

Structural Equation Model Factors Affecting the Development and Adoption of Electronic Commerce in Sports Stores

M.R.Ismaeelzadeh^{1*}, S.Fallah², M.Rangian³

1. Department of Physical Education and Sport Science, Mashhad Branch, Islamic Azad University, Mashhad, Iran
2. Department of Physical Education and Sport Science, Mashhad Branch, Islamic Azad University, Mashhad, Iran
3. Department of Physical Education and Sport Science, Mashhad Branch, Islamic Azad University, Mashhad, Iran

Abstract: The purpose of this study was structural equation modeling factors affecting the development and adoption of electronic commerce in Sports stores. The statistical population included managers of sporting goods stores in the city of Mashhad is grade 1 is the number of 84 stores. To select the sample due to the low number of community members, all members of the community were selected as sample. For data collection, from a researcher- made questionnaire for factors of e-commerce, and e-commerce adoption, in the business of sports was used. Validity of the questionnaire, after writing by ten professors of sport management and after modifications, its validity was confirmed. The reliability of research by Cronbach's alpha test (92/0) is calculated which indicates high reliability of tool. For the analysis of test data, descriptive statistics, Pearson correlation and structural equation model was used. Results showed the development of e-commerce, with the initial and final acceptance of e-commerce, has a significant positive correlation. According to the results it is necessary to sport businesses develop e-commerce, to introduction and provide products and services through e-commerce and increase their sales .

Keywords: Electronic commerce, Initial adoption of e-commerce, Final adoption of e-commerce

INTRODUCTION

Today, globalization, shorter product life cycles, customer orientation, etc., the traditional business into an environment more dynamic has become so traditional forms of business can not be good responsive and new forms of business, such as business and electronic work is common (Macgregor and Vrazalic, 2005). In other words, now competing strongly depends on the effective utilization of information and communication technologies. There is now ample evidence that European companies significantly, have improved infrastructure, information and communication technologies and their Internet connections (Macgregor and Vrazalic, 2006) . In order to obtain the benefits of investment in information and communication technologies, companies need to take steps beyond mere digitization. They should also enhance the skills of employees and employers as well as information and communication technologies into their business processes (Oyelaran and Lal, 2006). Now, focusing on the shift from e-commerce to e-business transactions. Emphasis on effective use of information and communication technologies throughout the value chain is reflected by the term e-business (Macgregor and Vrazalic, 2008).

On the other hand, since the electronic business, by means of electronic exchanges and transactions will work, so we can see that e-business, covers many of areas and varied economic activity that includes a range of financial applications and other uses, such as the exchange of digital data, transfers, electronic money activities electronic exchange of inventory, auctions commercial cooperation in the engineering design, offers mail, direct sales to customers and after-sales service is also the sale of goods, both rendering of services and manufactured goods and digital services such as books, CDs, software, banking services, television and radio programs, etc., are used (Tapscott, 2016).

But e-commerce has become a vital tool in doing business. Provides opportunities seems to be no turning back to back to traditional forms of business there. Thus, according to what the e-business has been said, it should be noted that to use all the potential of e-business need to identify factors, can improve the success of the business to a large degree (Guriqbal, 2011).

The main feature of this type of trade facilitating business processes, removal processes are unnecessary and redundant in doing business and reduce costs by improving coordination, reduce administrative costs, especially the cost of communications and to improve market access and enhance diversity for our customers (Wong and Aspinwall, 2013). The modern communication technologies such as the Internet, extranets, e-mail and cell phones have a significant role in the development of electronic commerce

(Robertson, 2006). A full e-commerce information available to buyers and sellers, that obtaining such information in real-world business have a lot value, but it will not be possible without the cost and time. Disintermediation, one of the most valuable gifts of eCommerce to buyers, which caused an unprecedented decline in prices will, that the price reduction will be 15 to 50 percent, and also reduce transaction time (Whittaker, 2007).

