EVALUATION OF LOCAL TOURISM IN IRAN

Dependence on Price Index for Consumers and Gasoline Price

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Abstract

This study evaluates local tourism in Iran, focusing on domestic travel. The initial analysis explores the broader role of tourism in Iran's economy and society, alongside an introduction to the country's tourism infrastructures. The study then examines the correlation between local tourism patterns and consumer price and gasoline indices.

Surprisingly, the findings challenge the hypothesis, revealing a strong positive correlation (0.84) between the "number of local travels" and the "price index for consumers," as well as a correlation coefficient of 0.68 between "number of local travels" and "gasoline price." However, these correlations do not establish causation.

The research identifies additional factors influencing local travel, including lifestyle changes due to migration from villages to cities. Cultural ties and financial considerations also contribute, with a significant percentage (73.4%) choosing to stay with friends and family, reducing travel expenditures.

In conclusion, the study suggests a more nuanced understanding of local travel motivations. Future research should explore factors such as intra-country migration, stress indices, environmental pressures in metropolitan areas, marketing strategies, and tourist attraction advertising on local travel trends.

Keywords: *Local tourism, Consumer price index, Gasoline price, Tourism infrastructure, Domestic travel, Economic impact*

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Introduction

The purpose of this study is to evaluate local tourism in Iran. Local tourism is the tourism of people living in a country within the borders of that country. Local tourism is difficult to measure and evaluate due to the lack of boundaries in this type of tourism. In this study, first, an attempt has been made to determine the role of tourism in general by understanding the economy and society of Iran.

Understanding the Iranian economy

It has been more than 100 years since oil exploration in Iran, and the oil industry has been nationalized for more than 70 years in Iran. Iran's economy, even today, when trade with Iran is sanctioned by the United States, is still heavily dependent on oil and gas exports. Cheap energy prices in Iran play an essential role in industry and transportation business models. In this way, the change in fuel prices causes shocks in various sectors. A significant portion of government revenue also comes from oil exports. Thus, changes in global oil prices, as well as Iran's share in OPEC, play a significant role in budgeting and budget deficits in Iran.

One of the significant problems in the economy of Iran is the double-digit inflation that people and business owners have faced for years. Inflation is mainly caused by the government budget

deficit and borrowing from the central bank. The lack of the central bank independence from the governing system has made it impossible to implement strict monetary policy.

One of the critical issues in the economy of Iran is the exchange rate of the Rial with international currencies. Currently, the US dollar is valued in Iran at three different rates. The government pays importers one dollar per 42,000 Rials to supply essential goods and medicine, which is the official rate, and it is used in the country's budget calculations and World Bank data. But the dollar is traded higher in the Tehran free market. The government has tried to unify currency rates in different periods and has been somewhat successful between 2014 and 2018. The difference between the official price and the market price in any market causes disruption and rents, and the Iranian foreign exchange market, despite the force majeure of the government, is no exception.

## *Understanding the Society of Iran*

The society of Iran has been changing in various aspects since the 1970s, especially after the Islamic Revolution in 1979. A series of events and historical periods, including oil revenues overflow in the 1970s, the formation of anti-monarchy movements, the construction of the Islamic Republic and change of constitution, the eight-year war with Iraq, the suppression of partisan and religious minorities, the expansion of mass media and social media, liberation movements and the emigration of elites to other countries have caused the society of Iran to be constantly changing.

Most of Iran's population is now young due to incentive policies to increase population in the mid-1980s after the eight-year war with Iraq. In the absence of the necessary infrastructure and inefficiency of government management, this explosion has caused a crisis in education and higher education, followed by an unemployment crisis. At the same time, young people have migrated from villages to cities to enjoy more job opportunities (Figure 1). The destination of immigrants from villages has usually been in the suburbs, which has created other social problems. Also, the villages of Iran have gone through the legal process to become a city to enjoy more government budget by creating minimum requirements. For this reason, small towns have emerged in Iran, whose social and economic structure is still based on the village.

Illiteracy is almost gone in Iran. The results of the 2016 population census show that most of the population aged 15 to 39 have a diploma or university degree in Iran (Diagram 16.1 and 16.2). About half of Iran's population generally has a diploma or university degree.

Most Iranians, 99.98% of the population, are officially Muslim. Other religious minorities include Christians, Jews, and Zoroastrians. However, the results of a new survey indicate that only 37.2% of the population identifies themselves as Muslim.

