

The Study Of Effective Factors On Customer Behavior In Environmental Design

(Case Study: Airtoya VS. Central Car)

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Abstract:-This report's aim is to introduce a new knowledge with a short review on environmental psychology and its relationship with skeletal designing to architect, municipal and industrial designer whose life time isn't more than three decade. This report involves some matters about the relationship between human behavior and the environment including the nature of environmental psychology, the competence and the environment's competence and also has paid attention to the models of designing in a place including: form, light, color, decorative and operational elements, furniture, the line of vision in the space, the scale at space and spatial performance. So, after identifying and collecting initial information, research were performed with observation, interview and photographing from two places of Airtoya car and central car exhibition. The statistical group was 35 people who were visiting these two places. To study these model, relationship customer, behavior. The result according to the graphs show that the monotonous and stable light and having a roof with 3/5m height make the place professional the use of warm and light colors results in a kind of sincerity sense and also a wide vision in the place results in a kind of visional clearness sense. The tableau of cars, characteristics imply a kind of confidence sense to the customer and the cars, Arrangement in the space so that the custom can visit the car easily causes a mental calmness for the customer. Finally we conclude that the effect of these models on the customer is very high and is very effective on the customer decision for buying a car. According to this research's result, it is proposed that some other spaces be analyzed to consider designing model's effect on the user's behavior in every space while designing and creating

Keyword:-*recognition, human needs, behavioral sciences, internal architecture, and environmental psychology.*

I. INTRODUCTION

Architectures and designers nowadays pay much attention to psychological recognition and human behaviors. Because these kind of behaviors have close relationship with skeletal environment. What separates environmental psychology from other branches of psychology is the study of relationship between human mental based behaviors and skeletal environment. Although in many schools, the science of environmental psychology is included in their schedules but in Iran's art and architecture libraries, there are a few books, which are directly based on environmental psychology. Based on the psychologist's views, the main scale of designing in the process of designing is paying attention to form and its aesthetics aspect. So psychologist believe that designers sacrifice the usual and daily needs of users for their own aesthetics and abstract demand, also has made the people unfamiliar with the designed environment. The concept and researches in environmental psychology and behavioral sciences for the designers in one hand needs familiarity with this knowledge and on the other hand needs understanding the designing knowledge. Because the distance of behavioral scientists view and designers is too deep to make their communication very hard, so the designers should not wait for a time when all their problems and research matters in relation with human behaviors has been solved by social science's researchers and then presented to them with a vague language (pakzad, 1385). The nature of environmental psychology: according to "Geric" point of view, the study of human behaviors psychology is so that it is related to his or her daily life in the skeletal environmental. As it is shown from this definition, the psychology studies the relationship between the human and skeletal environment and their influence on each other in such away that their values, views and needs is paid attention to and study the matters which have essential role on human behavior such as recognition, identification, spatial behaviors, so environmental psychology is interested in the study of individual and social experience of human of the places which are human essential behaviors (Garik, 1970). The concepts that should be considered in environmental psychology in relation to designing are: recognition and environmental identification. Of behavioral, the manner of relationship between environment and people's behavior and using these data in creating designing theories. The concepts such as motivation and human needs in coexistence with capabilities and environment's competence,

