



Original Research

Developing a Structural Pattern of E-commerce in Iran Sport Businesses

Shahrooz Keihan¹, Reza Nikbakhsh^{2*}, Abolfazl Farahani³, Ali Mohammad Safania⁴, Mohsen Bagherian FarahAbadi⁵

1. Department of Sport Media and Marketing Management, Islamic Azad University Science and Research Branch, Tehran, Iran, ORCID: 0000-0003-4300-3693.
2. Department of Sport Management, Islamic Azad University South Tehran Branch, ORCID: 0000-0002-1629-781X.
3. Department of Sport Management, Payam-e-Noor University, Tehran, Iran, ORCID: 0000-0002-0417-5858.
4. Department of Physical Education and Sport Science, Islamic Azad University Science and Research Branch, Tehran, Iran, ORCID: 0000-0002-6666-3849.
5. Department of Physical Education and Sport Science, Islamic Azad University Science and Research Branch, Tehran, Iran, ORCID: 0000-0003-2325-2617.

ABSTRACT

Electronic business is one of the main tools which has revolutionized and renovated the field of commerce and economy. The present research has been accomplished to identify the elements influencing development of sport business structural patterns with e-commerce approach. The present research, by purpose, is applied and in regard to data gathering is analytic descriptive. The statistical population of research include e specialists and experts acquainted with research in the field of sport business and entrepreneurship who responded the researcher-made questionnaire. Based on the number of questionnaire factors (7), at least 20 samples were estimated for each component as sample volume of research statistical sample. 220 questionnaires were distributed and 198 questionnaires were evaluated. Sampling was accomplished as stratified random sampling, so that all classified groups related to statistical population may have enough number of representatives in the sample. In order to gather data required for present research, researcher made questionnaire was used to study factors influencing sport businesses with focus on e-commerce. In data analysis section, descriptive and inferential statistics (exploratory and confirmatory factor analysis test for assessing questionnaire construct validity, T-test to study status-quo (the existing status), Cronbach alpha test to assess reliability, Friedman test to rank presentation of a rank- based pattern) were used. Findings indicated that the model of factors influencing development of sport electronic businesses consists of 7 factors: cultural and social, training and awareness raising, environmental, innovation and creativity, regulatory, managerial and organizational. Furthermore, it seems that regulatory, managerial and organizational conditions influence the mentioned development more than other factors; so, it is recommended that sport businesses' managers, besides considering the model drawn, pay more attention to the importance of these three factors in order to enter the field of e-commerce.

Keywords: Development, Sport businesses, E-commerce

Corresponding Author: Reza Nikbakhsh, Associate Professor in Sport Management, Islamic Azad University South Tehran Branch. Email: nikbakhsh_reza@yahoo.com

INTRODUCTION

Nowadays, most economists and specialists believe that introducing Information and Communicational Technology (ICT) to the domain of economy and commerce has resulted in formation of a revolution called Electronic Commerce (EC) [1] and remaining behind of this transformation course will not have any result except becoming isolated in the economic domain of the world. It is because electronic commerce generates benefits such as improving productivity, cost reduction, expense saving and market size and structure change [2] and eliminating mediators and access of producers to final consumers [3] and is one of the main issues that researchers and investigators pay attention to. Business model economic approach concentrates on companies' benefits and its main variables include income resources, cost structure and expected gains. This approach focuses on income generating and survival [4]. Generally, electronic commerce, is a novel commercial strategy which has improved the quality of products, services and the speed of service providing and at the same time connects requirements of organizations, suppliers and consumers to reduce costs [5]. Electronic commerce is expanding worldwide and influences all industries [6]. This phenomenon has become prevalent due to the expansion of internet usage [7]. UNCTAD, in his 2004 report about electronic commerce and development, suggests that in spite of increasing growth of electronic commerce and its day-to-day importance, development of this phenomenon occurs slowly in small and medium size institutions [8].

In the meanwhile, sport industry has provided the possibility of utilizing media and advertising opportunities with the stimulatory factor such as organizing sport competitions which itself generates the required bed for interaction between industry, commerce and sport and is regarded a strategic bridge for developing sport businesses and their economic prosperity [9]. Business models form in reaction to special competitive conditions and address analysis of income generation in companies considering their value chain and interaction with customer suppliers and other partners that benefit from complementary competencies [10]. In fact, a business model explains how to accomplish a business through which a company may survive and generate income. Business models explain how a company may generate income by determining its situation in supply chain [11]. Business models should have a powerful planning logic to be flexible with rapid changes of the market [11].

Business model is the main core of competitive reaction of a company to the market, defining value proposition, required activities, resources and partners and customer knowledge, cost or benefit related to company's total performance [12] and is regarded a versatile industry in universal commerce and economically in many countries, is considered a main element to revive national economy. Lots of industrial countries are experiencing a new culture and heyday of physical activities. With development of a new sport culture in these countries, sport goods are consumed increasingly which will result in multiple usage of sport goods and equipment [13]. In Iran industry, too, small companies constitute a considerable share of industrial manufactures, and so state should pay enough attention to them. Iranian small companies are currently facing lots of structural, regulatory, technological, financial difficulties and are not able to produce competitive products in global markets [14]. Generally, business models of service providing companies is more complex than companies which generate or distribute services. Business model explains the functions of an organization as a general pattern and is divided to major activities. Business models indicate the customers of a company, services and products that are provided for them; and also gives information about how a company is organized, generates income and earns profits. Business models are combined with strategies to guide the main and major decisions of a company; furthermore, a model describes products, services, customer, market and business process [15].

Designing a business development model based on e-commerce in the field of physical education and sport industry, considering its specific conditions, should be made according to research and requirement of research is recognized with the same approach. It is intended to study and report how experienced people in the field of e-commerce business, employment and knowledge believe a sport industry and business model may be developed.

