

Recognizing and Prioritizing Economic Criteria Affecting Ticket Sales Management in World Sport Mega Events

Received: 2022-01-31

Vol. 3, No.1. Winter. 2022, 17-29

Accepted: 2022-03-08

Leila Zakizadeh¹
Nahid Atghia^{2*}
Ali Nazarian³

¹Ph.D. of Sport Management

²Associate Professor of Sport Management, Alzahra University, Tehran, Iran

³Postdoctoral Student in Sport Management, Alzahra University, Tehran, Iran

*Correspondence:
Nahid Atghia, Associate Professor of Sport Management, Alzahra University, Tehran, Iran

Email: natghia2000@yahoo.com
Orcid: [0000-0003-2895-1396](https://orcid.org/0000-0003-2895-1396)

Abstract

Purpose: The aim of this study was to identify and prioritize economic indicators affecting ticket sales management in important sporting events of the world.

Method: According to its goal, this research was applied, and it was based on a mixed (qualitative-quantitative) method. The statistical population of the qualitative part included all countries around the world, among which the United States, Australia, China, South Korea, United Kingdom, Finland, Canada, Qatar, Germany, Turkey and Iran were selected as the statistical sample. The sample of quantitative part consisted of 12 members of Iranian sports marketing elite. In this research, various internet sites, databases, books and articles, as well as taking notes and recording documentary observations have been used. Also, in the quantitative part, first a questionnaire was designed for pairwise comparison of indicators and distributed among 12 sports marketing elites to be analyzed through hierarchical analysis.

Results: The results showed that the smart and multi-purpose ticket index and ticket counter index with a weight of 0.138 and 0.020 were in the first and last rank, respectively. The results of qualitative part showed what indicators have been used to manage, prepare and distribute tickets and earn economic income in selected countries of the world.

Conclusion: According to the findings, it can be stated that each of these factors has brought about results and achievements such as preventing the black market, ticket sales, event control and security, revenue generation as well as other benefits.

Keywords: Sporting Events; Economic Indicators; Ticket Sales; Ticket Sales Management

Introduction

Sport is a global commodity and service so that many people around the world enjoy doing training, watching sport competitions and events and participating in a variety of sports. It is safe to say that few industries in the world can gather millions of spectators from all over the world at the same time for a special occasion. On the other hand, these viewers need to buy tickets to attend sports events. This is why many experts emphasize the importance of choosing the right approaches to manage ticket sales from various aspects, and all of them agree that the sports spectator plays a key role in earning income in the sports industry and that ticket sales are of high importance for success of a professional sports organization (Kim & Trail, 2010). Today, various sporting events all over the world attract millions of people as players, spectators and fans, and this maximum participation in sports has strengthened the economic aspects of the sports industry. Although earning money through ticket sales has declined in recent years because of television broadcasting rights and sponsorships, ticket sales are still one of the most important ways of making money at sporting events at various levels (Coates, 2007). Considering the economic conditions of different countries, one of the essential factors in the attendance of spectators and the purchase of tickets for sporting events is economic conditions, and the ticket price and its payment mode, as well as the way tickets are presented to the public can have significant effects on ticket sales (Iho & Heikkilä, 2010).

Previous studies were reviewed to explain the research problem. Benar (2016) quotes Hall (2009) that the presence of spectators in sports events indicates a significant revenue stream for clubs and sports organizations with economic benefits for both cities and

countries. Benar (2016) quotes Dehghan Ghahfarkhi (2010) as saying that the presence of a large number of spectators and buying tickets supply part of the team's expenses. Also, the factors affecting revenue generation of the competitions include the number of hostings, the capacity of stadiums and the number of views, that is, any factor causing more spectators to attend and increases their motivation to participate in competitions will cause more ticket sales, ultimately leading to higher revenue (Naqdi et al., 2013). Obviously, in recent years, countries such as Brazil, Russia, India and South Africa have been faced with security problems in hosting major sporting events, and since the growth of tourism and the presence of spectators from around the world are of high importance in successful economic development, the authorities in these countries are trying to solve the current problems (Peeters et al., 2014). Norouzi et al. (2018) in their research studied three policies of increasing the usefulness of competition time, ticket sales, and advertising before the competition, and the results of their model showed that advertising followed by the competition time has the greatest impact on price and hence on revenue from competition. In a study, Feizi et al. (2019) categorized the factors influencing ticket sales into eight areas: facilities, socio-cultural, competitive appeal, economic, managerial, marketing, technology, and planning. Besides, according to the confirmatory model, socio-cultural factors, marketing, technology, management, economics, planning, attractiveness and facilities had the greatest impact on ticket sales in the Iranian Football Premier League, respectively. In the study of Nugraha et al. (2021) aimed at improving the design of a multi-sport event ticket accounting information system through implementing RFID and blockchain technologies in COVID-19 health protocols,

