# Identification and Classification of Entrepreneurial Opportunities in Blinds' Tourism Industry in Khuzestan Province of Iran

A. Kharazi, H. Aghajani, B. Hesami Azizi

Abstract—Tourism entrepreneurship is a growing field that has the potential to create new opportunities for sustainable development. The purpose of this study is to identify and classify the entrepreneurial opportunities in the blind tourism industry in Khuzestan Province of Iran that can be created through the operation of blinds' tours. This study used a mixed methods approach. The qualitative data were collected through semi-structured interviews with 15 tourist guides and tourism activists, while the quantitative data were collected through a questionnaire survey of 40 blind people who had participated in blinds' tours. The findings of this study suggest that there are a number of entrepreneurial opportunities in the blind tourism industry in Khuzestan Province, including (1) developing and providing accessible tourism services, such as tours, accommodations, restaurants, and transportation, (2) creating and marketing blindfriendly tourism products and experiences (3) training and educating tourism professionals on how to provide accessible and inclusive tourism services. This study contributes to the theoretical understanding of tourism entrepreneurship by providing insights into the entrepreneurial opportunities in the blind tourism industry. The findings of this study can be used to develop policies and programs that support the development of the blind tourism industry. The qualitative data were analyzed using content analysis. The quantitative data were analyzed using descriptive statistics and inferential statistics. This study examines the entrepreneurial opportunities within the blind tourism industry in Khuzestan Province, Iran. In addition, Khuzestan province has made relatively good development in the field of blinds' tourism. Blind tourists have become loyal customers of blinds' tours, which has increased their self-confidence and social participation. Tourist guides and centers of tourism services are interested in participating in blinds' tours more than before, and even other parts outside the tourism field have encouraged sponsorship. Education had a great impact on the quality of tourism services, especially for the blind. It has played a significant role in improving the quality of tourism services for the blind. However, the quality and quantity of infrastructure should be increased in different sectors of tourism services to foster future growth. These opportunities can be used to create new businesses and jobs and to promote sustainable development in the region.

*Keywords*—Entrepreneurship, tourism, blind, sustainable development, Khuzestan.

#### I.INTRODUCTION

TOURISM as a social and cultural phenomenon has a great impact of economy. Tourism is related to move and travel people to other places outside their usual place for some purposes such as business, leisure, etc. In other words, Tourism is a subset of travel and visitors are a subset of travelers. These distinctions are crucial for the compilation of data on flows of travelers and visitors and for the credibility of tourism statistics [49]. Tourism industry is necessarily considered as a separate branch of the economy, because it plays an important role in various fields such as social, economic, political and cultural and provides various services to tourists [10].

Tourism Entrepreneurship is an opportunity to use innovation in order to create new goods and services and start small business in tourism [30]. In fact, entrepreneurial opportunities try to keep potential for new economic values [34]. The business opportunity identifies the value of innovation for the customer and helps in the accurate identification of the customers. The concept of business refers to the way of providing value and earning profit as a part of value [14]. Entrepreneurship tries to recognize and pursue opportunities [46]. In other words, opportunity plays a key role in entrepreneurship. Without opportunity, there is no entrepreneurship [42]. Opportunity development also involves entrepreneurs' creative work. Therefore, opportunity development precedes opportunity recognition [1]. According to Darcy et al., Accessible tourism is a type of tourism which provides and designs tourism services for the blind, deaf and physical disables as well as obese, families with young children, the elderly and so on by preserving their dignity [11]. People with disabilities are a large part of the tourism industry market, which most tourism service companies do not pay attention to them [9]. Tourism and disability research inform that travelers with disabilities are most oppressed customers [12]-[38] while they are most loyal to destination [15]. Traveling for people with disabilities is a chance to participate in decision making process [6] and to explore sense of independence [13].

Blind Tourism might be defined as a type of tourism in which Visual Impairment People (VIP) or completely blind people tourism services adopted to other senses specially audition and touch, during travel [44].

According to the website of State Welfare Organization of Iran (SWOI), there are 223.290 people with visual impairment registered in the welfare organization (Behzisti) in Iran [26] in which 14.298 blinds and/or semi-blinds people with visual impairments live in Khuzestan Province [27].

Khuzestan province as one of the most ancient areas in the

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world is located in southwest of Iran (64,057 square kilometers) in which has a high potential in attracting tourists due to the existence of nature, historical monuments, and diverse customs, dialects, and cultures. Tchoghazanbil, Shushtar historical Hydraulic System, and Ancient City of Susa are the most famous historical sites in Khuzestan which are the main reasons to attract international tourists to visit Khuzestan as a part of their Iran's itinerary. In addition, Shadegan International Wetland is the most famous nature site of Khuzestan in the world [25].

Tourism services to the blind community are not comprehensive in country of Iran and the provision of urban services and facilities and safe access for the blind have not been properly considered [37]. Few museums, historical sites, accommodations, and restaurants have very few services for the blind. For example, only national museum of Iran has some services for the blind and other parts of accessible tourism in Tehran [24]. In recent years, Khuzestan province has made relatively good progress and development in the field of Blinds' tourism as a subcategory of accessible tourism.