Currently few researches have been made to study factors influencing business development with the approach of electronic commerce and in the field of sport, one may cautiously claim that no research has been made. On one hand, increase of university graduates, diversity of modern requirements and the fact that nowadays businesses are not in a proper situation, have resulted in inability of those interested in this field to be active and even some sport businessmen leave this competitive environment voluntarily due to reasons such as economic inflation and downturn. By the way, some people demonstrate their constancy through gaining success even in the current conditions. Sport and physical activities influence different social, cultural and economic indices, besides physical and mental health. One of the main consequences of sport is that several businesses are generated and sport businesses influence the growth of different fields of sport. By the way, in sport business world there are factors influencing the success of owners and present research is trying to analyze factors influencing the success in developing sport businesses with e-commerce approach.

Hence, we may acknowledge that by compiling a model for sport business development with e-commerce approach, a major accomplishment will be gained in developing e-commerce to expand sport industry. Therefore, in the present research, we are going to ask the following question: How a sport business development model with e-commerce approach will be?

RESEARCH METHODOLOGY

The present research, based on its objective, is from applied and in regard to data gathering it is from analytic descriptive type. Its statistical population consists of knowledgeable experts and specialists in the field of research with the subject of sport entrepreneurship and business who answered the standard questionnaire developed by qualitative department process.

Research statistical population: Based on the factors of questionnaire (7), at least 20 samples were estimated for each component as sample size, in which 220 questionnaires were distributed and 198 questionnaires were evaluated. Sampling was made according to stratified random sampling method so that all stratified groups related to statistical population may have enough representatives in the sample.

In order to gather data for present research, a questionnaire including two parts a) demographic questionnaire and b) researcher made questionnaire of factors influencing sport businesses' development with e-commerce approach was utilized. Validity and reliability of research instruments were evaluated and results indicate that total reliability of questionnaire was equal to 0.89 and all components have acceptable values.

In the section of data analysis, descriptive statistics (frequency distribution table) and inferential statistics (exploratory and confirmatory factor analysis test to assess the construct validity of questionnaire, T-test to study status quo, Cronbach's alpha test for assessing reliability and Friedman test for ranking model presentation based on ranks) and in order to study research model, Smart PLS software (version 3) were utilized.

RESULTS

Description of research samples (quantitative section) based on sex indicated that 78.8 percent and 22.2 percent of research sample are consisted from men and women respectively. Marital status indicated that single and married individuals include respectively 20 and 80 percent of research sample; based on age, about 38.4% and 8.5% of sample were 41-50 and above 60 years old, respectively. In regard to job experience, 31.3% had 16-20 and 31.8% more than 20-years job experience. In regard to education, 54.0% had M.A. and 10.1% had PhD degrees. And in regard to field of study 34.7 % had studied in sport science and 62.6% in other fields of study.

Considering that data is distributed normally, one sample t-test was used to study hypotheses.

Table 1. Results of one sample t-test

Variable	Mean statistics	Statistical median	Degree of freedom	t	Level of significance	K-S
Multiplicity of decision making organizations	3.3	3	197	3.772	0.01	0.33
Developing local income generating models	3.54			6.989	0.01	0.15
Paying attention to different and various tastes (choices)	3.41			5.091	0.01	0.30
Confronting change and traditional thoughts	3.75			10.106	0.01	0.35
Non-contradiction with cultural patterns	3.65			10.142	0.01	0.32
Localizing business factors	3.62			7.324	0.01	0.54
Paying attention to national culture	3.64			10.268	0.01	0.42
Paying attention to sub-cultures	3.67			10.409	0.01	0.55
Paying attention to cultural contradiction	3.61			9.368	0.01	0.90
Paying attention to cultural elements	3.67			10.565	0.01	0.17

In regard to findings of table 1, since all means are more than 3 and level of significance is < 5%; it may be stated that cultural and social factors have significant role in electronic businesses.

Table 2- Results of one sample t-test

Variable	Mean statistics	Statistical median	Degree of freedom	t	Level of significance	K-S
Establishing sport business courses	3.76	3	197	11.742	0.01	0.21
Reinforcing educational resources in this field	3.6			7.248	0.01	0.70
Development of interactive marketing	3.82			15.043	0.01	0.38
Non-earning income from competitions' logo	3.43			5.4	0.01	0.19
Organizing business establishment courses	3.42			5.723	0.01	0.23
Improving student training	3.35			5.295	0.01	0.66
Updating professors of this field	3.58			7.464	0.01	0.59
Teaching sport business	3.72			13.376	0.01	0.45
Providing financial resources for those who are active in this field	3.82			12.368	0.01	0.44
Reinforcing the human resources active in sport businesses	4.04			18.628	0.01	0.35
Training specialists	3.8			11.466	0.01	0.21
Creating good feelings in buyers	3.81			14.302	0.01	0.28
Paying attention to the elements influencing customer satisfaction	3.75			11.866	0.01	0.10
Increasing people awareness	3.66			9.785	0.01	0.84
Trust building	3.67			10.246	0.01	0.85
Increasing emotional experience in business	3.49			6.14	0.01	0.57

Paying attention to customer situations	3.94			15.952	0.01	0.87
Using new methods in establishing relationship with the customer	3.98			15.804	0.01	0.61

Considering the results of table 2, since all averages (means) are above 3 and their level of significance is lower than 5%, then it may be stated that training and awareness raising have significant role in development of electronic businesses.

