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Identification and Prioritization Factors Affecting the Domestic Tourist's Behavior (Case: Isfahan)

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Abstract: Relevant researches in connection with models and purchase behavior of tourists provide useful information for tourism planning and its promotion. To this end, this paper is aimed at identifying and prioritizing the factors that influence the purchase behavior of domestic tourists in Isfahan city. In terms of purpose, it is cognitive research and data analysis is descriptive -analytical and the data collection tool is survey. Data were collected by library and field studies. Data collection tools consisted of a researcher-made questionnaire and a survey of domestic tourists. The statistical population of this research is all domestic tourists who visited Isfahan city in 2013. Thus, the sample size was estimated by Cochran without N, 96, but to improve the validity of the instrument was increased to 200 cases. The findings show that most of items bought by tourists (37/5%) are food items and souvenirs. Most methods used in purchase, instantaneous choice and immediately of the market (39%) and the main purpose of purchase items are to buy souvenirs (33/5%). The highest score was allocated to the highest index (0.25) and the lowest score was allocated to the lowest index (0.03) of the total score of one. In the final ranking, the component of the variety of items available for purchase in priority and the high price of souvenirs on the volume of purchases, ranked 18th.

Keywords: Prioritization, Effective Factors, Purchase Behavior of Tourists, Souvenir, Isfahan
JEL Classification: C63, N35, H57, J42

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1- Introduction

With the rapid growth of the global tourism industry, shopping as one of the favorite activities of tourists has become an important economic factor in tourism and retail industries (Meng & Xu, 2012). Buying is one of the most engaging activities that engaged the minds of most tourists (Snepenger et al, 2003). This is usually a priority for most tourists to visit the sights or any particular activity of holidays. As the studies show, tourists are more likely to be taken to a shopping mall that has a good climate, the potential for affordable social interactions, relative security, a wide range of options and purchasing options. The importance of shopping in the experience of tourists has increased the attention of manufacturers to tourism products, marketers, retailers and researchers. Studies have shown that tourists spend about one-third of their total travel costs (Yu & Littrell, 2003). For this reason, in addition to the material, social and psychological benefits of the purchase of tourism, the creation of a convenient and at the same time attractive shopping center has become one of the most important concerns of the operators of tourism centers in order to obtain satisfaction and attract the customer's desire to visit and increase the rate of stop in that area (Lin, 2004). In the tourist destinations around the world, shopping is used as a source of tourism increasingly and the creation and promotion of shopping, as the main attraction of a region as well. Purchasing, as an integral part of the experience of many tourists, can be considered as one of the main reasons for traveling and is often considered as a key component of the combination of product or tourism resources at destination (Dimanche, 2003). Despite the importance of determining the destination of tourism, the role of purchasing as one of the tourism activities is dim and has long been considered less in the tourism literature and the study of tourism shopping (Heung & Cheng, 2000) and it is still quite limited in the stage of exploration (Yuksel, 2007). The behavior of tourist shopping, from the point of view of tourism planning, is often different from daily shopping (Oh et al., 2004). Therefore, it is essential to examine the characteristics of the behavior of the tourist's purchase; for example, the meanings, structures, expectations and patterns of the preferences of the behavior of the tourist's purchase (Yu & Littrell, 2003). One of these features is the general conditions of the store environment, which is regarded as an important structure that shapes the thinking, feelings and actions of the buyer (Turley & Milliman, 2000). This is due to the fact that the first customer perception will certainly be affected by the trans-boundary that is being exposed. It is said that the positive emotions that the shopping malls have triggered on many results, such as time spent in the store, cost more, increased random purchases, and unsatisfactory shopping, will be effective. Therefore, it is logical to expect that managing a large shopping environment in a tourism area can also affect the behavior of the buyer tourists (Yuksel, 2007).

The buyer tourists are likely to look for unique products and souvenirs, and they may be sensitive to the brand name of their products, their packaging size and the product itself, the characteristics of the product and the location of the store. The range of products that tourists buy is vast and does not include personal souvenirs and supplies. This list includes

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items such as clothing, jewelry, books, artistic products and artifacts, tax-exempt goods and electronic products (Turner & Reisinger, 2001). Purchased items may vary from culture to culture, and even between young and middle-aged travelers (Kim & Littrell, 2001). Nevertheless, it is expected that customers will seek benefits from a purchase, but the amount of this combination is different. In addition to the benefits of increasing the profits from the purchase of a particular product (for example, local carpets), the buyer may want to do something different, such as escaping from tourism or viewing a living culture, for example, carpet weaving (Babin et al., 2004). In this study, the buyer's impression of the purchase environment is based on how his feelings influence, the perceived value of the purchasing experience and the behavior of his inquiring tourists, and is organized in four sections. The first part introduces the main characteristics of shopping centers in the tourism centers (Isfahan). The next section focuses on the main structure that identifies the effective factors on the behavior of domestic tourists shopping in Isfahan. The methodology of research and analysis, using the TOPSIS technique, is also presented in the third section. Finally, the final analysis of the data has been done to answer this question. What is the ranking of the effective factors on the behavior of domestic tourists shopping in Isfahan based on the TOPSIS model?