Tourism programs for the blind, Blinds' Tourism, was started in Khuzestan Province of Iran since 2016 under care of Khuzestan Touristguides Association (KHTGA). In other words, before 2016, there were no any suitable services about blinds' tourism and even the tourism activists of Khuzestan Province had very little information about "accessible tourism", "blind tourism" and business opportunities in this field. Ali Kharazi was the first touristguide in Khuzestan who talked about blinds' tourism and presented a new idea to KHTGA to operate tour for the blind visitors in the form of teamwork with special facilities and infrastructures based on blinds' abilities and needs. The team operated blinds' tours for 5 times (2016-2023) and a dark dining program. It can be said that the 4<sup>th</sup> blinds' tour in city of Shushtar was the most complete program in blinds' tourism in Iran. It was operated two days and one night in which all parts of tourism services were involved in the plan such as museum, historical sites, accommodation, food and beverage, handicrafts, customs and culture, digital and technology, transportation, boating, shopping, and souvenirs [51].

This study attempts to identify and classify the entrepreneurial opportunities in the blind tourism industry in Khuzestan Province, Iran. The opportunities include:

- Developing and providing accessible tourism services, such as tours, accommodations, food and beverages, museum and historical sites, handicrafts, transportations, and digital and technology
- Creating and marketing blind-friendly tourism products and experiences
- Training and educating tourism professionals on how to provide accessible and inclusive tourism services

The article reviews relevant literature and some opportunity development models, at first. Then, the methodology is described in next section. The results will be discussed and finally discussions, future research, and conclusions will be presented.

## II.REVIEW OF LITERATURE

Darcy et al. expressed their views on development and progress of tourism and disability and also provided the definition of accessible tourism [11]. Boes analyzed tourists' experiences who were blind by theoretical and basic method, virtual documents, and interviews. It was cleared that available information implementation of skills to improve employees' knowledge and attitude, as well as facilitating orientation and guidance have an impact on the quality of the experience of visiting the cultural heritage of visually impaired people. Knowing about disable's customs and manners is the first step in creating positive experience for this group [7].

Humaljoki examined tourism tours for the blind and visually impaired using qualitative methods and face to face interview. According to the results, accessibility covered the use of infrastructure in a known environment in addition to ease of navigation in the environment. Safety includes the sense of pedestrians' safety with visual impairment or the lack of sense of safety. Senses cover the experience of blind tourists in addition to the role of color contrasts in navigation for visually impaired tourists, the installation of audio information, the creation of tangible maps, the availability of information in the museum in Braille, and the use of maquette [29].

Asakawa et al. believed that the ability of the blind to visit museums is still dependent on family, friends and museum staff. They installed their system in the Andy Warhol Museum in order to create interaction between navigation and artwork. Accurate localization and contextual awareness are the most important aspects of the system. It was found that all the participants are able to follow the intended route and understand the placement of the artworks and blind people had high satisfaction and got more motivation to visit the museum [2]. Tomej believed that inclusive tours were very suitable for people who could not travel alone or with conventional travel services (because of sensory or budget constraints). It means that inclusive tours can be a factor for participation in social tourism sectors [48]. Hua studied disabled tourism in the city of Kuala Lumpur. The results indicated that most of the participants like to use accessible infrastructures and as well as maps and information sheets. Also, education plays an important role in the stability of this form of tourism [28].

Kim et al. suggested that global positioning systems, accelerometers and geographic information systems provided the possibility of collecting objective, quantitative and valid information on the travel and orientation behaviors of blind people. The blind people will participate in trips more actively and with more confidence [33]. Boyurgan studied the cooperation of museums and the expectations of blind students visiting museums in Turkey and showed that visiting the museum is very useful for the blind students, but educational activities are still not enough and suitable for them [8]. Fernandez and Ubach discussed the obstacles of blind people participating in tourism programs and identified the lack of knowledge about the blind tourism market and their ability to participate in tourism activities [19].

Dos Santos and Carvalho examined the conditions and facilities of accessible tourism to the blind at the hotels of Natal

and concluded that most of the hotels were in poor conditions in terms of services for the blind. Therefore, technical and organizational measures creating suitable conditions for visually impaired and blind people are essentials at the hotels [16]. Poria et al. believed that designing the physical environment of hotels was a challenge for disabled people in which the individual's experience was also different based on the type of disability [38].

Fryer concluded that the lack of sufficient knowledge in accessible tourism as an obstacle for the blind. They had great desire to access information before visiting an event, such as audio description services at live events. In other words, the reliable information is the goal of group users [21]. Bekiaris et al. examined the conditions of disabled and immobilized people such as the blind in public vehicles, long-distance transportation vehicles, and the tourist transportation. They concluded that the role of the transportation industry in the development of tourism is very important. Disability is an effective factor in the lives of people in many areas, and education is one of the important principles of the transportation network in the field of disabled people [4].