Iran comprises a set of ethnic groups whose Persian language and shared history and geography have linked them. Each of these ethnicities has its language and dialect.
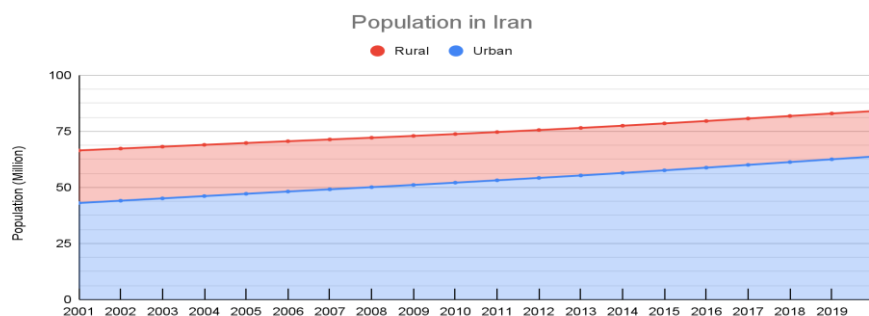
Figure 1: Urban and rural population in Iran 2001-2020 (Millions)
Source: The World Bank data, 2020 [1]

Tourism status in Iran

So far, Iran has registered 25 cultural sites and two natural sites in the UNESCO World Heritage and has 61 other sites on the list of candidates for future registration [2]. Iran has registered 16 cultural subjects in the UNESCO Intangible Heritage [3] and four cities in the UNESCO Creative Cities Collection [4]. This is just a part of Iran's tourism potential in different regions due to this country's rich history and culture.

Tourism infrastructures

The prosperity of the tourism economy requires investment in this industry's infrastructure. Without adequate infrastructure, a country's tourism potential will not become a destination. The development of tourism infrastructure in Iran had been unbalanced and incoherent. In recent years, attention to tourism as an employment and income-generating industry in Iran has increased. Especially while the country's oil industry is worn out and faces sanctions, policymakers have considered the possibility of developing tourism and creating wealth with this industry. In the following, tourism infrastructures in Iran are introduced.

A significant part of the added value of the tourism industry is absorbed in accommodation. As shown in Table 1, Iran has 1,272 hotels and 1,301 hostels. The Iranian Ministry of Tourism claims that about $ 1.5 billion has been invested in the accommodation sector, which was commissioned in 2019, and the number of accommodations has increased by 758 and the number of rooms by 5468 [5].

Table 1. Type and number of accommodations in Iran

Accommodation Type	Quantity
Hotel	1272
Hostel	1301
Boarding House	143
Traditional House	113
Hotel-Apartment	702
Motel	63
Eco-lodge	2063
Tourism Complex	389

Source: Statistical Yearbook of the Ministry of Cultural Heritage, Tourism and Handicrafts, 2019[5]

Iran has 316 airports, of which eight are international. However, due to US sanctions, Iran's airline industry is worn out and inefficient and has not been able to upgrade its airliner since the 1979 revolution.

The railway network of Iran connects the internal areas and some foreign borders and has a total length of 14078 km. Railways in Iran from the north to the south connect the Caspian Sea to the Persian Gulf and, from east to west, connect Turkmenistan and Pakistan to Turkey and Azerbaijan. Bus lines have also connected large, medium, and small cities. Bus lines have also connected large, medium, and small cities. Bus and subway lines are built in the big cities of Iran that people use for a daily commute and are less used by tourists. Taxi is very prosperous in Iran, and two large private companies and some small local companies have launched Internet taxi systems, making

transportation very easy and economical. Iran's road network is also pervasive. About 300,000 roads have been built in Iran, of which about 3,000 are freeways. More than 70% of the roads are paved and connect small villages.

Operations, executive work, and a significant part of innovation and creativity are done in tourism service offices. In 2019, more than 5,000 tourist offices have been registered in Iran. Tourism service offices that had invested in Iraq's market experienced significant growth and profitability. Currently, the most important operations of tourism service offices in Iran are marketing and encouraging customers to travel and hold tours. Statistics show that in 2019, more than 14,000 tour guides were registered in Iran, which, compared to the previous year, has increased by 3,000 people [6].

Local tourism traffic

Counting or estimating tourism traffic within a country is difficult due to the lack of a boundary. On the other hand, separating travel and public transportation from tourism requires precise definitions. The following will discuss the data set published by the National Statistics Center of Iran in this field. Then, studies of other Iranian researchers related to tourism traffic in Iran are briefly introduced.