ticket effectiveness for spectators was challenged due to budget and environmental issues. Kim et al (2021) in a study with the aim of examining the motivational determinants for digital tickets showed that both internal and external stimuli are positive predictors of the intention to continue using digital tickets but that only internal motivation has a positive effect on the intention to continue through service satisfaction. In addition, the relationship between intrinsic motivation, service satisfaction, and persistent intent in consumers with high mental distress was higher than in those with low mental distress. According to the researchers, review of previous studies suggests that no study has examined the economic indicators affecting the management of ticket sales for sporting events. Therefore, the present study seeks to fill this research gap and develop previous studies.

Spectators are a valuable asset of sports clubs (Izadi & Deylami, 2015). Not only do spectators make direct revenue for clubs and sports organizations by purchasing tickets of matches but they also indirectly play a major role in generating income by attracting sponsors and ancillary services (Philipp, 2002). Cultural promotion, economic development, social personality, income generation, political relations and so forth are among the achievements of any event (Downward et al., 2009). Agha and Taks (2015) also found that accepting small hostings is easier than large events and has a good economic income, and the host does not incur the heavy costs of large events. The experiences of different countries have shown that new methods of ticket sales create order and tranquility in the stadium, respect the rights of viewers and increase the security factor of the matches, and on the other hand prevent the emergence of a black market. Other services such as ticket sales along with lottery, gift giving, and selling

tickets through electronic devices make ticket delivery faster and easier (Wilder, 1995).

A look at economic situation of Iran's sports industry shows that the share of sports industry in GDP is 1.1%, which is significantly lower than the global index, while this share is 0.75-4.4% in different countries and it can affect ticket prices (Asgarian et al., 2005). Ticket sales through the box office, which is a common method in Iran, has caused a waste of time, created a black market and in some cases disturbed economic health. Obviously, in any modern organization, achieving goals with maximum efficiency and performance is the most important mission, and to achieve this goal, all activities of the organization must be done based on a specific plan to identify all problems and obstacles and present solutions with a broad perspective (Talibpour, 2013). According to Article 44 of Iranian Constitution as well as the emphasis of the government and sports confederations on privatization, all clubs have no choice but to generate revenue through the private sector. At present, ticket sales in Iran provide a small source of income for clubs, and since the fiscal costs of clubs are mostly financed by government organizations, if the government does not support reputable sports clubs and teams, their survival is not possible (Izadi & Deylami, 2015).

As we know, sport is becoming more and more commercialized and most sports institutions are moving towards professionalism over the years. Professional sports such as football have attracted large crowds of people and are today a trade in billion euros. Sports revenue comes from the media, ticket sales, sponsors, sales of goods and services, as well as other sources. Over the past years, sport has become further globalized, and sporting events are easily broadcast around the world with the help of

media, computer equipment and the Internet (Rahimizadeh et al., 2012). International sporting events are a venue in which the prestige of the host countries becomes evident, which must be taken seriously. Cultural promotion, economic development, social character, income generation, political relations and the like are among the achievements of holding each event. Ticket sales as a direct income from spectator visits are among the most important revenue-generating processes in sporting events (Katkat, 2014). The sale of the first tickets of Tehran Bus Company, which were paper tickets, dates back to 1952. Since then, various types of time-bound credit tickets with passenger photos, travel credit tickets, prepaid credit tickets, smart tickets, tickets for special groups and so forth have been designed and used. Tickets for the first time were officially sold out at 1978 World Cup qualifier matches. Football in our country started as an amateur sport. However, the nature of football in this world has been professional since its inception, and that is why football distinguished itself from other disciplines in new Olympics. According to the Olympic Charter, only amateur athletes had the right to participate in Olympic sports competitions, and football entered the Olympic arena as a professional sport with the presence of amateurs from the beginning of 20th century (Bastani Rad, 2007). According to Talibpour's research, ticket sales in Iran are mostly done at box office, or else one of the sponsors buys all the tickets for the event. This method is meant to encourage spectators to attend the stadiums. In recent years, online tickets have been sold for sports such as football and volleyball and have been somewhat successful, but there are a number of obstacles to the implementation of online ticket sales in Iranian Premier Football League, which are classified into four categories: financial, organizational,

technical and behavioral, among which technical barriers have been more pronounced than other obstacles. With the advancement of science and technology, the sale and purchase of goods and services has taken on a new form that has abandoned the traditional forms (Talibpour et al., 2013). In 2010, Pradisathaporn reviewed ticket sales at 2008 Beijing Olympics, listing digital and multi-purpose ticketing and its benefits. In 2006, Thamnopulos introduced marketing research methods and promotional strategies at 2000 Sydney Olympics and concluded that despite initial failures in ticket sales, the organizing committee managed to sell tickets to a new record in addition to proper ticket sales, achieving 87.9% of ticket sales for this Olympic event.

