

Examining Standard Airport Infrastructure for Simulation: The Case Study of Dubai and Imam Khomeini Airports⁴

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Abstract

The main purpose of the present study is to compare and adapt Dubai and Imam Khomeini airports in order to meet the latter's standards according to international standards, and then review and identify the function of a modern airport in attracting tourists. Therefore, the present study is applied in terms of objectives, descriptive-analytic in terms of the nature and type, and qualitative in terms of data collection. The population included transportation and tourism experts including university professors, tourism graduates, officials and other senior experts and managers at the airline organization as well as tourism investors and activists. Due to the limited size of the population, 60 experts were selected and presented as the sample using Cochran's formula. In this study, the researcher prepared a questionnaire for conducting the interview. However, the order of the questions could be changed depending on the interview process, and the interviewer could present other questions, or investigate the interviewees' responses, according to the interviewees' responses in addition to the questions presented as guidelines. The semi-structured interview has several types among which the expert interview was used in the present study. In this type of interview, the interviewee participates in the study on account of their expertise in a specific field of activity and as a representative of an expert group. In the present study, the researcher used the strategy of control by the members in order to raise the validity of the interviews. In addition, the researcher did not just ask a question to understand the intended phenomenon, but used a few questions to examine various aspects of the phenomenon in order to gain a high level of understanding, and this contributed to the validity of the interviews. In addition, in the present study, the data was obtained from other sources to control the accuracy of the data from the interview. To achieve reliability, interpreting and analyzing the findings from the interviews were performed in a structured process (i.e., systematic coding, detailed description of which is given in the following pages). Therefore, others can review the details of how data was collected, how decisions were made, and how interpretations and analyses were conducted in the interview. With regard to the questions posed, in general, this research supported the conceptual model using the survey method (Delphi).

Keywords: Dubai Airport; Imam Khomeini airport; international standards; modern airport

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Introduction

Without a doubt, economic progress and social development have a close relationship with the efficiency of transportation systems and the development of communications infrastructures of each to expedite the transfer of cargo and passengers from one place to another. Statistics released from different government activities shows that in Iran transportation activities account for 9.1% of GDP, 15 % of total gross capital of machinery and nearly 3 million job opportunities.

Here, air transportation plays an indispensable role in economic, social, industrial and tourism development (Shaad & Sabzali Jamaat, 2014). In human societies, tourism is among basic industries according to the features such as security, speed and attractions in applications. Among service industries, tourism is a leading and growing sector at an international level (Fourie & Santana-Gallego, 2011) and demands for international tourism by 2020 will reach 1.6 billion per year (Coshall & Charlesworth, 2011). Thus, factors such as the growth of economic-industrial and tourism activities, the need for rapid transportation of passengers and cargo and lack of existing capacities, importance of strategic and operational development of airports as main terminals of air arteries are stressed in major decisions. Studies on status of airports in Iran show that there are 12 airports of the existing airports can handle a wide range of wide, medium and narrow-body aircrafts. In addition, 30 airports can accept medium and narrow aircrafts and the rest can serve just narrow-body aircrafts due to the limited capacity. This indicates that including aircraft type in determining the conditions of runways and in defining airspace capacity plays an important role in improving existing airport facilities (Shaad & Sabzali Jamaat, 2014).

The most pessimist economists describe tourism as a phenomenon of capital and employment production and pay special attention to this issue (Tavalaee, 2013). They believe that the development of tourism can economically enhance the exchange of currency and if a country

is able to move the wheels of tourism, it will witness the prosperity of economy. Today, transportation is known as one of the foundations of a balanced and sustainable development of countries. It is interpreted as the driving force or engine of development and its efficiency and potential is considered as the basis for the sustainable equitable development (Nazarian et al., 2010).

Statement of the problem

In the airspace, airport, as the transportation issue, is on top of the relationship between technology and tourism, and on the one hand, the creation of transportation facilities and its comfort and confidence, and on the other hand the richness and variety of such devices, have led to the emergence of a vast wave of tourism in the present era. Tourism policy has become increasingly critical to many countries with a proclivity to utilize tourism for regional and national development. The relationship between tourism and technology and industry is not limited only to the area of transportation vehicles, but also include all installations and facilities needed for passengers' comfort, and efficacy of this policy requires the identification of obstacles in its implementation. Issues of air transportation and airports, new methods of traveling services, the use of new computer technology and information and news sectors, and so on are associated with technology and as these services become complete, traveling and tourism will renew what is possible relying on modern industry and technology path (Rezvani, 2007).