which are considered by designers, are important in creating a theory for designers. One of the important theories is the role of environment in forming human's behaviors. In one sense, human's behaviors in world scale is influenced by ecological forces and these forces that human can reach, regardless of human's aim and motivation can be limited. So human as an involuntary creature are subdued by this ecosystem. Architecture CertainKalbdgry or CertainKalbdgry in a simple definition is: by creating changes in environmental elements or its competence, we can change the human's behavior especially in social behaviors. There are three views in the manner of influencing on skeletal environment determines the manner of human's behaviors compulsorily. In the second view which is called Possibleintegration, the competence of skeletal environment provides some possibilities and limitations so people can select themselves among proposed competencies. These selections are based on cultural tendencies, the people's value system and their beliefs and views. The third view is called environmental Probabilism. In this view, although skeletal environment provide some necessary possibilities for showing a kind of behavior according to the person's selection, but the analyses show that the possibility of the selection of available phenomena in environment or the behavioral place by the people is more than other selection (Bachtel,1977). Human is a complex creature that has materialist and moral motivations. Motivation is a force that guides and organizes the human's recognition, identification or his behaviors. The competence of the environment: The concept of competence or the simple conceptual capability is so meaningful and powerful which play a valuable role in designing theories. In fact according to this concept, various environmental and created models(Architecture/ civil designing/ industrial designing) provide different aesthetics behaviors and experience. The competence of material tools is skeletal characteristic, which are used by animals or human in the special manner and provide different behaviors for living beings (human and animals). For example, if a surface is horizontal, flat, extendable and hard and it's height from earth's surface is as the height of the knee of one person, the understand of person is that he can sit on this surface and in the other words that surface is capable of sitting on (Graik, 1970). Lecorbusier is an architecture and modern civic designing advancer who believes that architects can change social behaviors of the people and prevent from social disagree abilities by improving the quality of environment or changing the elements of house's designing. He said, " architecture and revolution: we can keep aloof from revolution" and MrsPlater and zyberk believes that: " designing can solve many problems and the designing of skeletal environment can influence on the behavior (Plater and Zyberk, 1994). The personality of the people of one country is formed according to the nature and the kind of environment that they live in for a long time. The radical difference in personality depends on the different of the environmental which people of different race live in for several generation (Mous, 1976). Human is influenced by the environment's conditions and on the other hand change the environment according to its needs, values and aims and improves the environment. Every person influences on the surrounding environment less than what is influenced by it (Motalebi,1998). The internal space's quality in one hand have a direct effect on our activities and on the other hand influences our personality, view and moods, so designer deals with two topics while designing the internal space: The use of that space, the sense and the effect that the space want to have on that space. The internal architecture include several spectrum of the elements and components which are called designing models such as form, light, color, operational and decorations elements, the line of view, the scale of the space, spatial performance and the limitation at space (Ching, 1943,160). Form: form and texture has central role in decoration, they add beauty and performance to their schedule (Shaterian, 1384). Every form comes from physical and formal features, which are proposed according to themes, feeling and memories such as picture, drawing and sayings (erabi, 1388). Color and light: the good design of light should provide practicable and agronomic essentiality while it has suitable price. The main element that gives life to the internal space is light. Without light, there are no visible form, light and texture, so the first application of lights is making the forms and the environment clear and able the users for accepting and doing activities with a suitable rate, precision and calmness. The internal lights cab guide the spectator through one space or a group of spaces and attract the eyes of the spectators by guiding to interesting points. Light can create safety by making the space clearer and potential risk (Ching, 1943,123). In all nonverbal forms and communications, color is one of the fastest methods of conveying the meaning. Color is related to all our feelings and has abstract symbol and several thoughts and at the same time reflects happiness, the desire of cooperation and reminds an other time and place which results in aesthetics sense or emotional reactions in humans. Often color is called " silent seller " which should attract the customer at the first glance and convey this message and help to sell those goods or services (eyesman, 1957). Furniture: the meaning of efficient furniture is that they not only decorate the space but have suitable capabilities and performances. This element can be enjoyable for our eyes visually and interesting for our sense of touch and a motive for our mind (artimanparisic, 1988). "The line of sight at place": the space and form are two inseparable elements because all the forms are improved in the space and at the same time, the forms create the space. Whit decoration and furniture, which don't rely on a spatial height and by means of balance, order and a new unity between the roof and the floor, more activity is created in the space. The spatial tiredness and also their verbal effects become more widespread." the scale in the space": The height of the roof has a main effect on the size of space. The high roofs tend to give a sense of wideness, full of air and

