

Studying the Effective Factors on Cinema Demand in Tehran: A Regression Model

¹A. Rahimi, ²M. Mousai, ³N. Azad and ⁴S.M. Syedaliakbar

¹Department of Cultural Management, Faculty of Management and Accounting, South Tehran Branch, Islamic Azad University, Tehran, Iran

²Department of Social Planning, Faculty of Social Sciences, University of Tehran, Tehran, Iran

³Faculty of Management and Accounting, South Tehran Branch, Islamic Azad University, Tehran, Iran

⁴Faculty of Industrial Engineering, South Tehran Branch, Islamic Azad University, Tehran, Iran

Abstract: The aim of this research is to study the effect of the economic, cultural, social, individual and environmental factors on the cinema demand in the city of Tehran. By a comprehensive survey of the theoretical and research literature, the five main factors influencing the demand for cinema namely economic, cultural, social, individual and environmental factors were identified and on the basis of which a questionnaire containing 76 statements in the Likerts' five-point scale for measuring them was set. To determine the sustainability of this research tools, the questionnaire preliminary was distributed among 50 people from the sample members at two separate phases until it was verified. The existing questionnaire has been distributed among 800 people from the cinema attendants in Tehran who were selected in the form of cluster sampling and the resulting data was analyzed using the descriptive and inferential tests, Pearson's correlation coefficient and multi-variable regression. The results implies that from the economic factors, the income and relative prices, from the social factors, the parents job, from the cultural factors, the leisure level, from the individual factors, the family expenses, from the environmental factors, the local development degree have the most impact on the demand for cinema. Furthermore, the results indicates that from the five main factors namely economic factors, cultural, social and environmental, the economic factor has the most impact on demand for cinema.

Key words: Cinema demand, cultural factors, economic factors, environmental factors, individual factors, regression model, social factors

INTRODUCTION

Nowadays on one hand cinema is considered as a modern industry and on the other hand as the cultural need in our country and undoubtedly it is one of the most fundamental and effective media which plays an active role in continuing the expansion and survival of real art and culture of a society. It can be said that cinema is a polyhedral phenomenon which is affected by human culture and influences more cultures. Cinema and watching movie in theaters or in another words going to cinema is one of the most important options for passing leisure time in the societies in which politicians of public culture section encourages and strengthens cinema by relaying on different and diverse legal process and other effective tools. Due to the fact that passing free time in group besides being safe and sound brings about individual and group joy, thinking and interacting more closely with parents, relatives, friends and even other participants in this Joy and enthusiasm. Aside from that

cinema plays a constructive and pioneer role in culture and behavior of people. Therefore undoubtedly improving the quality of the film has a great impact on the development of intellectual, cultural, social and economic and trade dimensions of community. In other words, cinema influences social, economic and cultural variables and mutually it will be affected by development of these areas.

Considering the constant development in science and technology and enhancement of different entertainment means and industries in the last recent decades, movie production and capacity of theaters have lately had an increasing trend throughout the world and based on the given statistics and estimations of professional centers, this trend will be continuing and in the upcoming years its average growth in production and show will be more than 30% (Mousai and Shiani, 2007). On the other hand, according to the published international news in 2005, number of people who went to cinema all over the world was 3 billion and amount of money spent for going to

cinema was 15 billion. Besides, average current capital in film industry and cinema all over the world is approximately 80 billion dollars (Hoseinnejad, 2005). Despite the film industry is growing in the world and especially in some of the neighboring countries of Iran and a gradual increase in the number of theaters and audiences in Iran especially in Tehran city, this trend has been decreasing. While in some countries like South Korea, Malaysia and Indonesia and even the United Arabic Emirate, number of constructed theatre during the last decade has been more than existing theatres in Iran (Mousai and Shiani, 2007).

It seems that decreasing trend of cinema audiences in Iran is not only due to development of ways of communication and people's access to internet and possibility of getting and watching the movies at the same time or people's access to all movies in form of CD whether legally or illegally, but also this matter is affected by some other significant matters that have to be investigated and studied more seriously. Therefore, studying economic factors such as ticket price, income of people who want to go to cinema, price of supplementary or substitute goods of cinema and also cultural factors like (interests, tastes, customs and general behavior, advertisements, expectations, religious beliefs, free time, numbers of used programs, training and....) cultural factors (Education, age, status and social position, etc.) and individual factors (including gender, individual income, household expenses, job type, distance between people's houses to cinema) can help us to be able to answer the main question and unknown and vague aspects of this research. Considering these conditions, it seems that without getting to know the influential factors on demand for cinema in Iran through development programs, appropriate and adequate planning and required investment in film industry is not possible. Therefore the aim of this study is to study the effect of the economic, cultural, social, individual and environmental factors on the cinema demand in the city of Tehran.

CINEMA INDUSTRY IN IRAN

It seems that, cinema has come to life in Iran concurrent with beginning of modernism process and before its appearance in other neighboring countries. Rapid and ever increasing progress of different kinds of audio-visual technologies and development of television and satellite channels, have improved film industry and cinema greatly all around the world while demand for cinema in Iran especially Tehran has had a decreasing trend in the last two decades. The documented statistics in this regard shows that at least in the last 25 years, number of all movies audiences in cinema's of Iran from 80 million persons in 1989 has reached to less than 10 million in 2010 (Iranian Ministry of Culture and Islamic Guidance, 2011) (Fig. 1). This decreasing trend has also been true in Tehran's cinemas (Fig. 2).

