The impact of social factors affecting consumer behaviour on selecting characteristics of purchased cars

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The present study examined the impact of social factors on consumer behavior in selecting traits of the purchased car in Tabriz (Iran). A one sample T-test was used to test the hypotheses of this study. In line with complementary findings of research using error bar diagram, the first component of the social factors affecting the consumer behavior was tested. In selecting car traits, based on every component, every feature of car was ranked. Findings of the research show that traits of family and social status affect selecting the traits of the purchased car. Reference groups factor; however, does not influence the vehicle traits. These findings indicate that social factors influence the selection of characteristics in purchased cars.

JEL Codes: D18, L62 and M31

1. Introduction

Of the basic principles governing the current competitive market are customer orientation and belief in customer-centeredness. At present, the competitive market forced producers to produce goods based on customer needs (Tafler, 2004). The study of consumer purchase behavior, which is briefly called consumer behavior, provides information about consumer and his/her consumption patterns (Nesai, 2009). An organization can continue to survive if it can supply consumer needs and demands with a comprehensive understanding of them. This shows the importance of studying consumer behavior (Hawkins et al, 2006). This requires understanding consumer behavior which is not so simple. Customers may not know their own deeper inner motivation or they may react to affecting factors in the last moment and simply change their mind. However, marketers should consider their customers’ requests, intakes and buying behaviors (Kotler, 2009). Buying behavior of individuals is often unconsciously affected by some factors. One of these factors is social factors. Social factors play an important role in the decision of buying certain products, including the most sensitive products such as cars. Car production has an important role in the lives of people. In today’s competitive world chance of survival of an institution is related to continually providing its customers’ satisfaction and to attract their loyalty and support. Knowing the factors that unconsciously affect the decision to purchase something can have positive effects on supplying the customers with better products. Diversity in car production persuades the buyer and customer to make a selection.

Among various products, buying cars is more sensitive because it deals with health and safety of human life. Therefore, every producer tries to attract consumers to his product. In the

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present world, the speed of technological developments in industry sector especially in automotive industry is so high and unexpected that coordination and compliance with these changes have become a vital issue for countries and big companies. No longer can a country confidently and authoritatively plan and design in industry specially car industry with no attention to worldwide changes. Intensifying global competition in the automotive industry and constructing of pieces, and emphasizing the survival and viability of an industry’s ability to compete depend on its ability to compete. In this regard, countries are required to have access to the latest technological findings, reduce the costs and prices, and improve product quality. In other words, car as a strategic commodity increasingly plays an important role in developing and improving countries trade. That is to say automotive industry through its links with other industries can be a powerful driving force for industrial development in a country. This industry has always been considered as one of the most important chains of industrial development in each country. Since the automobile industry needs to be fed from other industries to grow, it, in turn, causes many sectors and industries to grow. Thus, strengthening and supporting the automotive industry has become an inevitable necessity for developing countries. (Khaju, 2009).

2- Theoretical research

2-1- Consumer behavior

Consumer behavior includes a series of mental and physical processes that continues through before and after purchase. (Peer & Olson, 1999). Studying consumer behavior includes the study of what, how, and why people are buying (Khajeh Nasiri, 1387). Consumer behavior indicates how consumer decisions are made, how the goods or services are used (Mc Daniel, 2003). Berkman and Gilson explain consumer behavior as activities in which people are involved in actual or potential use of various products of market including goods, services, ideas and environment of the market. (Fyruzyan et al, 2009). According to Solomon (1999), consumer behavior, with the aim of satisfying needs and desires of people and different groups, examines the process affecting the selection, purchase and use of products, services, ideas and experiences (Ismailpour & Ghafarieashtiyani, 2002). Consumers’ behaviors are physical emotional and mental activities to satisfy the needs and demands of the consumers when people select, buy, and use goods and services and to discard the product (Wilkie, 1994). A company that is aware of consumers’ reaction to different characteristics of goods, prices and advertisement tricks has advantage over its competitors (kotler, 2009). Recognition of factors affecting customer’s buying decisions is one of the issues that marketers are trying to identify in order to understand the interests and demands of their customers and address them.