2- Literature Review

a) Foreign Researches

Alegre & Cladera (2012) did a research entitled "The Impact of Tourism Characteristics on Participation and Cost of Purchase" aiming to analyze the relationship between travel and tourism motives by making purchasing decisions in the city of Maurica, Spain, using the Hackman model. They argued that the various tourist motivations and travel features are related to the decision to purchase and its cost. In addition, encouraging shopping behavior can be considered as a way to increase tourist spending at destination and provide direct benefits for the local economy.

Thrane & Farstad (2011) in a paper titled "Internal Tourism Costs: Nonlinear Impacts of Travel Duration and Travel Size", prepared by the Norwegian case study, questions may be asked about the nonlinear possibility of relationships between tourism expenditures per one year and length of stay and length of travel on the other. Experimental results show that there is a positive but decreasing relationship between the length of stay and the cost of tourism. In addition, this study believes that other key independent variables such as managerial and scientific concepts affect tourism costs.

Kemperman et al., (2009) did a research entitled "Shopping behavior of tourists in the historic center of Maastricht" in the south of the Netherlands, with the aim of describing and predicting the difference in shopping behavior in choosing a path for the buyers of tourists. They concluded that the availability of purchasing, physical and textual features and the historical history of the route have been important factors influencing the behavior of tourists. Therefore, it can be concluded that purchasing motives, familiarity with the region and route planning have been effective on the choice of the route of the tourist route.

Chang et al., (2006) did a research entitled "the effect of modifying the

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behavior of sellers on the incentive to purchase and the satisfaction of Taiwanese tourists in China" and indicated that the seller's behavior has had a positive moderating effect on the types of products, the quality of the products and the habits of purchasing tourists in China, and the negative moderating impact on shopping incentive and tourists' satisfaction of a reasonable price.

Hsieh & Chang (2006) did a research entitled "Shopping and Night Tourism Market in Taiwan" with a view to understanding the incentives to buy Chinese and Hong Kong tourists and their leisure time activities when they are shopping at the night market. They indicated that 88.5 percent of tourists tend to spend on eating out and spend 56 percent on their purchases. In addition, in Taiwan night shopping market, the problems of theft, the lack of parking, and high traffic problems are attracting tourists.

b) Iranian Researches

Tahmasbi and Roshaniyan (2017) in an article entitled "The Effect of Mixed Marketing Factors on Choosing Tourism Destinations in Baneh" argued that according to tourists, the price factor, the characteristics of Baneh products, providers' service and shopping centers, have a significant effect on the choice of this destination for shopping tourism, and the effect of promotion of Baneh stores as well as tourism and geographic features in the selection of Baneh city have not been significant statistically.

Razavizadeh & Forughzadeh (2016) in a research entitled "Analysis of Souvenir Shopping Behavior among Pilgrims of Mashhad" concluded that the behavior of the souvenir shop in the case study is influenced by age, place of residence (city), dominant action on the journey (being pilgrimage), the way of traveling (having or not having a companion), as well as the number of trips. The stated variables predicted 23% of the variance of souvenir shopping behavior.

3- Theoretical Background

Shopping is one of the most important activities for both domestic and foreign tourists (MacCannell, 2002) and, travel is not completed without spending time on the purchase. To date, the researches have been focused on purchasing tourists on various topics, including shopping as a destination (Moscardo, 2004), intercultural shopping behaviors (Rosenbaum Spears, 2005), the role of tourist buyers (Josiam et al., 2005), the use of tourists from the purchase space (Snepenger & Etal, 2003), the intention of souvenir buyers (Kim & Littrell, 1999) and tourism costs (Lehto et al., 2004). However, awareness of the true behavior of tourists is still very limited (Yuksel, 2007). Currently, the tourism industry is experiencing structural changes with respect to the new behaviors of tourists (Alegre & Cladera, 2006). Purchase behavior is known as a planned purchase and, or is intended as a purchase intention before entering the store. Engel et al., (1978) argued that when buying a product, many consumers are in the process of consumer decision-making, including the need for recognition, information searching and evaluation. Of other options of purchase and after-purchase is evaluation. Consumers decide to compare it with another purchase, with the costs and benefits of using the alternatives with the motive to maximize the benefits. Brown (1992) believed that it should be noted that when traveling and holidays people spend their leisure time in a place in the ordinary routine of daily living, shopping