The prosperity of tourism requires the growth and development of communication and transportation infrastructures, the most important of which in tourism, is air transport. Air transport is among infrastructural issues considered a key component of the cycle of production and consumption, which is placed in the service sector of any national system. The growth of the air transport industry in general exercises a great influence on the economic development of each country. Therefore, since the growth of the aviation industry depends on the growth of the aerospace industries of each country, and, on the other hand, given the importance of the aerospace industry in Iran and the world, the necessity of studying the solutions to the development of the country's air industry sector is also evolving. The search for a suitable development model and recognition of the facts

that cultivate the growth of the aviation industry in a country can largely contribute to planning and moving to the aviation industry in Iran. One of the economic features of the aviation industry is its impact on other industries, in which tourism activities can be mentioned. Tourism and air transport are interdependent. In the relations between countries after diplomacy and the establishment of consular offices, airline companies make the first call. Letting the landing and building up of corridors are the bridge between the two countries and the most important way of communication between nations to develop economic, cultural and religious communications. However, the existence of some economic barriers in recent years, such as sanctions and lack of foreign investors in the aviation industry, has made destabilized the industry and has caused problems for its infrastructures (Shirazi, 2010).

At the head of infrastructural investments, Dubai has made a lot of efforts in the tourism sector, especially in Europe and North America and it plans to host 15 million tourists by the end of 2010. In contrast, the metropolis of Tehran as the capital is the country's symbol and its airports are considered a gateway to foreign tourists. However, the lack of communications, services, and equipment infrastructure in airports in Tehran and some policies and poor management in the field of tourism have placed Tehran behind its regional rivals losing competitiveness in attracting tourism through the air compared with its competitors such as Dubai, Istanbul, Qatar. Therefore, a modern airport with modern equipment is of paramount importance in attracting tourism (Janati, 2012).

In today's civilized societies, aircraft is considered one of the necessities of the machine life, because tendency to comfort and speed in traveling make increasing demands for the use of this vehicle. Desire for tourism and visiting new places and historic buildings can be a factor for the boom of air travels. Inside the Middle East, although it seems that achieving high-level markets, requires reduction of transport costs and offering full services, research has shown the great efforts of the Middle East airlines to become the central region of international markets and cover them. Ten major regional airports spent over 32 billion \$ in 2012 to establish an international airport. This means that the region can transport nearly

400 million passengers. Much of this growth can be attributed to the growth of regional airlines. Middle East airlines are growing 10 percent annually, nearly doubled higher than airlines in the world (Miroo, 2009).

Transport is a key to tourism and tourism is one of the most important profitable resources of the world in the early third millennium. However, tourism in Iran has not yet gained its rightful place due to numerous issues including the aviation industry and infrastructure of airports, facilities and equipment, while development in this field would be the perfect replacement for oil revenues in Iran. The system of air transport is one of the most important constituent elements of tourism. Therefore, in this study, the infrastructure of standard airports, such as Dubai Airport are examined in order to simulate Imam Khomeini International Airport, and the strengths and weaknesses of the two airports are compared in order to be able to simulate Imam Khomeini airport based on Dubai International Airport standards using qualitative methods.

Theoretical principles

The concept of tourism

Tourist is a person who travels to a place in which he/she does not reside for the purpose of amusement, visiting landmarks, therapy, business, sports, or pilgrimage, provided that the minimum length of stay is not less than 24 hours and does not exceed six months (Kazmi, 2006).

According to the definition of the World Tourism Organization, tourism refers to all activities of individuals who go to places outside their normal environment to spend their leisure time, work and other purposes for a period of time less than a year. Thus, tourism is restricted to travels solely to spend a few holidays to visit friends, relatives and attractive areas (Zahedi, 2006).

The concept of airport:

Below are several concepts that denote airport, but all ultimately refer to space, place and use. Airport consists of a series of facilities and equipment brought together to provide facilities for airlift. Just as shipping requires a port, airport can also be likened to an air port, which is a necessity for air transport. Airport refers to a spatial area refers for air communication between different regions.

Airport is set to aircrafts' landing and takeoff. Airports are considered one of the most important factors in tourism, because the presence of a new generation of aircraft, modern navigation assistance equipment, rapid growth in traffic volume and travel demand, along with consistent international standards and precise regulations of flight operations, have made these infrastructures as a complex and dynamic system and one of the central elements of the air transport industry. Airport is also a symbol of a country and a city. Beauty, glory, facilities, and architecture of an airport represent significantly social, cultural and political status of the country and the city. Airport is an inseparable part of the infrastructure of a city, which helps to increase its commercial potential. Airlines are the core of the air transport industry, and providing appropriate services to customers is one of the requirements of the current competitive environment. Tourists choose airports where comfortable travel is provided with no problem. Providing best services is a decisive factor in the status of the airport (Nazarian et al., 2010).