Given the importance of the above content, the present study attempts to analyze the current situation with a comparative study in the field of identifying economic indicators affecting ticket sales management in major sporting events in order to present suitable solutions for ticket sales in Iran.

Materials & Methods

This was an applied research, which was methodologically mixed (qualitative and quantitative). In the present study, qualitative data were first collected, which led the researcher to describe numerous aspects of the phenomenon. The researcher then prioritized the resulting indicators regarding their impact on ticket sales via collecting quantitative data. To collect quantitative data, hierarchical analysis and Expert Choice Software (version 11) were used to prioritize the economic indicators influencing ticket sales in the country (Karami et al., 2014). Moreover, according to data collection approach, the research method is a combination of focus group with comparative and analytical modeling that is done as a case study by examining the current situation in the country as well as selected countries. Various Internet sites,

databases, books and articles, note sheets as well as recording documentary observations have been used. In the hierarchical analysis section, first a questionnaire was designed for pairwise comparison that was then distributed among 12 sports marketing elites.

Results

In the process of hierarchical analysis, first the variables related to each criterion are compared with each other pairwise, and the relative weight of each to its own criterion is determined. Subsequently, the weight of the criteria is measured relative to each other, and final combination of the variable is

determined by linking the weight of each criterion with that of variable in the criterion.

The following indicators were used in this research:

F1 outsourcing; F2 automatic ticket; F3 fan package; F4 marketing research; F5 flexible packages; F6 Instant quota control and processing; F7 smart and multi-purpose ticket; F8 ticket pre-sale; F9 mobile advertising; F10 Internet ticket; F11 ticket counter.

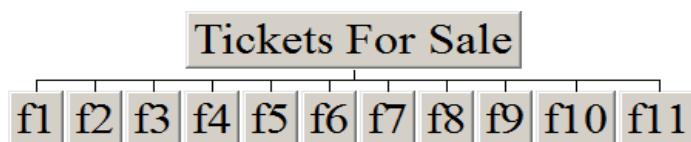


Figure 1: Compilation of ticket sales indicators

Pairwise comparison scale

Pairwise comparisons were made according to the hierarchical structure. This comparison was performed using a scale

designed ranging from similar preference to the most preferred.

Table 1. Paired comparison scale

Preferences (oral judgment)	NUMERICAL VALUE
Similar preference	1
Similar preference to relatively preferred	2
Relatively preferred	3
Moderately to strongly preferred	4
Highly preferred	5
Strongly to very strongly preferred	6
Very strong preference	7
Highly preferred	8
Extremely preferred	9

Calculation of geometric mean

After the questionnaires were completed by the experts, various opinions were expressed for each of the options. To solve this problem, comparison tables were combined. In this method, the geometric mean can be

used according to the following formula:

$$a_{ij} = \left(\prod_{k=1}^n a_{ij}^{(k)} \right)^{1/n}$$

In which:

a_{ij} : represents geometric mean of a

a: the criterion compared to options; the benchmark options.

K: the code that completes the answer sheet;