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behavior are often different and greatly experiences an exciting atmosphere. Yu & Littrell (2003) acknowledged that when traveling or for tourist destinations, the tourist-shopping environment is unique and not only attractiveness (for example, the unique nature, planning and environment of the stores) is different from that of the regular purchasing plan. They are also excited and looking for opportunities to engage with local people when shopping. Tosun et al., (2007) believed that although shopping is a leisure activity, it also has an important role in creating an opportunity to become familiar with the host's culture. Shopping experience in tourism also relates to the aesthetic aspects in which tourists can explore the feelings and thinking of the host, and even if, in some cases, buying is not working, it is an important motive for travel. Moscardo (2004) indicated that when the tourist's motive is buying, shopping opportunities could often act as a tourist attraction and serve as one of the major motivations for travelers. Michon & Chebat (2004) argued that buying in shopping places could have a high degree of engagement. In addition, many shopping places are a kind of social and recreational meeting place that can attract international and domestic tourists as well as locals (Michon & Chebat, 2004). Swanson (2004) argued that tourists purchase often involves symbolic consumption, which has its own meanings, their memories and value tends to be worthy of remembrance. Swanson & Horridge (2006) stated that the motivation to travel influences tourists' perceptions of purchasing features such as: aesthetics, uniqueness, location, promotion, sales of colleagues, and so on. Purchasing can often be a useful time to create and maintain social relationships among colleagues, friends and family. Purchasing tourism creates family and friend' satisfaction during the trip and delivers full pleasure to the whole of tourism.

4- Research Method

In terms of purpose, this research is cognitive .Data analysis method is descriptive-analytic .Data were collected by survey method .The necessary data were collected through library studies and then by using a researcher-made questionnaire and a survey of tourists. Then, using statistical analysis and TOPSIS model, we tried to identify and prioritize the effective factors on the behavior of domestic tourists shopping in Isfahan. Based on this, for multi-criteria decisions methods, the priorities and indicators related to the topic were prioritized using fuzzy method. In the next step, the weight of the indexes was determined based on the power of ranking and paired comparison. Finally, the ranking and evaluation of the utility rate of the elements has been achieved. The variables of this research include accessibility dimensions, information, social, environmental quality, economic, physical, and related components, presented in Table 6. In addition, all the indicators and components presented in this study have been collected to evaluate the behavior of buying tourists from Latin resources presented in the background section. The statistical population of this research is all domestic tourists who visited Isfahan during the research period (September 2013). Therefore, the sample size with regard to the predicted number of tourists in order to purchase in Isfahan during the period of this study was selected by Cochran method without N, 96 samples. However,

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according to experts' opinions, and increasing the validity of the measurement tools, the number of samples was increased to 200 (equation 1).

$$N = \frac{t^2pq}{d^2+t^2pq} = \frac{(1.96)^2(0.05)(0.05)}{(0.05)+(1.96)^2(0.05)(0.05)} = 96 \quad (1)$$

Data collection tool was a researcher-made questionnaire. After the distribution of a preliminary sample, its validity and reliability were tested. In order to assess the validity of the questionnaire, 8 professors and experts in the field of tourism components analyzed the components. In order to determine the reliability of the questionnaire, a preliminary test was carried out by 20 tourists from Isfahan, which was calculated as acceptable. To determine the reliability of the questionnaire, Cronbach's alpha coefficient was used. The Cronbach's alpha value is between zero and one variable. The closer it is to one, the more trustworthy it is. Cronbach's alpha should be at least 0.70 to be sufficient for the reliability of the items. This research has 7 variables, which has been obtained for all variables (0.73) for Cronbach's alpha (Table 1). This value reflects the high reliability of the questions that measure the individual's satisfaction. This coefficient tells the researcher that it is safe to measure accurately the questions posed to measure individual satisfaction.

Table1. Cronbach's alpha for each of the variables for the reliability of the research tool

Variable	Index	Cronbach's alpha
availability	Variety of items available for purchase	0.73
	Available quantity of goods for purchase	
Information	Advertisement related to the goods or the shop	0.70
	Seller recommendation to buyer	
	Information about purchasing items and shopping centers on purchasing volume	
Social	Seller behavior	0.71
	Security of the market environment	
	The experience and satisfaction of the previous purchase of the same items on the current purchase	
Quality of the environment	The fragrances on the market (perfume, spices, etc.)	0.78
	Sounds of songs and voices available	
	The temperature of the shop or market environment	
	Goods specificity to Isfahan city	
Economic	The quality of the items	0.81
	The price of the souvenir commodity on the volume of the purchase	
	Market congestion on purchasing volume	
Physical	Cleanliness of the market or shop environment	0.86
	Arrangement and use of paint in the shop environment	
	Light used at the place of purchase	

Study area

The city of Isfahan, the center of Isfahan province, with a width of about 482 square kilometers is located in the geographical range 51 degrees 39 minutes and 40 seconds east longitude and 32 degrees, 38 minutes and 30 seconds north latitude(Statistical Yearbook of Isfahan City, 2011). This city is located in the course of encountering the northern and southern roads of Iran and it has a major strategic position and is located at an

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altitude of 1575 meters above sea level (Kurdavani, 2011). The city of Isfahan, is the first city in terms of tourism capabilities, is the second largest industrial city and the third largest city in the country. It is located in the central Iran in the desert and semi-arid region, 414 kilometers south of Tehran (Nadali et al., 2012). In addition, according to the general census of population and housing in 2011, the city of Isfahan has had a population of 1,796,967 people (Figure 1).