being high and also can create a splendid climate on the other hand, short roofs highlight the quality of being shelter and tend to create a sincere and suitable space. "Spatial performance ": The forming of the space depends on our manner of using. The nature of our activities and manner of their performance, influence on the design, order and organizing of internal space. One environment has special obligations as, a result of skeletal features and the competencies full of opportunities. When these capabilities find meaning in cooperation with the user's behaviors, they become potential (Bachtle, 1977). According to the researches which were done according to environmental psychology and the effect of designing models on the customer's behaviors, the environment was analyzed as an emotional sample and the customer's behavior on designing models at the exhibition of Airtoya car and central car.##" Results ": The analyzed results were composed of 35 peoples between 18 to 70 years old whose level of education is at least diploma. They interview with specialists and the results were analyzed by statistical data according to the tables and also we analyzed the data by photographing of Airtoya and central car's exhibition. The analyzed models if designing in the space are: light, the roof's height, the color of internal space, the field of the vision, the table of the car's features, internal feature and the manner of cars, arrangement. At first we look at the current condition of Airtoya and central car's exhibition. Airtoya has a size as 412 m2 with rectangular section and the height of the roof is 5 m any column is used in this space. The color of internal space of exhibition is neural gray with wide light that provide the light of the whole place, and also light and warm colors are used for the floor of internal place that create a suitable and colorful composition (figure 1).



Figure 1: The exhibition of fairtoya car

In two sides of the hall, modern furniture is used for relaxation and customers communication. In this hall, cars are placed with much distance from each other and near every car, there is the table of it's features.



Figure 2: the exhibition of airtoya car

The exhibition of central car has a size as 150 m2 with rectangular section and the height of the roof is 3m and two columns with circular section is used the color of the exhibition's internal space is neutral colors light in this space are place on the wall and Halogens are used in the roof. For the floor, the tile 15×15 cm with cream color is used



Figure 3: the exhibition of central car

The furniture in the place is limited in front of the seller's table and the entrance. In this place, the cars are placed in different directions and with little distance from each other.

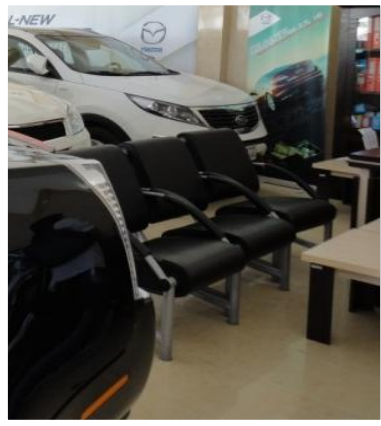
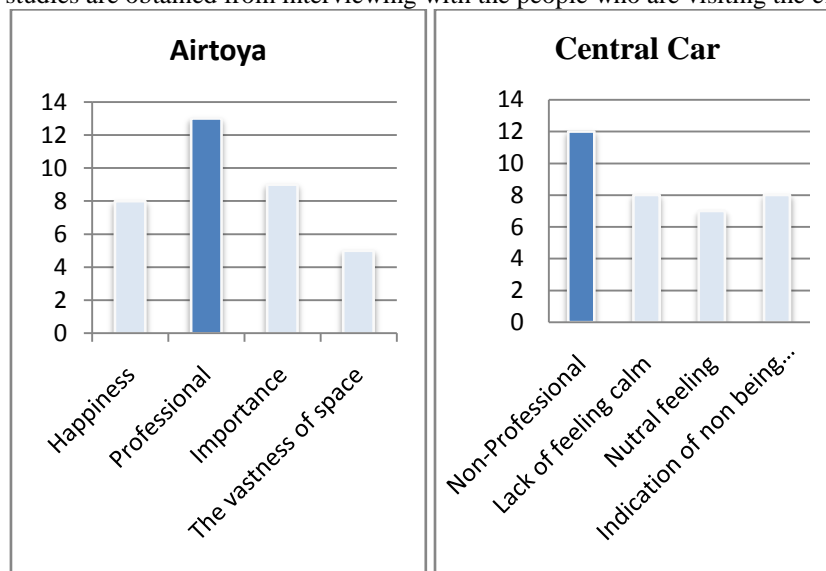


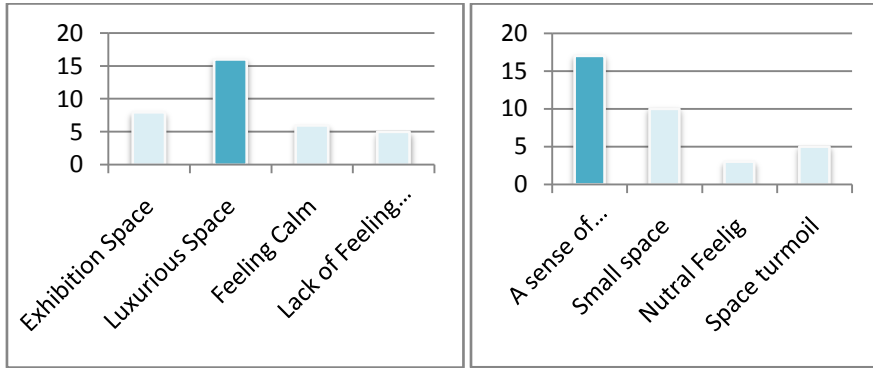
Figure 4: the exhibition of central car

The results from studies are obtained from interviewing with the people who are visiting the exhibition.