Table 3. Results of one sample t-test

Variable	Mean statistics	Statistical median	Degree of freedom	t	Level of significance	K-S
Utilizing the originality of business environment	3.81	3	197	11.437	0.01	0.42
Paying attention to the way goods are offered	3.39			4.87	0.01	0.75
Difference of physical and digital purchases	3.65			9.169	0.01	0.66
Paying attention to distribution channel	3.61			7.557	0.01	0.40
Paying attention to startups' development	3.96			12.787	0.01	0.11
Implementing elements of becoming professional in sport businesses	4.01			15.392	0.01	0.59
Reinforcing infrastructures	3.68			8.944	0.01	0.57
Providing bed for business development	3.68			10.066	0.01	0.38
General policies of state and authorities	3.69			10.772	0.01	0.79
Paying attention to business' domestic and foreign competitors	3.63			8.149	0.01	0.19
Inter-sectoral cooperation	3.9			11.971	0.01	0.34
Using the potential of permitted fields of betting	3.74			9.513	0.01	0.21
Identifying domains engaged in sport electronic businesses	3.54			6.112	0.01	0.21
Inter-sectoral synergy	3.64			8.084	0.01	0.48
Cooperation of banking system with those active in this domain	3.67			9.264	0.01	0.34
Producing appropriate content	3.85			11.16	0.01	0.53
Paying attention to brand and branding	3.59			7.563	0.01	0.51
Paying attention to distribution channels	3.68			9.42	0.01	0.45
Increasing the share of sport businesses in the market	3.59			6.636	0.01	0.76

Considering results of table 3, since all means are above 4 and level of significance is below 5%, it may be stated that environmental factor has significant role in development of electronic businesses.

Table 4. Results of one sample t-test

Variable	Mean statistics	Statistical median	Degree of freedom	t	Level of significance	K-S
Deficiency specialized sport complexes	3.79	3	197	8.5	0.01	0.37
Low quality of sport complexes	3.62			7.204	0.01	0.24
Inappropriate availability of sport complexes	3.77			13.511	0.01	0.35
Paying attention to modern styles of marketing	3.59			10.133	0.01	0.37
Creating difference in modern businesses	3.55			17.441	0.01	0.30
Move toward novel business methods	3.47			13.211	0.01	0.40
Innovation in products	3.55			7.169	0.01	0.41
Paying attention to new ideas	3.58			13.96	0.01	0.62
Non-establishment of repetitive businesses	3.63			10.434	0.01	0.14
Move toward novel technology	3.81			15.445	0.01	0.89
Development of creativity in business	3.84			14.382	0.01	0.74
Utilizing the potential of virtual networks	3.7			9.19	0.01	0.46
Establishing local technology	3.79			10.032	0.01	0.17
Utilizing smart robots	3.85			14.26	0.01	0.60
Utilizing hologram and AR	3.58			4.552	0.01	0.32
Low technology of sport equipment	3.59			13.019	0.01	0.43
Entering the field of sport computer games	3.62			8.52	0.01	0.27
Reinforcing electronic business technologies in sport	3.8			8.5	0.01	0.42
Utilizing high internet penetration rate	3.77			7.204	0.01	0.37

Considering the results of table 4, since all means are above 3 and level of significance is below 5%, it may be stated that innovation and creativity have significant role in development of electronic businesses.

Table 5. Results of one sample t-test

Variable	Mean statistics	Statistical median	Degree of freedom	t	Level of significance	K-S
Preventing importation of counterfeit goods	3.66	3	197	8.5	0.01	0.69
Considering copyright	3.601			7.204	0.01	0.69

Confronting contraband goods	3.8232			13.511	0.01	0.17
Low synergy of human resources in federations and ministries	3.6212			10.133	0.01	0.81
reinforcing regulatory environment	4.0707			17.441	0.01	0.31
Amendment of sport federations constitutions	3.7927			13.211	0.01	0.34
Amendment of licensing process	3.5253			7.169	0.01	0.17
Enhancing knowledge in the field of business	3.8081			13.96	0.01	0.87
Developing financial support codes	3.6717			10.434	0.01	0.77
Government support of electronic businesses in sport	3.8232			15.445	0.01	0.39
Modifying general and economic issues	3.8434			14.382	0.01	0.20
Informing and awareness raising	3.6313			9.19	0.01	0.34
National and political support	3.096			10.032	0.01	0.46
Providing a dynamic atmosphere for electronic business in the field of sport	3.8384			14.26	0.01	0.38
Considering business structures	3.3232			4.552	0.01	0.28
Presenting a model based on business level	3.7626			13.019	0.01	0.76
Compilation of development purposeful pattern (model)	3.5202			8.52	0.01	0.90

Considering the results of table Δ, since all means are above 3 and level of significance is below 5%, it may be stated that regulatory environment has significant role in development of electronic businesses.

Table 6. Results of one sample t-test

Variable	Mean statistics	Statistical median	Degree of freedom	t	Level of significance	K-S
Considering electronic managerial factors	3.8283	3	197	13.818	0.01	0.79
Using successful countries as model	3.8283			14.123	0.01	0.82
Making digital technology field as a model for other fields	3.9242			18.634	0.01	0.12
Taking license obtaining a serious issue	3.8838			16.325	0.01	0.45
Establishing stability in business	3.904			16.355	0.01	0.71
using advertising consultant	3.9495			16.875	0.01	0.37
Modifying business processes	3.803			13.634	0.01	0.53
Step by step development of business	3.8333			16.336	0.01	0.25
Simplifying processes	3.7475			6.298	0.01	0.26

Revolutionizing in processes and not just appearance	3.8131			12.773	0.01	0.15
Cost management	3.9545			18.613	0.01	0.49
Cost reduction for customer	4.0657			19.363	0.01	0.84
Price stability	3.7778			11.506	0.01	0.14
Not imposing traffic charges on the customer	3.5253			7.384	0.01	0.13
Utilizing pricing methods	3.8232			13.067	0.01	0.29
Exact definition of electronic business	3.7677			11.937	0.01	0.65
Avoiding the role of mediator	3.9697			16.556	0.01	0.59
Paying attention to undeveloped industries	4.0455			18.351	0.01	0.16
Standardization	3.8283			14.681	0.01	0.59
Increasing distribution channels	3.7071			10.806	0.01	0.65
Diversifying distribution channels	3.7475			13.4	0.01	0.35
Supervising businesses	3.7828			11.94	0.01	0.15
Providing feedback to business market	3.9495			15.337	0.01	0.65
Having long term plan	4.0404			16.16	0.01	0.67
Analysis of status quo	3.9293			13.28	0.01	0.61
Identifying business strength and weaknesses	3.7222			10.248	0.01	0.39
Compiling appropriate strategies	3.7727			13.773	0.01	0.56

Considering the results of table 9, since all means are above 3 and level of significance is below 5%, it may be stated that managerial factors have significant role in development of electronic businesses.