The number and expenditures of local tourists in Iran are estimated by the Statistics Center of Iran (Figures 2 and 3). This is information about trips made in the spring of each year. Iranians often make most of their trips during the 15-day Nowruz holidays in early spring. By measuring statistical indicators in spring, significant information can be extracted. The general trend in these statistics shows that local tourism in Iran is growing.

Figure 2: The number of trips by local tourists in Iran 2008-2019
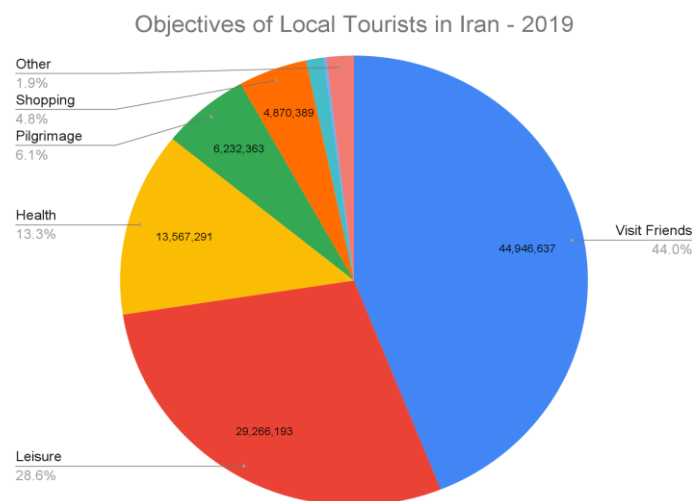*Source: National Statistics Organization of Iran, 2020 [6]*

Figure 3: Local tourists' expenditures in Iran in spring 2008-2019 (Billion US$)
Source: National Statistics Organization of Iran, 2020 [6]

Iran's "Tourist Census Plan" has entered the operational phase since 2008. This plan has been designed and implemented by a group of researchers in the National Statistics Center, Tourism Organization, and Iranian universities under the supervision of Mohammad Bagher Tajodin. In this plan, the data of Iranian families are also examined to obtain the number and cost of travel as an item in the household expenditure basket. The study period is in the spring of each year because Iranians make their most important trips during the 15-day Nowruz holidays in early spring. In this plan, data were obtained by sampling Iranian families, by face-to-face interviews with the head of the household, and by completing a questionnaire. For example, in 2019, 37,000 families from all over Iran were surveyed in this plan as a statistical sample.

In this plan, local tourism is defined as follows:" Local tourism (intra-regional tourism): tourism of people living in a country within the borders of that country." Also, a one-day visitor without an overnight stay is separated from a visitor who stays at least one night. Travel goals are categorized into eight items: leisure, visiting friends and relatives, pilgrimage, treatment, shopping, education, business and job missions, and other purposes.

According to statistics, 16.7 million families in Iran traveled in the spring of 2019 (at least one family member has traveled), and 8.6 million families did not. In this way, 102.3 million people traveled, of which 54.9 million did not stay overnight, and 47.3 million had at least one night's stay. Also, 81.0 million of those who traveled stated that they had a personal vehicle in their family (but did not necessarily travel by their vehicle), and 21.3 million did not have a private vehicle.

Figure 4: Ratio of the number of tourist trips separated by travel purpose in spring 2019
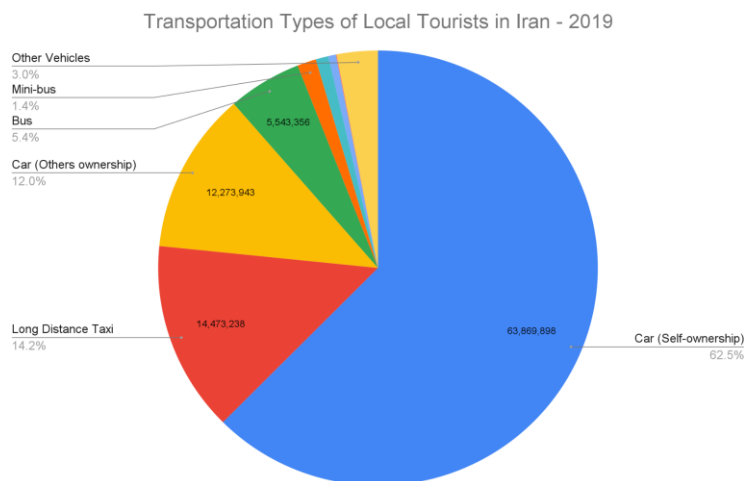*Source: National Statistics Organization of Iran, tourism data, 2020 [6]*