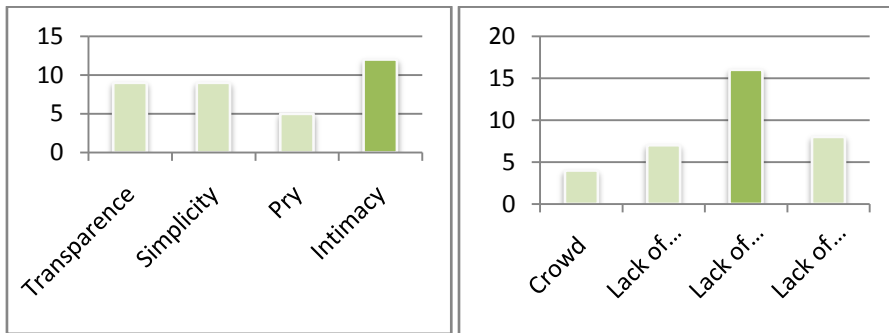
The graphNo 1: the effect of light on customer's behavior

This conclusion shows that how much Lighting is effective in exhibition. As you can see from graph 1, 12 peoples from 35 peoples consider this place nonprofessional and airtoya 13 peoples from 35 people consider this place professional.



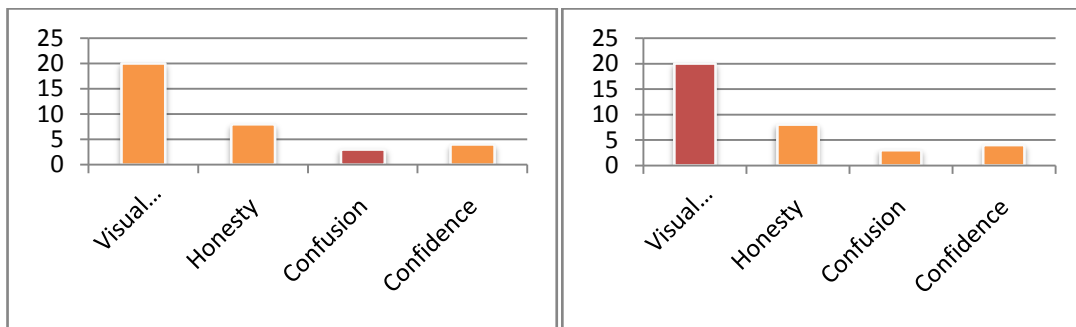
Graph 2: the effect of the roof's height on the customer behavior

According graph 2 it is clear that the roof's height in central car result in the customer's stuffiness, which is 48/5%, and in airtoya this factor results in beauty of the place, which is 45/7%.



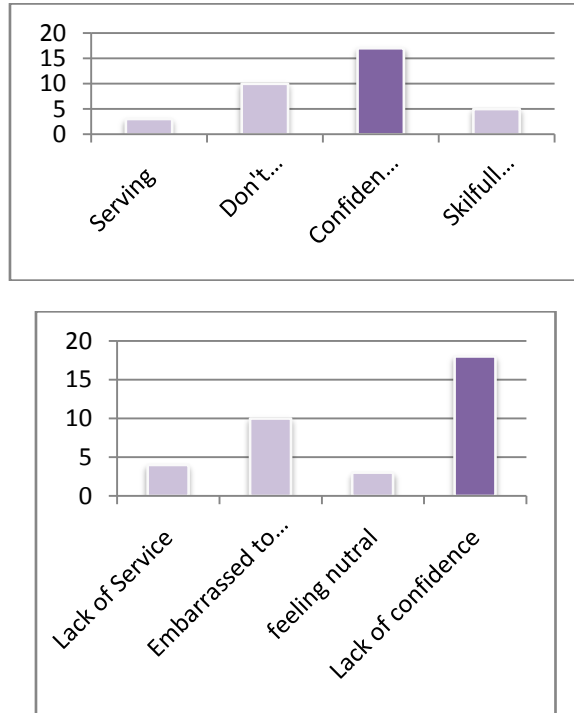
Graph 3: the effect of the color of internal space of the customer's behavior