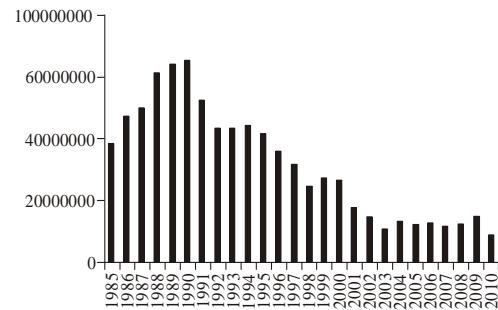


Fig. 1: Number of movie audiences in Iran during (1985-2010)

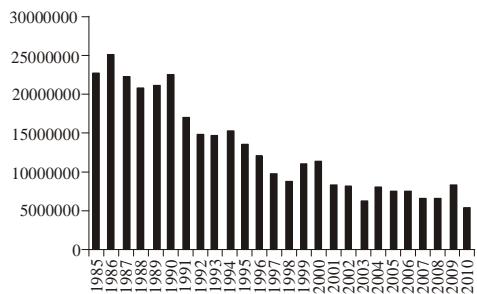


Fig. 2: Number of movie audiences in Tehran during (1985-2010)

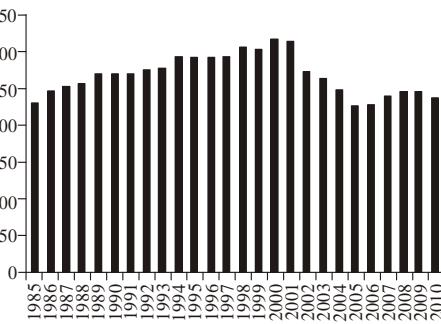


Fig. 3: Number of active cinemas in Iran during (1985-2010)

Currently, less than half of audiences of movies belong to Tehran and that's due to the reason that most of facilities and large number of theatres are located in Tehran, capital of Iran.

The aforesaid statistics represents that since 2001 because of reduction of people's willingness for going to cinema, in another word, due to drastic reduction in number of people who like to go to cinema, number of active theaters have gradually decreased in Iran. In a way that, number of active cinemas in Iran from 320 in 2001 has decreased to 236 in 2000 (Fig. 3). Also the decreasing trend of capacity of cinemas in Tehran has been continuing so that capacity of active cinemas in Tehran from approximately around 50 thousand seats in 1368 reached to less than 38 thousand seats in 2000 (Statistical Center of Iran, 2011) (Fig. 4).

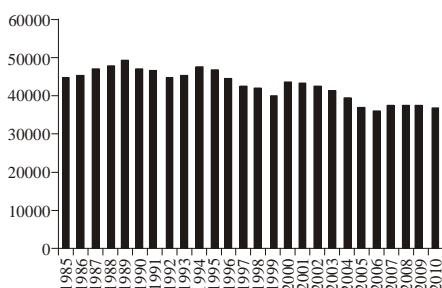


Fig. 4: Capacity of cinemas in Tehran during (1985-2010)

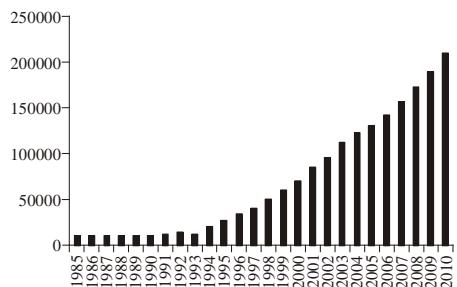


Fig. 5: Length of TV programs in Iran during (1985-2010)

It seems that in field of culture economy, different TV programs can be used as appropriate substitutes for filling people's free time specially by showing movies and popular series due to the fact that at the same time that number of people who go to cinema is decreasing, gradually number of audiences and length of TV programs rises. This important matter has been shown in Fig. 5. Therefore, this considerable process of presentation of TV programs indicates that probably TV programs can at least be presented in Iran as proper substitute for cinema. It is clear that for testing whether this claim is correct or not we should examine and test this idea in the present study in the society being studied.

Influencing factors on cinema demands: Although based on demand theory, there are many unlimited effective factors on demand for cinema in one society, after conducting extensive researches and by considering exploratory studies of researchers and researches, effective factors on cinema demand can be categorized into five main groups: economic, social, cultural, individual and environmental factors. all of these factors will be explained later.