Saerberg described the increase in communication between sighted and blind people at the restaurants, as well as their skills and needs to participate in social activities which helped the blind to increase self-confidence. He introduced the dark dining where blind people can work as human forces for food services. As a result, it leads to a positive outcome for blind and visually impaired people [39]. Khan et al. introduced a mobile phone application to help tourists with night blindness which was very useful and beneficial for tourists with night blindness [32]. Ashraf et al. believed that technology was an easy, suitable, and cheap solution for people with vision problems which helped them in different parts of their social activities. Also assistive technology could affect self-esteem, self-confidence. People with visual impairment did not have much desire to buy new devices because they could work more easily with their old devices [3].

Bilyk believed that nutritionists and activists in the field of the blind should work together to reduce the barriers to restaurants, etc. and it is necessary to increase the blinds' personal and social skills [5]. Farjie et al. focused on laying materials that was used by VIPs because of forming clay, more elastic, easier to used, fast-drying, and easily changed and suggested that aesthetic skills enable the development of emotional communication skills gained from the modality of the participants [18]. Tederixe et al. suggested that tactile book with visual tangible photos was a resource that helped the blind student to access art's concepts and allowed them to build knowledge about aspects and nuances of culture. [47]. Hosseini et al. reviewed the effect of the handmade art of two knitting needles on self-esteem of visually impaired students and concluded that handmade arts would enhance the sensory abilities of visually impaired students and also esthetic activities could increase perceptual experiences through artistic activities [23].

# III.A SUMMARY OF THE OPPORTUNITY IDENTIFICATION PROCESS

In order to explain the process of identifying entrepreneurial opportunities in blinds' tourism in Khuzestan province, several opportunity identification models and theories were examined which were presented by many researches such as Dubin [17], de Koning [14], Getzels [22], and Kirzner [34]. A summary of the models is presented in this section

An opportunity creates a chance to combine resources and deliver superior value. In fact, identifying opportunity as the first step of entrepreneurial process is one of the important capabilities and characteristics of an entrepreneur to creatively discover and develop an undefined need or underutilized resources [20]. It is assumed in entrepreneurship literature that opportunities are arisen by a single mind. In fact, in the longterm partnerships, the person who identifies opportunities is likely to be the same and process of developing opportunities is usually led by one person [14]. Consequently, according to Dubin's theory, development plays an eminent and vital role in recognizing and perceiving a need or resource and without identification, evaluation, and development of an opportunity, a successful business will not be created. [1]. Personality traits are very important factors in recognizing entrepreneurial opportunities. Optimism is one of the entrepreneurs' abilities that is related to self-efficiency and help entrepreneurs to focus on opportunities rather than threats [36]. Creativity as one of the personality traits helps entrepreneurs to see and discover opportunities that other are unable to find them [40]. It plays an important role in decision making [31]

De Koning proposed a socio-cognitive framework of opportunity recognition (Fig. 1). De Koning's social network describes a structure in which individuals play various roles in the opportunity development process. Partnership is the first circle of social network. In fact, partners have a very close relationship to start a new activity. People (e.g. family members) who have stable relationship with the entrepreneur, form the inner circle and do not have necessarily have a role in venture. The entrepreneur recruits a number of people to provide the necessary resources for the opportunity who make the action set. The external circle is the weak network ties where entrepreneur uses this circle to collect and gather information from a wide network of people [14].

People like to get information that is related to their previous knowledge [50]. Since the previous knowledge helps the entrepreneur to recognize the values, the opportunities will be discovered [41]. The entrepreneur's prior knowledge includes the areas of special interest and industry knowledge. The special interest is an area that is attractive for entrepreneur and he makes lot of effort to learn and increase his capabilities in this domain, however industry knowledge is formed during the years of working in a job based on logical choice and occasionally with advice of close people, such as friends and family. As a result, the entrepreneur tries to discover opportunities and find solutions to customers' problems [43].

The process of opportunity development may differ among types of "opportunities" adapted from the literature on creativity [22]. Fig. 2 shows the types of opportunities.

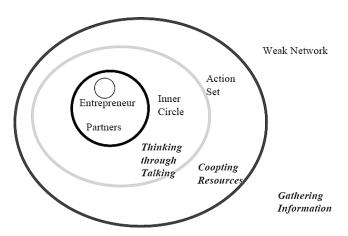


Fig. 1 The Structure of the Social Networks [14]

According to the Getzels, opportunities are differentiated based on value sought which may be identified (known) or Unidentified (unknown). Value creation capability may be defined or undefined [1].

When the value sought is unidentified and value creation capability is undefined, both of problems and solutions are unknown (upper left cell). Where the value sought is identified but capability is undefined, it means that problems are known but solutions are not and information seeking will occur (upper right cell). The lower left cell shows value sought is unidentified but capability is defined. In fact, problems are unknown but solutions are available which includes identified technology transfer challenges, when value sought is identified and capability is defined, both problems and solutions are known [1].