Making his decision, the buyer considers many factors classified in four categories. In many authentic marketing texts, these factors are categorized generally as: cultural factors, social, personal and psychological categories. Although marketers cannot influence many of these factors, identifying these factors is important to identify potential buyers and make products to meet these needs. Each of these factors has a special dimension. Social factors play a special role in the decision of the buyer’s purchase (kotler and Armstrong, 2006).

Social factors: Social factors are also affected by the behavior of consumers. The social factors include:
1. Reference groups

Reference groups include buyer reference group, such as family members, friends, social organizations, professional institutions and trade, heavily influence the selection and specific brand. Reference Group somehow affects the value and behavior of others. Most of the purchases affect ideas and opinions of the reference group (Nesai, 2009).

Reference Group can impact a person at least in three ways. First, the person will face new behaviors and lifestyles; second, the ideas and imaginations that affected individual’s interests will be adapted to the reference group. Third, the created compulsive conditions may have influence on the choice of product brands (Kotler, Armstrong, 2006).

Reference groups are those that somehow affect the value and the perceived behavior of others. It should be noted that the reference group differs from opinion leaders. In the study of human communication it can be seen that some people provide information more than others. Such people are opinion leaders who can be defined as "consumers who influence the purchase decision of others" (Samadi, 2007). Opinion leadership is the status of a particular class of product. In a separate class of product, opinion leaders may influence others about a number of different products. However, leadership does not seem to exist in all product categories (Griffin, 2003).

Leaders of opinion or thought leaders are members of Reference Groups that can affect others because of their skill, intelligence, personality or other traits. Manufacturers of branded goods the demand of which is severely influenced by Reference Groups should try hard to access the opinion leaders (Venus and et al, 2003).

2. Family

Family members, forming the basic structure of the initial Reference Group, have a great impact on buyer behavior. In everybody’s life, two kinds of families may be formed. The first kind is a family in which someone is born and grows and religion, politics, economics and education of that person depends directly on that family. The second kind of family in which the buyer’s behavior is affected includes children and people under supervision (Nesai, 2009).

Family has had a special place in a community. In fact it is a basic social unit. Norms and senses that stabilize the family gain their references from the inclusive society which is an ideal source of community and family stability. Effects of traditional attitudes, interests and incentives of families not only will be evident in the developmental period, but also it may be extended in the next generations. Family is a particular sub-group of society and at the same time implies an important economic unit. Family is a complete and complex purchasing organization that encompasses the needs of two generations or more. Purchasing behavior will be affected by the nature of family and its responsibilities may create a range of reverse demands for goods and services. The style of the family life determines its place in the society. Several researchers studied the impact of social factors on individual and family consumption patterns (Samadi, 2007).
3. Social status

Social status of each person throughout his life depends on a Family Group, clubs and organizations. Person's position within each of these groups can be defined based on the role and status of the individual. Every role includes activities that are expected of a person. Someone may have the role of the daughter of a family and beside her family may have the role of a wife and a mother and she may have the role of responsible sales manager in the company where she works. Each of these roles has special effects on purchasing behavior (Kotler, 2009). Each role has a dignity. Dignity is the respect that society has toward that role. Generally, people choose products which are the messengers of their social role and status in the community (Kotler & Armstrong, 2006). When a person accepts a role, the normative pressures have effects on the person to act in a special way. An important role in consumer behavior is related to the decision maker; she makes the final decision about which brand to choose (Mown & Minor, 2009, 395).

