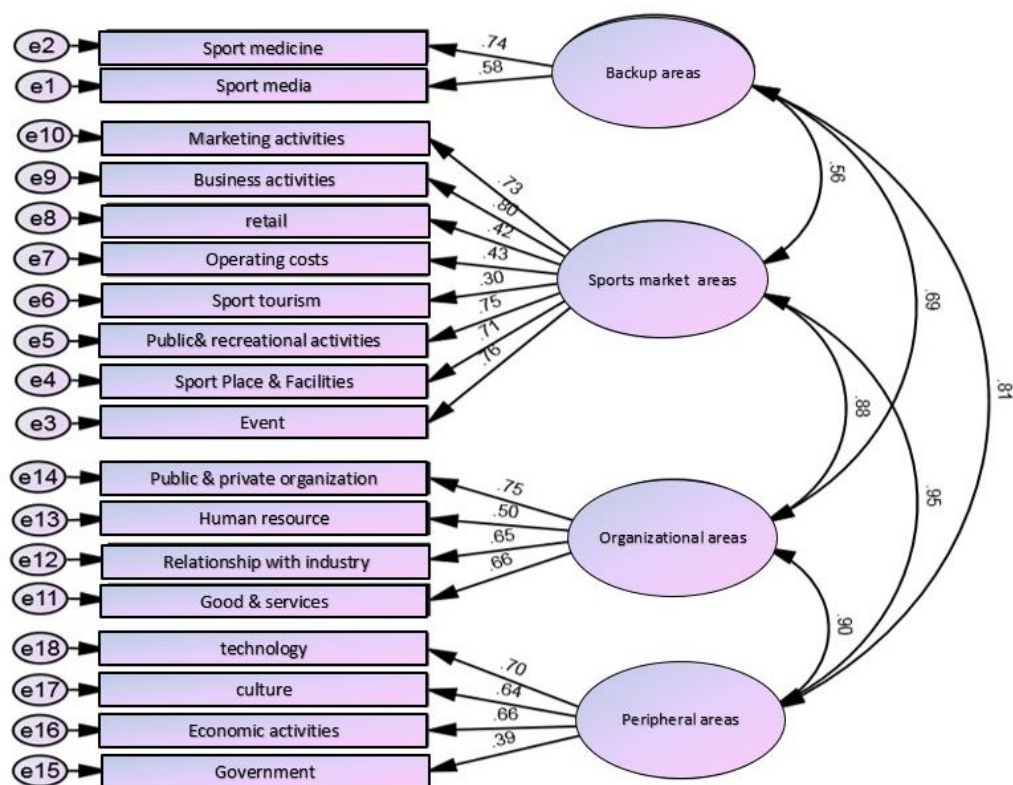


Figure 1. The standard model of confirmatory factor analysis Iran Sport Industry

Finally, the relationship between the four main domains and the sports industry in the following structural model was developed and approved by Amos software.

Table 4. Fit index of structural analysis model.

Cimin/DF	RMSEA	GFI	AGFI	RMR	IFI	CFI
1.057	0.015	0.998	0.980	0.012	0.999	0.999

According to the results, Fit indices show that the confirmatory factor analysis model is appropriate.

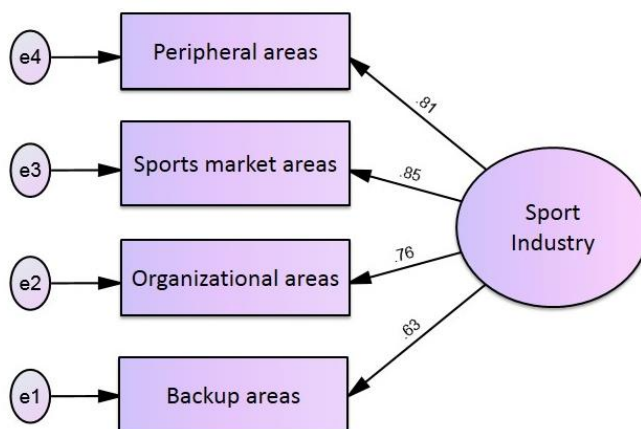


Figure 2. The structural model of the sports industry and areas of its constituent.

5. Managerial implications

Factors defining the Iranian sports industry are in four general categories: environmental, organizational, contextual, and related to the sports market. Although managers' awareness of the relationship between the sub-factors is important, identifying the macro-factors is also important for the optimal distribution of budget and facilities. It is also necessary for managers to know that the underlying factors have a double correlation with market-related factors and pay attention to the two-way relationship between market factors and organizational factors and the two-way relationship between organizational factors and environmental factors.

