

# Identifying the Attractiveness Factors of Kish Island's Shopping Centers: With an Approach to Categorization of Customers

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## Abstract

Nowadays shopping centers are among the most competitive activities in the country. Therefore, the managers of these centers usually seek to attract potential shoppers towards themselves through identifying the attractiveness factors. With the development of shopping centers in the recent couple of years, the attractiveness factors of these centers can be paid attention to as the data for formulating some aggressive strategies by the owners of the centers. When a customer faces an obstacle at a shopping center, he/she tries to fulfill his/her demand at another one and regarding the intense competition in this field, the center that is able to provide the customer with satisfaction will be more successful. Categorization (segmentation) of customers is a vital subject matter for shopping centers to formulate marketing strategies appropriate for each category of shoppers. The shopping centers being able to examine, investigate (reconsider) and predict behaviors of consumers are successful. In this research 384 subjects were surveyed by a questionnaire. First we identified and ranked the attractiveness factors and then using the logic of k-means we clustered the customers based on those attractiveness factors. The results showed that shopping centers' customers with regard to the attractiveness factors of these centers in Kish Island, can be categorized (divided) into three groups of indifferent customers, luxury customers and insistent (eager) customers. In terms of objective, this is an applied research.

**Keywords:** Categorization (segmentation) of customers, k-means clustering, attractiveness factors, shopping centers

## 1. Introduction

In ancient times, Kish Island always shone like a gem at the heart of the Persian Gulf as the center of trade and business transactions, and today Kish's shopping centers with modern and beautiful architecture are unique in the Persian Gulf region and in precious Iran and are working with all sorts of merchandise (goods) and the branches of world's authentic brands' representatives. Undoubtedly, these malls and shopping centers are counted as one of the Kish's major attractions, and if not saying the main reason of travelling to Kish and using Kish's tour is shopping, we dare to say that one of the major reasons of Kish's tour is shopping and walking in its luxurious passages. Kish's tour tourists and travelers, regardless of their intention while travelling to Kish, will definitely visit the malls and will not come back home empty-handed. Every year Kish Island with an area of 92 square kilometers, receives more than one million and five hundred thousand domestic and foreign tourists and as well as its natural elegance and historical monuments, twelve international trade centers and four large services bazaars are also counted as the tourist attractions of this beautiful island which are always noticed and welcomed by the tourists ([www.kish.ir](http://www.kish.ir)).

The history of the shopping centers and the stores goes back to 1000 years ago. In the ancient times ports and streets were made use of as the shopping centers. Passage means pathway or the space between two

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things. In various periods, arcades and passages with chambers and stores within them somehow played the role of malls or shopping centers. Today passages are located inside buildings or groups of buildings which include various stores and with their corridors connected to each other enable customers to visit the shops easily. The corridors of a passage can be dead-end or connected to the other corridors. Modern passages usually have multiple floors and the corridors of different floors are placed on each other. Nowadays passages have been turned into shopping centers and every day such shopping malls are established in different regions and are also welcomed more or less (hosseinabadi sadeh, davoud, samadi, Mahmoud, 2014).

Basically a group of retailers, restaurants, photo studios, beauty salons and other businesses is called a shopping center. Nowadays in addition to shops, stores and services, some recreational facilities have also been provided (included) in these centers in order to attract clients and build customer loyalty. Recreational facilities may include amusement parks, cinemas, sports centers, etc. The existence of restaurants, coffee shops and fast food takeouts has had an important role in these centers' attractiveness. Another trait (feature) of a shopping center that can be indicated is that it may have some places like stalls (kiosks), fast food restaurants and parking lots (car parks). Stalls are booths located in the corridors of shopping centers in which services and small products are sold (hosseinabadi sadeh, davoud, samadi, Mahmoud, 2014).