Economic factor: Economic factors include series of variables and economic issues that exist in the society and affect the demand of people for going to cinema. The conducted researches on effective elements on demand for cinema have pointed out variables such as income, ticket

price or comparative prices, extra expenses for going to cinema and related goods (supplementary or substitutionary) Collins and Hand (2005), Walls(2005), Redondo and Holbrook (2010), Kim (2009) and Yamamura (2008). Definitions of these variables are as follow:

- **Demand for cinema:** Conceptually, demand for going to cinema means people's desire for going to cinema with purpose of watching movies by considering income limitation, free time, ticket price and etc. (Mousai, 2011).
- **Ticket price or comparative price:** Conceptually it means ratio of price of one particular good to other good or other goods by modifying them according to inflation index. Operationally, it includes ratio of average annual ticket price to consumer price index.
- **Price of related goods:** It means the price of related goods and services to cinema that have supplementary or substitutionary relation with demand for cinema. In many studies, cultural goods or other services such as TV programs, video, satellite, theaters, opera and the same programs have been declared as substitutes for cinema. Among the researches in this regard, we can name Macmillan and Smith (2001), Cameron (2005), Blanco and Pino (1997), Dewenter and Westermann (2005) and Kim (2009) and many other researchers that have done similar researches.
- **The side costs of cinema:** The amount of money that people spend for watching TV such as transportation, gasoline, food, snacks and the things alike. Obviously, as the side costs of going to cinema increases people will be more cost-sensitive. Therefore, side costs will be considered as one of the independent variables in economic factors.
- **TV programs show time:** It involves times that IRIB Islamic republic of Iran officially broadcasts different TV programs through TV channels. As this variable is considered as a substitution or competitor of cinema, it can affect people's demand for going to cinema.

Social factors: Conceptually social factors are the number of variables being studied in the society such as: parents' age, parents' job and the level of their education, their income and finally housing ownership status. The above mentioned factors are the social factors being considered in different projects. These factors have been pointed out in many studies such as: Garboua and Montmarquette (2002), Kim (2009), Yamamura (2008) and Redondo and Holbrook (2010).

- **Parents' age:** Age variable is effective in demand for going to cinema especially for elderly (parents). It seems that as the parents are other, they have less desire for going to the cinema. Studies conducted by Collins and Hand (2005) show that young people go to cinema more than the other age groups. Also Yamamura (2008) in his study has categorized the people who go to cinema from the age of 20 to more than 60 and has investigated about this matter. Also other researchers such as Redondo and Holbrook (2010) and Macmillan and Smith (2001) have considered age in their studies.
 - **Parents' job:** Another variable that affects the demand for going to cinema is people's occupation. It is clear that many people who have social prestige and have more occupational prestige, encourage the family members to go to cinema more than the parents who have less occupational prestige. Social and occupational prestige means the average prestige that people of the society consider for one person or one group because of the characteristics that they think those people have. People's or group's prestige can be due to their job in the society. Therefore, people's job is one of the effective social factors on demand for going to cinema. (Alibabai, 2008)
 - **Parents' educational level:** It is obvious that socially educated parents have better understanding of social, economic, political and on the whole daily issues compared to illiterate or less educated parents and moreover they make decision based on updated information. As a result, this matter is effective in demand for going to cinema in literate and illiterate families.
 - **Income levels:** Households income can also affect the family's demand for going to cinema due to the fact that income of one family is effective on life style of that family and type of their demand for goods and services. Therefore, it is important to study and consider this variable.
 - **Housing status:** This is another variable that also can have effect on demand for cinema. Housing ownership status will be studied in this research.
- conducted in this regard; have considered the aforesaid medias as suitable and very close substitutes for cinema so that in the conducted researches regarding this matter by Yamamura (2009) in Japan, it has been shown that video and satellite programs are substitutes for cinema. Besides, Macmillan and Smith (2001) have introduced TV as a substitute media for cinema in his study in England. Also Collins and Hand (2005) and Kim (2009), in similar researches, have considered TV and video as a very appropriate substitute for cinema as it is so close to cinema.
- **Leisure time:** It is the amount of time that clients of cinema allocate to watching movies aside from their time for working, sleeping, eating, relaxing and entertaining themselves. Free time is also one of the independent and effective variables on people who watch films in cinema. Grainejad *et al.* (2010), in their studies in Iran have used the time and days that people go to cinema as their free time. Also, Agheli (2009) has used expenses index of entertainment and education in analyzing its solidarity in national level.
 - **Values:** As value has an extensive concept, in this research we just study the variable of lifestyle which is operationally measured based on consumption level and combination of the goods consumed in households.
 - **Beliefs:** People's belief differs with each other based on culture and traditions of that society. For example, it is possible that in one society and its culture consumption of one particular good or even thing have value while in another society based on their cultural, religious and the things alike consumption of those goods be against the values of that society and even use of those goods can be considered as a crime according to their law.
 - **Habits:** Many products and services are used based on people's habits. Many people go to cinema regularly and they are considered as professional audiences due to the facts that they have gotten used to going to cinema and consequently this habit of them affects the demand for going to cinema. Sisto and Zanola (2004) about cinema in 13 European countries have proposed a hypothesis of logical addiction to cinema and have investigated around this matter. Its result indicated that there was a very strong reason that approved the hypothesis of logical addiction about use of cultural products like cinema in Europe. Also Kim and Park (2010) which were done in South Korea shows that demand for going to cinema is recognized firstly based on addictive behavior for cinema products. Secondly, their studies show that this behavior is logical and thirdly habit is one of the most essential issues for specifying the amount of demand for cinema.

Cultural factors: These factors include number of variables being studied in the society such as: free time, values, beliefs, advertisements and cultural trainings (Duwas, 2007). These factors have been pointed out in many projects such as: Collins and Hand (2005), Walls (2005), Redondo and Holbrook (2010), Kim (2009) and Yamamura (2008).