The concept of infrastructure:

In the broad sense of the word, it is a group of interconnected structural elements that provide the supporting skeleton for a complete building. This term embodies different meanings in different fields, but in many cases, it can be deduced from roads and drainage channels. These various factors may be collectively referred to as municipal underlying structure, municipality underlying structure or simply public constructions, although they may be expanded and managed as a private sector or state economic organization. In other applications, it may be used to refer to information technology, informal and formal communication channels, software development tools, social and political networks, or common beliefs retained by members of certain groups. However, the overall impression is that infrastructure provides the underlying structure and supports the servant system, be it a city, a nation, or a community (Brown, 2010).

The concept airport infrastructure:

Airport infrastructure refers to all the facilities provided by the air transport industry and airports trustees to airlines. Airport infrastructure is divided into several sections, each of which includes factors that are among the major infrastructures of any airport that

might affect the efficiency and better services to airlines and users. These facilities exercise a great impact on the airfield areas and air traffic control systems that make up two important parts of the airport's airspace (Saffarzadeh et al., 2010).

Models and theories

One of the economic characteristics of air transport is its impact on other industries. In this regard, tourism can be mentioned. Tourism and air transport are closely interrelated. Almost 40 percent of international tourists travel by air, while, it accounted for 35% of the passengers in the 1990s. In addition, in the relations between countries, airline companies make the first call after diplomacy and the establishment of consular offices. Letting the landing and building up of corridors are the bridge between the two countries and the most important way of communication between nations to develop economic, cultural and religious communications. However, the existence of some economic barriers in recent years, such as sanctions and lack of foreign investors in the aviation industry, have made destabilized the industry and caused problems for its infrastructures (Rahmanseresht, 2001). The air transport industry large share of passenger and tourists transport via developing markets and collective tourism and on the other hand in this cycle tourism generates a variety of considerable demands for air transport (Memarzadeh, 2015).

In today's civilized societies, aircraft is considered one of the necessities of the machine life, because tendency to comfort and speed in traveling make increasing demands for the use of this vehicle. Desire for tourism and visiting new places and historic buildings can be a factor for the boom of air travels. Air transport has major advantages in comparison with other transportation methods, leading to an ever-increasing use of this method for the movement of passengers and goods. These specifications include:

Transport Unit Capacity: In 1970, Boeing flew with 520 passengers and now by Airbus 380 A 840 people can travel at once. In the future designs, new aircraft with a capacity of more than 1,000 people will be built.

Air Transport Speed: Speed has been the most important factor in air transport superiority to other transportation vehicles.

The radius of operation or the radius of independent flight of planes

Regular planning in servicing

Ease and comfort

Safety: Safety of aircrafts is higher than ground-based safety. If the coefficient of safety is defined as the number of lethal accidents per 100 million passengers per kilometer, the figure 0.6 is for air travels, 0.24 for railways and 3.5 for cars. It is then seen that air transport safety is 5 to 6 times the safety of land and road transport.

Ease of use: Ease of use of aircraft is more an internal issue, for example, the easy passage of the oceans and not replacing the transportation device in land and sea are very positive points of aircrafts.

Price: The most important factor in choosing a transportation means is its cost. Heavy costs of air transport are one of the limiting factors. In the world, the budget spent on travel and refreshment is three times the budget spent on defense affairs. In some cases, transportation costs account for the largest part of the total cost of the trip (qtd. in Saffarzadeh et al., 2010).

Factors affecting the level of service and classification of airports

Levels of airport services are identified in four general categories, which comprehensively include all services that airline companies and, in some cases, airport custodians will offer passengers:

Terminal Public Services: This section includes items that all users of the airport, including inbound, outbound, inland or international passengers use (qtd. in Saffarzadeh et al., 2010).

Land Services: Factors affecting terrestrial services, including parking, taxi, bus, and rental car services (Management and Planning Organization & the Ministry of Roads and Transportation, 2008).

Welfare Services: All the services for the welfare and comfort of passengers provided by airlines and airport authorities. Today, airport terminals, along with commercialization in the world, provide plenty of business and service facilities for the welfare of passengers (qtd. in Saffarzadeh et al., 2010).

Aviation services: These services include services provide by airport officials and authorities to airline companies. All services are dedicated to airline fleet for increasing safety and efficiency (Qtd. in Saffarzadeh et al., 2010).

Factors affecting Facilities

Airport facilities are divided into two parts of ground facilities and air facilities each of which includes factors that are among the major infrastructures of any airport that might affect the efficiency and better services to airlines and other users. These facilities have a great impact on the airfield areas and air traffic control systems that make up two important parts of the airport's airspace (Saffarzadeh et al., 2010).

Land facilities: A part of the facilities includes parameters such as runway, takeoff runway, apron area and passenger terminal, which are very important since they provide basic services and have dramatic effects on the safety, efficiency and speed of service.