3.3. The characteristics of the purchased car

The trait of purchased car in this study includes:

1. Safety
   Most of the vehicle standards include the following: (IranKhodro Regional Office Center in Tabriz, 2011): an anti-lock brake system, air bags for driver safety, anti-theft system, seat belts, pulling forward safety brakes during severe accidents; reverse warning system (reverse sensor), Fog lights, front lights and rear and a telescopic steering shrinking during accidents.

2. Consumption amount
   Consumption amount of any given engine is the requested rate of speed and consumption expressed in terms of Liter. (Khajv, 2009);

3. Price
   The price has long been the main factor affecting the choice of buyer. Although in recent decades non price factors have become more important in buyer’s behavior, price remains as one of the most important elements determining market share and profitability of a company. Price is the only marketing combined element that generates income. All other combined elements create cost. Thus, providing a good price is a fundamental decision (Walker, 2004).

4. Model
   Every car has a type and model, for instance, the Pride examined in this study has varieties of Saba, Nasim, Saipa141, Saipa 131, Saipa132, Saipa 111, hatchback, and ordered one. Each model is also different from others in engine type, engine size, transmission or other technical differences.

5. Color
   The phenomenon of color is present in all directions of various sciences such as physics, mental studies, optics, engineering and quality and also it is located between the art and science (Corsini, 1999,). Color which is based on the cognitive stimulation of the retina is the reflection of light from the object (Raisi et al, 2008). Color as a crucial feature of objects can change individuals’ emotions, the way of selection of
the vehicle. It can also affect the market. Research has shown that silver colors are more preferred in Iran. Its production is even more than U.S. Although most people often know the psychological power of color, few people may not be influenced by color. For a better life, the surrounding colors should match individual’s personality. Reaction of every person to color can be defined based on traits - such as age, sex, ethnic or economic groups, and even the local climate. (Khouw, 2001) For most companies’, especially large automobile companies, not only understanding the consequences of communication styles and colors used on the target group but also finding applicable principles to transfer them has a fundamental importance. So color analysis constitutes one of the areas of marketing about consumers’ choice in different cultures and its perception of colors (Peterson & Cullen, 2000).

3- Literature Review

Dadfar (2009) in a research titled "identify and prioritize the factors affecting buying decision of Iran khodro products" investigated and identified factors influencing the purchase decision of the buyer of Iran khodro products. The present statistical study is about owners of Purchased cars manufacturedin1381-1373which were used in Tehran. Total sample was160that were obtained from the unlimited sample size formula. The collected data were summarized and analyzed using a binomial test, Friedman, and Spearman correlation. The findings show that three factors of services, the quality of sales and or derrespectively affect the buyer's purchase decision.

Mousavi (2006) in a study titled "Cultural factors affecting buyers decision to purchase Iran khodro cars" considered factors such as income, location, age, sex, number of car buyers family members and their jobs. Shoppers in this study are selected based on personal characteristics, social, economical, and behavioral factors. The relationship between these factors and purchasing the products of Iran khodro has been studied. In a systematic classification, 96 samples were selected randomly from owners of vehicles from different gas stations in Tehran. The results of this study show that at present factors such as income and its changes, occupation, gender, income resources are more affecting than other variables on the purchase of Iran khodro cars.

Zahedan Nobandegan (2002) in a research investigated “the impact of environmental stimulus and effective marketing on consumer behavior of in Iran khodro Company”. In this study influential environmental factors and marketing and importance index of each factor in terms of quality, satisfying customer needs, and managing Peugeot GLX 405buyer behavior were identified. The hypotheses of this research were analyzed by Student T-test and Friedman test. The results indicated that external motivators such as cultural and personal factors as well as marketing motivators including price, product quality, improving after sale services and distribution channels with different degree of importance have impact on consumer behavior. It is also known that the effective marketing factors in comparison with the effective environmental factors have a greater impact on consumer behavior.