Table 7. Results of one sample t-test

Variable	Mean statistics	Statistical median	Degree of freedom	t	Level of significance	K-S
Sport federation attention to electronic businesses	3.7727		197	13.773	0.01	0.54
Modifying sport managers' attitude	3.9848			17.834	0.01	0.29
Making digital technology field as a model for other fields	3.6869			10.772		0.36
Taking license obtaining a serious issue	3.9242			10.498	0.01	0.21
Establishing stability in business	3.9091			16.231	0.01	0.86
Using advertising consultant	3.8737			13.481	0.01	0.68
Modifying business processes	3.7626			11.557	0.01	0.70
Step by step development of business	3.798			15.611	0.01	0.50

Utilizing capability of football stadiums	3.9949			17.301	0.01	0.61
Using capability of sport fans	3.7576			3.757612.043	0.01	0.48
Special attention of private sector to the field of electronic business	3.7071			12.591	0.01	0.55
Avoiding moderators' role	3.7576			13.417	0.01	0.72
Attention to undeveloped industries	4.0657			13.07	0.01	0.34
Standardization	3.7778			16.74	0.01	0.69
Increasing distribution channels	3.5253			15.414	0.01	0.59
Diversifying establishment of distribution channels	3.8232			14.742	0.01	0.18
Training manufacturers	3.7677			12.111	0.01	0.34
Relying on domestic capacities	3.9697			8.771	0.01	0.54
Improving the quality of manufactured products	4.0455			11.263	0.01	0.29
Improving quality of services	3.8283			11.108	0.01	0.36

In the section of inferential results, Friedman test was utilized to prioritize sport business development indices with electronic commerce approach and considering table (8) there is significant priority among sport business development indices with electronic commerce approach.

Table 8. Friedman test results

Number	198
Chi square	168/12
Degree of freedom	6
Level of significance	0.001

Furthermore, considering the results of table 9, the highest priority belongs to regulatory factors and lowest priority is related to factors of innovation and creativity.

Table 9. Prioritizing indices of developing sport businesses with e-commerce approach

Component	Average rank
Regulatory environment	6.32
Managerial	6.2
Environmental	4.27
Training and awareness raising	4.24
Organizational	3.34
Cultural and social	2.81
Innovation and creativity	2.55

Based on seven factors identified and influential on development of electronic business, the model of factors influencing development of electronic businesses will be designed considering these elements.

Table 10. Model paths influencing electronic business development

Model path of factors influencing electronic business development	Standard regression coefficients	T value	P value
Cultural and social factors--> electronic business development	0.829	29.534	0.01
Educational and awareness raising factors --> electronic business development	0.611	8.060	0.01
Environmental factors--> electronic business development	0.859	33.739	0.01
Innovation and creativity factors --> electronic business development	0.356	3.922	0.01
Regulatory environment--> electronic business development	0.889	42.111	0.01
Managerial factors--> electronic business development	0.884	37.722	0.01
Organizational factors--> electronic business development	0.568	8.162	0.01