In this regard, Riemenschneider (2013) to study decision making small firms engaged in information technology adoption. In this study, they concluded that the adoption of information technology in small businesses need to introduce and time. Igbaria et al (2007) did studied industrial engineering and production of New Zealand, in terms of factors affecting the adoption computers and their findings showed that perceptions of ease of use, a strong factor in the acceptance of information technology and industrial engineering fields the development of electronic commerce within the organization. Raymond (2005) in his study reported that factors that determine or predict the emission and absorption of innovation in e-commerce organizations can be divided into four groups identified: characteristics of environmental, characteristics of organization, characteristics of leaders or decision recipients and features innovation. Redoli et al (2008) in their study knew vigorously of Internet access and the development of electronic commerce for businesses to succeed. Bungie and Kavshalsh (2016) and Molla et al. (2015) knew for the development of small businesses and e-commerce development of effective competition in the industry. Tan et al (2007) also institutionalized the concept of e-commerce and e-business development for integrated systems integration is essential. Oh and colleagues (2009) attempted to examine factors affecting adoption of information technology innovation in small and medium-sized enterprises in Korean companies. The researchers also concluded that the most important factors influencing the development of IT education and trust in the organization.

Sports industry also among those industries that have a diverse and rapidly growing sector is in progress. The increasing development of this industry, also makes use of new technologies, and the use of e-commerce in the industry, also leads to competitive advantage, and expand market share, and improve the performance of the sports organizations. Hence it is necessary, the factors affecting the development of electronic commerce, in the sports industry is detected, and examined, to sports organizations will also be able to compete with each other to gain more points.

METHODOLOGY

The research method a descriptive correlation with structural equation modeling objective factors relating to the final adoption of e-commerce in sports stores. The statistical population included managers of sporting goods stores in the city of Mashhad is grade 1 is the number of 84 stores. To select the sample due to the low number of community members, all members of the community were selected as sample. For data collection, from a researcher- made questionnaire for factors of e-commerce, and e-commerce adoption, in the business of sports was used. Validity of the questionnaire, after writing by ten professors of sport management and after modifications, its validity was confirmed. The reliability of research by Cronbach's alpha test (92/0) is calculated which indicates high reliability of tool. For the analysis of test data, descriptive statistics, Pearson correlation and structural equation model was used. For data analysis software was used SPSS_21 and LISREL 7.

FINDING

To describe the variables of tests of mean, median and standard deviation were used.

Table 1 .describes the development of e-business and adoption e-commerce and its components

	Mean	Median	Standard Deviation
Development of e-commerce	3.52	3.5	0.34
Initial adoption of e-commerce	3.63	3.52	0.57
Final adoption of e-commerce	3.47	3.41	0.41
Internal environment	2.98	3	0.52
Macro environment	3.88	3.71	0.44
Characteristics of Information Technology Industry Environment	3.65	3.61	0.50
	3.25	3.20	0.41

According to Table 1, it is observed that the final adoption of e-commerce, the early adoption of e-commerce, and e-commerce development, in individuals in the study is higher than average. As well as all components of each of the variables is also above average. To investigate the correlation of the development of e-commerce and e-business adoption the Pearson correlation coefficient was used.

Table 2. Correlation of Pearson correlation coefficient for initial and final acceptance of e-commerce

		Initial adoption of e-commerce	Final adoption of e-commerce
Internal environment	correlation coefficient	0.246	0.326
	P_Value	0.0001	0.0001
Macro environment	correlation coefficient	0.214	0.236
	P_Value	0.0001	0.0001
Characteristics of Information Technology	correlation coefficient	0.215	0.136
	P_Value	0.0001	0.0001
Industry Environment	correlation coefficient	0.312	0.319
	P_Value	0.0001	0.0001

According to Table 2, it is observed that the development of e-commerce, with the initial and final acceptance of e-commerce, has a significant positive correlation. It was also observed that all components of the development of e-commerce and adoption of e-commerce have significant positive correlation with each other.