n: the number of respondents who compared

Table 2. Pairwise comparison matrix after combining expert opinion

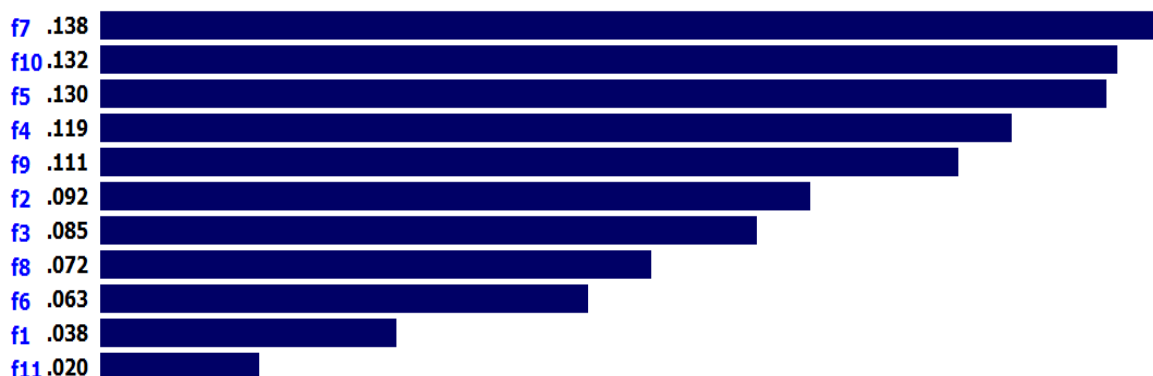
	F1	F2	F3	F4	F5	F6	F7	F8	F9	F10	F11
F1		0.37	0.39	0.72	0.78	0.82	0.21	0.31	0.22	0.18	1.42
F2	2.69		1.58	1.48	1.17	1.53	0.51	1.53	0.36	0.43	5.37
F3	2.52	0.63		2.23	0.55	2.68	0.53	0.60	0.66	0.45	2.52
F4	1.38	0.67	0.44		0.58	1.89	1.09	2.81	2.73	1.98	4.2
F5	1.27	0.85	1.81	1.7		3.52	1.67	2.79	1.6	0.58	4.61
F6	1321	0.65	0.37	0.53	0.28		1.11	1.6	0.56	0.26	5.65
F7	4.66	1.88	1.86	0.92	0.6	0.90		3.6	1.1	2.56	4.27
F8	3.21	0.65	1.64	0.35	0.36	0.62	0.27		1.12	0.66	5.79
F9	4.53	2.74	1.5	0.36	0.62	1.76	0.9	0.89		1.32	5.8
F10	5.35	2.28	2.18	0.50	1.7	3.8	0.39	1.5	0.75		7.04
F11	0.70	0.18	0.39	0.24	0.21	0.17	0.23	0.17	0.17	0.14	

Calculation of relative weight of indicators

After developing the hierarchical structure and calculating the geometric mean, mathematical operations were performed in the Expert Choice Software environment to prioritize ticket sales indicators of sports in the country. At this stage, first the relative weight and then the absolute weight are presented.

Improved incompatibility

For each matrix, the quotient of incompatibility index division by incompatibility index of random matrix is a suitable criterion for judging the incompatibility, which we call the incompatibility rate. If this value is ≤ 0.1 , the compatibility of the system is acceptable; otherwise, the judgments should be revised.



Inconsistency = 0.09
with 0 missing judgments.

Figure 2: Final results of pairwise comparison of indicators in the relative weight mode

Diagram 2 shows the results of pairwise comparison of the indicators obtained for

ticket sales. According to this diagram, from the perspective of experts, smart and multi-

purpose ticket index with a relative weight of 0.138 was in the first place; internet ticket with a weight of 0.132 in the second place; flexible packages with a relative weight of 0.13 in the third place; marketing research with relative weight of 0.119 in fourth place; mobile advertising and sales with relative weight of 0.111 in fifth place; automatic ticket with relative weight of 0.092 in sixth place; fan package with relative weight of 0.085 in seventh place; pre-sale of tickets with a relative weight of 0.072 in eighth place; quota control and instant processing

with relative weight of 0.063 in ninth place; outsourcing with a relative weight of 0.038 in tenth place; and ticket counters with a relative weight of 0.020 in eleventh place. Moreover, considering the fact that the incompatibility rate is <0.1 , it can be said that the compatibility is at a desirable level. Finally, by combining the weights of indicators, the integration operation is performed, and Diagram 3 shows the integration operation in the absolute weight mode.