In the spring of 2019, most tourists traveled to visit friends and relatives, as well as for leisure (Figure 4). In the spring of 2019, 187.5 million tourists had overnight stays. Of these, only 16.2 million were in villas or rented apartments, and 6.5 million in public accommodations (such as hotels), and most of them stayed in the homes of friends and relatives (Figure 5). Therefore, the tourism industry's share in the income from the accommodation of local tourists has been relatively low.
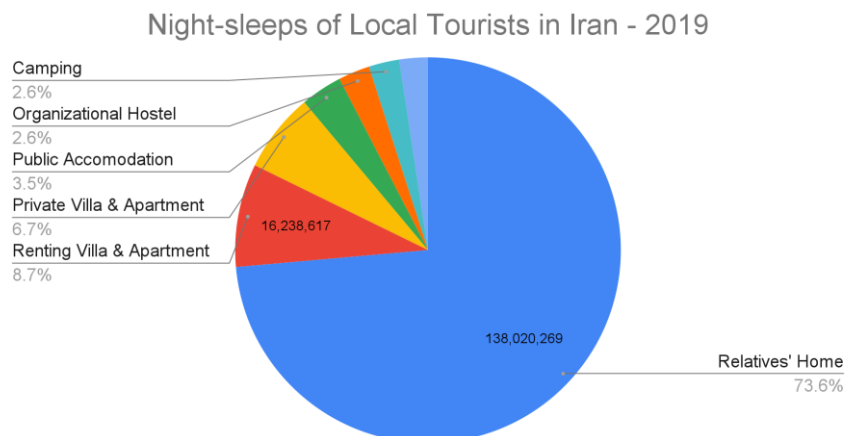
Figure 5: The ratio of the number of overnight stays separated by type of accommodation in spring 2019

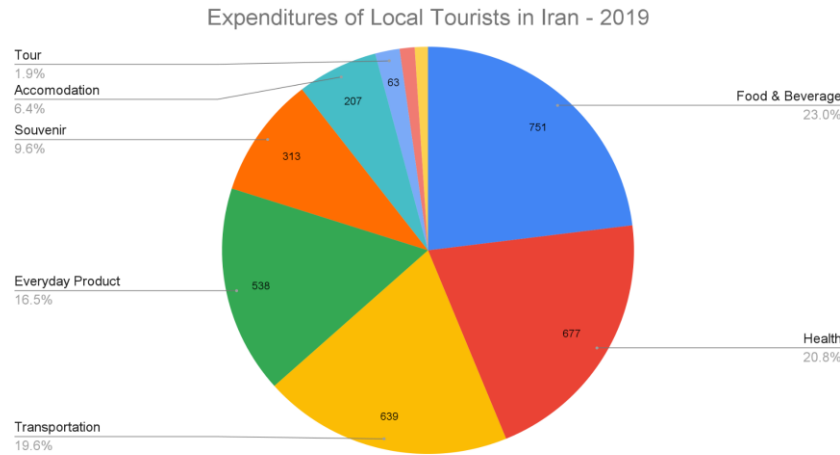*Source: National Statistics Organization of Iran, tourism data, 2020 [6]*

Statistics also show that 101.3 million people traveled without a tour, and only 987,000 people traveled with a tour. This means that the travel market's share of tourist services offices has been very small in the spring of 2019. On the other hand, Figure 6 shows that the percentage of airlines was 0.5%, that of railway companies was 0.9%, and that of other transportation companies was very small. Most Iranians use a private car to travel. They are even willing to borrow a vehicle from others and travel with it but do not use public transportation.

Figure 6: The ratio of the number of travels separated by the type of vehicles

Source: National Statistics Organization of Iran, tourism data, 2020 [6]

Figure 7 shows that local tourists in Iran spend more on food and drink than anything else by saving on accommodation costs (accommodation in friends' and relatives' homes). It seems that 16.5% of the everyday items are related to these tourists preparing their meals. The income of tourist service offices in the related expenditures is very small. On the other hand, the share of health care is significant; 13.3% of tourists have traveled for health care, but this sector has absorbed 20.8% of the costs.