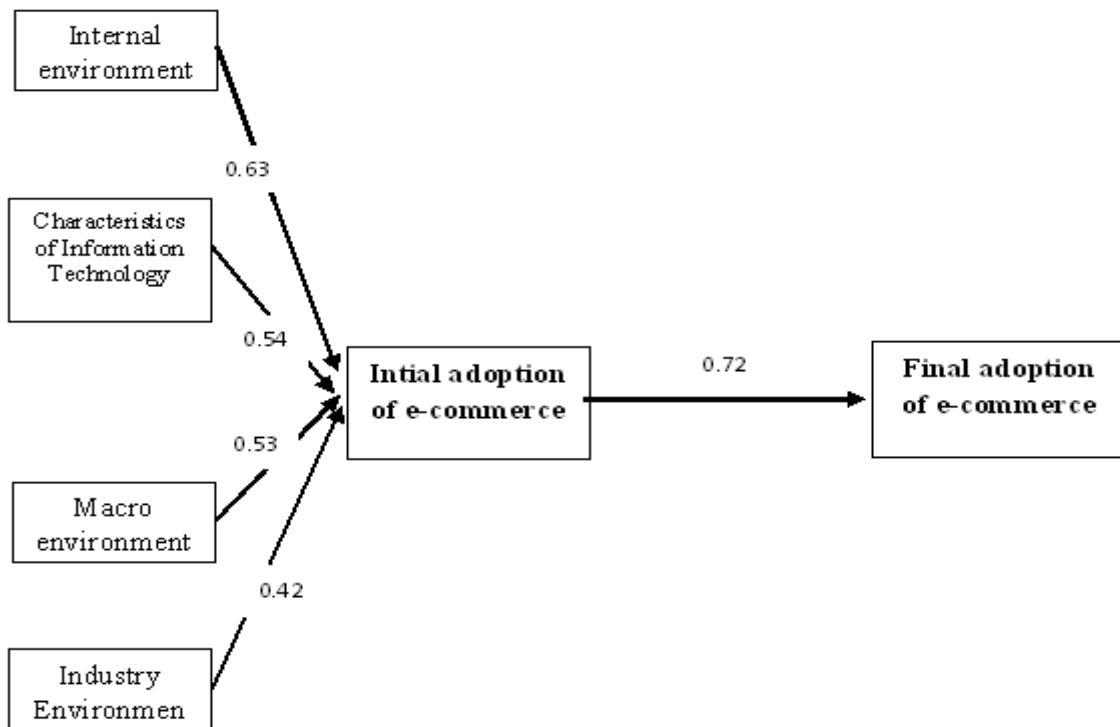


Figure 1. Model Output LISREL software for communication between the study variables

Goodness of Fit Index	Index values	Acceptable range	Result
Chi Significant	35.95	-	Accept
Degrees of freedom	0.0001	-	
Xi ratio of two degrees of freedom	13	-	
RMSEA	2.76	<2	Accept
Goodness of fit	0.063	<0.06	Accept
Adjusted Goodness of Fit	0.98	<0.9	Accept
Fitting comparison	0.95	<0.9	Accept
	0.99	<0.9	Accept

According to Table 3, it can be seen that the model fit is enough, and the relationship between the study variables, according to proposed model is established.

CONCLUSION

E-commerce and development in all industries due to the increasing development of technology is considered essential to and the business that are in competitive environment of electronic commerce and development, of sales and advertising on the Internet will not use to compete with other competitors from competition will be deleted. In today's world, small businesses using web space, also can keep up with their larger competitors compete and the develop their sales and service. Also, the development of this type of business, thereby achieving a wider variety of customers and the markets, and the manufacturing and the

services using electronic devices are able to create competitive advantage. Sports businesses also due to power of sports industry in the world and the increasing of development in Iran will have to develop IT based businesses to move forward and strengthen its business through e-commerce, for providing more customers services. Also, due to increasing competition in all segments of the sport industry, those business owners, serve customers through internet and the electronic services, earn more and more market share. The business of sports, especially sports stores should in addition to traditional market actions also do e-business development. According to the findings of the research showed that environment of the industry in the adoption of e-commerce and consequently, the final acceptance of e-commerce, in sports stores have a significant relationship. environment of sports industry due to increasing development and the the tendency of most people, in current situation in the country, has been appropriate into a good marketplace and the store owners of sports will have to sell more products of sports in addition to the promotion and the development of sport to enhance customer of sports, to sell more, faster, easier and the sports products. E-commerce development, in such circumstances, it seems necessary, and sporting businesses to succeed in these conditions, need to their e-commerce. Redoli research findings and colleagues (2008) and Raymond (2005) also showed that environmental factors in the use and acceptance of e-commerce industry has a significant impact. According to the terms of the sports industry and sport market environment, and requires access to diverse markets and higher market share, it is necessary to be more use of e-commerce for the development of sport stores. Because the electronics business are accepted permanently in our country and will soon replace traditional markets.