As it is clear from graph 3 the effect of internal space's color in central car results in non-sincerity which is 45/5% and his factor in airtoya results in sincerity which is 34/2%. According to the options, we understand that the customer's behaviors are totally one positive and one negative.



Graph No 4: the effect of vision's field at the beginning of entrance to the place on the customer's behavior

In interview about the effect of vision's field according to graph 4, it is clear that this factor in central car causes not being conversant with the space in the customer's behavior which is 42/8%, and in airtoya is 57% and makes the optical clearance in the customer

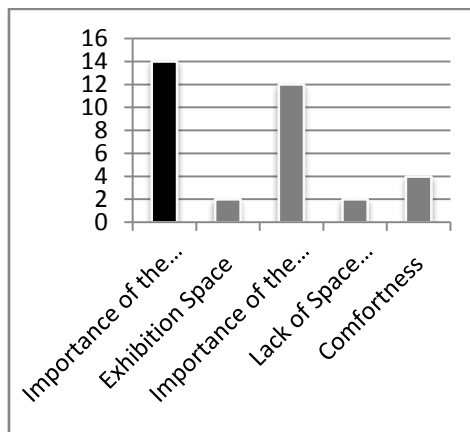


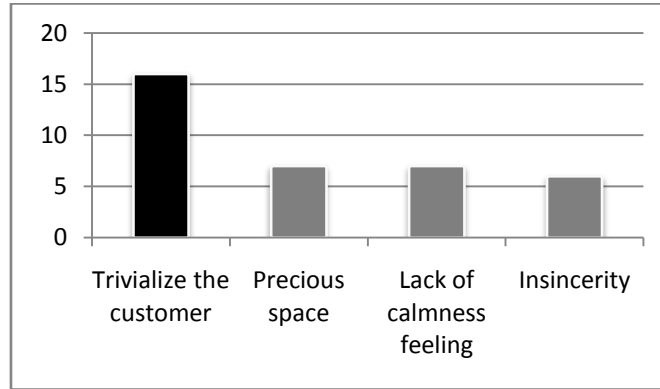
Graph No 5: the effect of the tableau of features on the customer's behavior

According to the figure 5, it is clear that the tableau of the car's feature is placed near every car and results in a kind of reliability sense for the customer in airtoya exhibition whose the most amount is 48/5% and in central car, lack of these tableau results in the lack of reliability in the customer which is 51/5%.



#Figure 5: the tableau of the car's features



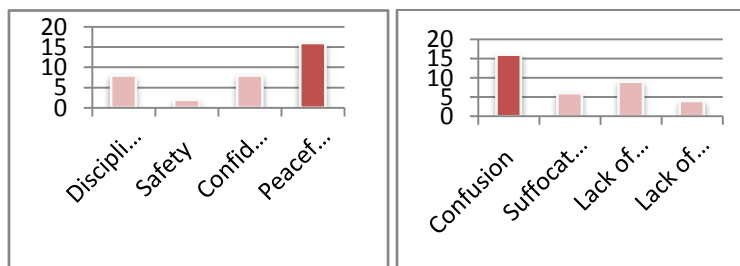


Graph 6: the effect of internal furniture on the customer's behavior

According to the studies it is clear from graph 6 that internal furniture in airtoya results in considering the customer important which includes 42/8% of the people and this factor in central car results in not considering the customer important which 42/8%.