## **2. Shopping Centers and the Significance of Clustering Their Customers**

Clustering customers is one of the techniques which was defined and evolved as an important approach to business and with the aim of returning to personal marketing along with the development of information and communication technologies. In general, as a result of intense competition between shopping centers to attract customers, change of customers' behaviors in these centers is of extreme sensitivity (touchiness) and needs careful (meticulous) and timely planning by the managers of the centers. Nowadays shopping centers are required to put themselves in their customers' position and try to understand their demands and tendencies in this competitive environment and make them obtain complete satisfaction from the shopping center. In today's marketing the cost of losing a customer equals to losing the benefits related to the services which that customer needs during his/her lifetime and this counts as a warning to the shopping center. Besides, we would lose the service benefits that could be received from the new customers probably introduced by him/her (the lost customer). Therefore, customer-centricity is a very touchy (sensitive) kingpin (element) to which we should pay attention. In order to fulfill customer-centricity, some facts should be drawn attention to, the most important of which is serving customer's everyday needs clearly and explicitly that means variety in services, and fresh services are new and innovative. Today shopping centers are among the most competitive activities in the country, so the managers of these centers usually seek to attract customers towards themselves using advertising and other means of communication. When a customer encounters an obstacle at a shopping center, he/she tries to supply his/her demand at another one and regarding the severe competition in this field, the center that is able to bring satisfaction to the customer will be more successful (khare, arpita, 2011)

## **3. The Conceptual Model of the Research**

The theoretical framework is the generalities that the whole research is based on them. This framework is a logical, descriptive and developed network including the relationships existing between the variables which have been identified after undergoing processes like observation, interview and examination of the background. In other words, examination of the background makes a solid basis for developing the theoretical framework. In the theoretical framework the relationships between the variables are clarified and if possible, the direction of these relationships is specified (Sekaran, 2000, quoted by Shirazi, 1388).

Variables of the present research are comfort, entertainment, diversity, luxury, convenience and shopping center's essence as the independent variables and shopping centers' attractiveness as the dependent variable.

Providing purchasers with comfort is one of the important, effective and favorite factors to shoppers that can play a positive role in attracting and satisfying them. The existence of entertaining programs, recreational facilities, and the space needed for children and teenagers are also among the elements whose impact on attractiveness of shopping centers is obvious and expected.

Diversity in shopping centers regarding the existence of areas and restaurants for eating food, beautiful and pleasant atmosphere, shopping centers being active until late at night (allowing late night shopping, providing late night services) and the quality of the centers' work are also among the factors that are paid attention to and expected by the customers and are in turn effective in increasing the degree of shopping centers' attractiveness.

Thus, the influence of the factors such as comfort, entertainment, diversity, luxury, convenience and shopping center's essence on the degree of shopping centers' attractiveness is not an unexpected matter and these factors are attended to in this study since they are taken into account in the theoretical framework or the conceptual model of the research.

As far as the research objective is concerned, this is an applied research. In fact the purpose of this body of research is developing practical knowledge in a particular field. Moreover, this research regarding the characteristics of the topic is a descriptive one, in terms of the time of data collection, is a survey study, and considering the method of data collection, is a field research.

#### 4. Results

- **Data Normality Test**

Before performing the clustering process, the prerequisite of this task is to make a hypothesis on equality and normality of the population regarding the sociological (demographic) traits of it. So we used a chi-square test to examine the equality of the population hypothesis whose results are observable in Table 1.

**Table 1: The Results Of Data Normality Test (chi-square)**

<b>Demographic variables</b>	<b>Chi-square</b>	<b>Asymp.sig</b>
Gender	23.081	0.000
Age	122.721	0.000
Education (educational degree)	160.455	0.000
Job position (status)	237.995	0.000
The amount of monthly salary (toman)	379.008	0.000

Considering the significance level of zero, normality of this research's sociological (demographic) data can be inferred.

- **Ranking The Attractiveness Factors Of Shopping Centers**

Based on the results yielded through the Friedman's rank test, according to Table 2 the attractiveness factors rankings (hierarchy) and their features (traits) are as follows:

**Table 2: The Friedman's Test Results**

Question	Research variables	Mean Rank	Rank	Total average	Total ranking
<b>Comfort</b>					
Q <sub>1</sub>	The degree of security in shopping centers	14.45	7	13.22	3
Q <sub>2</sub>	Availability of enough space for parking cars	13.50	10		
Q <sub>3</sub>	Availability of all goods needed for the family	15.30	4		
Q <sub>4</sub>	The existence of chairs or benches to rest while shopping	9.05	22		
Q <sub>5</sub>	Broadness of the shopping centers' corridors	11.34	18		
Q <sub>6</sub>	Tidiness and cleanness of shopping centers	15.42	2		
Q <sub>7</sub>	Suitable interior design and decoration	13.47	11		
<b>Entertainment</b>					
Q <sub>8</sub>	The way of advertising in shopping centers	12.79	14	10.36	6
Q <sub>9</sub>	The existence of entertaining and interesting programs in	9.87	20		
Q <sub>10</sub>	The existence of recreational facilities and the space needed for	9.18	21		
Q <sub>11</sub>	Following the tips effective in attracting customers by	11.73	17		
Q <sub>12</sub>	The existence of appropriate space for entertaining the young	8.25	23		
<b>Diversity</b>					
Q <sub>13</sub>	Variety of food and the large number of restaurants in	13.64	9	10.71	5
Q <sub>14</sub>	Availability of large areas for eating food	12.40	15		
Q <sub>15</sub>	The existence of cinemas in shopping centers	6.10	24		
<b>shopping center's essence</b>					
Q <sub>16</sub>	The quality of products in shopping centers	15.33	3	13.10	4
Q <sub>17</sub>	General price level fitting your salary in shopping centers	12.32	16		
Q <sub>18</sub>	Variety and the large number of stores in shopping centers	14.42	8		
Q <sub>19</sub>	The existence of after sale services	10.34	19		
<b>Convenience</b>					
Q <sub>20</sub>	The existence of supermarkets in shopping centers	12.89	13	14.08	2
Q <sub>21</sub>	Easy access to shopping centers	14.73	5		
Q <sub>22</sub>	Shopping centers being active until late night	14.61	6		
<b>Luxury</b>					
Q <sub>23</sub>	The facade of shopping centers	13.21	12	14.41	1
Q <sub>24</sub>	Popularity and reputation of shopping centers	15.67	1		

Among the six attractiveness factors, luxury is ranked first and after that, the second ranking belongs to convenience, and the factors including comfort, shopping center's essence, diversity and entertainment are placed in the next ranks respectively.

But the attractiveness factors were also ranked in another way using this test (the Friedman's rank test) and the results obtained are as follows:

From the viewpoint of shopping centers' purchasers in Kish Island, popularity and reputation of these centers are the most important features (traits) and after that tidiness and cleanness of shopping centers, the quality of products in shopping centers, availability of all goods needed for the family, easy access to shopping centers, shopping centers being open until late night, the degree of security in shopping centers, variety and the large number of stores in shopping centers, variety of food and the large number of restaurants in shopping centers, availability of enough space for parking cars, suitable interior design and decoration, the facade of shopping centers, the existence of supermarkets in shopping centers, the way of advertising in shopping centers, availability of large areas for eating food, general price level fitting salaries, following the tips effective in attracting customers by salesclerks, broadness of the shopping centers' corridors, the existence of after sale services, the existence of entertaining and interesting programs in shopping centers, the existence of recreational facilities and the space needed for entertaining children, the existence of chairs or benches to rest while shopping, the existence of appropriate space for entertaining the young, the existence of cinemas in shopping centers respectively are ranked next.

• **Clustering Shopping Centers' Buyers In Kish Island**

After performing the clustering process in SPSS software using k-means method, the analysis of variance (ANOVA) result regarding the attractiveness features (traits) showed that the significance level equals zero, according to which this fact can be inferred that all attractiveness features (traits) are significant with respect to the clusters.