Theory's laws of interaction describe the relationships among concepts (units) [17]. Fig. 3 shows the units (concepts) of Dubin's theory.



		Unidentified	Identified	
VALUE CREATION CAPABILITY	Undefined	"Dreams" I	Problem solving II	
	Defined	Technology Transfer III	Business Formation IV	

Fig. 2 Types of Opportunities [1]

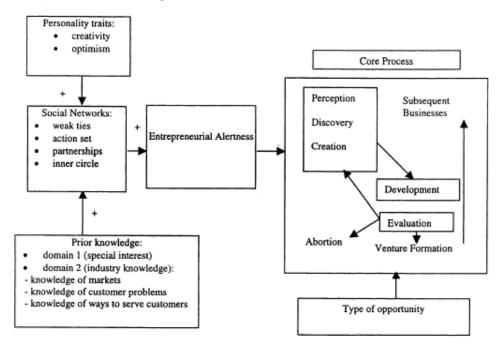


Fig. 3 The Model and Units for The Opportunity Identification and Development Based on Dubin's Theory [1]

Generally, the diagram shows that a successful business development process including recognition of an opportunity, evaluation, and development creates a successful business.

Personality traits, prior knowledge, and social network affect the entrepreneurial alertness. In other words, the three factors enhance the level of entrepreneurial alertness. When the level of entrepreneurial alertness of the entrepreneur is higher than the threshold level, the core process will be started. On the other hand, the type of opportunity is effective in shaping the core process. In core process of identifying opportunities, the entrepreneur evaluates the stages of development. The entrepreneur senses market needs and less used resources (perception), recognizes a fit between market needs and resources (discovery), and creates a new fit between them (creation) [1].

### IV.DEVELOPMENT AND IDENTIFICATION PROCESS IN BLIND TOURISM IN KHUZESTAN PROVINCE

The blind tourism was started since 2016 in Khuzestan province by Ali Kharazi as an International Touristguide (which is called Touristguide 1 in this section). Perhaps his cooperation with the blind for two years was the main reason for the formation of this idea and recognizing the needs of this field in the tourism market of Khuzestan province. In other words, personality traits, interaction with the environment, and particularly relevant prior knowledge influenced on creating the idea.

Touristguide 1 developed this opportunity through active interaction with a wide network of people and pursuing the cognitive activities. The network includes a group of financial and service sponsors (partnership), close friends who were actually touristguides (inner circle), people who are recruited by touristguide 1 based on usefulness and supply of resources such as touristguides, Blinds, potteries, handicraftsmen (and/or women), photographers, app designers and so on (set action), and a wide range of different people through whom information was collected in order to answer the general questions such as blind experts, IT experts, nutritional consultants, blinds, tourism experts, museum experts, psychologists, etc.(network weak ties).

In the process of development of tourism for the blind in Khuzestan province, the evaluation of different stages indicates that this area was among the underemployed resources that were not well identified (Perception). So, it could be utilized and also expanded (discovery) by redeploying resources away from the new configuration. A recognized or perceived resource or need cannot be a viable business without development. As a result, an effort was made here to re-direct and re-combine the resources in order to make them available in tourism services for the blind and in order to create a higher value (creation).

According to the Getzels' matrix [1], value sought is identified but value creation capability is undefined in blinds' tourism of Khuzestan. In fact, problems are known but solutions are not. Because the infrastructures of accessible tourism for the blind were not suitable in Khuzestan province (facilities and services), therefore, it was necessary to prepare the infrastructure in centers of tourism services such as hotel, restaurant, museum, historical site, etc. for any plan and program that was operated in the form of tour.

It is found that education plays an eminent role in the development and identification of entrepreneurial opportunities in blinds' tourism as well as infrastructures and activities of both groups. Thus, there is a special focus on education for stakeholders, particularly touristguides and blind people before operating blinds' tours by holding various educational meetings and workshops.

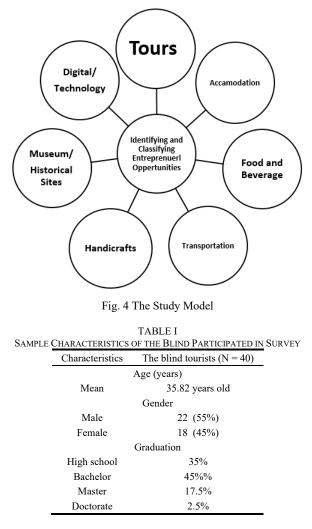
Generally, five criteria including education of stakeholders, education of the blind people, facilities and services (or Infrastructure), stakeholders' activity, and blinds' activities are reviewed and evaluated in seven main sectors of tourism (tour, accommodation, food and beverage, transportation, handicrafts, museum/historical site, digital and technology) in order to identify and classify the entrepreneurial opportunities in blinds' tourism in Khuzestan Province of Iran.

#### V.METHODOLOGY

The present study tries to identify and classify

entrepreneurial opportunities in Blinds' tourism industry in Khuzestan Province of Iran. Based on study model shown in Fig. 4, seven fields of tourism services are reviewed in order to identify and classify entrepreneurial opportunities in blinds' tourism.