6. Discussion and conclusion

The purpose of this research was to recognize the sphere and infrastructure of the sports industry of Iran. Seventy-one items of the sports industry were identified by analyzing the opinion of the skill-full expert, and then, these items were divided into 18 general factors. After analyzing again, the 18 factors were included into four significant elements: peripheral areas, Organization areas, market areas, and backup areas. Eventually, the models of structural equations were confirmed. Also, interrelations between the factors, macro domains and the general structure of the Iranian sports industry was determined.

So many different models have been proposed for the sports industry, and besides, this model gives a better understanding of the Iranian sports industry. In this study, the obtained model was based on the opinion of experts and quantitative statistical methods; This method is not used in other models of the sports industry, including: (Li et al.,

2001; Meek, 1997; Pitts et al., 1994). Because the model of Meek (1997), which is known as the economic model of Meek, is not based on the cost of the sports industry that conducts us to care about the economic dimension of this model like Lee and Eschenfelder do (Eschenfelder & Li, 2007).

Pitts et al. (1994) classified sports industry according to product and buyer and is presented in three sections: implementation, propagation, and sports production. However, this contrast is due to a different perspective of researchers to this precious sports industry. This great industry has influenced the economy, political, and even Peripheral and is influenced by them. The research was conducted to develop this industry according to the demand of related businesses and planners.

It is essential to care about the division of the sports industry for businesses operating in related areas because knowing this division makes the sports business aware of its position in the sports industry. Also, based on the division of the sports industry, companies can identify the related areas and besides, they can manage, plan, organize and decided for their businesses perfectly.

In the discussion, it will be discussed about each models area of this research: In the Peripheral domain, it seems that the variables of technology, cultural issue, economic activities, policy and government affect the structure of the sports industry, in the other sports industry's models (Eschenfelder & Li, 2007; Meek, 1997; Pitts et al., 1994). There is just a little attention to Peripheral factors, which is effective for the sports industry, and only slight references have been made in this area. For example, in the model (Li et al., 2001), sub-section six (Municipal and Regional Councils and Authorities) indicates the external perspective of the sports industry.

In the present model, the Peripheral factor refers to the businesses of the sports industry that are in the cultural, economic, technology and government sectors; of course, this division cares about the PESTEL model somehow. Although the infrastructures of the Peripheral domain are presented in the recent model in the sports industry, from another perspective, this area can be considered a macro-Peripheral of the sports industry, and it is believed that the crust of sport with such good infrastructures can't be separated.

So, in each sports business, it is necessary to pay attention to the Peripheral area. If issues such as technological factors, cultural issues, economic activity, and the government is not considered, sports businesses will not be able to improve day by day; In this regard. We can refer to (Azimzadeh et al., 2013), which demonstrate the importance of Peripheral factors to set up small and medium-sized businesses.

There are some infrastructures in the organizational sphere, including the private and public organizations active in sports, human recourses, communication with industry, goods and sports services.

In the model of (Meek, 1997), professional and amateur organizations are part of the sports industry and are called sports support organizations. Also, there are goods and sports services in another model called sports products. In contrast to the present research model, Meek's model is not allocated human sources and communication with industry.

In Pitts et al. (1994) model, there is a section called sports function that included governmental and non-governmental organizations and fitness companies; that professional and the amateur athlete is included in this part. Of course, in the present research, the professional and amateur athlete is considered part of human recourses in the sports industry; Hence, this division is similar to (Pitts et al., 1994). Also, in the model of (Li et al., 2001), sub-section one includes department and organization controlling sport and sub-section two include producers of sports goods. In general, this similarity of sports organizations with sports industry structure shows that sports organizations have a crucial role in shaping the main design of the sports industry. So, it is crystal clear that sports organizations are important; Because without planning, organizing and overseeing the sports industry, the structure of this industry will be disrupted and disoriented.

In every three models mentioned (Li et al., 2001; Meek, 1997; Pitts et al., 1994), considered a distinct section for productions and services in sport, but in the model of sports industry of Iran, sports goods and services are not in an area alone. Besides the other units, they are private and public organizations, human recourses and communication with industry). Perhaps because the government administrates a significant of the sports industry of Iran, and the private sector runs just a tiny part of this industry; For example, 16 teams of 18 teams of football premier league in Iran is governmental, and just two other groups are quasi-governmental. Hence, human recourses and communication in this industry and goods and services in the sports industry of Iran are in one section.