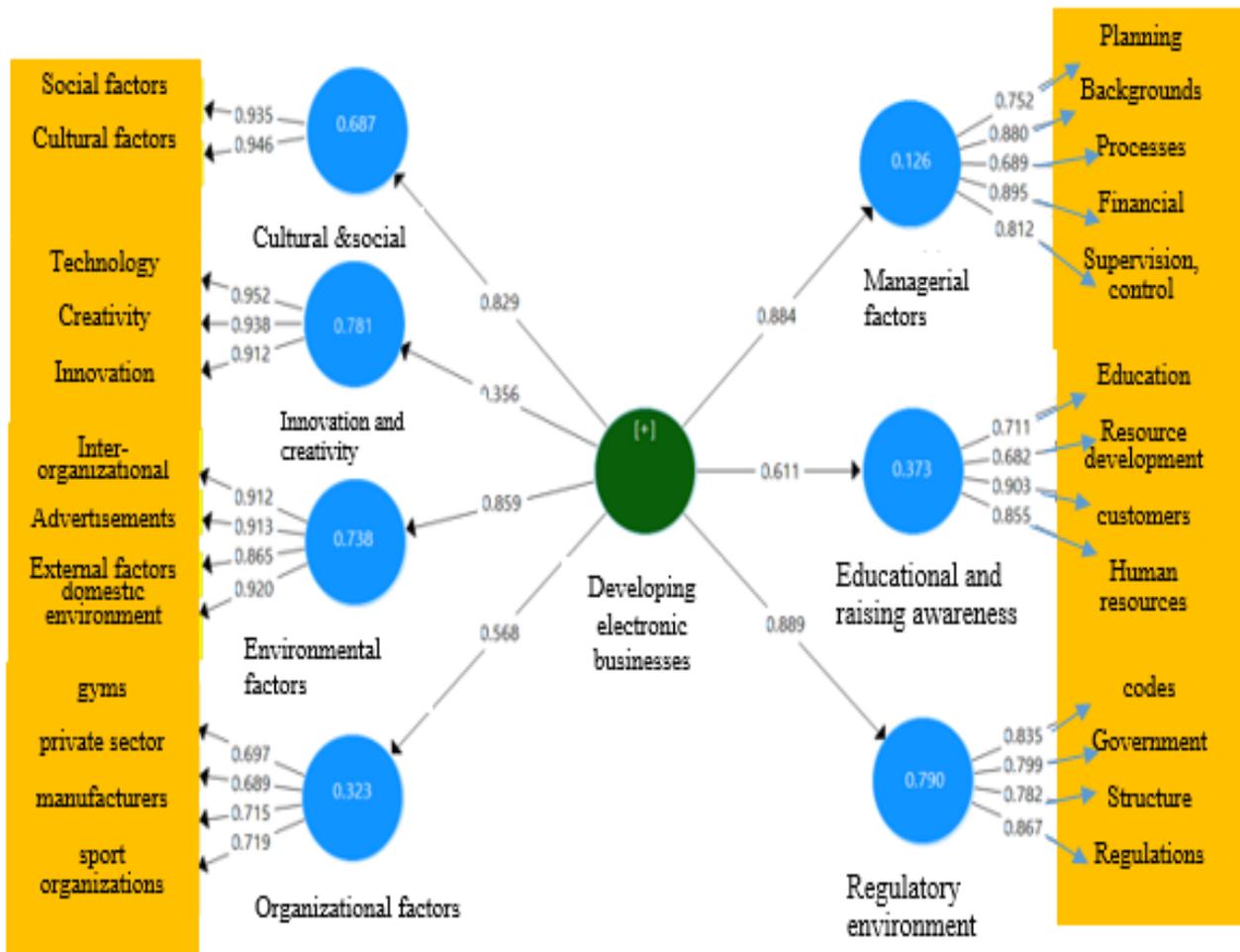


Figure 1- Model of factors influencing electronic businesses in factor loading mode

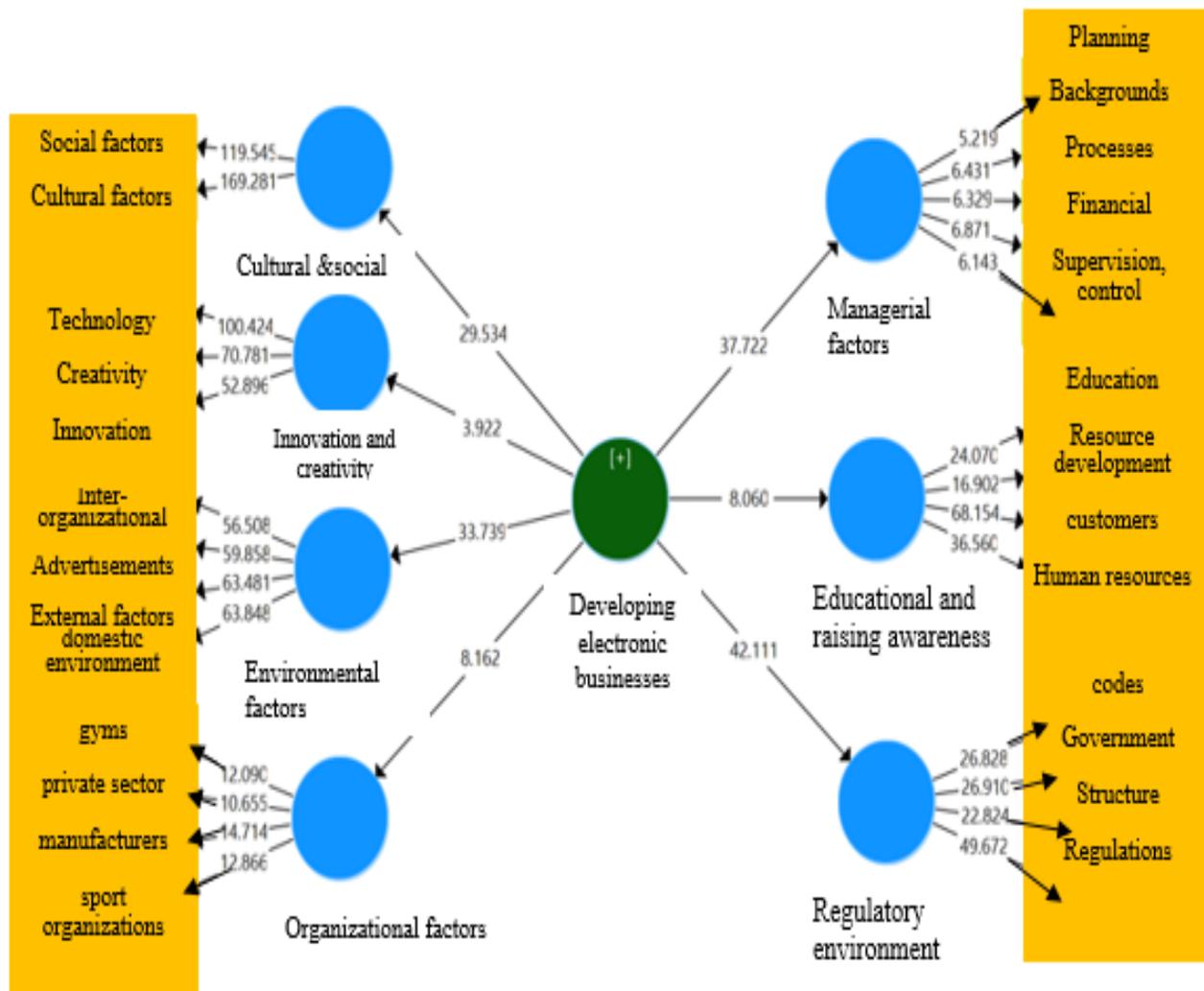


Figure 2- Model of factors influencing electronic businesses in significance mode

As table 10 and figures 1 & 2 indicate, results suggest that all identified factors influencing electronic business development have reasonable and positive T values and factor loading and are regarded to be factors influencing development of electronic businesses. In Goodness of Fit (GOF) indices, a model has been presented according to which it may be determined if the model has acceptable fitness.