The findings also indicate that the internal environment impact on the development and adoption of e-commerce businesses in sport. To use e-commerce, must be within sport organizations, the terms of the launch of e-commerce and the use of web space for the development of of sales and also established online stores were available. Also set up online stores, in addition to ongoing management online, need to facilities such as sending goods, guarantee service, posting warranty, as well as the costs remote. Business owners in sport, may think that the costs of the benefits of e-commerce, have not enough economic justification, and refrain the development and adoption of e-commerce. It can be concluded, that the problems of setting up and using e-commerce is one of the most important reasons for not using it in business in sports. Riemenschneider (2013), Redoli et al (2008), Tan et al (2007), Molla et al (2015) and Oh and colleagues (2009) in their study concluded that improvement of internal factors and prepare and empower staff and facilities that necessary within an organization, an important factor in adoption of electronic commerce in their business.

The findings also showed that characteristics of IT in the adoption of e-commerce sport businesses was significant. Features and capabilities of information and communication technology and the power of this technology can be a factor in the adoption of e-commerce between businesses and the community. The current era is the era of communication and information technology, and in such circumstances, sports businesses, whit utilizes ICT can make further progress in the development of their business. Igbaria et al (2007) in his study understood that information technology features such as ease of use and features of IT can develop e-commerce. Raymond (2005) in his study initiatives on the importance of using the benefits of information technology in the use of e-commerce.

The findings also indicate a macroenvironment impact on the development of business on the electronic commerce adoption. Today, communication technologies is an integral part of peoples life and an important part of their time spent by using technology and information and communication technologies. While of a significant portion of their time spent by using this technology it is necessary to sport businesses develop e-commerce, to introduction and provide products and services through e-commerce and increase their sales .

REFERENCES

- Guriqbal Singh Jaiya. (2011). Introduction to the SMEs Division of WIPO, Directing Small and Medium-Sized Enterprises Division, World Intellectual Property Organization.
- Igbaria, M., Zinatell, N., Cragg, P., and Cavage, A. (2007). Personal computing acceptance factors in small firms: a structural equation model, *MIS Quarterly*, 21 (3): 279-305.
- Macgregor, R.C. and Vrazalic, L. (2005). A basic model of electronic commerce adoption barriers, a study of regional small businesses in Sweden and Australia. *Journal of Small Business and Enterprise Development*, 12 (4): 510-527.
- Macgregor, R.C. and Vrazalic, L. (2006). Sector driven variations on e-Commerce adoption barriers in regional small businesses: an Australian study. *Innovations in Information Technology 2006*, 19-21 November, Dubai, United Arab Emirates.
- Macgregor, R.C. and Vrazalic, L. (2008). The role of gender in the perception of barriers to e-Commerce adoption in SMEs: an Australian study. *Journal of Electronic Marketing and Retailing*, 1/3.
- Molla, A., Licker, P.S. (2015). Perceived E-readiness factors in ecommerce adoption: an empirical investigation in a developing country. *International Journal of Electronic Commerce*, 10 (1): 83-110.

- Oh, K.Y., Cruickshank, D., Anderson, A.R. (2009). The adoption of e-trade innovations by Korean small and medium sized firms. *Technovation*, 29 (2): 110-121.
- Oyelaran-Oyeyinka, B., Lal, K. (2006). Learning new technologies by small and medium enterprises in developing countries. *Technovation*, 26 (2): 220-231.
- Raymond, L. (2005), Determinants of Web Site Implementation in Small Business. *Internet Research: Electronic Networking Applications and Policy*, 11 (5): 411-424.
- Redoli, J., Mompoto, R., Garcia-Diez, J., Lopez-Coronado, M. (2008). A model for the assessment and development of Internet-based information and communication services in small and medium enterprises. *Technovation*, 28 (7): 424-435.
- Riemenschneider, C.K., Harrison, D.A. and Mykytyn Jr., P.A. (2013). Understanding IT Adoption Decisions in Small Business. *Information & Management*, 40 (4): 269-285.
- Robertson, M. (2006). Strategic issues impacting on small firms, in Blackburn, R. and Jennings, P.(EDS), *Small Firms – Contributions to Economic Regeneration*, Paul Chapman, London.
- Tan, J., Tyler, K., Manica, A. (2007). Business-to-business adoption of eCommerce in China. *Information & Management*, 44 (3): 332-351.
- Tapscott, D. (2016). *The Digital Economy, Promise and Peril in the Age of Networked Intelligence*, McGraw-Hill: New York.
- Whittaker, D.H. (2007). *Small Firms in the Japanese Economy*. Cambridge University Press, Cambridge.
- Wong, K.Y. and Aspinwall, E. (2013). Is knowledge management equivalent to information Technology. *Proceedings of the Fourth European Conference on Knowledge Management*, Oxford University, Oxford.