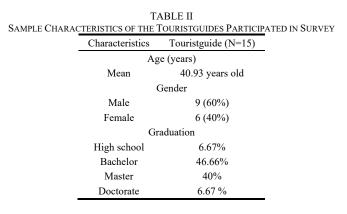
This study used a mixed methods approach. The qualitative data were collected through semi-structured interview with touristguides and tourism activists while the quantitative data were collected through a questionnaire survey of blind people who had participated in blinds' tours. 15 touristguides and tourism activists participated in interview who had experienced operating tours and providing tourism services for visitors who were blind.



The touristguides and tourism activists were interviewed by telephone or face-to-face based on criteria and variables of the research. It can be said that the semi-structured interview was chosen for more flexibility during the interview with the interviewees. Also 40 blind people who participated in blinds' tours in Khuzestan, answered the questionnaire. The questionnaire was prepared based on criteria and variables of the research. Because of the special conditions of the blind, the questionnaires were asked them face-to-face and in braille so that they could answer the questions with more accuracy. Tables I and II show the sample characteristics of the blind and tourism activists, respectively, participated in the survey.

Five criteria were selected in order to review entrepreneurial business opportunities in seven areas of tourism services including Tour, Accommodation, Food and Beverage, Transportation, Handicrafts, Museum and Historical Site, and Digital and Technology. The five criteria include education of stakeholders, education of blinds, facilities and services, stakeholders' activities, blinds' activities (Fig. 5).

The models of recognizing entrepreneurial opportunities such as de Koning, Getzels, and Dubin Models and Analytic Hierarchy Process (AHP) were used in order to identify and classify the entrepreneurial opportunities in Khuzestan province of Iran, respectively. Pair-wise comparisons were assessed between the criteria and alternative and the relative weights and the final weight were obtained.



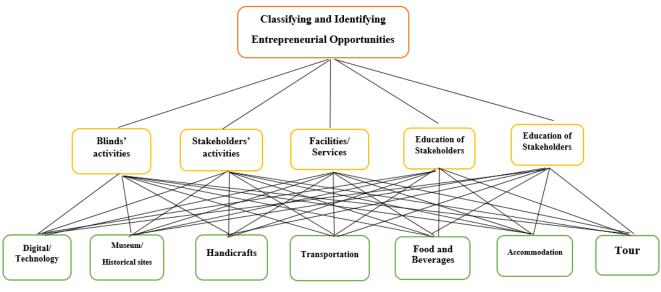


Fig. 5 Hierarchical Structure of the Criteria

#### VI.RESULTS AND DISCUSSION

In this study, 15 touristguides and tourism activists participated in interview who operated blinds' tourism. Also 40 blind people answered the questionnaire which experienced blinds' tours. The collected data were analyzed in order to identify and classify entrepreneurial opportunities in blind tourism in Khuzestan province.

### A. Identifying Entrepreneurial Opportunities in Blinds' Tourism

#### 1. Tour

Operating tour for visitors who are blind is the hub of blinds' tourism in Khuzestan Province. Touristguides and Travel and Tour Agencies are main parts of operating tour.

Operating tour is the main activity for every touristguide which is considered as one of the opportunities in blinds' tourism. In the meantime, there are some opportunities for the blind to participate in a tour such as preparing information brochures in braille which require education for their activities. Thus, it is possible to mention the special abilities of the blind to prepare some parts of the services during the tour as an opportunity. In addition, audio files are another opportunity during a tour which blinds are able to listen to them to get information. Therefore, preparing audio files is an opportunity in which various people such as blinds, touristguides, speakers, and App designers can participate in their preparation. In an even simpler way, because the blind people can easily work with smartphones, audio files can be transferred through smart phones and social media applications, such as WhatsApp, Telegram, etc. According to the analysis, the nature of the tour is in such a way that various tourism services such as transportation, hotels, restaurants, museums, historical sites, handicrafts, etc. participated with operating tour in order to give services to the tourists. In addition, the touristguides' knowledge and skills can be one of the most important facilities of the tour. Operating tour in the form of teamwork is one of the features of blinds' tourism in Khuzestan. A tour is operated by one touristguide, as usual, or a local guide cooperates with a tourleader. But in blinds' tours, 8 to 12 touristguides cooperate in operating the tour in Khuzestan in which one guide plays the Tourleader role and the other cooperate to guide the blind tourists and give them information. In other words, instead of one, more guides cooperate in operating the tour to earn money. It can be said that, there is a difference between tourleader and touristguide.

Nowadays, producing content (such as advertising clips, teasers, video clips) from tours and tourism attractions is one of the integral parts of tourism industry. Thus, it is necessary that the media teams (photographer, filmmakers, and editors) train to deal with the blind and know the conditions of blinds' tours. In fact, producing content is considered as an opportunity in blinds' tourism. A tour is operated under care of the travel and tour agency. Technical manager of the agency is responsible for preparing intermarry, booking hotels, tickets, and restaurants, and registering the tourists. Therefore, the blinds' tours are a suitable opportunity for travel and tour agencies because the blind tourists are among loyal customers and one of the reasons for participating in tours is to use tour services similar to other people in the community and more social communication to introduce themselves and find a job.