- **Media:** Media is explained as any toll that transfers a message. Therefore, radio, TV, cinema, books, magazines and mass Medias can all be considered as media. (Mousai, 2011). Many studies that have been

- **Advertisement and cultural trainings:** Studies of Grainejad *et al.* (2010) on the advertisement variable show that use of appropriate advertisement is one of the effective factors on demand for cinema. On the whole, checking this matter needs enquiring cinema's addressees about the effect of advertisement and cultural trainings on the frequency that they go to cinema.
- **Monthly Income:** studies being done by different researches show that there is a direct relation between people's income and their demand for going to cinema. For example, outcome of studies of Cameron (2005) shows positive effect of income on demand for cinema. Moreover, some other researches such as researches of Dewenter and Westermann (2005) Yamamura (2008) and Collins and Hand (2005) approve these matter.
- **Household expenses or consumption costs:** It refers to the minimum amount of money that individuals or households spend for buying goods and services that they need daily, weekly, monthly or annually. Studies of Blanco and Pino (1997) show that cultural products such as cinema are not considered as necessary good rather it is considered as luxurious products; therefore, in these researchers opinion, as long as people's necessary needs are not supplied, there will not be any demand for luxurious products. If the expenses of one household be so high, the demand for cinema will decrease in that family. Consequently, this variable should be considered as an independent variable in cinema demand function.

Individual factors: Individual factors mean number of variables being studied in the society such as age, gender, job, individual education and monthly income. These are variables that have been proposed in researches of Garboua and Montmarquette (2002), Macmillan and Smith (2001) and Redondo and Holbrook (2010). Such as variables are following:

- **People's age:** In this part by age we mean searching for audiences' age and it is different from the parents' age that was discussed in social factors section. Many researchers such as Redondo and Holbrook (2010), Yamamura (2009), Collins and Hand (2005) and Macmillan and Smith (2001) and etc. have pointed to age in their studies as one independent variable.
- **Gender:** Gender is one of the major variables in formation of demand for cinema. Among the studies being done in this regard, researches of two Spanish researchers called Redondo and Holbrook (2010) can be noted. These studies have been done in form of correlation analysis of several strains two-variable. Also studies and considerations that have been done by "The Supreme Secretariat Council for Young (1996)" indicate that men go to cinema more than women.
- **Job:** Type of people's job can affect their demand for going to cinema to some extent. Jobs differ from each other based on their free time. One reason for considering the job as an important variable is whether that jobs provides free time for its doer or not and if yes how much its amount is. Azma (2007), have shown in a study that people who are self employed, clerks, students and university students go to cinema more than people who have another jobs. According to the researches that have been done in America (Lin, 1976) and also in Iran, Kazemipour (1996) and Abdolahian and Nayebi (2003) people's job has been considered as an effective variable on demand for cinema.
- **Education:** This variable has been used in the researchers of Garboua and Montmarquette (2002) and Redondo and Holbrook (2010). Also Fardrou and Sedaghatzadeghan (2000) have proved the existence of a relationship between education and consumption of cultural products. As cinema is considered as one of the cultural products, this matter can be generalized to cinema as well.

Environmental factors: The variables that are being studied in statistical society such as existence of cinema in one neighborhood, academy in the region, type of cinema regarding its facilities, the distance between people's place and cinema and the extent of development of one neighborhood have been considered in studies of Walls (2005), Ravid *et al.* (2006) and Yamamura (2009). Each of these variables will be explained as follow:

- **Type of cinema regarding its facilities:** It is an environmental variable that affects the demand for cinema. Studies of Walls (2005) and Yamamura (2009) show that if the cinemas have additional facilities and many saloons, people's desire for going to these cinemas will increase.
- **Degree of community development:** As people live in different urban areas and these regions are different from each other regarding their urban life style and the region's modernity, their demand are also different. In this regard, two researchers called Redondo and Holbrook (2010) in their case study in Spain have looked at urban area as one of the variable function of demand for cinema. Existence of cinema or academy in neighborhood and region: It is clear that as more urban facilities and equipments be available for citizens, their participation in activities and their use of urban services will be more; therefore, existence of cinema or academy in one region or neighborhood will affect people's demand for cinema or similar facilities as people can have easier access to them.