Khalili Ardakani(2008) studied "the relationship between fitness aspect and motivation of perceived social responsibility with consumer behavior ". Income and education level is two moderating variables in this study. The study gathered data by a researcher-made questionnaire and analyzed data from customers of Sam and cars of Iran khodro by Multiple Regression test, Pearson correlation and One-way analysis of Variance. The results of this
study have shown that there is a positive relation between perceived social responsibility and consumer behavior. Awni (1993) in a study outlined the Price–benefit Plan Model in America's medium size cars. In this study the characteristics of a vehicle such as engine power, chassis size, passenger capacity, fuel tank capacity, the capacity and strength of the trunk and carprices have been assessed. Market research has shown that there is a positive relationship between price and benefits. Moreover, there are seven medium size car markets in America and competition is not high in subsection. In Low levels that the brand names such as Mercedes and Volvoare present, companies are gatheringtheirmodelsfromthemarket. The results show that a manufacturer with the right combination of cost - benefit and some secondary benefits in customer demand can find intact market of clients for themselves.

Olson, et al. (2005) studied “The impact of three dimensions of relevance, motivation and timing the perceived social responsibility in improving consumer behavior. The findings of this study show that among dimensions of relevance, responsibility, motivation and timing of perceived social responsibility, only existence of relevance dimension in social actions has improved consumer behavior.

4- Theoretical Research Framework

In this study, according to Figure 1, the effect of independent variable of social factors on the dependent variable of traits of the purchased cars has been studied. The independent variable of social factors has dimension of reference group, family role and social status. Moreover, the dependent variable consisted of car safety, consumption, prices, models and colors. Many factors, including cultural, social, personal and psychological factors influence selecting traits of the purchased car. In the present study the effects of social factors have been investigated.

![Figure 1- Theoretical Research Framework](image-url)
5- The research hypothesis

Research hypotheses corresponding research questions and objectives include:

Hypothesis 1. Reference groups' aspect of social factors affectson the characteristics of Purchased cars.

Hypothesis 2. Familyaspect of social factors affects the selection of the characteristics of Purchased cars.

Hypothesis 3. Social status aspect of social factors affects the selection of the characteristics of Purchased cars.

6- Research Methodology

The present study is an analytical survey and the aim of the study is applied (developmental). The statistical population of the study is all the buyers of different types of Pride from Saipa Company’s authorized agents in Tabriz in the second quarter of 1389 and the first two months of 1390.Random Two-stage Cluster Method was used for sampling. All 13 agents of Saipa Company in the city were selected as clusters then 3 clusters of them were chosen for the study. The statistical samples of this study include buyers of different types of Pride in authorized agencies of Saipa Car Company in the studied city.

Applying Cochran formula the sample size of 261 persons that is 87 for each agency was obtained. Respondents of the questionnaires were selected randomly from the customers who were present in the agencies chosen as the statistical samples. Content validity of the questionnaire was approved. Cronbach’s alpha for the questionnaire was obtained 0.8127 with confirmed high reliability.

7- Data Analysis

7 -1 Descriptive Statistics

According to the data of Table 1, it is noted that 87.4% of the respondents were male and 12.6% of them were female. It is noted that 16.5% of respondents were single and 83.5% were married. According to Table 2, it is noted that 3.1% of those respondents were between 25-20 years of age, 11.9% between 30-26, 17.2% percent between 35-31, 26.1% between 40-36, 18.8% between 45-41, 17.6% between 50-46 and 5.4% of them were more than 50 years old. According to Table 3, it is noted that 46% of respondents had diploma and graduate degrees, 15.7% had associate degree, 34.3% had a bachelor’s degree and 1.9% had master’s and doctoral studies. Based on Table 4, it was noted that 56.7% of respondents were self-employed, 4.2% were retired, 0.4% were housewives, 26.4% were employees and 12.3% had other occupations. According to Table 5, it was noted that the 1.9% of respondents had incomes less than 200 dollars, 24.1% between 200 to 400 dollars, 27.7% between 400 and 600 dollars, 24.5% between 600 and 800 dollars, 17.2% between 800 thousand and a million USD and 5% were of revenues more than a million USD in a month. According to the data of Table 6, it was noted that the average size of the reference groups, family and social status and role of social factors were obtained as 2.91, 3.65, and 3.43, respectively.
Table 1- The frequency distribution of gender and marital status