#### 2. Accommodation

Hotels, hostels, motels, and ecotourism residences are considered as the most important parts of accommodation in tourism. The analyzed data indicate that at the present time, only two hotels in Khuzestan province have special facilities and services for the blind such as key and room number in braille, hotel rules sheet, mini-bar and restaurant menu in braille, audio guide of the rooms, ramp, and ground locator, etc. In addition, the personnel of two hotels participated in a training course on how to treat the blind. However, there are many potential opportunities in this area that have not been activated.

Also, the blind are able to work with computer software, so if a blind person is trained to work with hotel software, he/she can find a job in the reception. Preparing facilities and services such as braille is an opportunity that both the blind and graphic and printing activists can pay attention. The use of special hotel apps is an opportunity for application designers to provide special software for the blind for any accommodation center.

#### 3. Food and Beverage

Food and beverage industry is one of the most important parts of tourism. Restaurants and coffee shops are the suitable places to give services of local and traditional foods and drinks to the tourists. The analysis indicates that the waiters have the most contact with the customers in the restaurants and/or coffee shops. In fact, the stakeholders are not able to take advantage of the potential opportunities.

Dark dining is one of the best entrepreneurial opportunities for the blind people who can work at a restaurant and/or coffee shop as a waiter if the infrastructure and facilities are provided for this opportunity and the blind people are given the necessary training. It can be said that incipient dark dining is implemented in city of Ahvaz 2023 (and probably in Iran) in which two blind people cooperated with a cafe-restaurant after educating how to deal with customers and provide services. The food ordering applications help the blind to order easily as well as menus in braille, which is good opportunity for technology activists and application designers. Accounting software is also a job opportunity for the blind. Blind people who worked as waiters in the dark dining were also interested in working as cashiers. It showed that they had recognized their ability to work well with software and applications.

#### 4. Transportation

Transportation is one of the main parts of the tourism industry that connects tourists, destinations and different tourism sectors [45]. It is clear that increasing the level of awareness of activists in this field is needed. In fact, increasing the quality, facilities and services of the transportation system creates good business opportunity. Transportation is one of the most important factors in tours which will increase tourists' satisfaction by making preparations (such as ramps, seat numbers in braille). As a result, operating tour for visitors who are blind will be more active by increasing services and facilities in transportation system as a business opportunity.

### 5. Handicrafts

Handicrafts field plays an important role in blinds' tourism. According to the analysis of research data, the blind participants in this research are exposed the positive feedback to handicrafts because of easier access to craft products in the market, more special features of craft products that can be inferred through touch, and the possibility of learning and teaching handicrafts arts for the blind. Also, the blind people bought handicraft products in the market as souvenirs more than other products in blinds' tours in Khuzestan. Therefore, handicrafts business and exhibitions are active opportunities in blinds' tourism. This is one of the best opportunities for the blind people to use their abilities in community and deliver their products in handicrafts market and exhibitions. Most of the maquetts and moulages that are touched by blind tourists in order to understand the objects of the museum and monuments, famous paintings, etc., are made by craftsmen and/or women in Khuzestan for blinds' tourism. As a result, it will be turned into one of the largest entrepreneurial opportunities for both the blind and handicraftsmen (women), if blinds' tourism in Khuzestan province is further developed.

#### 6. Museums and Historical Sites

In this study, it is determined that preparing and equipping museums and historical sites for the blind and subsets of accessible tourism are very suitable opportunities for the activists in different sectors. Designing maquetts and moulages of historical monuments and objects of museums provides a good opportunity for the participation of handicraftsmen/ women (for example, potters, and sculptor) and activists of technological sectors (3D printing, navigation systems of museum, etc.). Although braille prints are easily available today, it will create an opportunity for the blind to prepare information sheets of museum objects in braille and also have more social activities. A new opportunity will be created for the guides of museums by preparing museums for the blind. There are a number of blind people who have graduated from university with master and doctorate degrees in history, archeology, and psychology in Khuzestan province. Thus, it

will be a great opportunity for them to act as guides in accessible museums by designing and constructing a special museum for the blind.

#### 7. Digital and Technology

According to the analysis on research data, there is a very wide range of opportunities in the various sectors of blind tourism for digital and technology. In the other hand, digital and technology is a main factor to identify new opportunities in blinds tourism. Also, blind people easily work with electronical appliances such as tablets and smartphones. Operating tours for the blind became a factor in creating new opportunities for activists in Khuzestan. The designers of tourism applications found a new opportunity to create tourism applications for the blind. Also, the equipping museums and historical sites with navigation systems, sound projectors, and 3D renderings created new opportunities. Media groups found a good opportunity to make advertising clips and teaser from the performed tours. Based on analysis, there are new opportunities for the blinds. As it is said, the blind easily work with digital applications, and computer software. It will create new opportunities in different areas of tourism such as restaurants, hotels, etc.