Table 1: Summary of researches about demand for cinema in the world

| Researchers | Year | Countries for study | Method | Factors and variables for usage |
|-----------------------------|--------------|-----------------------|---------------------------------|--|
| Gambaro and Orietta | 2009 | 15 European Countries | OLS | Demand for ticket, Price, Income, Cinema screen, Number of chair, Citizens |
| Sisto and Zanola | 2004 | 13 European Countries | Panel-Data | Cinema attendance, Price, Per capita income, Screen, Number of Film, Demand for passed period |
| Macmillan and Smith Cameron | 2001 2005 | England England | VAR GLS | Demand for Cinema, Real Price, Income, TV, Number of cinema, Age Sold tickets, Real Price, Income, Number of TV, Number of cinema, Ticket price, Population, Inflation |
| Dewenter and Westermann | 2005 | Germany | 2SLS | Demand for Cinema per capita, Ticket price , Income, Price of relative goods, Other effective variables |
| Collins and Hand | 2005 | England | Panel Data | Cinema consumers, Income, TV watching, Number of Cinema films, Video, Age groups |
| Kim | 2009 | South Korea | GMM and 3SLS | Main Variables: Demand for Cinema per capita, Ticket price , Income, Price of relative goods,, Price of Cultural goods, Domestic films, Import and export films, Number of TV, Population, Sells, Dummy Variables: Video product, TV import, Cable TV and... |
| Kim and Park | 2010 | South Korea | ,2SLS OLS | Cinema per capita, Ticket price, Per capita income, Price of Substitution goods, Demand for passed period |
| Yamamura | 2008 | Japan | 2SLS | Number of attendance, Real price, Income, Number of multiplex, Number of Cinema, Population, Cable TV, Age |
| Walls | 2005 | Canada and US | Conditional stable distribution | AnalysisBox-office returns, Negative costs, Cinema screens, Film stars and Others variables (as dummy) |
| Garboua and Montmarquette | 2002 | Canada | Utility Function | Demand for Art, Consumers taste, Price of art Consumers Claude education, Usage, Experience,Emotion, Income, Price of relative goods, Other effective variables |
| Ravid <i>et al.</i> , | 2006 | US | Hypothesis | Case study about criticisms on 172 films in US based on random sampling |
| Redondo and Holbrook | 2010 | Spain | Canonical correlation analysis, | Number of attendance, Sex, Infants attendance, Education, Social classification Urban zone, Age |
| Mousai | 2011 | Iran | Almost Ideal Demand System | Expenditure, Ticket price, Price of book and publication, Income, Index Price |

RESEARCH BACKGROUND

Regarding In cinema and films, significant studies have been done on available films, from economic, social, cultural aspects, process of film production and film industry in different countries around the world. In this regard, many models of supply and demand for cinema in form of different econometric function have been extracted. Some of the studies done In this regard includes researches, such as: the relationship between cinema and other mass media including television, movies and culture of consumerism and the role that cinema has on the policy (Doherty, 2004), using well-known actors movie stars and the impact on production costs (Pokorny and Sedgwick, 2001), social aspects of movies (Aitken, 1990), identity, culture and policy in cinema issues in some Asian and European countries (Lee, 2001; Everett, 2005), Economy of media market: review of literature (Dewenter, 2003), domestic demand for cinema in Spain (Vegas, 2009), the distribution and predictability of cinema audiences (Hand, 2002), promote demand for the arts (Zakaras and Lowell, 2008), small mythology and cultural issues in cinema (Martin, 2001), new developments in cinema (McCrisken, 2005), marketing in film industry (Kerrigan, 2010), studying the demand for three-dimensional movies (Sluis, 2010), economy of cinema (McKenzie, 2009), the growth of Bollywood (lorenzen, 2009), addictive behavior in film

demand (Kim and Park, 2010), critics of cinema and studying their effect on the audience (Nielsen, 2010) and demand for going to cinema in Iran (Mousai, 2011) and many other similar studies in Europe and Asia. Some of the most important researches about demand for cinema have been briefly summarized in Table 1. External studies been done in verifying research literature can be divided into two groups as follow: first, a group of researchers that have allocated their studies to only economical aspects of cinema in form of dependent and independent variables that are measurable and in this regard they have estimated demand for cinema function by relying on only economic variables. The researchers of the second group have researched beyond the mere operation of economic factors and in addition to economic variables, they have also considered some other social and cultural variables affecting the demand for some of the movies and they have designed and proposed the relevant model.

Verification of the studies done regarding function of demand for cinema shows that in the world majority of studies about demand for going to cinema has just been done based on variables and current centralized economic variables in different societies. Also in Iran all of the related studies have been done solely on demand for cinema and economic variables and the rest of factors have been ignored. Therefore, in this article besides economic variables, social, cultural, individual and environmental variables have also been analyzed.

Questions of research: Based on this study the questions of research are as follows:

- Question 1:** Which of one the economic factors have significant effect on demand for cinema?
- Question 2:** Which of one the social factors have significant effect on demand for cinema?
- Question 3:** Which of one the cultural factors have significant effect on demand for cinema?
- Question 4:** Which of one the individual factors have significant effect on demand for cinema?
- Question 5:** Which of one the environmental factors have significant effect on demand for cinema?

METHODOLOGY

Society and statistical sample: This study has been done with measurement method and for gathering the required information we used questionnaire. Since the community under the current research is the whole cinema goers in Tehran city for estimating the number of statistical sampling we used Cochran method and by using this method 800 people of the cinema audiences were decided to be enough and based on random sampling method the questionnaire was distributed among them. Among 800 distributed questionnaires in the statistical society, information of 200 questionnaires was incomplete and finally at the end 600 questionnaires were entered to the SPSS software.

Research instrument: On the basis of theoretical literature and conceptual model of research, a questionnaire containing 76 items and in level of five basic elements i.e. including: economic factors (15 items), social factors (12 items), cultural factors (17 items), individual factors (14 items) and environmental factors (12 items) was designed and collected. The marking method of this mean is on the basis of five degree spectrum of Likert and for assigning the admissibility of this questionnaire the method of conceptual admissibility was used based on the experts view. To assign the stability of this mean we used Cronbach's alpha test that the amount of the resulted Cronbach's alpha is respectively 0.72, 0.71, 0.82, 0.75 and 0.7 which shows the proper stability of the measuring variables and this subject shows the inner coherence among the variables for measuring the concepts.