<table>
<thead>
<tr>
<th>Sex</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>percent</td>
<td>f</td>
<td>percent</td>
</tr>
<tr>
<td>Replies quantity</td>
<td>87.4</td>
<td>228</td>
<td>12.66</td>
</tr>
<tr>
<td>Marital status</td>
<td>Single</td>
<td>Married</td>
<td>Total</td>
</tr>
<tr>
<td>Replies quantity</td>
<td>16.5</td>
<td>43</td>
<td>83.5</td>
</tr>
</tbody>
</table>

Complied by the authors

Table 2- Age distribution

<table>
<thead>
<tr>
<th>Age</th>
<th>20-25</th>
<th>26-30</th>
<th>31-35</th>
<th>36-40</th>
<th>41-45</th>
<th>46-50</th>
<th>More than 50</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>%</td>
<td>f</td>
<td>%</td>
<td>f</td>
<td>%</td>
<td>f</td>
<td>%</td>
<td>f</td>
<td>f</td>
</tr>
<tr>
<td>Replies Quantity</td>
<td>3.1</td>
<td>8</td>
<td>11.9</td>
<td>31</td>
<td>17.2</td>
<td>45</td>
<td>26.1</td>
<td>68</td>
</tr>
</tbody>
</table>

Complied by the authors

Table 3- The frequency distribution of education

<table>
<thead>
<tr>
<th>Educational Level</th>
<th>Graduate and Diploma</th>
<th>Associate Degree</th>
<th>Bachelor</th>
<th>Master and Doctorate</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>%</td>
<td>f</td>
<td>%</td>
<td>f</td>
<td>%</td>
<td>f</td>
</tr>
<tr>
<td>Replies Quantities</td>
<td>46</td>
<td>120</td>
<td>15.7</td>
<td>41</td>
<td>34.4</td>
</tr>
</tbody>
</table>

Complied by the authors

Table 4- Distribution jobs

<table>
<thead>
<tr>
<th>Job</th>
<th>Self employed</th>
<th>retired</th>
<th>Housewife</th>
<th>employee</th>
<th>other</th>
<th>total</th>
</tr>
</thead>
<tbody>
<tr>
<td>%</td>
<td>f</td>
<td>%</td>
<td>f</td>
<td>%</td>
<td>f</td>
<td>f</td>
</tr>
<tr>
<td>RepliesQuantity</td>
<td>56.7</td>
<td>148</td>
<td>4.2</td>
<td>11</td>
<td>0.4</td>
<td>1</td>
</tr>
</tbody>
</table>

Complied by the authors

Table 5- Income distribution

<table>
<thead>
<tr>
<th>Income (Toman)</th>
<th>&lt;200000</th>
<th>200-400000</th>
<th>400-600000</th>
<th>600-800000</th>
<th>800-1000000</th>
<th>More than 1million</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>%</td>
<td>f</td>
<td>%</td>
<td>f</td>
<td>%</td>
<td>f</td>
<td>%</td>
<td>f</td>
</tr>
<tr>
<td>RepliesQuantity</td>
<td>1.9</td>
<td>5</td>
<td>24.1</td>
<td>63</td>
<td>27.2</td>
<td>71</td>
<td>24.3</td>
</tr>
</tbody>
</table>

7-2- Inferential statistics

In this part, one-sample T-test was used to control the research hypothesis. Error bar chart was used for ranking components of social factors affecting consumer behavior in selecting traits of the purchased car and ranking of the characteristics of each vehicle in terms of social factors.