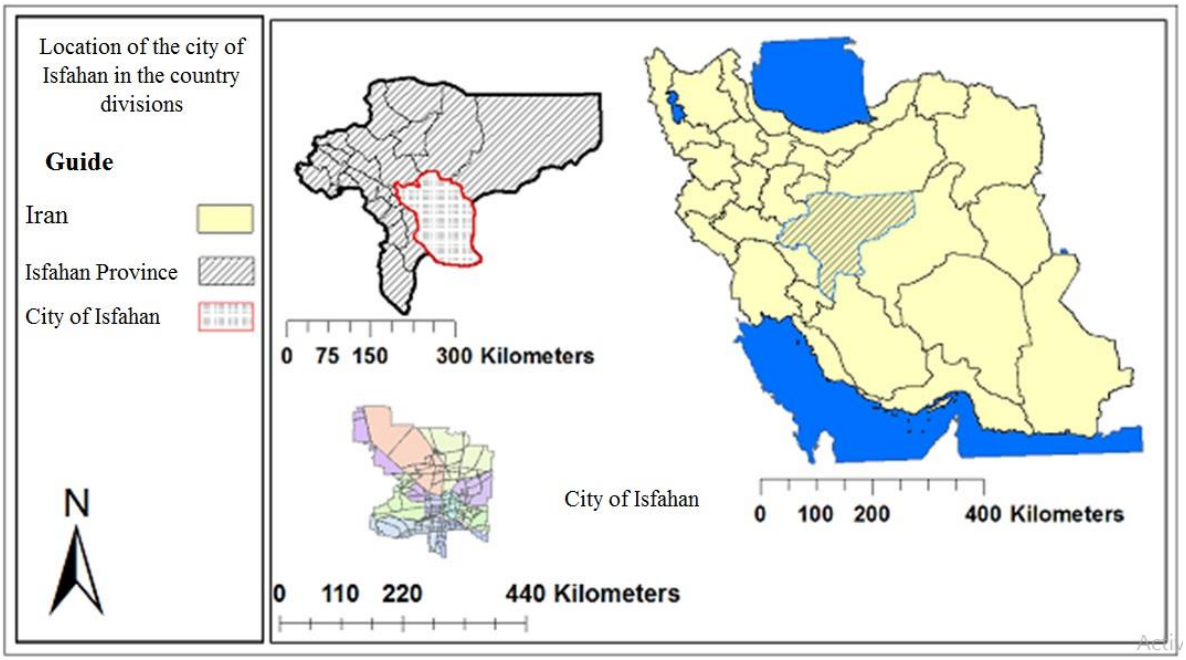


Fig1. Geographical location of Isfahan city

5- Results

Demographic Indices

According to the data, 61.5% of the subjects were male and 38.5% were female. 67% are married and 33% are single. 4.5% of their age is less than 20 years old, 22% are between 21 to 30 years old, 40% are between 31 to 40 years old, 22.5% are between 41 to 50 years old and 10.5% older than 50 years. In addition, 1.5% was illiterate, 14.5% had diploma, 37.5% had a graduate degree, 33.5% had a bachelor's degree, and 13% had a master degree and higher (Table 2, 3 and 4).

Table2. Frequency distribution of gender of respondents

Gender	Number	Percentage	Marital Status	Number	Percentage
Male	123	61.5	Single	66	33
Female	77	38.5	Married	134	67

Table3. Frequency distribution with respect to age status

Status	Less than 20 years	21 to 30	31 to 40	41 to 50	51 and more
	Percentage	Percentage	Percentage	Percentage	Percentage
	4.5	22	40	22.5	10.5

Table4. Frequency distribution with respect to educational status

Educational Status	Illiterate	Diploma	A.A.	Bachelor	Master and higher
	Percentage	Percentage	Percentage	Percentage	Percentage
	1.5	14.5	37.5	33.5	13

Evaluation of Descriptive Variables

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The data obtained from traveling to Isfahan shows that 44 percent of the trips to Isfahan were with family members, as well as 22.5 percent with friends, 3.5 percent, through student or student camps, 20.5 percent individually and 9.5% through other cases, this clearly shows that traveling to Isfahan was mostly with family members (Table 5).

Table5. The way of traveling tourists to Isfahan

way of traveling / Frequency	With family	With friends	Recreational scientific camps	Individual	Other	Total
Frequency	88	45	7	41	19	200
Frequency percentage	44	22.5	3.5	20.5	9.5	100
Cumulative frequency	44	65.5	70	90.5	100	-

Table 6 shows the reasons for traveling more than once to the city of Isfahan, so that 51% of the re-travel to Isfahan is for historical sites, and in the second row, the importance of being present at shopping centers is 29%, as well as 4 The percentage of returnees was for the purpose of recreational science camps and residence and time in nature, 8% of the recreational camps and 6% of the use of amusement parks.