**Table 3: The Analysis Of Variance (ANOVA) Test Results**

Question	Research variables	Cluster	Cluster	Cluster	F	Sig
<b>Comfort</b>						
Q <sub>1</sub>	The degree of security in shopping centers	2.59	3.23	3.94	71.28	0.00
Q <sub>2</sub>	Availability of enough space for parking cars	1.88	3.12	4.05	127.522	0.00
Q <sub>3</sub>	Availability of all goods needed for the family	2.62	3.20	4.37	118.484	0.00
Q <sub>4</sub>	The existence of chairs or benches to rest while	1.70	2.56	2.73	34.33	0.00
Q <sub>5</sub>	Broadness of the shopping centers' corridors	2.39	2.82	3.16	22.615	0.00
Q <sub>6</sub>	Tidiness and cleanness of shopping centers	2.84	3.33	4.05	54.885	0.00
Q <sub>7</sub>	Suitable interior design and decoration	2.68	3.08	3.57	24.694	0.00
<b>Entertainment</b>						
Q <sub>8</sub>	The way of advertising in shopping centers	2.66	2.92	3.7	48.494	0.00
Q <sub>9</sub>	The existence of entertaining and interesting	1.79	2.73	2.92	44.504	0.00
Q <sub>10</sub>	The existence of recreational facilities and the space	1.71	2.67	2.82	44.773	0.00
Q <sub>11</sub>	Following the tips effective in attracting customers	2.13	2.75	3.66	87.434	0.00
Q <sub>12</sub>	The existence of appropriate space for entertaining	1.52	2.47	2.7	39.12	0.00
<b>Diversity</b>						
Q <sub>13</sub>	Variety of food and the large number of restaurants	2.22	3	4.16	151.486	0.00
Q <sub>14</sub>	Availability of large areas for eating food	1.94	2.85	3.9	148.216	0.00
Q <sub>15</sub>	The existence of cinemas in shopping centers	1.37	2.18	1.80	19.479	0.00
<b>shopping center's essence</b>						
Q <sub>16</sub>	The quality of products in shopping centers	2.44	3.23	4.42	168.596	0.00
Q <sub>17</sub>	General price level fitting your salary in shopping	2.54	2.80	3.71	38.281	0.00
Q <sub>18</sub>	Variety and the large number of stores in shopping	2.26	3.11	4.24	179.196	0.00
Q <sub>19</sub>	The existence of after sale services	1.52	2.64	3.61	141.047	0.00

<b>Convenience</b>						
Q <sub>20</sub>	The existence of supermarkets in shopping centers	2.12	2.97	3.94	102.493	0.00
Q <sub>21</sub>	Easy access to shopping centers	2.37	3.14	4.22	159.572	0.00
Q <sub>22</sub>	Shopping centers being active until late night	1.98	3.3	4.37	193.663	0.00
<b>Luxury</b>						
Q <sub>23</sub>	The facade of shopping centers	2.54	2.96	3.72	42.339	0.00
Q <sub>24</sub>	Popularity and reputation of shopping centers	2.59	3.39	4.17	98.748	0.00

The analysis of variance shows the significance of less than 0.05 for all clusters which confirms the facts that all clusters are significant with respect to the criteria including comfort, entertainment, diversity, shopping center's essence, convenience and luxury and the difference between the clusters is obvious (evident).

**Table 4: The Frequency of Each Cluster**

Number of the cluster	Frequency of the cluster	Percentage frequency
1	82	21.35%
2	177	46.09%
3	125	32.55%
Total	384	100%

**Tables 5: The Sociological Examination of the Clusters' Status**

Sociological (demographic) variables	Cluster 1	Cluster 2	Cluster 3
<b>Gender</b>			
Male	52	113	72
Female	30	64	53
<b>Age</b>			
Less than 20 years	3	21	14
21-30 years	28	80	47
31-40 years	31	36	27
41-50 years	12	26	28
More than 50 years	8	14	9
<b>Education (educational degree)</b>			
High school diploma and under diploma	35	71	31
Associate's degree	27	52	31
Bachelor's degree	13	36	48
Master's degree	6	13	11
PHD	1	5	4
<b>Job position (status)</b>			
Unemployed (jobless)	9	20	17
Employee	45	88	59
Business person	8	26	14

Retired	5	16	13
Other jobs	15	27	22
<b>The amount of monthly salary (toman)</b>			
Less than 1 million	51	96	56
1-2 million	19	61	47
2-3 million	8	12	15
3-4 million	2	7	4
More than 4 million	2	1	3
<b>The customers' number of each cluster</b>	82	177	125

As observed in the table by considering the three constant (fixed) clusters, the first cluster with the frequency of 82, the second cluster with the frequency of 177 and the third cluster with the frequency of 125 have constituted the combination of shopping centers' customers (the customers of shopping centers mix) in this research.