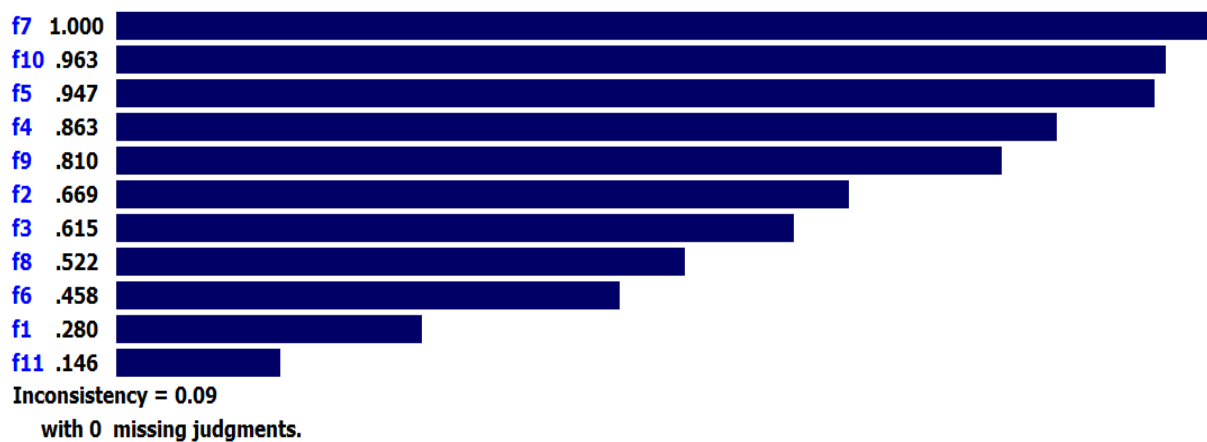


Figure 3: Final results of pairwise comparison of indicators in absolute weight

Qualitative findings

Regarding the qualitative results with respect to sporting events and ticket sales in selected countries, the following findings were obtained, and each method along with economic estimates is described in Table 3.

It is worth mentioning that the methods of the selected countries in this study have

been adopted due to the situation of that country as well as the existing environmental and economic conditions, and the researcher tries to take advantage of the outcome of this study based on the conditions and characteristics of Iran to present an appropriate method with the highest economic income for the country

Table 3. Qualitative data based on sale method and economic income

Country	Sports event	Ticket sales method	Economic income
Iran	Domestic football and volleyball matches	Ticket counters - sponsors - online ticket sales	Long queues - the emergence of black market - low revenue from ticket sales
China	Beijing 2008 Olympic Games	Smart and multi-purpose ticket sales (Using Ad Hoc network, RFID)	Revenue from TV broadcasting rights - Ticket sales - Advertising - Commercial competitions - Preventing the issuance of fake tickets and thus controlling the black market
Australia	2000 Sydney Olympics	Marketing research and ticket promotion strategies	Maximizing revenue - Maintaining and improving the positive image of games - New record in percentage of tickets sold
Canada	2010 Winter Olympics	Ticket sales including a random lottery in 3 stages (13 October 2008 -6 June 2009 and 14 November 2009)	Successful holding of ticket sales and the presence of more spectators – Promotion of financial income – minimizing unauthorized ticket sales
England	Various sporting events	Ticket sales including a random lottery in 3 stages	Earning money through electronic infrastructure
South Korea	17th Asian Games 2014	outsourcing	Improving service quality - Focusing on the organization's internal resources - Saving money for the organization - Gaining more competitive advantage - Success in the field of ticket sales, management and proper ticket distribution
Germany	Various sporting events	Automatic ticket (ATM0)	No need to attend and hire a sales staff – Facilitating ticket purchase at all hours of the day and increasing ticket sales
Finland	Finnish Football League	Normal ticket sales (average ticket price is lower than other countries) - Ticket pre-sale	Ticket sales and spectator revenue are lower than in other European and Scandinavian leagues - pre-sale increases commitment
United States of America	4 main leagues: baseball-basketball-football and hockey	Differential pricing - Flexible season ticket pricing - Money back guarantee and ticket sales through the website	Offering tickets at different prices and selling tickets - different packages for various tastes - guarantees to return ticket money to dissatisfied consumers - Internet tickets reduce travel costs and waiting time
Turkey	XXV Winter Universiade	Ticket sales system based on quota control and instant processing	Attracting spectators to sports that have a smaller audience or a lower socioeconomic status - enabled selling more than 1 ticket for the same seat at the same event
Qatar	Asian Cup 2011	Buying tickets directly through the official website of the Asian Football Confederation	Elimination of counterfeiters - controlling the black market - making money by hosting the most prestigious and money-making international tournaments

- Concerning qualitative findings from the study of ticket sales methods in selected countries on smart and multi-purpose digital tickets using Adhak Network at 2008 Beijing Olympics,

security plans against ticket counterfeiting were undertaken by banknote printing Department of Bank of China. This prevented counterfeiters from taking any action, and following

such a success in securing spectators, athletes and other participants using RFID system, it was also practiced at Shanghai World Expo and 70,000,000 tickets were sold for this important event. Beijing Olympics was highly attractive to many marketers because it was a good opportunity to influence the world's public mind as well as a way to penetrate China's multibillion dollar market. During this tournament, China hosted 280,000 athletes, referees, reporters from more than 200 countries and nearly 5,000,000 tourists, more than 120,000,000 domestic travelers, and 7,000,000 spectators who watched this important and international event live (Pradisathaporn et al., 2011).