Table6. Reasons to re-travel as a tourist to Isfahan

Reason to travel / Frequency	Visiting Historic Places	Stay and spend time in nature	Shopping centers	Recreational science camps	Festivals And concerts	amusement park	Total
Frequency	102	8	58	8	18	6	200
Frequency percentage	51	4	29	4	9	3	100
Cumulative frequency	51	55	84	88	97	100	-

The type of items purchased by domestic tourists traveling to Isfahan is shown in Table 7. As it is known, the highest items purchased are food items and souvenirs (37.5%). In addition, traditional and figurative items (31%), jewelry (21.5%), clothing (4.5%) and other items (5.5%) were the most important purchases by tourists in Isfahan.

Table7. Types of items purchased by domestic tourists traveling to Isfahan

Types of Items / Frequency	Handicrafts	Clothing	Food items and souvenirs	Jewelry	Other items	Total
Frequency	62	9	75	43	11	200
Frequency percentage	31	4.5	37.5	21.5	5.5	100
Cumulative frequency	31	35.5	73	94	100	-

Investigation of the methods used for purchasing items of domestic tourists in Isfahan shows that the most used purchasing method is instantaneous and instant selection in the market (39%), which indicates that there are diverse products in the markets of Isfahan for the purchase of tourists. Also, previous purchasing practices (27.5%), previous decisions based on needs (20%), relatives 'and friends' suggestions (8%), and advertisements (5.5%) are in the next ranking respectively (Table 8).

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Table8. Methods to be used for purchased items of domestic tourists in Isfahan

Purchase method / Frequency	Suggestion of relatives and friends	Previous buy experience	Instant selection	Previous decision making based on needs	Advertisements	Total
Frequency	16	55	78	40	11	200
Frequency percentage	8	27.5	39	20	5.5	100
Cumulative frequency	8	35.5	74.5	94.5	100	-

Finally, the study of the reasons for the purchased items shows that the most important reason for the purchase of items was the purchase of souvenirs (33.5%), after that, the most important reason was merely for memorizing (31.5%). Also, for other reasons, customer demand and personal consumption (26.5%), advertising (6.5%) and others (2%) (Table9).

Table9. The main reasons for the purchase of domestic tourists in Isfahan

The Reason For Choosing / Frequency	Personal Need And Consumption	Souvenirs	Merely for memorizing	Advertisements	Other items	Total
Frequency	53	67	63	13	4	200
Frequency Percentage	26.5	33.5	31.5	6.5	2	100
Cumulative Frequency	26.5	60	91.5	98	100	-

TOPSIS Analysis

This method is a practical and useful method for ranking and selecting a number of external options determined through distance measurement, helping to organize the decision-maker (s) of problems (DMs), and analyzing, comparing, and ranking alternatives. (Shih & Shyur, 2007). The basic principle of TOPSIS is that the selected option should have the shortest distance from the positive ideal solution and the farthest distance from the negative ideal solution (Jahanshahloo et al., 2009). One of the important advantages of this method is that simultaneous use can be made of objective and subjective criteria. However, in this model, for all mathematical calculations, all values assigned to the criteria are of a quantitative type and, if qualitatively attributed to the criteria, they should be converted to quantitative values. The methodology used in this model includes the following steps:

Step 1: Construct a multi-criteria decision matrix: Formation of the data matrix (equation 2) based on n alternative and m index, in which (x_{ij}) represents the raw alternative i-th grade in the j criterion. Then the decision matrix is as follows:

$$A = x_{ij} = \begin{bmatrix} x_{11} & x_{12} & \dots & x_{1n} \\ x_{21} & x_{22} & \dots & x_{2n} \\ . & . & \dots & . \\ x_{m1} & x_{m2} & \dots & x_{mn} \end{bmatrix} \quad (2)$$

In this research, 18 factors have been considered in determining the behavior of domestic tourists shopping in Isfahan (Table 10).

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Table10. Formation of Multi-criteria decision-making matrix-effective components on the behavior of domestic tourists shopping in Isfahan

Index		Very weak	Weak	Relatively weak	Medium	Fairly good	Good	Very good
1	Variety of items available for purchase	2	13	30	29	36	52	38
2	Market congestion on purchasing volume	31	44	47	28	20	20	10
3	The price of the souvenir on the volume of the purchase	21	47	53	32	23	19	5
4	The quality of the items	17	15	24	47	45	29	23
5	Available quantity of goods for purchase	10	14	10	41	43	44	38
6	Seller behavior	14	28	31	55	37	23	12
7	Information about purchasing items and shopping centers on purchasing volume	21	44	42	28	30	26	9
8	The fragrances on the market (perfume, spices, etc.)	7	18	25	38	54	41	17
9	Sounds of songs and voices available	11	35	33	45	44	24	8
10	Cleanliness of their surroundings or shop market	25	23	37	38	34	24	19
11	Arrangement and use of paint in the shop environment	12	28	48	31	34	34	13
12	Light used at the place of purchase	32	59	42	25	16	14	12
13	Advertisement for goods or shops	18	44	50	31	25	20	12
14	The temperature of the shop or market environment	13	22	18	33	39	56	19
15	seller recommendation to buyer	9	35	38	21	47	39	11
16	The experience and satisfaction of the previous purchase of the same items on the current purchase	7	23	34	24	40	51	21
17	Goods specificity to Isfahan city	2	11	22	44	45	53	23
18	Security of the market environment	6	21	22	30	61	46	14