Answer to research questions: The descriptive findings in this article show that 55% of answerers of this research were women and 45% were men. Besides, 53.7% of answerers were single and 44.8% were married and 1.5% was other cases. The other findings of the table show that 1.7% answerers were under 15 years old and 67.8% were

Table 2: Multivariate regression

| Statistics/variables | Regression coefficients | Standard errors | β | t-value | Significant level |
|------------------------|-------------------------|-----------------|---------|---------|-------------------|
| Constant | 4.916 | 0.559 | - | 8.789 | 0.000 |
| Income | 0.436 | 0.027 | 0.591 | 16.140 | 0.000 |
| Ticket price | -0.130 | 0.054 | -0.117 | 2.391 | 0.04 |
| Price of related goods | 0.052 | 0.019 | 0.106 | 2.766 | 0.006 |
| Cinema cost | -0.064 | 0.038 | -0.076 | 1.711 | 0.088 |
| TV programs | -0.085 | 0.040 | -0.059 | -1.444 | 0.149 |

between the age of 16 to 30 and 19.8% of them were between 31 to 45 and 9.8% were between 46 to 60 and 8% were above 61 years old. As it is clear, majority of answerers are between 16 to 30 years old. Moreover, 6.7% of answerers do not have university degree while 93.3% of them have university degree. The findings about occupation of answerers also show that 76.3% of them have jobs while 7.23% of them are unemployed. Now, we are going to answer the research questions respectively as follows:

The first research question was: which of one the economic factors had a meaningful impact on the demand for cinema?

To answer the research questions, the multi-variables regression was used in the form of synchronized method. To answer the first question, the economic variables were incorporated in the regression equation and the result of which is demonstrated in Table 2:

According to Table 2, it can be said that from the economic factors, the income, the cinema ticket price and the related goods price, have the most impact on the demand for going to cinema. The impact of the income on the demand for cinema has been increasing while the other two variables were decreasing ones. The income, cinema ticket price and the related goods price have the most impact on the demand for going to cinema. The Beta coefficient 0.591 of the income indicates that each unit of change in the standard deviation of the income, creates a 0.591 unit of change in the standard deviation of the demand for cinema and the Beta coefficient 0.117 of the cinema ticket price implies that each unit of change in the standard deviation of the ticket price, creates 0.177 unit of change in the standard deviation of the demand for cinema and since the direction of this relation is negative, then the change in the relation between the demand variable and the price variable will be a reverse and decreasing one.

The second question was: which one of the social factors had a meaningful impact on the demand for cinema?

To answer the second question, the social variables were incorporated in the regression equation and the result of which is demonstrated in Table 3:

Based on the Table 3, one can state that from the social factors, the age and job of the parents has the most impact on the demand for going to cinema. The impact of

Table 3: Multivariate regression

| Statistics/ Variables | Regression coefficients | Standard errors | β | t-value | Significant level |
|--------------------------|----------------------------|--------------------|---------|---------|----------------------|
| Constant | 4.917 | 0.529 | - | 7.409 | 0.000 |
| Parent age | 0.441 | 0.080 | 0.226 | 5.516 | 0.000 |
| Parent job | 0.141 | 0.045 | 0.160 | 3.110 | 0.002 |
| Parent education | 0.063 | 0.057 | 0.056 | 1.108 | 0.268 |
| Income classification | 0.027 | 0.032 | 0.034 | 0.822 | 0.411 |
| House situation | 0.029 | 0.039 | 0.031 | 0.746 | 0.456 |

Table 4: Multivariate regression

| Statistics/ Variables | Regression coefficients | Standard errors | β | t-value | Significant level |
|--------------------------|----------------------------|--------------------|---------|---------|----------------------|
| Constant | 2.074 | 0.431 | - | 4.807 | 0.000 |
| Media | -0.121 | 0.018 | -0.222 | -6.822 | 0.000 |
| Leisure time | 0.436 | 0.027 | 0.591 | -16.82 | 0.000 |
| Values | -0.047 | 0.092 | -0.017 | -0.509 | 0.611 |
| Beliefs | 0.008 | 0.085 | 0.003 | 0.096 | 0.923 |
| Habits | 0.302 | 0.035 | 0.307 | 8.559 | 0.000 |
| Advertisements | 0.016 | 0.061 | 0.009 | 0.262 | 0.739 |
| Cultural trainings | -0.103 | 0.065 | -0.053 | -1.576 | 0.115 |

these two variables on the demand for going to cinema is increasing one. Respectively, the age of parents has the most and the job of parents has less impact on the demand for cinema and the Beta coefficient 0.226 of the parents' age indicates that each unit of change in the standard deviation, creates a 0.226 unit of change in the standard deviation of the demand for cinema and since the direction of this relation is positive, then the change will be direct and increasing one. In the meantime, the interpretation of the other variable will have the same definition and only the level would change.