# B. Classifying Entrepreneurial Opportunities in Blinds' Tourism

In this study, the Analytic Hierarchy Process (AHP) was used in order to classify the entrepreneurial opportunities in blinds' tourism in Khuzestan province, which was presented by Thomas Saati. Currently, AHP is one of the most famous methods in decision-making problems with multiple criteria [35]. The entrepreneurial opportunities in blinds' tourism were classified based on five mentioned criteria in seven sectors of tourism as the alternatives, after identifying entrepreneurial opportunities in blind tourism based on collected and analyzed data of Participants in this research. Table III shows the results of classifying entrepreneurial opportunities in blinds tourism in Khuzestan province.

TABLE III	
ING ENTREPRENEURIAL OPPORTUNITIES IN BLINDS	Τc

Stakeholders' Education Blinds' Education Facilities Services Stakeholders' Activities Blinds' Activities Final Weights   Tour 0.159 0.015 0.045 0.105 0.005 0.329   Digital & Technology 0.062 0.039 0.038 0.044 0.030 0.213   Handicrafts 0.067 0.030 0.027 0.055 0.009 0.188   Museums And Historical Sites 0.070 0.004 0.008 0.009 0.067   Accommodation 0.039 0.007 0.115 0.008 0.003 0.067   Food & Beverage 0.015 0.007 0.018 0.016 0.006 0.062   Transportation 0.012 0.002 0.003 0.017 0.012 0.046	CLASSIFYING ENTREPRENEURIAL OPPORTUNITIES IN BLINDS TOURISM							
Digital & Technology0.0620.0390.0380.0440.0300.213Handicrafts0.0670.0300.0270.0550.0090.188Museums And Historical Sites0.0700.0040.0080.0090.0040.095Accommodation0.0390.0020.150.0080.0030.067Food & Beverage0.0150.0070.0180.0160.0060.062		Stakeholders' Education	Blinds' Education	Facilities Services	Stakeholders' Activities	Blinds' Activities	Final Weights	
Handicrafts0.0670.0300.0270.0550.0090.188Museums And Historical Sites0.0700.0040.0080.0090.0040.095Accommodation0.0390.0020.150.0080.0030.067Food & Beverage0.0150.0070.0180.0160.0060.062	Tour	0.159	0.015	0.045	0.105	0.005	0.329	
Museums And Historical Sites 0.070 0.004 0.008 0.009 0.004 0.095   Accommodation 0.039 0.002 0.15 0.008 0.003 0.067   Food & Beverage 0.015 0.007 0.018 0.016 0.006 0.062	Digital & Technology	0.062	0.039	0.038	0.044	0.030	0.213	
Accommodation0.0390.0020.150.0080.0030.067Food & Beverage0.0150.0070.0180.0160.0060.062	Handicrafts	0.067	0.030	0.027	0.055	0.009	0.188	
Food & Beverage 0.015 0.007 0.018 0.016 0.006 0.062	Museums And Historical Sites	0.070	0.004	0.008	0.009	0.004	0.095	
	Accommodation	0.039	0.002	0.15	0.008	0.003	0.067	
Transportation 0.012 0.002 0.003 0.017 0.012 0.046	Food & Beverage	0.015	0.007	0.018	0.016	0.006	0.062	
Transportation 0.012 0.002 0.005 0.017 0.012 0.010	Transportation	0.012	0.002	0.003	0.017	0.012	0.046	

The results indicates that the education of touristguides is relatively appropriate in blinds' tourism. Because of their strong role in operating tour, the touristguides pass various training courses in the field of management, history, psychology, history, customer relations, and skills, etc. before starting their work and activities. However, the education of the blind is weak only the training of the blind people who have been invited to participate in the preparation of some tour facilities and services had better conditions. One of the reasons was that blinds' tourism in Khuzestan was started with operating tour. In fact, operating tours for the blind was the main factor in the activation of tourism centers to provide more services to the blind. Education for the personnel of accommodation centers is really weak and limited to normal activities of accommodation centers. There is no training at all for the accommodation of the blind, although there are the potential opportunities in this field. Facilities and services for the blind is too week. Unfortunately, there has been no training for the blind in the residential centers of Khuzestan province up to now. The basic training of the personnel of accommodation centers such as hotels about communication with the blind tourists and also the preparation of necessary infrastructure can help to attract blind people to stay and turn this potential opportunity into actual.

Although there are several educational institutions that provide educational services for the personnel of restaurants and/or coffee shops, the activities and stakeholders of this field have little desire to train their personnel. Although baristas and chefs pass more training courses and more likely to update their knowledge, these trainings are very weak among waiters. As a result, the quality of food and drinks in restaurants is exceedingly well, but there is a weakness in providing customer service in the hall by the waiter Also, most of the restaurants and coffee shops do not have the necessary infrastructure for the blind, even a menu in Braille. Meanwhile different people of the society, even the blind and other disabled groups, have great desire to go to restaurants and coffee shops in Khuzestan province and many customers are always seen in these centers. It is clear that it will be possible to attract blind people to restaurants by increasing the level of training and special services for the blind.