Figure 7: The share of local tourist's expenditures in Iran in 2019 (Million US$)
Source: National Statistics Organization of Iran, tourism data, 2020 [6]

Literature review on tourism traffic in Iran

In 1995, Aziz Maraseli, in his dissertation, attempted to model the function of international tourism demand in Iran using the time series 1967 to 1993. In that study, per capita income of countries, cost of living index, exchange rate, and advertising and marketing expenses were examined, and the results showed that the variable of per capita income and the issue of the 8-year war and the 1979 revolution had the most significant impact on the demand of foreign tourists to enter Iran [7].

In 1998, Saeed Amirian, in his dissertation, examined the effect of tourism on the economy. The researcher has calculated the impact of foreign tourist expenditure on production, revenue, government revenue, revenue distribution, and imports. The results show that foreign tourists have the most impact on the hotel, restaurant, food, clothing and leather industries, handicrafts, and domestic transportation industries. He also concluded that tourism development in Iran would improve income distribution [8].

In 2002, in his dissertation, Fateh Habibi used the time series 1971 to 2001 to study the demand for tourists entering Iran. He has considered variables such as the logarithm of per capita income of countries, the logarithm of the price index of goods and services in Iran compared to countries of origin, the logarithm of the exchange rate, the logarithm of trade exchange volume, revolution, and war, the oil shock of the mid-1970s, and the oil shock of the late 1970s and concluded that per capita income and relative prices and the volume of the exchange have the most significant impact on tourism demand [9].

In 2003, Ismail Rasoli acted the same as Fateh Habibi in his dissertation and used the time series 1969 to 1999 and considered the same variables; the difference is that he noticed the autocorrelation between the variables, and by changing the statistical test method, he eliminated the effect of autocorrelation [10].

In 2002, Nastaran Kaveiyan, in her dissertation, studied variables such as GDP per capita, relative price, exchange rate in the official market, tourist reception capacity, the average cost of accommodation for each tourist in Iran, the occurrence of war and revolution using regression and

time series 1969 to 1993. The results showed that the variables of the exchange rate and the occurrence of war and revolution have had the most significant impact on the international tourism demand of Iran [11].

In 2004, Meysam Mosaei, in his article, considered the foreign exchange earnings from tourism, domestic price index, GDP, revenue from tourism in the previous period, and the occurrence of war and revolution, and obtained the amount of impact of each of these variables on tourism demand. According to his study, a 1% increase in the price index in Iran will cause a 0.25% decrease in tourism demand in Iran. He claims that security issues and domestic social developments strongly impact Iran's demand for inbound tourism [12].

In 2005, Ali Hossein Samadi, in his article, separated European, Asian, and American tourists and examined the effect of their expenditures on employment. His research results based on Fars province data show that a European, American, and Asian tourist in Iran for one year creates 7, 7, and 9 jobs, respectively [13].

In 2009, Arezoo Rasekhinejad, in her dissertation using the time series 2001 to 2007, considered the variables of household income and the accommodation cost and also cost in alternative destinations abroad and examined the local tourism demand in Iran. The results show that the cost of hotel accommodation significantly impacts the local tourism demand in Iran [14].

In 2011, Hoshang Momeni Vesalian's article using the time series 2005 to 2010 on local tourism in Iran has shown that the price index variable in the destination province and the hotel price index variable in the destination province are the most effective variables in local tourism demand. Hotel price in the destination province is the most effective variable in the local tourism demand of that destination. Also, the number of tourist attractions and the number of tourism service agencies in the destination province have a positive relationship with the amount of demand [15].

In 2016, Soheila Khoshnevis Yazdi, in her article, examined the effect of global GDP, official exchange rate, consumer price index, and oil prices on the demand for inbound tourism to Iran. The results show that in the long run, oil prices, consumer price index, and global GDP variables positively affect the demand for inbound tourism to Iran, and the exchange rate variable has a negative effect. It also showed that the exchange rate and global GDP are inelastic to price changes [16].

Material and method

Considering the economic and social issues mentioned in the previous chapters, as well as other studies by researchers who consider tourism demand to be related to economic factors, in the continuation of this study, the effect of two variables, "price index for the consumer" and "gasoline price" on "number of local tourists travel" in Iran are examined. Other researchers have already explained the relationship between the price index for consumers and tourism, but in the case of "gasoline prices," it must be explained why this variable was chosen.