Step 2: Calculate Normalized Decision Matrix: In order to create comparable criteria, the decision matrix A is required for normalization. As a result, the normalized decision matrix will be $R=(R_{ij})_{m\times n}$. To reduce TOPSIS computational complexity, the limitation method has been used as $R_{ij}(i=1,\ldots,m; j=1,\ldots,n)$. The normal value of R_{ij} is calculated as follows:

$$r_{ij} = x_{ij}\sqrt{\sum_{i-1}^{m} x_{ij}^2} \quad \text{i =1, 2, m and j = 1, 2, n} \quad (3)$$

As it can be seen, at this stage, all the indicators are normalized with different (Table 11).

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Table11. Calculation of Normalized Decision Matrix

Index		Very weak	Weak	Relatively weak	Medium	Relatively good	Good	Very good
1	Variety of items available for purchase	0.0281	0.0954	0.1984	0.1922	0.2171	0.3341	0.4682
2	Market congestion on purchasing volume	0.4358	0.3231	0.3108	0.1856	0.1206	0.1285	0.1232
3	The high price of souvenirs on the volume of the purchase	0.2952	0.3452	0.3505	0.2121	0.1387	0.1220	0.0616
4	The quality of the items	0.2390	0.1101	0.1587	0.3116	0.2714	0.1863	0.2834
5	Availability of goods for purchase	0.1406	0.1028	0.0661	0.2718	0.2593	0.2827	0.4682
6	Seller behavior	0.1968	0.2056	0.2050	0.3646	0.2231	0.1478	0.1478
7	Information about items and shopping centers on purchasing volume	0.2952	0.3231	0.2777	0.1856	0.1809	0.1670	0.1109
8	The fragrances on the market (perfume, spices, etc.)	0.0984	0.1322	0.1653	0.2519	0.3256	0.2634	0.2094
9	Sounds of songs and voices available	0.1546	0.2570	0.2182	0.2983	0.2653	0.1542	0.0985
10	Cleanliness of surroundings or shop market	0.3515	0.1689	0.2447	0.2519	0.2050	0.1542	0.2341
11	Arrangement and use of paint in the shop environment	0.1687	0.2056	0.3174	0.2055	0.2050	0.2184	0.1601
12	Light used at the place of purchase	0.4499	0.4333	0.2777	0.1657	0.0965	0.0899	0.1478
13	Advertisement	0.2530	0.3231	0.3302	0.2055	0.1507	0.1285	0.1478
14	The temperature of the shop or market environment	0.1827	0.1615	0.1190	0.2187	0.2352	0.3598	0.2341
15	seller recommendation to buyer	0.1265	0.2570	0.2513	0.1392	0.2834	0.2506	0.1355
16	The experience and satisfaction of the previous purchase of the same items on the current purchase	0.0984	0.1689	0.2248	0.1591	0.2412	0.3277	0.2587
17	Goods specificity to Isfahan city	0.0281	0.0807	0.1455	0.2917	0.2714	0.3405	0.2834
18	Security of the market environment	0.0483	0.1542	0.1455	0.1988	0.3679	0.2956	0.1725

Step Three: Calculate the Weight of the Normalized Decision Matrix: Determine the weight of each index wj based on $\sum_{j=1}^{n} w_j = 1$. In this regard, the indicators that are more important are of higher weight. Therefore, the following matrix is formed:

$v_{ij}=r_{ij}\times w_j$ i =1, 2, m and j = 1, 2, n (4)

In this study, the highest score is as high as 0.25 and the lowest is very low (0.03). The relatively high, moderate, very high, relatively low and low indicators have the second to seventh rankings. (Table12).

Table12. Calculation of normalized decision-making matrix

w_j							
Weight	**Very low**	**low**	**Relatively low**	**Medium**	**Relatively high**	**High**	**Very high**
	0.03	0.07	0.09	0.11	0.15	0.25	0.3

Step 4: Determine Ideal Positive A^* and Ideal Negative A^-: (A^+) is the best i-th value among all the options and (A^-) is the worst among all the options. The options that appear in and out, respectively, represent better and worse options. Its general formula is as follows:

$$A^* = \{(\max_i v_{ij} \mid j \in C_b), (\min_i v_{ij} \mid j \in C_c)\} = \{v_j^* \mid j = 1,2,..., m\} \quad (5)$$

$$A^- = \{(\min_i v_{ij} \mid j \in C_b), (\max_i v_{ij} \mid j \in C_c)\} = \{v_j^- \mid j = 1,2,..., m\} \quad (6)$$

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In table (13), the best option and the worst option of criteria is identified for determining the desirability of effective factors on the behavior of domestic tourists shopping in Isfahan.