In the sports market field, factors are divided into two parts theoretically; 1-Market: income from marketing activities/ trade/ retail/ operational costs. 2-sports function: sports tourism/ income from the public and sportive activity/ places and sports facilities/ event. The first section will support the activity of a sports market; if the sports market includes the seller, buyer and spot product which trade and bargaining around, we can say that activities such as retrieval, trading, retail and operational cost all work around a pillar.

For example, in a transaction, operation costs are the distribution and sell costs. The second section of the market, which means sports function, presents factors that underpin the development and production of sport; these factors have an important position in sports definition (Stotlar, 2013). All of these sections exist in the previous models of the sports industry. Therefore, the economic development of these four sections has an economic effect on the sports industry, according to some researchers' opinions (Matheson, 2018).

In the Pitts et al. (1994) model, sports products which are required or desirable for production or impress the sports function is considered as a section; this sector matches with some structures such as (Market: income from marketing/ Businesses/ retails/ operational costs) which are in the sports market area. Also, another part of Pitts model was sports function, which is a service provided to customers as an athlete or spectators. It is also matched with another part of infrastructures of obtaining sports market area (sports function: sport tourism/ income from public and leisure activities/ places and

sports facilities/ event). Therefore, in the Pitts model, the factors in the sports function and product sectors are considered distinctly. These factors in the sports industry of Iran are presented as sports market areas.

There are two factors in the sports support area, including sports media and sports medicine. It seems that these two areas are relatively independent and have given a significant hand to the industry by entering the sports industry. Perhaps, sports couldn't become remarkable and attractive as much as now without these two factors. In previous models of the sports industry and researches like (Garcia-del-Barrio, 2018), the importance of media in sport has been emphasized. In Li et al. (2001), media is considered the fourth secondary subsection, including (Radio, television, cable network, magazines, and other periodicals).

According to Lee model, sports media has achieved relative independence as a part of the sports industry. Also, Meek (1997) model shows the media are considered a part of entertainment and leisure and a subcategory of the professional and non-professional sports team. Meek believes that media are related to entertainment and leisure. So, we can say: Lack of sport and sports media will be an essential loss. Therefore, the importance of media in the previous model of the sports industry and recent research is shown clearly.

Remarkably, previous models of the sports industry are not mentioned in medicine. Perhaps in Meek (1997) model, a part of (supporting organization sector) is related to sports medicine, or in the Pitts et al. (1994) model, sports medicine is included in (sports development). Also, in Li et al. (2001), it has been mentioned in sub-section one (sports agencies and sports organizations). But nowadays we see that sports medicine can provide a huge benefit for sport including sports medicine, tourism which is very useful for the destination city.

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روابط میان زیرساخت‌ها، عوامل سازمانی و پیرامونی بازار صنعت ورزش ایران

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چکیده

کلید واژه

تجارت در ورزش
محیط بازار
مدل معادلات ساختاری
نوع مقاله: پژوهشی اصیل

هدف: امروزه ورزش نقش اساسی را در توسعه اقتصادی جوامع مختلف ایفا می‌کند. از این رو، در بیشتر کشورها ورزش یک صنعت پررونق تجاری محسوب می‌شود. رویکرد صنعت ورزش بسیار گسترده و دارای بخش‌های زیادی است که هر یک را می‌توان به تنهایی یک صنعت دانست. هدف از انجام این مطالعه شناسایی روابط عناصر کلان صنعت ورزش ایران بود.

روش: محققان در این تحقیق با استفاده از پرسشنامه محقق ساخته با ۷۱ گویه که روایی محتوایی و اعتبار آن تأیید شده بود، با آزمون تحلیل عاملی اکتشافی و تأییدی در نرم‌افزار SPSS نسخه ۲۱، زیربخش‌ها، زیرساخت‌ها و روابط میان آن‌ها را شناسایی و مدلی را برای صنعت ورزش ایران معرفی کردند.

یافته‌ها: همبستگی دوسویه این زیرساخت‌ها نشان داد با وجود ضعف در یکی از عوامل می‌توان از همبستگی آن با سایر عوامل برای رشد و بهبود این صنعت استفاده نمود. بنابراین، توجه به این دسته‌بندی و روابط میان آن‌ها بستر مناسبی را برای تصمیم‌گیری مدیران ایجاد می‌کند. بر اساس یافته‌ها مدیران می‌توانند به تناسب روابط هر زیر بخش با سایر بخش‌ها برنامه‌ریزی کنند.

اصالت و ابتکار مقاله: محققان با ارائه نگاهی جدید در این مقاله دسته‌بندی جدیدی را برای روابط میان عوامل مرتبط با صنعت ورزش معرفی نموده موجب شدند تا مبنایی نو برای تصمیم‌گیران صنعت ورزش معرفی گردد.

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