Figure 6: internal furniture in airtoya and central car

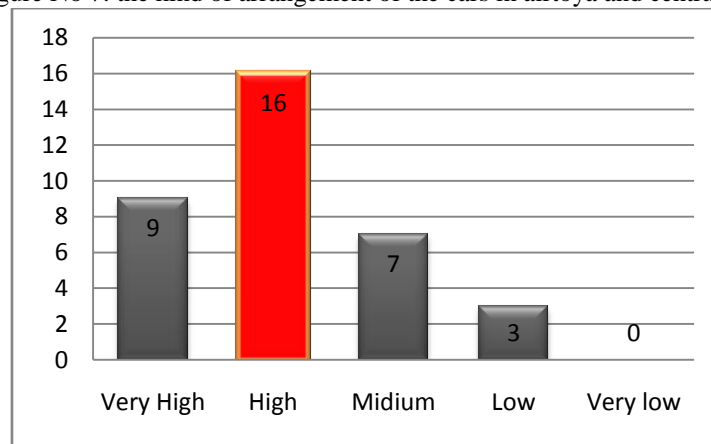


Graph 7: the effect of the kind of cars Sort on the customer's behavior

According to graph 7, the arrangement of cars in airtoya has an effect on the mental calmness of the customer, which is 45/7%, and this factor has an effect for the entertainment of the people in central car, which is 45/7%. It is clear that the customer's feelings in feeling in these two places are quietly contrastive.



Figure No 7: the kind of arrangement of the cars in airtoya and central car



Graph 8: the effect designing models on customer's buy in airtoya

According to the interviews, this question were finally asked, " If you're suitable car is toyota, which exhibition do you prefer and too percent select airtoya. As it is evident from graph 8, the effect of designing models in airtoya on the customer's buying is high and is equivalent to 55/7%.

II . DISCUSSION AND CONCLUSION

What is analysed in this research is a short review about environmental psychology in relation to the skeletal designing and the models of designing which is studied for the factors that influence in the laboratory environment the behavior of customer and also the extent of the important of designing models for the customer's purchase was studied. As it was observed in the results, the kind of light in airtoya causes a kind of professional feeling for the customer because the light in the roof is stable and similar in the whole roof that has the light for 850 lux, so there weren't any source of light for making the place clearer the kind of light in central car causes a kind of nonprofessional feeling for the customer because two light sources were used and this factor caused a kind of unbalance in the environment the height of the roof in airtoya made place splendid for the customer because the height of the roof in airtoya is 5m which is seen in special places, but in central car, caused a kind of extinction feeling for the customer because the height of the central car's roof is 3m which is common in houses and because cars have big dimension, a kind of extinct feeling was caused for the customer. The color of the internal place of the central car was obtained for the results that caused a kind of non sincerity feeling for the customer because in central car, cold colors are used which aren't balanced optically and causes a kind of insincerity feeling for the customer. The color of internal car in airtoya has caused a kind of sincerity feeling for the customer because in airtoya, warm colors are used and are placed in the manner so a good composition is appeared and a positive feeling is associated. According to the results for the field of the vision in airtoya that has caused a visional clearance for the customer, there is this reason that in airtoya there is no column and the internal space is coherent and in the central car this has caused not including because there are two columns in the middle part and because the number of the cars is great has caused a kind of not occupied for the customer. According to the statistics about the tableau of the car's features in airtoya that caused a reliability feeling for the customer is because of this fact that when the customer see the car's features near every car, resting question will be answered and the dominance feeling for the employees causes a reliability feeling and the tableau of car's features is as a guarantee for the customer but in central car because of not having this tableau, this reliability is vanished and the customer has no sufficient reliability about the sayings, exhibition's owner. The internal furniture of airtoya has caused an importance feeling for the customer because the selected furniture is harmonious with the environment and devoted a place for thinking or advising with other members of the family privately and think factor has made a kind of importance feeling for the customer but in central car, the lack of these facilities has caused the lack of importance for the customer. According to the results the customer in airtoya have mental calmness because the cars are placed with equal distance from each other so the customer can study the considered car completely and also the distance of the cars from each other is great so a kind of mental calmness in decision is made. In central car, the distance of cars from each other is small and the customer can't study the cars completely so a kind of fuzziness is caused. The effect of considered designing models in exhibition change the customer's behavior and influence on his or her decision for buying that car. The designer's familiarity with the sciences which help directly or indirectly the designing made the designers able to adjust their models with the user's needs or cultures but by extending this science and it's application in 2 designing, studying other concept is necessary

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