Table13. Determination of Ideal Positive and Ideal Negative Solutions

max	**Very low**	**low**	**Relatively low**	**Medium**	**Relatively high**	**High**	**Very high**
	0. 0134	0. 0303	0. 0315	0. 0401	0. 0551	0. 0899	0. 1404
min	**Very low**	**low**	**Relatively low**	**Medium**	**Relatively high**	**High**	**Very high**
	0. 0008	0. 0056	0. 0059	0. 0153	0. 0144	0. 0224	0. 0184

Step 5: Calculate the separation measures: Using a separation size, the distance between the ideal point and each alternative is calculated; a separation can be calculated using the Euclidean distance metric. At this stage, for each option, the distance from the ideal solution (S_i^+) and the distance from the anti-ideal solution (S_i^-) are calculated from the following formulas, respectively:

$$S_i^* = \sqrt{\sum_{j=1}^{m}(v_{ij} - v_j^*)^2}, j = 1,2,..., m \quad (7)$$

$$S_i^- = \sqrt{\sum_{j=1}^{m}(v_{ij} - v_j^-)^2}, j = 1,2,..., m \quad (8)$$

In this step, the distance between each criterion and the positive ideal (S_i^+) was calculated. As shown in Table (14), the variety of items available for purchase (0.426) has the lowest distance from the positive ideal and the high price of souvenirs on the volume of the purchase (0.1412) has the greatest distance from the positive ideal. The distance from the anti-ideal (S_i^-) represents the distance from the minimum in the weighted matrix. Anti-ideal means what the ideal distance is for each criterion. At this stage, the criterion of the variety of items available for purchase (1.388) has the highest distance and the high price component of souvenirs on the volume of purchase (0.350) has the least distance to the anti-ideal.

Table14. Step Five: Calculate the Separation Size

Index	(S_i^+)	(S_i^-)	**Index**	(S_i^+)	(S_i^-)
Variety of items available for purchase	0.0426	0.1382	Cleanliness of surroundings or shop market	0.0936	0.0612
Market congestion on purchasing volume	0.1260	0.0373	Arrangement and use of paint in the shop environment	0.1050	0.0532
The high price of souvenirs on the volume of the purchase	0.1412	0.0350	Light used at the place of purchase	0.1263	0.0425
The quality of the items	0.0777	0.0785	Advertisement	0.1185	0.0422
Availability of goods for purchase	0.0449	0.1342	The temperature of the shop or market environment	0.0802	0.0884
Seller behavior	0.1140	0.0459	Seller recommendation	0.1086	0.0557
Information about items and shopping centers on purchasing volume	0.1229	0.0386	The experience and satisfaction of the previous purchase of the same items on the current purchase	0.0739	0.0880
The fragrances on the market (perfume, spices, etc.)	0.0873	0.726	Goods specificity to Isfahan city	0.0669	0.0968
Sounds, songs and voices available	0.1249	0.0410	Security of the market environment	0.0964	0.0743

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Step Six: Calculation of relative closeness to the ideal solution (RC_i^+)**:** The relative closeness stage is an ideal solution for determining the coefficient, which is equal to the minimum alternative (A_i^-), the fraction of the sum of the minimum alternate and the ideal alternative distance, shown by the following equation (Table 15):

$$RC_i^* = \frac{S_i^-}{S_i^* + S_i^-}, i = 1,2,..., m \quad (9)$$

RC_i^+ is between zero and one $(0 \le RC_i^+ \le 1)$. In this regard, $RC_i^+ = 1$ represents the highest score and $RC_i^+ = 0$ represents the lowest.

Table15. Calculation of relative closeness to the ideal point

Index	RC_i^+	Index	RC_i^+
Variety of items available for purchase	0.0742	Cleanliness of surroundings or shop market	0.3952
Market congestion on purchasing volume	0.2286	Arrangement and use of paint in the shop environment	0.3362
The high price of souvenirs on the volume of the purchase	0.1990	Light used at the place of purchase	0.2518
The quality of the items	0.5024	Advertisement	0.2626
Availability of goods for purchase	0.7493	The temperature of the shop or market environment	0.5240
Seller behavior	0.2872	Seller recommendation	0.3468
Information about items and shopping centers on purchasing volume	0.2390	The experience and satisfaction of the previous purchase of the same items on the current purchase	0.5435
The fragrances on the market (perfume, spices, etc.)	0.4540	Goods specificity to Isfahan city	0.5912
Sounds, songs and voices available	0.2472	Security of the market environment	0.4353

Step 7: Ranking Descending Order from (RC_i^+)**:** At this stage, it is determined that each range receives a score from the ideal point, which is between zero and one $(0 \le RC_i^+ \le 1)$. The results obtained from the evaluation of prioritization of the effective factors on the behavior of domestic tourists shopping in Isfahan and its effect on the volume of purchases indicate that the variety of items available for purchase is first in the rank and priority and the criteria for the existence of the desired goods for purchase is in the second row. In addition, congestion components of the market on purchasing volume and the high price of souvenirs on the volume of purchases in ranked 17 and 18 respectively, which are the least important criterion among other components (Table 16).