## 5. Discussion and Conclusion

In this research body, by identifying shopping centers' attractiveness factors and features (traits) and by using k-means method, we categorized shopping centers' customers into three following sections:

1. Indifferent customers
2. Luxury customers
3. Insistent (eager) customers

In El-Adly's research (2006), by considering six attractiveness factors which are: comfort, entertainment, diversity, mall essence, convenience and luxury, customers were also categorized into three groups of pragmatic consumers, relaxed consumers and demanding consumers. As a matter of fact, the group of indifferent customers in this research and pragmatic consumers, the group of luxury customers and relaxed consumers, and the group of insistent (eager) customers and demanding consumers are the same as each other in the exact order mentioned above. But due to cultural differences and the higher standards of Dubai's shopping centers compared to Kish Island's, the sensitivity degree in attractiveness traits of El-Adly's research groups was of a higher level. Furthermore, university professors and students constituted the population of El-Adly's research while in the present research's population, 35 percents of the subjects were lacking academic degrees (education). Besides, in El-Adly's research cultural differences between different nationalities were ignored, but in this study all respondents had Iranian nationality.

Three factors from among the six attractiveness factors (three out of the six attractiveness factors) were compatible with the findings of Wong et al. (2001) who identified five shopping malls' attractiveness factors which are called place (location), quality and variety, popularity, facilities, and shopping motivations. Convenience, shopping center's essence and comfort factors in this research are respectively similar to facilities, quality and variety and location of Wong et al.'s research (2001).

Convenience and diversity factors in this study support Wakefield and Baker's findings (1998) that physical environment of shopping malls and diversity of stores and shops are some important factors determining the behavior of shopping centers' purchasers.

The entertainment factor which was examined in this research supports findings of Bloch et al. (1994). This means that shopping centers are visited by buyers not only as places for shopping but also for some other activities like entertainment.

The factor of shopping center's essence which was inferred in this examination is the same as value hierarchy (ranking) in LeHew et al.'s studies (2002). But in general it is similar to the retail environment identified by Ibrahim and Ng (2002).

## **6. The Appropriate Strategy While Facing Each Cluster of Shoppers**

In this research, considering the groups of customers obtained through clustering, the strategies needed while encountering each cluster should be adopted and implemented by the shopping centers' managers. Therefore, we suggest some strategies appropriate for each segment of shoppers:

- **Indifferent customers:** this segment of customers are not loyal to shopping centers but their main purpose is providing their goods and satisfying their requirements in a way that attractiveness traits of the shopping centers are not that interesting to them to a great extent. Thus, the probability of losing them and having them attracted by the other competitors (opponents) or retailers is high. The recommended strategies for this group of customers are cost leadership and differentiation strategies which include the following items:

1. Presenting various prices and discount and gift coupons along with shopping, with regard to the fact that monthly salary of 62 percent of customers is less than one million toman, periodic discounts can be good motives (stimuli) for attracting them.

2. Identifying other attractiveness factors and traits apart from the six variables introduced in this research through interviewing this group of customers and patterning of (replicating) the previous body of research in retail sector which is considered as the opponent of shopping centers as far as this group is concerned.

- **Luxury customers:** this segment of customers is affected by luxury more than any other factors. The suggested strategies for this group of customers are development, preservation and maintenance and diversity strategies by considering the items below:

1. Using neuro-marketing techniques to measure attention, excitement and understanding (perception) of this group of customers.

2. Trying to make a safe environment in shopping centers

3. Making some plans to increase shopping centers' popularity or to improve their reputation by setting monthly exquisite prizes like cars for customers

4. Providing means of communication and transportation services until late at night (late-night services)

- **Insistent (eager) customers:** this segment of customers reacts to all attractiveness factors in comparison with the two groups above but the two factors of shopping center's essence and convenience are of more importance to them.

The recommended strategies for this group of customers are growth and development, differentiation and customer communications management strategies by considering the items underneath:

1. Continuous improvement of shopping centers according to today's world standards.

2. Using differentiation strategy for this group of customers, since this group compares shopping centers with each other and may be attracted to shopping centers of higher standards by visiting them

3. Providing an entertaining and attractive environment in shopping centers because naturally the more time customers spend in shopping centers, the more money they will spend there

4. Creating diversity in the existing stores of shopping centers in a way that all needs of this group of customers could be met with appropriate quality and by holding competitions between these stores.

5. Making shopping from these centers and visiting them possible until late at night



6. Easy access to shopping centers by providing suitable means of transportation

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