Air facilities: It includes air routes traffic control, facilities and equipment of the terminal radar approach control, airport traffic control towers, flight services stations, continuous reporting of weather conditions and procedures on how to use this facilities (Qtd. in Saffarzadeh et al., 2010).

Research location

The study is focused on Imam Khomeini International Airport in Tehran and Dubai International Airport:

Imam Khomeini International Airport:

The airport is located 30 kilometers southwest of Tehran, between the TehranQom and the Tehran-Saveh highway covering an area of 13.5 hectares. In the development plan of Imam international airport, the 14 thousand hectare areas of the airport are divided into air and non-air parts. The first phase annual capacity of the airport is 6 to 6.5 million and in the second phase it increases to about 15 million passengers. The master plan prediction of the airport traffic capacity is 40 million passengers a year. Available space per capita, for inbound and outbound passengers of the airport at peak hours is 18 square meters for any inbound passenger and nearly 25 square meters for any outbound passenger. The airports has a 29-1 runway with a length of 4200 meters and a width of 45 meters, two parallel taxiway as emergency runways, with an access to southern flight levels of the cargo terminal, repairing units, and the engine testing unit. The emergency taxiways have been established with a length of 4200 m and a width of 45 m, and parallel taxiways with a length of 9700 , and

a width of 30 m. The passenger terminal with an area of 78,357 square meters is constituted of both the air and the land parts. The land or passenger terminal center has a 4-story building with a lightweight roof for all the activities of the inbound and outbound passengers and their companions and with a full glass view.

Dubai International Airport

Dubai International Airport is the main and the busiest airport in Dubai and the UAE in terms of international passenger traffic. In addition, it is the third airport in terms of passenger traffic and the sixth busiest airport in terms of cargo and the busiest point for the Airbus A380. In 2015, Dubai Airport recorded 78 million passengers, 51.2 million tons of cargo and 5174.03 air transports. With an area of over 2,900 hectares in Al Garhoud, Dubai international is located in 2.5 nautical miles of East Dubai. Dubai Airport is managed by Dubai Airports, and hosts the operation of Dubai, Emirates and Fly Dubai airlines. The aviation hub of Emirates is the largest hub in the Middle East.

Methodology

This study is applied in terms of objectives, and descriptive - analytic in terms of the nature and type. It is a library search and survey (personal interview) in terms of data collection methods. The population of this research includes all related infrastructure experts (qualitative and quantitative) of Iran airports and Dubai Airports. The simplest method to determine the sample size, Cochran's formula, was used. In a population of 60, the sample size is 52. However, due to the limited population, the sample size was set 60. In the first phase, library search, the internet and semi-structured interviews will comprise the research instruments. One of the instruments for data collection, especially in qualitative research is interview. Interview methods are different. In this study, semi-structured interviews were used. This type of interview while focusing on the research subject, with the necessary flexibility, allows interviewees to address aspects of the subject that are important from their point of view (Hariri, 2011).

In this study, the researcher created a questionnaire that guided the interview. However, the order of the questions could be changed depending on the interview process, and the interviewer could present

other questions, or investigate the interviewees' responses, according to the interviewees' responses, in addition to the questions presented as guidelines. The semi-structured interview has several types among which the expert interview was used in the present study. In this type of interview, the interviewee participates in the study due to having expertise in a specific field of activity and as a representative of an expert group. In the present study, the researcher used the strategy of control by the members in order to raise the level of the validity of the interviews. In addition, as mentioned, the researcher did not just ask a question to understand the intended phenomenon, but used a few questions to examine various aspects of the phenomenon in order to gain a high level of understanding, and this contributed to the validity of the interviews. In addition, in the present study, the data was obtained from other sources to control the accuracy of the data from the interview. To achieve reliability, interpreting and analyzing the findings from the interviews was performed in a structured process (i.e., systematic coding). Therefore, others can review the details of how data was collected, how decisions were made, and how interpretations and analyses were conducted in the interview. With regard to the questions posed, in general, this research is conducted in two phases. In the first phase, using the survey method (Delphi), field data will be collected and in the second phase SWOT matrix will be used to propose a model.