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Table16. Descending Order Ranking (RC_i^+)

Index	Rank	Index	Rank
Variety of items available for purchase	1	Seller recommendation	10
Availability of goods for purchase	2	Arrangement and use of paint in the shop environment	11
Goods specificity to Isfahan city	3	Seller behavior	12
The experience and satisfaction of the previous purchase of the same items on the current purchase	4	Advertisement	13
The temperature of the shop or market environment	5	Light used at the place of purchase	14
The quality of the items	6	Sounds of songs and voices available	15
The fragrances on the market (perfume, spices, etc.)	7	Information about items and shopping centers on purchasing volume	16
Security of the market environment	8	Market congestion on purchasing volume	17
Cleanliness of their surroundings or shop market	9	The high price of souvenirs on the volume of the purchase	18

6- Conclusion and Discussion

This study seeks to achieve an awareness of the behavior of domestic tourists shopping in Isfahan and its effective factors. Awareness of consumer behavior in marketing and selling products offered at tourism centers is one of the important planning and decision making issues. The awareness is extremely helpful in knowing what tourists, with what demographic characteristics and with what goals and motives, who wants to see what types of products they offer. Therefore, achieving a field-based model of the behavior of buying tourists to producers, in order to pay attention to tourism products, marketers, vendors and researchers, allows the planning and organization of the production in a desirable manner based on demand, production and marketing of a variety of specialty products for tourists to witness the development of shopping-based tourism. The findings from field studies show that 51% of the trip to Isfahan was to visit historic sites, 44% of the trip to Isfahan was with family members, the highest items purchased for food items and souvenirs (37.5%) and the most important reason for the purchase of items was purchase as souvenirs (33.5%). The final results from data analysis using TOPSIS model show that in calculating the weight of the normalized decision matrix, the highest score to the high index (0.25) of the total score, which is one, and the lowest score to the very low index (0.33). In calculating the distance from the ideal solution and the distance from the anti-ideal solution, it was found that the variety of items available for purchase (0.426) had the lowest distance from positive ideal and the high price of souvenirs on purchasing (0.1412) had the greatest distance from the ideal. In addition, the distance from the anti-ideal of the variety of items available for purchase (1.388) has the highest distance and the high price of souvenirs on the volume of purchase (0.350) has the least distance to the anti-ideal. The final ranking obtained from the evaluation of the prioritization of the effective factors on the behavior of domestic tourists shopping in Isfahan and its effect on the volume of purchases shows that the

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component of the variety of items available for purchase is ranked first and in the second row ranking is the criterion of the existence of the desired goods for purchase. Moreover, the crowding factors on the volume of purchases and the high price of souvenirs on the volume of purchases ranked 17 and 18respectively, which are the least important criteria among other components. A comparative analysis of the results with studies shows that tourism spending has been a priority in many studies so that in this study, tourists noticed the variety of purchasing items and the expected products. Xu et al., (2012) indicated that different motivations of tourism are related to purchasing decisions and costs. Thrane et al., (2012) argued that there was a positive but decreasing relationship between the length of stay and the cost of tourism. Chang et al., (2012) indicated that the seller behavior has had a negative moderating effect on purchasing motivation and satisfaction of tourists from the appropriate price. Therefore, we can reach the point that in discussing the behavior of tourists, more discussion of the cost of purchasing and related issues should be the priority of tourism planning.

Finally, it can be argued that the study related to the domestic tourists provides the basis for studying the behavior of foreign tourists purchasing. However, the reality in this regard is that the distance between the existing situation in attracting foreign tourists in Isfahan is very high compared to what is considered desirable. Several factors play a role in creating this gap. In this research, one of the most influential fields, the behavior of the purchase, was discussed. However, studies should be carried out on attracting tourists in the three indoor, near, and remote areas of the tourism industry, so that by identifying and removing the barriers, competitive and economic advantages to be addressed. In this regard, studies show that, given the potential and actual capabilities that are available in the tourism industry in Isfahan, to attract foreign tourists, there must be dozens, or one hundred times the figure, while available statistics, the annual figure shows about 50,000 foreign tourists visiting the historical and natural monuments of the province.

Considering the results of this study and comparing it with the results of previous studies, the following suggestions should be considered:

- Monitoring the price and reduce the price of products and goods that tourists are most likely to buy should be taken into consideration in tourism planning.
- More attention to the retail industry (traditional and valuable objects), which is directly related to the tourism industry and which attracts more tourists to the city of Isfahan.
- Encouraging managers of shopping centers to redefine the strategies needed to meet the needs of the tourism sector.
- Identifying and introducing new dimensions of tourism to attract the various tastes of tourists.
- Information about the goods and souvenirs offered to tourists in the markets of the city through brochures and local media.
- The establishment of a seasonal booth and exhibition of various commodities in Esfahan for tourists who are not inclined to enter the busy environments of the markets.

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