As shown in Diagram 24, 74.2% of local tourists used their car for travel in the spring of 2019 and were directly exposed to the cost of gasoline during their trip. 14.2% have used intercity taxis, and the cost of gasoline almost directly affects its price. Also, as shown in Diagram 25, 19.6% of the travel expenditure of local tourists in that period was related to transportation. Therefore, it can be assumed that the change in gasoline prices affects the travel of local tourists.

Because Iran produces its oil, gasoline in Iran is very cheap compared to other countries. The public and private economies in Iran are based on affordable energy. In Iran, gasoline prices are

the same throughout the country, and the only supplier is the "National Iranian Oil Refining and Distribution Company" which supplies gasoline to stations. Gasoline has been rationed in Iran since 2010, meaning that each car is given a smart card, and the owner of each car can buy a certain amount of gasoline at a subsidized price during the month, and the surplus must be bought at a free price.

Research method

- Research questions:
  a. Is the price index for the consumer correlated with the number of local travelers in Iran?
  b. Is the gasoline price statistically correlated with the number of local travelers in Iran?
- Research Hypotheses:
  c. The price index for consumers has a significant negative relationship with the number of local travelers in Iran.
  d. Gasoline price has a significant negative relationship with the number of local travelers in Iran.
- Research method: Pearson linear correlation test was used to examine the statistical correlation of variables.

Time series and calculations

The time series of the Statistics Center of Iran is considered from 2008 to 2019. Unfortunately, data for 2009, 2010, and 2015 are not available for the number of local trips in Iran. The price index for the consumer is obtained based on data from the Statistics Center of Iran, which is reported by month [17]. The values of this index have been used in the calculations by obtaining the average between 3 months in the spring of each year.

In the Pearson linear correlation test, the direction and magnitude of the correlation between two linearly related variables are measured. Table 2 gives the necessary values for the correlation between the discussed variables.

Table 2. Pearson test calculations for "number of local travels" and "price index for consumers" [25] and "Gasoil price" (IR Rial)

Year	Number of Local Travels (M)	Price Index for Consumers	Gasoil Price (IR Rial)
2008	54.7	25.2	1,000
2011	54.8	39.7	7,000
2012	72.1	48.9	7,000
2013	63.0	68.1	7,000
2014	69.8	79.3	10,000
2016	75.5	97.1	10,000
2017	102.6	105.2	10,000
2018	112.3	114.4	10,000
2019	102.3	171.5	10,000

Source: National Statistics Organization of Iran, 2021 [17]

Results

The correlation coefficient between "number of local travels" and "price index for consumers" is 0.84, and between "number of local travels" and gasoline price" is 0.68. These results reject both hypotheses.

The correlation coefficient of 0.84 for "number of local travels" and "price index for consumers" means that with the increase of price index, local travels not only do not decrease, but also increase, and there is a strong positive correlation between these two variables. This result contradicts the research hypothesis. Also, the correlation coefficient of 0.68 for "number of local travels" and gasoline price" means that as the gasoline price increases, local travels not only do not decrease but also increase. And there is a strong positive correlation between these two variables. This result contradicts the research hypothesis.

Conclusions

Statistical tests such as the Pearson test measure the statistical correlation between variables, not causal correlation. There seem to be other factors that have increased the number of local travelers in recent years.

For example, lifestyle changes due to leaving the villages and migrating to medium and large cities may affect the number of local travelers. The Statistics Center of Iran reports that between 2006 and 2011, 5.53 million people in Iran left their homes and migrated elsewhere. Between 2012 and 2017, the migration of Iranians within the country was reported at 3.56 million [18] (see also Diagram 15). These people will probably travel to their previous place of residence to relieve their homesickness during the holidays, thus visiting their friends and family. The data in Figure 4 confirm that 44% of travels in the spring of 2019 were made to visit friends and family. Culturally, it can be noted that Iranians believe that they should be with their families at the time of the New Year. On the other hand, these tourists reduce their travel expenditures by staying in the house of friends and family, which was 73.4% in 2019 (Figure 3), and they probably prefer to prepare meals at home more and go to restaurants less (Figure 5). Thus, the increase in the price index and the price of gasoline do not have much effect on the decision of these tourists to travel to the city of their friends and family.

It is suggested that in future research, factors such as intra-country migration, index of stress and environmental pressures in metropolitan areas, marketing index, and advertising of tourist attractions affect the number of local travelers.

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