Findings of the study

Results of field studies

Table 1. Characteristics and components of a modern airport

Related question	Participants' responses	Frequency	Percent	
In your opinion, what are the important characteristics and components of a modern airport based on international standards?	welfare facilities - suitable medical services for receiving passengers	12	20	
	various specialized sections	3	5	
	convenient navigation system	4	6.6	
	correct management	7	11.66	
	modern waiting room and adequate facilities for the long waiting hours	3	5	
	convenient access to all parts of the airport for passengers	3	5	
	minimizing flight delays	4	6.6	
	airport environment design based on Iranian culture	2	3.33	
	Passenger reception in accordance with international standards.	3	5	
	easy access to the city	12	20	
	detailed information systems for inbound and outbound flights passengers	7	11.6	
	Total		60	100

Table 2. The impact of characteristics and components of a modern airport on attract tourists

Related question	Participants' responses	Frequency	Percent
In your opinion, what are the impacts of the important characteristics and component of a modern airport on attracting tourists based on international standards?	Increasing safe flights equals attracting tourists	17	28.33
	Airport is the first location and position registered in the minds of tourists	14	23.33
important characteristics and component of a modern airport on attracting tourists based on international standards?	It is an indication of a country's culture thus effective in attracting tourists	9	15
	Appropriate public space effective in attracting tourists	7	11.6
	Beautiful, green spaces and foyer effective in attracting tourists	4	6.6
	The moral status of staff	9	15
Total		60	100

Table 3. Compliance of Imam Khomeini Airport with characteristics and components of modern airports

Related question	Participants' responses	Frequency	Percent
In your opinion, to what extent does Imam Khomeini International Airport have characteristics and components of a modern airport based on international standards?	Imam Khomeini International Airport has very few characteristics and components of a modern airport based on international standards.	60	100
Total		60	100

Table 4. The difference between Imam Khomeini International Airport and Dubai based on the characteristics and components of a modern airport

Related question	Participants' responses	Frequency	Percent
In your opinion, what are the differences between Imam Khomeini International Airport and Dubai Airport (based on the characteristics and components of a modern airport based on international standards)?	Traffic in entry and exit time at Dubai Airport	6	10
	Passenger comfort in the lounge at Dubai Airport	2	3.3
	Information and notification facilities at Dubai Airport	12	20
	Passenger and cargo transit and reception facilities at Dubai Airport	12	20
	Perfect space for landing at Dubai Airport	1	1.66
	Perfect space for passengers at Dubai Airport	12	20
	Navigation devices at Dubai Airport	1	1.66
	Better access to municipal services at Dubai Airport	7	11.6
of a modern airport based on international standards)?	Smart Services at Dubai Airport	4	6.6
	Visual beauty at Dubai Airport	4	6.6
Total		60	100

Table 5. Possibility to becoming a modern, standards-based airport for Imam Khomeini International Airport

Related question	Participants' responses	Frequency	Percent
In your opinion, is it possible for Imam Khomeini International Airport to become a modern airport on international standards such as those of Dubai Airport? If it is possible what are its characteristics?	Efficient management	23	38.33
	Careful planning	12	20
	Increased funding	9	15
	Taking advantage of the space around the airport	6	10
	Standard runway	6	10
	Creating Free Zones	4	6.6
Total		60	100

Table 6. Opportunities of Imam Khomeini International Airport to Dubai Airport

Related question	Participants' responses	Frequency	Percent
In your opinion, what opportunities does Imam Khomeini airport have to Dubai Airport?	Shorter route between East and West	29	48.33
	Open space around the airport, an ideal place for emergency landing	31	51.66
Total		60	100

Table 7. Strengths of Imam Khomeini International Airport to Dubai Airport

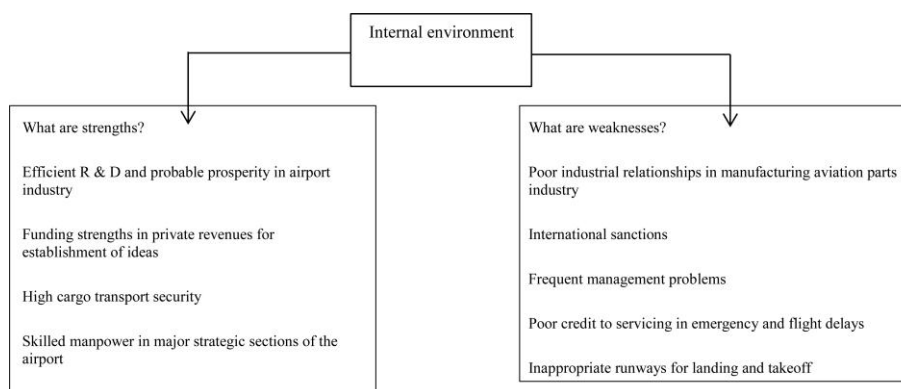
Related question	Participants' responses	Frequency	Percent
In your opinion, what are the strengths of Imam Khomeini airport to Dubai Airport?	Short flight route higher latitude	7	11.66
	The area around the airport		
	No benefit	53	88.34
Total		60	100

Table 8. Weaknesses of Imam Khomeini International Airport to Dubai Airport

Related question	Participants' response	Frequency	Percent
In your opinion, what are the weaknesses of Imam Khomeini airport to Dubai Airport?	Weak management	14	18.33
	Lack of planning	4	6.66
	Distance from the city	12	20
	Lack of direct flights to some regions including America, Africa, Oceania, and ...	2	3.33
	Too much delays	3	5
	Public transportation	7	11.6
	Passengers reception facilities	4	6.66
	Navigation devices restrictions	4	6.66
	Distance from health emergency centers	4	6.66
	Lack of perfect welfare services	6	10
	Total		60