In order to evaluate the general model, after GOF measure was considered as not valid, Standardized Root Mean Square Residual (SRMR) was used; its value is appropriate in index value lower than 0.1 or 0.08 [9].

Table 11- Values of fitness indices for research model variables

Variable	Q ²	R ²	SRMR
Social and cultural factors	0.582	0.687	0.068
Educational and awareness raising factors	0.298	0.373	
Environmental factor	0.651	0.781	
Innovation and creativity factor	0.211	0.126	
Regulatory environment	0.728	0.790	

Managerial factors	0.609	0.738	
Organizational factors	0.398	0.323	

Considering the information presented in table (11), the values obtained for Q^2 index are more than 0.35 (strong). Furthermore, R^2 values are in strong limit and SRMR value is less than 0.1 which indicates the appropriate quality of the model tested.

Discussion and conclusion

Present research was accomplished to compile a model of developing sport businesses with e-commerce approach. Along this, indices including regulatory, managerial, environmental, knowledge and awareness raising, organizational, cultural and social, innovation and creativity were identified as factors influencing electronic businesses in sport industry.

Cultural and social elements are considered to be elements influencing electronic businesses in sport industry. In this relation, Morad Nejadi (2016), in his research, found that cultural factors are influential in business downturn of cooperative societies established in Ilam industrial suburb. Furthermore, RahimNia and Goldoost (2015) found that culture and cultural elements including life level and consumption pattern of society, requirements, traditions, beliefs, social values, commercial advertising programs and consumers' opinion about them, has an irreplaceable role in consumers' behavior. Dornaz (2014) finds culture and tradition factors as the most important elements influencing Turkish consumers' behavior. Customers are the main providers of the organization financial interests and so one of the main pillars of each kind of activity in an organization is not only to recognize their obvious requirements, but to predict, determine and guide the hidden necessities of customers and design and implement service providing plans in order to satisfy these requirements. Nowadays, if we consider the increasing expansion and population texture and difficulties due to travel and non-ignorable issues such as lack of time, adopting new methods of service providing in all arenas has become unavoidable. In the meanwhile, one of the most important issues for people is that their necessities should be provided with the most easy, rapid and low-cost method that is possible. Online shopping increases purchase power and the possibility to choose, more precise and complementary information about the available goods, more comfort, customizing the required goods, possibly low cost, safe and fast transportation is one of the best and most appropriate ways to satisfy customer needs; and since customer satisfaction is the main result of marketer activity, it seems that internet is an appropriate tool to create and preserve customer relations. By the way, e-commerce business like traditional customers of products are influenced by cultural elements and therefore, in designing, producing, advertising and offering products through online facilities, cultural models, localization, paying attention to subcultures and culture contradiction, national culture and considering different and versatile tastes should be paid attention by marketers along with social factors.

Results indicated that educational factors and effective knowledge raising influence electronic businesses. One of indicators of this factor is development of human resources and considering these findings, it seems that organizing in-service training classes and courses for human resource active members in different fields of sport industry may enhance skill level of individuals in a specific domain and result in improvement of these features and so increase their ability. Furthermore, university training is a branch of training and knowledge raising. In this regard, Shan Shan (2013), Kamhawi (2012), and Jamipoor et al (2014) studied the issue of training in business field; they believe that training include courses which make professors and students acquainted with business logic, training courses to establish systems based on e-commerce, mechanism to encourage students to participate in new learning opportunities such as conferences and seminars, professional teachers in the field of e-commerce business. Customer training is one of the identified factors of this field. Research and raising customer knowledge in regard to new products, promotions and plans made to increase sale rate, are included in this section. For instance, in this section, online promotion coupons are issued for sport products and provided for customers. Seasonal and periodical sales with premium promotions are designed and offered to customers through e-mail [16]. Sport authorities

may use internet to cover their activities for customers and fans and websites may contribute a team to establish its brand identity [7]. There are means such as content, design and update times through which website may contribute to a team to create his brand identity [7]. In this regard, Zhou (2015) investigated about the influence of electronic on sport products stores and concluded that promoting e-commerce plans are effective in the sale of domestic sport products and sale increase. Furthermore, e-commerce results in improvement of general performance and increase of competition in general terms [17].

Results indicated that environmental factors influence electronic businesses. Environment is one of the main topics of management and environmental structure of an organization is of major importance. Since organizations interact their environment and are influenced by it, elite managers comprehend its importance and try to prepare it for accomplishment of their organizational objectives, and utilizing its available opportunities, and reducing environmental threats tirelessly. They compile long term plans and strategies using environmental threats and opportunities and consider organizational environment. Generally, this concept means providing organizational environment to establish e-commerce, reducing people resistance when confronting innovative changes, identifying and modifying e-commerce establishment barriers, and using skills, tools and techniques of project activity to establish requirements of electronic projects. Skill in the field of change management in the organization to facilitate the process of implementing changes is considered to be the key factor of success. Re-engineering process contributes to eliminating traditional and old methods of business and finding new and innovative methods [18]. Managers, authorities and specialists of sport industry in general and its subsets in specific, should identify and analyze the trend dominating market.