Based on analysis, the operators of transportation system need more training on services for blind tourists and travelers, with the exception of airlines whose personnel are educated in disabled groups such as the blind based on international standards and special rules and facilities at the airports and airlines. However, the general facilities and safety of the vehicles which are utilized in travel and tours are in good conditions. Although the drivers behave well with the blind, which is mostly due to a sense of philanthropy, there is no special training program on interacting with the blind. Special facilities and services for the blind are available only in the airline and airport department (such as braille on flight tickets, land route finder, transfer car for the blind). There is also no special education for the blind. The activities of handicrafts pass several courses and try to make their art and products available to people. Facilities and services of handicrafts are relatively in an acceptable condition. In recent years, the blinds participate in handicrafts workshops more than other fields of tourism and a number of the blind people work in this field in accordance with the principles of HSE.

Generally, museums and historical sites of Khuzestan do not have facilities and services for the blind. In recent years, because of operating blinds' tours, the relatively acceptable facilities and services such as maquetts and moulages, audio files, tangible panels, braille, have been prepared in one of the historical museums. In addition, the panels in braille have been installed in Chaghazanbil and water mills (UNESCO sites) and several historical houses in city Shushtar. The analysis indicated that guides of museums need more education about blinds' tourism and communication with the blind, although they have high knowledge in historical information and tourist management in the museum. The blind should be educated about how to behave in the museum, the value of museums and historical sites, and cooperation in the various activities of museums and historical sites.

Although activists of digital and technology have up-to-date knowledge, they need more education about characteristics and properties of different sectors of tourism services related to the blind and other parts of accessible tourism. In other words, education in different sectors of blinds' tourism will increase the quality of services provided by these activists. Blind people also need more educations about services of digital and technology, especially in the field of tourism.

The analysis indicates that the most of the tourism parts in Khuzestan province are able to use digital and technology with blinds' tourism approach because facilities and services of digital and technology are available in Khuzestan.

The most development and identification of opportunities in blinds' tourism is found in operated tours. The blind have great desire to participate in special tours for the blind. Inclusive tours are an opportunity for blind people's families to participate in the tours. Also, blind people show great interests in participating in sport tours and performing programs in environments such as basketball indoors and football stadiums. The research indicated that activities of tourism centers who have passed more training courses, have been more successful in identifying opportunities and developing tourism for the blind. In other hands, the blind people who had academic education, participated more in tours and expressed more willingness to work in various tourism sectors. Training courses were limited to selected tours and guides and, tourism centers, up to now. Thus, holding continuously training and retraining courses can help to develop more opportunities.

#### VII.LIMITATIONS OF THE RESEARCH

Blind tourism in Khuzestan province is a new and novel program. As a result, the data collection was limited to a small number of tourism activists such as touristguides, managers of hotels, restaurants, museums and historical sites as well as blind tourists who participated in blinds' tourism in Khuzestan. Although it was possible to prepare a digital questionnaire and send it to the blind people smartphone and it made data collection easier, the blind participants in this research preferred to answer the questionnaire in Braille and in the presence of the researchers.

### VIII.CONCLUSION

The aim of this study was to identify and classify entrepreneurial opportunities in blinds' tourism in Khuzestan province of Iran. The development program of blinds' tourism in Khuzestan was started since 2016 by operating tours for visitors who are blind which activated different sectors of tourism and consequently various opportunities were identified in blinds' tourism. In fact, tourism development became the main factor in identifying opportunities. Tours played a prominent role in the center of this process. Also, this process created an opportunity for blind people to participate in various tourism programs which increased their social activities and happiness. Education played a significant and eminent role. However, it is considered as the first step of the big process. At the present time, only centers of tourism who cooperate with blinds' tours have a relatively suitable conditions in cities of Shush and Shushtar. In terms of education, infrastructure and special tourism services for the blind are limited to such a few sectors. Therefore, infrastructure development and education are required not only for the blind but for all subgroups of accessible tourism. Generally, other provinces of Iran also need to develop special infrastructures for accessible tourism. The Welfare Organization (Behzisti) and ministry of heritage, Tourism and Handicrafts of Iran play a very significant role as the main custodians of special groups and tourism. Although accessible tourism committees have been established in provinces such as Yazd, Tehran, Isfahan, and Fars which are famous provinces in Iranian tourism, Khuzestan province has developed more in the implementation of special programs for the blind since 2016 compared with other provinces. This research can be considered as one of the first and most complete researches on tourism for the blind in identifying and developing opportunities which can be used as a model for other well-known tourism provinces of Iran. In this article, seven parts of tourism were reviewed in order to identify and classify the entrepreneurial opportunities in Khuzestan province. Each of these seven sectors is a big area in the field of tourism. It is recommended that it would be better to research and study each of the mentioned seven sectors for futures study separately and meticulously.

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