Table 9. Threats of Imam Khomeini International Airport to Dubai Airport

Related questions	Participants' response	Frequency	Percent
In your opinion, what are the threats of Imam Khomeini International Airport to Dubai Airport?	Attracting transit flights	12	20
	far from the city center and risks to life and security of passengers	15	25
	blind spots in the aircraft parking and traffic area	4	6.66
	Heavy air traffic within the airport	3	5
	Low levels of aid and equipment performance	12	20
	Poor transport services	9	15
	far from hospitals and medical centers	5	8.33
Total		60	100



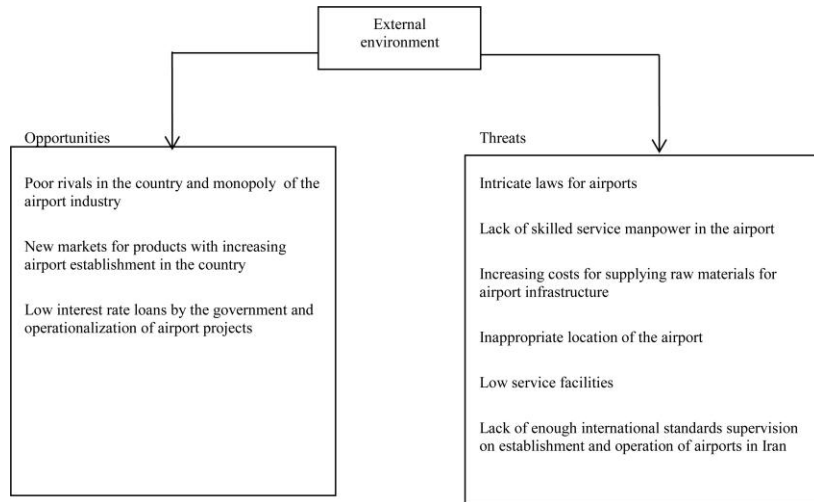


Figure 1. Analysis of the strengths, weaknesses, opportunities and threats in airport infrastructure

SWOT analysis

Table 10. Internal factors prioritizing matrix

		Effect on performance or competitive ability		
Importance		High	Medium	Low
High		Management problems	Inadequate research on infrastructure	Research and development
Medium		International sanctions	Industrial weakness	Cargo security
Low		Skilled manpower	Poor services	Private funds

Table 11. External factors prioritization matrix

		Possible effect		
Probability		High	Medium	Low
High		Cumbersome rules	Lack of adequate supervision	Weak competitors in the country
Medium		Inappropriate location	Lack of service manpower	Low-interest loans
Low		Growing costs	Lack of service facilities	New markets for products

Table 12. SWOT Matrix

SWOT	Strengths S	Weak points W
	Suitable potential and land for construction and development of airport infrastructure	Lack of attention to scientific issues in the development of airport infrastructure in the country
Opportunities O	SO Strategies	WO Strategies
Need to develop airports of the country	Airports per capita of provinces should develop	By increasing the number and capacity of airports, the need to develop the country airports can be eliminated
Enough space and facilities for development of airports	Airports should expand out of town with precision in urban development plans	Constructing and extending the landings out of cities and carefulness in urban development plans to solve the problem with space and facilities for development of airports
Increasing the active population	To meet the increasing needs of the population, airport infrastructure must develop	With the development of airport infrastructure the country's need to increase active population is met
need to speed up transport	To be up-to-date and in line with the world, the speed of transportation in the country should increase and the number of planes of the country should be considered.	With the development of infrastructure and a transport and increase in the number of airline fleets, the need to increase the speed of transport in the country is met

Table 13. Quantity and quality infrastructure of airports

s	-	Suitable potential land for construction and development of airport infrastructures
w	-	lack of attention to science in the development of airport infrastructure in the country
	-	Poor industrial relations in the manufacture of aircraft parts
	-	International sanctions
	-	Frequent management problems
	-	Poor credit for customers servicing when necessary and in flight delays
	-	Inappropriate runways for landing and takeoff
o	-	Weak competitors in the country and exclusivity of the airport industry
	-	New markets for products with the increasing development of airports in the country
	-	Loans with very low interest by the government for the construction and operation of airport projects
t	-	Sanctions
	-	Lack of suitable studies
	-	Lack of government attention
	-	Lack of productive investment

Discussion and conclusion

According to the results of the present research, the important characteristics and components of modern airports based on world standards are as follows:

- Welfare facilities - suitable medical services for receiving passengers
- Various specialized sections
- Convenient navigation system
- Correct management
- Modern waiting room and adequate facilities for the long waiting hours
- Convenient access to all parts of the airport for passengers
- Minimizing flight delays
- Airport environment design based on Iranian culture
- Passenger reception in accordance with international standards
- Easy access to the city
- Detailed information systems for inbound and outbound flights passengers

The finding is in part in line with the finding of the research by Seyyed Abadi (2015).