- A total of 9,600,000 tickets were issued for the 2000 Sydney Olympics. According to the organizing committee of the tournament, ticket sales were one of the most important programs of these games that generated a large income for the organizing committee. Sydney's goal was to gain 600,000,000 Australian dollars in ticket sales, and it is safe to say that ticket sales affect financial success or failure. However, following the failure of ticket sales in the fall of 1991, the Promotion Strategy Committee adopted a promotion strategy with the help of the following private companies: George Peterson Bits Co.; Wool Kat Research Co.; and Media Scape analysis Co. Sydney used six stages of strategy to deliver an effective ticket sales process, combine advertising and direct marketing and create excitement in the community on the importance of attending the Olympics. These six steps were as follows: influencing the thoughts; informing; setting the stage for the display; release; mental freedom; and last minute fever. After this marketing activity, four weeks before the games and during the games, the organizing committee witnessed the sale of more than 1,000,000 tickets (almost 90% of
- the tickets were given to the people), which was the beginning of a new record in the history of Olympic ticket sales. Finally, 7,208,376 out of 7,644,175 tickets were sold. The organizing committee not only achieved its goal of 600,000,000 dollars but also set a new record for the percentage of tickets sold at Olympics that reached 87.9% of ticket sales (Thamnopoulos & Gargalianos, 2002).
- During 2010 Vancouver Winter Olympics in Canada, after three stages of ticket sales with the help of partners such as Jet set Sport and Visa.ticket.com, the tickets for this phase of the tournament were sold. Half of the tickets cost <100 Canadian dollars and 100,000 tickets were offered for 25 Canadian dollars. The Canadian Olympic Committee's goal was to earn 258,000,000 Canadian dollars, indicating that 96% of the tickets were sold. In terms of outsourcing at 2014 Asian Games in South Korea, we observed intangible economic revenues such as improved service quality, better ticket distribution, and greater competitive advantage. In connection with the sale of tickets through automatic transaction machines in Germany, saving of capital due to the lack of need for the presence of a sales clerk in the sales terminals was noticed.
 - Regarding the pre-sale method in Finnish Football League, it can be said that the financial situation of National Football League is relatively weak in Finland; however, football is the most attractive sport in Finland. According to research in the two fields of economics and marketing of Finnish sports, there are factors that affect the attendance of spectators in competitions. These factors include:
 - Customer taste
 - Economic factors such as ticket price, fan income, unemployment rate

- Quality factors such as stadium facilities, weather conditions, ticket pre-sale
- Features of the event such as quality of the competition, uncertainty of income, the importance of derby
- Procurement of facilities such as stadium capacity.

In the mentioned study, officials in the Finnish Football League attempted to increase revenue by pre-selling tickets, while the rate of attendance and ticket sales is still low compared to other European and Scandinavian countries (Iho & Heikkilä, 2010).

- USA experienced a large decline in spectator attendance due to the recession, resulting in a reduction in revenue for sports organizations. Therefore, the four proposed methods, namely differential ticket sales, flexible season package, money back guarantee, and online ticket sales were used for the four main leagues of baseball, football, basketball and handball, which managed to suit different people's tastes and income levels. In addition to tangible economic income, they achieved intangible income such as reduced travel-related costs, waiting times, and research (Howard & Crompton, 2004).
- At XXV Winter Universiade, Turkey sold tickets through quota control and instant processing. This method of selling tickets can be used in art festivals where several disciplines are performed at the same time and in more than one day, especially at mega sporting events in which several simultaneous matches are held in one day. The purpose of this system is to increase the number of spectators who attend the event, and this system is suitable for encouraging people to attend events in places that have a low socio-economic status. This method allows event management to sell more than one ticket for the same seat at the same event. The system helps generate economic revenue for the event, leading to the sale of more tickets and

introducing a new perspective on sports management and economics. The total number of tickets sold at the event was 168,907 (Katkat, 2014).

- With respect to outsourcing process at 2014 Incheon Asian Games, Burden stated that it was important for the organizer in terms of holding the event as well as organization's focus on internal resources, improving service quality and gaining a competitive advantage but that outsourcing has not been as effective economically (Burden Li, 2009).
- Qatar's revenue generation is not due to the special method of selling tickets but because of infrastructure investments and hosting of the most prestigious and money-making international events. Doha has spent 225,000,000,000 US dollars on infrastructure projects. Part of that expenditure will be spent on 2022 FIFA World Cup, 3,000,000,000 on stadiums and 17,000,000,000 on hotels, leading to large economic revenues for Qatar in the future (Kasaus, 2011).