Furthermore, results of research indicated that innovation and creativity factors influence development of electronic businesses. Nowadays, innovation in the current domain of business is required for organizations and plays a dominant role. Most organizations are going to create new ideas to utilize their knowledge for presenting new products and services for customers and beneficiaries and in this way provide the required infrastructure for innovation. Increase of the importance of innovation is due to globalization of market and the pressure that competition applies to companies. This reality encourages companies to increase their focus on innovation as a requirement. Furthermore, considering that sport consumers' taste is changing and transformations occurring in the field of competition and technology, a sport business may not and shouldn't rely solely on its current manufactured goods. Customers are willing to deliver new services and goods and more advanced products and this is what competitors are looking for. Developing new products is the main part of each business and provides opportunities for growth and competitive advantages for companies. The reality that competitive regulations of business world is changing, demonstrates the process of presenting new product to the market with special importance. Along this, one of the methods of creating competitive advantage in a company is to use open innovative system to increase external oriented interaction and create super specialized ideas and solutions. Companies with electronic business are able to use open innovation in universal and trans-regional system. Endless development of internet and its business fields and other uncountable tools of web provide a platform for interaction of organizations in web environment [19].

Results of research indicated that regulatory environment is another factor influencing e-commerce businesses in the field of sport industry. Regulatory environment is a political and legal domain that organizations are active in. Public regulations and government, election results, state and parties' relations, power balance, politic stability and instability, the influence of relations with official organizations, organization regulatory rights, the permission of state for interfering in businesses, political powers dominating the state, private sector and unions may influence the regulatory environment. These components are in turn influenced by law and regulation performance, legal decisions, the opinions of decision makers and interpretation of law. Now in order to evaluate organizational environment, we should consider components and indices to be able to study the conditions of environment dominating organizations.

Results indicate that managerial factors are one of the factors influencing electronic businesses. Sometimes failure of electronic business may be due to factors such as not using software optimally (non-compatibility of electronic businesses with the existing operational procedures, organizational structure etc.) and greater influence of organizational factors compared to technological factors. This analysis confirms the finding of Zhou et al. (2006) who found in their research in the field of internalizing electronic businesses that in developing countries, organizations may be influenced by managerial barriers (the difficulty of creating organizational change, uniformity of electronic business with business strategy and process and gaining the required specializations) [17]. In order to improve and reinforce managerial support, the emphasis of sport electronic businesses on following the up to date revolutions in internet technology and electronic business methods, providing the required resources of implementing e-businesses, expanding online business methods to provide future needs of customers, sensitivity in regard to innovations in competitors e-businesses, integrating e-businesses' methods and compatibility with the trends dominating e-markets should be increased. Furthermore, supervision and control in Kruger and Johnson (2010), Kruger and Snyman (2007), Plessis (2007) and Jamipoor et al. (2004) was paid enough attention. In regards to this part of findings, it seems that creating and improving control systems, supervision and evaluating information technology in different domains of sport industry may improve evaluation mechanisms and manage information technology in a more accurate way. Furthermore, managers of e-businesses should establish the required uniformity and harmony among different organizational activities including financial, planning, production, distribution, marketing, etc. in order to accomplish their financial and non-financial objectives through creating synergy.

At the end, results of research indicated that organizational elements influence development of e-businesses. Heidari & Sharifian (2004) have compared web-based marketing of Iran, England and Greece football clubs and results indicated that while Iranian selected clubs have somehow addressed informational features, in all features of sale, promotion, relation, and data gathering are weaker than English and Greek clubs. So, considering the increasing enhancement of web in contemporary marketing, Iranian clubs should revise their websites fundamentally. Furthermore, through delivering services and facilities in club websites and online ticket sale, they may influence their fans positively and attract them and as a result of increasing site traffic, demand of purchasing advertising space and club products would increase. Finally, a business would survive when its customers' demands and requirements are satisfied and understood inclusively. Consumers may not identify their internal motivation deeply or react the influential factors instantly and change their mind easily. However, marketers should comprehend and imagine buying behavior and demands of their customers. E-commerce and internet have been converted to new methods of income generation and interaction with customers, delivering services and e-sale of products for many organizations and companies. A sport organization may be trusted if it fulfills its obligations; as an example, if a sport club promises about the time, method and cost of delivering services, it should fulfill them. This issue will especially be important in relation to sport product sale websites, because methods of online defrauding in different parts of the world are available. In fact, trust is the major issue in online stores of sport products, because these types of trade due to their non-attending nature, may provide conditions for misunderstanding and dissatisfaction of customers.

Informed Consent Statement: Informed consent was obtained from all subjects involved in the study.

Data Availability Statement: Data will be available at request.

Acknowledgments: The authors are thankful to all the participants and their families for their participation in this study.