According to the results of the present study, the important characteristics and components of modern airports based on international standards and effective in attracting tourists are as follows:

- Increasing safe flights equals attracting tourists

- Airport is the first location and position registered in the minds of tourists - It is an indication of a country's culture thus effective in attracting tourists
- Appropriate public space effective in attracting tourists
- Beautiful, green spaces and foyer effective in attracting tourists - Moral status of staff

Increasing safe flights equals attracting tourists, airport is the first location and position registered in the minds of tourists, it is an indication of a country's culture thus effective in attracting tourists, appropriate public space effective in attracting tourists, beautiful, green spaces and foyer effective in attracting tourists, and the moral status of staff.

Based on research findings, Imam Khomeini International Airport has very few characteristics and components of a modern and world-class airport. Based on the findings of the present study, there are the following differences between Imam Khomeini International Airport and Dubai Airport (based on the characteristics of a modern airport and international standards):

- Traffic in entry and exit time at Dubai Airport
- Passenger comfort in the lounge at Dubai Airport
- Information and notification facilities at Dubai Airport
- Passenger and cargo transit and reception facilities at Dubai Airport
- Perfect space for landing at Dubai Airport
- Perfect space for passengers at Dubai Airport
- Navigation devices at Dubai Airport
- Better access to municipal services at Dubai Airport
- Smart Services at Dubai Airport
- Visual beauty at Dubai Airport

The finding is in part consistent with the finding of Parandeh and Houshyar (2013).

Based on the findings of this study, it is possible for Imam Khomeini Airport to become a modern airport based on world standards such as Dubai Airport, which includes the following characteristics:

- Efficient management
- Careful planning
- Increased funding
- Taking advantage of the space around the airport

- Standard runway
- Creating Free Zones

The finding is consistent with the findings of Rahimzadeh and Biranvand (2015) and Saffarzadeh et al. (2010).

Based on the findings of the present study, the opportunities of Imam Khomeini airport to Dubai Airport are as follows:

- Shorter route between East and West
 - Open space around the airport, an ideal place for emergency landing
- The finding is to some extent, consistent with the findings of the research by Bogie et al. (2011).

Based on the findings of the present research, the strengths of Imam Khomeini Airport over Dubai Airport include:

- Short flight route
- higher latitude
- The area around the airport

Based on the findings of the present research, the weaknesses of Imam Khomeini Airport over Dubai Airport include:

- Weak management
- Lack of planning
- Distance from the city
- Lack of direct flights to some regions including America, Africa, Oceania, and ...
- Too much delays
- Public transportation
- Passengers reception facilities
- Navigation devices restrictions
- Distance from health emergency centers
- Lack of perfect welfare services

The finding is to some extent, consistent with the findings of the research by Mamaghani Nassab and Amiri (2012) and Tasnim (2014).

Today, the global air transport impact on the world is obvious, an entity that is referred to as a physical internet, a structure for the transfer of knowledge and capital, and one of the four elements of modern governance. The airports of Iran are developing rapidly; and simultaneously their infrastructure needs to be developed. The domestic and foreign passengers of the airports in Iran are increasing

and facilities of the airports must increase in order to provide favorable services to passengers.

2.4 trillion dollars is the global economic impact of aviation, while world aviation contribution to the world's gross world production is 3.4%. In addition, about 58.1 million jobs have been created from aviation around the world. Airports are the most valuable infrastructure of advanced societies. They are considered the locomotives of the economic development of each country, the factor of exclusion from closed societies, and magnets of investors.

For the past 112 years, with the realization of the dream of flying and taking off and landing of the first manmade aircraft on the Kitty Hawk hill, practically the air transport and airport were worded. Airport, which was first used in the military area, was used to serve the war and defense. A look at the development of industrial change shows that at first military airlift was separated from civilians. In the airport area, airports operated as public-private partnerships in the form of civil aviation organizations for many years, but subsequently in Europe, events emerged as a cradle of developments in the aerospace industry. At first, airport finance offices were created and airport revenues and expenses were recorded.