Discussion

According to the qualitative and quantitative data obtained from this research, the smart and multi-purpose ticket selling method is in the first rank in hierarchical analysis with the highest economic revenue statistics. This finding indicates that by using this method, event organizers can achieve good results in economic, security and publicity terms. In 2010, Pradisathaporn reviewed ticket sale methods at 2008 Beijing Olympics and listed digital and multi-purpose ticketing and its benefits.

Internet ticket is in the second rank, and based on qualitative data, the events in which Internet tickets are sold have relatively good income generation. This finding emphasized the results of a research by Talibpour et al. (2013), Chen et al. (2007), Atghia and Zakizadeh (2019). This result indicates that online purchase of sports event tickets is of great importance

among spectators; therefore, web ticketing systems and their infrastructure need to be developed, especially during the COVID-19 epidemic.

Flexible packages were in the third rank, indicating that different groups of people can get the ticket they want depending on various tastes and levels of economic income. Therefore, offering different season packages that is practiced in USA, as well as flexible pricing methods considering the purchasing power of the people can be an important and determining factor in ticket sales (Howard & Crompton, 2004).

Marketing research was in the fourth rank, which was the factor of success at 2000 Sydney Olympics. Thus, it can be said that marketing research can also contribute to development of ticket sales management and economic advancement of sporting events, so that Thamnopoulos and Gargalianos (2002) showed that in spite of initial failures in ticket sales, the organizing committee used marketing research method and achieved good ticket sales, as well as hitting a new record and making 87.9% of ticket sales for this Olympic event.

Mobile advertising and sales is in fifth rank, and ticket sales through this method has not been so profitable. Today, people use smart and up-to-date devices, and they have easy access to sports organizations and events and can easily buy tickets for these events or advertise and support them. Also, this finding confirmed the results of Norouzi et al. (2018) who showed that the advertisement followed by competition time have the greatest impact on the price and consequently income from competition.

Automatic ticket is in the sixth rank, and in fact it provides easy shopping facilities and services but it is not profitable economically. The fan package is in seventh rank. Ticket pre-sale is in the eighth rank among low-income sales methods. Quota

control and instant processing in the ninth rank is most suitable for low socio-economic levels and may provide the possibility of buying tickets for low-income groups but it cannot be considered as an effective indicator in terms of earnings. Outsourcing is in tenth rank, mostly accounting for intangible economic revenue. Ticket counters are in the eleventh rank from the viewpoint of experts, and this method of ticket sales always leads to the lowest income, long queues, creation of black market, and somehow destroys the economic health of society. It is suggested to use minimum ticket counters to reduce the mentioned problems in ticket sales.

Conclusion

It is suggested that the country's sports officials, sports federations and organizers of sports events should consider the current situation in the country and take advantage of the findings of this study in an attempt to choose the most appropriate method to sell tickets, so that they can achieve good ticket sales and increase the number of spectators for sporting events, as well as generating revenue for the sports industry economically

Acknowledgement

The authors declare no conflicts of interest in this work.

References

1. Agha, N., & Taks, M. (2015). A theoretical comparison of the economic impact of large and small events.
2. Asgarian, F., Faraji Dana, A., Goodarzi, M., Jafari, A. (2006). Study of the economic situation of Iran's sports industry in 1998 and 2001. *Harakat*, 24, 25-43.
3. Atghia, N., & Zaki Zadeh, L. (2019). A Comparative Study of Ticket Sales Management in Sport Mega Events and Offering a Model in Iran. *Research in sport Management*, 8(8), 75-100.
4. Bastani Rad, H., Hosseini, SA., & Seirafi, H. (2007). History of Iranian