References

1. Mahmoudzadeh M, Gholam AA. Evaluating E-commerce Efficiency in Provinces of Iran with Data Envelopment Analysis Approach. 2019; 7(3).
2. Valmohammadi C, Dashti S. Using interpretive structural modeling and fuzzy analytical process to identify and prioritize the interactive barriers of e-commerce implementation. *Information & Management*. 2016;53(2):157-68.
3. Sorayaei A, Mehdizadeh R, Divkolaii MS. Introduce a model to develop of applying the E-Commerce in commercial agencies. *The Business & Management Review*. 2012;2(1):232.
4. Kujala S, Arto K, Aaltonen P, Turkulainen V. Business models in project-based firms—Towards a typology of solution-specific business models. *International Journal of Project Management*. 2010;28(2):96-106.
5. Savari M, Damaneh HE, Damaneh HE. The effect of social capital in mitigating drought impacts and improving livability of Iranian rural households. *International Journal of Disaster Risk Reduction*. 2023:103630.
6. Erdmann A, Ponzoa JM. Digital inbound marketing: Measuring the economic performance of grocery e-commerce in Europe and the USA. *Technological forecasting and social change*. 2021;162:120373.
7. Ingaldi M, Ulewicz R. How to make e-commerce more successful by use of Kano's model to assess customer satisfaction in terms of sustainable development. *Sustainability*. 2019;11(18):4830.
8. Fathi S, Esfidani M, Akbari M. Designing a Classification and Prioritization Model for Electronic Business Research Projects in Iran. *Business Research Journal*. 2005;37(10):153-84.
9. Khabiri M, AliDoust Ghahfarokhi E, Khosromanesh R, Asadolahi A, Talkhabi A. Designing Conceptual Model of Iranian Sports Goods Industry. *Sport Management and Development*. 2020;9(3):184-97.
10. Leitão A, Cunha P, Valente F, Marques P. Roadmap for business models definition in manufacturing companies. *Procedia CIRP*. 2013;7:383-8.
11. Fartash K, Khayyatian Yazdi MS, Moradian M, Saremi MS, Mohseni Kiasari M. A Framework for Evaluating Tarbiat Modares University Science and Technology Park Tenants Using Action Research Method. *Journal of Technology Development Management*. 2020;8(3):151-84.
12. Lee J, Suh E-h, Hong J. A maturity model based CoP evaluation framework: A case study of strategic CoPs in a Korean company. *Expert Systems with Applications*. 2010;37(3):2670-81.
13. Gholamzadeh Fasandoz H. Export and import of sporting goods. 2001; 21(3):687-96.
14. O'Regan N, Ghobadian A. Effective strategic planning in small and medium sized firms. *Management decision*. 2002; 18(9):5017.
15. Aarabi S, Rezvani Hr. The relationship between business and marketing strategies fit and organizational performance: a study in tamin pharmaceutical investment co. 2007;84:66-78.
16. Tarasewich P, Nickerson RC, Warkentin M. Issues in mobile e-commerce. *Communications of the association for information systems*. 2002;8(1):3.
17. Jahng J, Jain H, Ramamurthy K. Effects of interaction richness on consumer attitudes and behavioral intentions in e-commerce: some experimental results. *European Journal of Information Systems*. 2007;16(3):254-69.
18. Willmott H. Business process re- engineering and human resource management. *Personnel Review*. 1994;83(2):224-8.
19. Egnatoff WJ, Tapscott, D. *Growing Up Digital. The Rise of the Net Generation*. New York: McGraw Hill. Education and Information Technologies. 1999;4:203-5.

تدوین الگوی ساختاری تجارت الکترونیک در کسب و کارهای ورزشی ایران

شهریز کیهان^۱، رضا نیکبخش^۲، ابوالفضل فراهانی^۳، علیمحمد صفانیا^۴، محسن باقریان فرح آبادی^۵

۱- گروه مدیریت رسانه و بازاریابی ورزشی، دانشگاه آزاد اسلامی، واحد علوم و تحقیقات، ایران

۲- گروه مدیریت ورزشی، دانشگاه آزاد اسلامی واحد تهران جنوب، ایران

۳- گروه مدیریت ورزشی، دانشگاه پیام نور، ایران

۴- گروه تربیت بدنی و علوم ورزشی، دانشگاه آزاد اسلامی، واحد علوم و تحقیقات، ایران

۵- گروه تربیت بدنی و علوم ورزشی، دانشگاه آزاد اسلامی، واحد علوم و تحقیقات، ایران

چکیده

کسب و کار الکترونیکی یکی از ابزارهای اصلی است که عرصه تجارت و اقتصاد را متحول و بدیع نموده است. پژوهش حاضر با هدف شناسایی عناصر مؤثر بر توسعه الگوهای ساختاری کسب و کارهای ورزشی با رویکرد تجارت الکترونیک انجام شده است. این پژوهش از نظر هدف کاربردی و از نظر جمع آوری داده ها توصیفی تحلیلی می باشد. جامعه آماری پژوهش شامل کارشناسان و صاحبانظران در زمینه کسب و کار ورزشی و کارآفرینی است که به پرسشنامه محقق ساخته پاسخ دادند. بر اساس تعداد عوامل پرسشنامه (۷)، حداقل ۲۰ نمونه برای هر جزء به عنوان حجم نمونه آماری تحقیق برآورد شد. ۲۲۰ پرسشنامه توزیع و ۱۹۸ پرسشنامه مورد ارزیابی قرار گرفت. نمونه گیری به صورت تصادفی طبقه ای انجام شد تا تمامی گروه های طبقه بندی شده مرتبط با جامعه آماری بطور یکسان در نمونه گیزی باشند. به منظور جمع آوری داده های مورد نیاز پژوهش حاضر، از پرسشنامه محقق ساخته برای بررسی عوامل مؤثر بر کسب و کارهای ورزشی با تمرکز بر تجارت الکترونیک استفاده شد. در بخش تجزیه و تحلیل داده ها، آمار توصیفی و استنباطی (آزمون تحلیل عاملی اکتشافی و تاییدی برای سنجش روایی سازه پرسشنامه، آزمون تی برای بررسی وضعیت موجود، آزمون آلفای کرونباخ برای سنجش پایایی، آزمون فریدمن برای رتبه بندی ارائه یک الگوی مبتنی بر رتبه) استفاده شد. یافته ها حاکی از آن است که مدل عوامل مؤثر بر توسعه کسب و کارهای الکترونیک ورزشی شامل ۷ عامل فرهنگی و اجتماعی، آموزش و افزایش آگاهی، محیطی، نوآوری و خلاقیت، نظارتی، مدیریتی و سازمانی است. همچنین به نظر می رسد شرایط نظارتی، مدیریتی و سازمانی بیش از سایر عوامل بر توسعه مذکور تأثیرگذار باشد. بنابراین توصیه می شود مدیران کسب و کارهای ورزشی علاوه بر توجه به مدل ترسیم شده، برای ورود به عرصه تجارت الکترونیک به اهمیت این سه عامل نیز توجه بیشتری داشته باشند.

واژگان کلیدی: توسعه، کسب و کارهای ورزشی، تجارت الکترونیک