The third question was: which of one the cultural factors had a meaningful impact on the demand for cinema?

To reply to this question, the cultural factors were incorporated in the regression equation and the result of which is demonstrated in Table 4:

Based on the Table 4, one can state that from the cultural factors, the media and the leisure time and the habits have the most impact on the demand for going to cinema. The impact of the leisure time and the habits on the demand for going to cinema are increasing and the impact of the media is decreasing one. The leisure time has the most and the media has the less impact on the demand for cinema. The Beta coefficient 0.591 of the leisure time indicates that each unit of change in the standard deviation creates a 0.591 unit of change in the standard deviation of the demand for cinema and since the direction of this relation is positive and then the change will be direct and increasing one. The fourth question was: which of one the individual factors had a meaningful impact on the demand for cinema?

Table 5: Multivariate regression

| Statistics/ Variables | Regression coefficients | Standard errors | β | t-value | Significant level |
|--------------------------|----------------------------|--------------------|---------|---------|----------------------|
| Constant | 4.065 | 0.567 | - | 7.167 | 0.000 |
| Age | 0.129 | 0.071 | 0.076 | 1.824 | 0.069 |
| Job | 0.037 | 0.042 | -0.035 | -0.870 | 0.385 |
| Education | 0.124 | 0.052 | 0.097 | 2.395 | 0.005 |
| Monthly income | 0.213 | 0.073 | 0.140 | 2.919 | 0.004 |
| Household expenses | 0.231 | 0.076 | 0.141 | 3.022 | 0.003 |

Table 6: Multivariate regression

| Statistics/ Variables | Regression coefficients | Standard errors | β | t-value | Significant level |
|--------------------------|----------------------------|--------------------|---------|---------|----------------------|
| Constant | 5.371 | 0.391 | - | 13.741 | 0.000 |
| Cinema in region | 0.112 | 0.041 | 0.110 | 0.004 | 0.09 |
| Cultural institution | 0.028 | 0.083 | 0.015 | 0.339 | 0.07 |
| Kind of cinema | 0.162 | 0.038 | 0.212 | 4.242 | 0.611 |
| Degree of development | 0.405 | 0.113 | 0.215 | 3.602 | 0.000 |

To reply to this question, the individual factors were incorporated in the regression equation and the result of which is demonstrated in Table 5:

Based on the Table 5, one can state that from the individual factors, the education, the monthly income and the family expenses have the most impact on the demand for going to cinema. The impact of the three variables on the demand for going to cinema is increasing and the impact of the family expenses has the most and the education has the less impact on the demand for cinema. The Beta coefficient 0.141 of the family expense indicates that each unit of change in the standard deviation, creates a 0.591 unit of change in the standard deviation of the demand for cinema.

The fifth question was: which of one the environmental factors had a meaningful impact on the demand for cinema? To reply to this question, the environmental factors were incorporated in the regression equation and the result of which is demonstrated in Table 6:

Based on the above table, it can be said that among the rest of the environmental factors, the degree of the local development is an effective factor to the demand rate for going to Cinema. The Beta coefficient 0.215 of the local development degree means that each unit of change in the standard deviation of local development degree creates a 0.215 unit of change in the standard deviation of the rate of demand for going to cinema and since the relation of this equation is positive then the change will be direct and increasing one.

The sixth question of the research implies that which one of the economic, environmental, cultural and individual factors has the most effect on the demand for cinema?

Table 7: Multivariate regression

| Statistics/ Variables | Regression coefficients | Standard errors | β | t-value | Significant level |
|--------------------------|----------------------------|--------------------|---------|---------|----------------------|
| Constant | 0.277 | 0.634 | - | 0.357 | 0.000 |
| Economic factors | -0.132 | 0.012 | -0.484 | 11.301 | 0.000 |
| Social factors | 0.110 | 0.011 | -0.338 | 1.906 | 0.021 |
| Cultural factors | 0.112 | 0.015 | 0.327 | 0.756 | 0.023 |
| Individual factors | 0.101 | 0.020 | 0.221 | 1.595 | 0.012 |
| Environmental factors | 0.85 | 0.014 | 0.126 | 0.142 | 0.018 |

To answer the sixth question of the research, the five-fold variables; economic, environmental, cultural, individual and social, were incorporated into the regression equation and the results of which are demonstrated in Table 7:

Based on the above table it can be said that the economic factors have the most effect and the environmental factors have the less effect on the demand for cinema. The Beta coefficient 0.48 of the economic factors means that each unit of change in the standard deviation of the economic factors creates a 0.48 unit of change in the standard deviation of the rate of demand for cinema and since the direction of this relation is negative and then the change will be direct and decreasing one.

Other factors such as cultural factors, individual, social and environmental factors take the next ranks in their effects on the demand for cinema.