- Sports. Tehran: National Olympic Committee Publications.
5. Benar, N. (2016). A qualitative study of the development of dimensions of attracting and maintaining the presence of spectators in Iranian women's volleyball by NVIVO method. *Applied Research Quarterly in Sports Management*, 4(16), 97-111.
 6. Burden, W., & Li, M. (2009). Minor League Baseball: Exploring the growing interest in outsourced sport marketing. *Sport Marketing Quarterly*, 18(3), 139.
 7. Chen, F. C. (2007). Passenger use intentions for electronic tickets on international flights. *Journal of Air Transport Management*, 13, 110–115.
 8. Coates, D., & Humphreys, B. R. (2007). Ticket prices, concessions and attendance at professional sporting events. *International Journal of Sport Finance*, 2(3), 161.
 9. Downward, P., Dawson, A., & Dejonghe, T. (2009). Economics of sport: theory, evidence and policy.
 10. Feizi, S., Hamidi, M., Razavi, S., & Andam, R. (2019). Ticketing Management: Analysis of factors affecting ticketing of Iran's premier football league. *Sport Management and Development*, 8(4), 88-104.
 11. Howard, D. R., & Crompton, J. L. (2004). Tactics used by sports organizations in the United States to increase ticket sales. *Managing Leisure*, 9(2), 87–95.
 12. Iho, A., & Heikkilä, J. (2010). Impact of advance ticket sales on attendance in the Finnish football league. *Journal of Sports Economics*, 11(2), 214-226.
 13. Izadi, B., & Deylami, H. (2015). Investigating the factors affecting customers' orientation towards attending sports events. Case study: students of Shushtar universities. *Journal of Sport Management and Motor Behavior*, 11(21), 37-48.
 14. Karami, Sh., & Ali Beigi, A. H. (2014). Identification and prioritization of factors affecting the development of agricultural production facilities. *Journal of Cooperatives and Agriculture*, third year, 10.
 15. Kasaus, M. (2011). Study of the actions of the small Arab countries of the Persian Gulf in using sports as a diplomatic tool. Report of the Fars News Agency's public diplomacy and soft war correspondent, "World Crunch" website.
 16. Katkat, D. (2014). Real-time Quota-controlled Ticketing System (RQTS) in Sports Organizations. *Procedia-Social and Behavioral Sciences*, 116, 3940-3946.
 17. Kim, S., Yu, H. Y., & Lee, H. W. (2021). Motivational determinants of digital ticketing: the mediating effect of service satisfaction and the moderating effect of psychological discomfort. *International Journal of Sports Marketing and Sponsorship*.
 18. Kim, Y. K., & Trail, G. (2010). Constraints and motivators: A new model to explain sport consumer behavior. *Journal of Sport Management*, 24(2), 190-210.
 19. Naqdi, Y., Kaghzian, S., & Afsharpi, A. (2013). Analysis of economic factors affecting the income of football clubs (selected clubs in the world). *Tehran Bi-Quarterly Journal of Sports Management and Development*
 20. Norouzi, M., Memari, Z., & Askarifar, K. (2018). Optimal Revenue Policy based on Ticket Price Using System Dynamics Approach: Case Study Iran Football Premier League. *Journal of Economic Research (Tahghighat- E-Eghtesadi)*, 53(1), 209-224.
 21. Nugraha, A., Daniel, D. R., & Utama, A. A. G. S. (2021). Improving multi-sport event ticketing accounting information system design through implementing RFID and blockchain

- technologies within COVID-19 health protocols. *Heliyon*, 7(10), e08167.
22. Peeters, T., Matheson, V., & Szymanski, S. (2014). Tourism and the 2010 World Cup: Lessons for developing countries. *Journal of African Economies*, 23(2), 290-320.
 23. Philipp, S. F., & Brezina, S. (2002). Differences among African Americans and Euro-Americans in reasons for sports participation. *Perceptual and motor skills*, 95(1), 184-186.
 24. Pradisathaporn, S., Kaviya, S., Fujii, Y., & Yupapin, P. P. (2011). An intelligent and multipurpose digital ticket using ad hoc network. *Procedia Engineering*, 8, 296-300.
 25. Rahimizadeh, M., Sajjadi, S. N., Goodarzi, M., & Ghomati, H. (2012). Comparison of online marketing and interaction with fans through the official websites of football clubs in Iran, Asia and Europe. *International Journal of Applied Research and Basic Sciences (ISSN 2251-838X)*.
 26. Talibpour, M., Khazaei Pool, J., Shamsi, A., & Rouhani, M. (2013). Analysis and evaluation of barriers to the implementation of online ticketing in the Iranian Football Premier League using Analytic Hierarchy Process (AHP). *Sports Management and Development*, 2(1), 41-53.
 27. Thamnopoulos, Y., & Gargalianos, D. (2002). Ticketing of large-scale events: the case of Sydney 2000 Olympic Games. *Facilities*, 20(1/2), 22-33.
 28. Wilder, W. B. (1995). U.S. Patent No. 5,408,417. Washington, DC: U.S. Patent and Trademark Office. 25-235.