The separation of airports from national aviation agencies, the formation of airport companies, the creation of airport holdings, the formation of navigation companies, the transfer of airport and navigation companies to public corporations and the supply of their shares in stock exchanges, the establishment of low cost private airports, and airport alliances are examples of the structural and commercial developments of airports in the world. Today, governments, whether national, regional, or local, face a looming hiding challenge as an unprecedented change in power and technology, this has transformed the concepts and requirements of success in commercial tourism and the trade in foreign investment. Smart governments are ready to respond to these changes and achieve their economic and political goals to develop the concept of soft power and effectively utilize this for soft power. Specifically, nations need a strong and effective global brand.

The aviation industry is a tool for facilitating the country's soft power and approaching distances and connecting with people, cultures,

companies, ideas, innovations and opportunities, as well as the cause of the nation's becoming a brand. Today, the aeronautics industry is considered an important source of soft power in countries, although soft power at first sight has political function, but the reality is that the greatest effects of this concept are on investment, tourism, business, commerce, and even access to elite human resources. The exhaustion of infrastructure and equipment and the necessity of renovation and refinement, lack of financial resources and violations of economic structure, historical neglect in the consideration of human resource development, the lack of integrated management of operating agencies at airports, and the lack of attention to the need to separate military and civilian airports and the pressure on joining the most airports are among the problems in this regard. The imposition of noneconomic development and equipping projects and the lack of use of the global experience to rely on development costs are other problems. Sporadic aggression has increased the problems of airports by taking and withdrawing energy from the direction, focus and structural development, as well as the withdrawal proposals from incomes. The lack of quality and diversity of airport services and the rising cost of maintaining and improving the level of safety and lack of regional competitiveness are among the other issues. The Airports and Air Navigation Company of Iran currently has more than 700 billion USD credits from airline companies, which has not only been liquidated, but the untapped demand has increased the revenue of these companies.

References

- Coshall, John T. & Charlesworth, Richard. (2011). "A management-orientated approach to combination forecasting of tourism demand", *Tourism Management*, 32 PP: 759-769.
- Fourie, Johan & Santana-Gallego, María. (2011). "The impact of mega-sport events on tourist arrivals", *Tourism Management*, PP: 1- 7.
- Hariri, Najla (2011). *The principles and Methods of Qualitative Research*. Tehran: Islamic Azad University Press.
- Kazemi, Mahdi (2006). *Management of tourism*. SAMT press. First edition.
- Mamaghani nasab, Ashkan and Amiri, Ruhollah (2012). *Studying the effective factors in panning and management of attracting tourists (case study: Chabahar Port)*. The first national conference of developing Mokran and Iran's naval authority, Chabahar Naval Sciences University, the thirist region of the naval forces, Iran, Konarak.

- Memarzadeh, Khalilallah (2015). The cycle of communication between development of air transportation industry and development of tourism industry. Tin News Weblog.
- Nazarina, Asghar & Ghaderi, Esmail and Haghghi, Abdolreza (2010).. The role of Air transportation in the development of tourism industry with emphasis on Urumieyh international airport. *Human Geography Quarterly*. Second year, pp. 25-44
- Organization of management and planning affiliated to Ministry of Transportation. Revising the rules of planning the airport ground space. (2008).
- Parandeh, Yasaman & Hushyar, Arash (2013). A Glance at Air Transportation in the tourism development of Mashhad Megacity. The First National Conference on Tourism Management. *Nature Tourism and Geography*.
- Rahimzadeh, Masoumeh & Biranvand, Shahab (2015).. Strategic Development based on SWOT and QSPM (case study: The Mother Company of Iran's airports). International Conference on Management, Istanbul, Turkey.
- Rahman-seresht, Hossein (2001). The development of organization with strategic planning with emphasis on tourism organizations. Tehran: Sherkat Chap va Nashre Bazargani.
- Rezvani, Ali Asghar (2007). *Geography and Tourism Industry*. Payam Noor Press, first edition.
- Saffarazadeh, Mahmoud & Hasanpour, Shahab, & Mamdouhi, AmirReza (2010). Ranking airport on the basis of efficiency and services levels using AHP method. 4(10), 33-46.
- Seyedabadi, Fatemeh (2015). The role of Airport facilities in Catering to the demands of tourist (case Study: Imam Khomeini International Airport). MA thesis, Islamic Azad University, Mashhad Branch, Faculty of Literature and humanities.
- Shad, Roozbeh & Sabz Ali Jamaat, Saideh (2014). Evaluating and prioritizing flight impediments in airport development. Using TOPSIS technique in GIS; case study: Birjand Airport. *Transportation engineering*. 16, 59-82
- Tasnim, T. (2014). *Bangabandhu Sheikh Mujib International Airport*, Srinagar, Dhaka, Bangladesh. For the degree of Bachelor of Architecture, Department of Architecture, BRAC University
- Zahedi, Shamsosadat (2006). *The Principles of Tourism and Sustainable Ecotourism. (With emphasis on environment)*. Allameh Tabatabai University Press.