DISCUSSION AND CONCLUSION

Findings of the research show that among economic factors, income, ticket price and price of related goods effects have great influence on demands for going to cinema. Research findings of Gambaro and Orietta (2009) and Sisto and Zanola (2004), in this field shows that there is a direct relationship between index of Individual income and their demand for cinema which is an increasing process. Also findings of Gambaro and Orietta (2009) and Kim and Park (2010) has been in the direction of recent research and shows that the ticket price and price of relevant goods has negative relationship with demand for going to cinema. Findings show that among social factors also parent's age and their job have significant effect on demand for going to cinema. Some of the researchers in this field emphasize on age as a social variable in demand for going to cinema. For example, Yamamura (2009) in his research has categorized people who demand for cinema between 20 to 60 years old. Other researchers also involved individual's age and job at their research. Findings of the research show that among cultural factors, media, leisure time and habits have significant effect on demand for going to cinema. In this field Dewenter and Westermann (2005) and Cameron (1988), believe that existence of rival media is a cultural

factor that has influence on demand to go to cinema. Besides, in Iran also Azma (2007) and Fardrou and Sedaghatzadeghan (2000) believe that free time has influence on demand for cinema. From scientists point of view one of the most important reasons that people go to cinema is for fun and entertainment. Basically most scholars and cinema activists put more emphasis on entertainment as the most important role of cinema: cinema and watching movies is one of the most important choices for leisure times in modern societies that the lawmakers of public opinion with respect to all kinds of laws and possibilities encourage it. Because passing free time in groups would bring health, individual and group happiness, thinking together, relationship with parents, relatives, friends, even other participants in this group happiness. On the other side, one of the effective factors in people's concern to cinema is the effect of watching video movies, lawful or unlawful. In other words, the problem is that Iranian cinema has confronted with the serious problem of rivalry with video that in this confrontation mostly video has been the winner. In addition this findings show that among individual factors also, educations, monthly income and household expenses has significant effect on demand for cinema. In this field, findings of Gambaro and Orietta (2009) and Kim and Park (2010) and many of researchers shows that education and monthly income which are of Individual effects are influential on demands for cinema. One of the important environmental factors influencing demand for cinema is development of the region. In this filed we can say that people living in regions which economically are stronger than others, has more possibilities for entertainment and coming and going to cinema so they go to cinema more than others. Finally, among five factors the economic variable has effective on cinema going more than others.

According to the findings of this article, standard index for five major factors of demand for cinema indicate that among all of the factors, economic and cultural factors are of much more importance; therefore, officials and policy makers are advised that in their long term planning and developmental plans in cinema industry, give priority to economic and cultural factors that have influence on demand for cinema. According to research findings, among economic variables, comparative prices (price of the related goods) and the income related of the clients of cinema respectively are of more importance; consequently, any types of sudden and intense alternation in these factors can evoke audiences' sensitiveness. Therefore, policy makers are advised that if they want to increase the price of ticket, this increase should be gradually and invisibly so that it does not lead to sharp and sudden decrease in demand for cinema. Among effective cultural variables on cinema demand, free time is of the most important ones, so having enough free time

greatly influences the increase of demand for cinema. Therefore, if the governments try to provide more free time for people especially for the employees, the demand for cinema will be increased. As a result, policy makers by use of different types of media such as radio, TV, newspaper and the things alike, can have constant and long term program in their work plan so that they can enhance the culture of going to cinema.

According to the findings of this research there is a meaningful relationship between media (such as satellite, internet and etc.) and demand for cinema; therefore, media-cultural policy making in Tehran by the related organs should be in the way that their movies can compete with programs of TV, satellite, video, home cinema and cinema industry should not be weakened by these programs. Otherwise, in long term cinema industry will be hurt. As the expenses of going to cinema such a ticket price and other additional expenses are of the effective factors of demand for cinema, it is recommended to the governments to seriously support movie producers by giving some part of ticket expense and as a result due to social, cultural and educational aspects of this kinds of movies they can help to control and decrease some social problems more actively. Confrontation of cinema with media (especially different international satellite channels) and also extreme production of visual productions in the last two decades has lead to reduction of demand for cinema. It is suggested that in order to motivate more audiences to use cinema productions, ask the producers to improve their products not only regarding their quantity but also their quality. According to the findings of the current finding the ongoing advertisement have no significant effect on demand for cinema? Therefore, considering the development of the recent propagator technologies around the world, it is recommended that producers of cinema productions for proposing their products use new and modern propagator methods and beside traditional ways of advertising like on TV or Billboards around the city use modern ways of advertising in order to motivate the audiences and increase their demand for cinema. Another finding of this research indicates that in the less developed areas of the city lake of enough development has decreased the demand for cinema in those areas. Therefore, it is suggested to the cinema investors to establish some mobile cinemas in some highly populated areas that do not have easy access to cinemas whether contemporarily or permanently, so that in this way they can answer to demand of these people for cinema and besides enjoy the great deal of financial benefit from the areas that are so profitable for investment. Also for the future researchers there are some other recommendations that will be proposed as follow: It is suggested to the researchers to study the effective factors on demand for cinema based on

similar research in other countries or cities and compare their results with the outcome of this project. In this project five major effective factors on demand for cinema have been specified. As some other factors such as political, behavioral and psychological factors may have potential impacts on demand for cinema, it is suggested to search about these factors and also the other unknown factors in the next researches. Due to the fact that additional expenses such as transportation and food expenses are of very effective factors on demand for cinema, it is advised to search about the way that these expenses affect the demand for cinema through some special researches. It is suggested that a similar research for cinema supply side be conducted throughout the country or big cities and its outcome be studied the same is the current research.

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