Results of One-sample T-test and error bar charts are shown in Table 7 and Figure 2-5. Based on information obtained from Table 8, it is noted that H0 was rejected with 95 % confidence level and at significance level of < 0.05.. According to the information obtained from
It was observed that among social factors influencing the choice of car traits, family factor had the strongest impact and factors of social status and reference groups were, respectively, in the second and third priorities. Moreover, after checking out ranking of social factors affecting selecting car traits, the error bar diagram was applied for ranking car traits in terms of every social factor. It is noted in Figure 3 that the reference groups dimension of social factors consumption, model, safety, price and color, respectively has the strongest impact. Also in Figure 4, it is shown that the family dimension of social factors, price, consumption, quality, safety and the model, respectively had the highest influence. Also in Figure 5, it is noted that the social status dimension of social factors price, model, color, and consumption and security, respectively have the highest influence.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Number</th>
<th>Mean</th>
<th>SD</th>
<th>Average standard error of mean</th>
<th>Bound level above 95%</th>
<th>T</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reference groups</td>
<td>261</td>
<td>2.9142</td>
<td>0.51019</td>
<td>0.31358</td>
<td>-0.0236</td>
<td>-0.718</td>
<td>0.007</td>
</tr>
<tr>
<td>family</td>
<td>261</td>
<td>3.6552</td>
<td>0.77837</td>
<td>0.04828</td>
<td>0.7500</td>
<td>13.598</td>
<td>0.000</td>
</tr>
<tr>
<td>Social status</td>
<td>261</td>
<td>3.4337</td>
<td>3.4337</td>
<td>0.04820</td>
<td>0.5286</td>
<td>8.999</td>
<td>0.000</td>
</tr>
</tbody>
</table>

Complied by the authors

Figure 2- Error bar diagram to compare the dimensions of social factors

Figure 3- Error bar diagram to compare the characteristics of the car (reference groups)
8. Research results

The results related to the objectives, research questions and hypotheses of this study are as following:

1. Reference groups aspect of social factors does not affects election of car characteristics.

2. The family aspect of social factors affects selection of car characteristics.

3. Social status aspect of social factors affects selection of car characteristics.

9- Research suggestions

1. Policies in this field do not seem much appropriate. Social conditions of the surveyed agencies show that car companies do not care or do not pay attention to the crucial role of these factors in choosing a car.

2. Considering the fact that word of mouth advertisings is the most effective way of advertising and that reference groups can do this kind of advertising well, car companies should pay more attention to these characteristics in cars. A) Fuel consumption: Perhaps the best way to reduce fuel prices for the consumer is reducing vehicle fuel consumption. No doubt in the coming months and years, one of the most important priority for vehicles election is certainly low fuel consumption and reducing fuel consumption will lead to gaining a competitive advantage for firms. B) Car model: Companies should have more variety in car models. Small but positive changes in car models with the aim of strengthening the advantages and removing disadvantages of the vehicle can produce a variety of vehicles, resulting in more sales with less cost. C) Car safety: Car companies should pay attention to these factors: Having anti-lock brake system, air bags for driver safety, anti-theft system, pulling forward safety belts when the brakes have severe reverse, warning system (reverse sensor), fog light, front and rear lights, a telescoping steering shrinking during accidents. In addition, in customers’ points of view the most important factor in vehicle safety is having
strength of the chassis in an accident. In addition to the above mentioned cases, car companies should also pay special attention to this case.

3. Attention to the family factor: the effect of family members on selecting car characteristics should be taken into account by car companies, especially in advertising media such as radio, television, newspaper. These advertisements should be designed to affect every member of the family.

4. Attention to the social status: Attention to social status of people in the society and manufacturing products appropriate with their social status can be a factor contributing to both success and advantages of the competitive market. Price, model and color are most affected by social status of individuals. Increasing diversity of vehicle models and different colors appropriate with their dignity that is associated with increasing the price can increase profits of the vehicle manufacturer.

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