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The Most Important Criteria for Selection of Foods in Yazd

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ABSTRACT

Background: Selection of the right foods is the first step to have a healthy society. Food selection criteria depend on the food characteristics and food culture in an area. One of the most important factors in selection of the food items is the individuals' social differences and gender issues. ***Methods:*** In this paper, 500 people were selected from Yazd city. Later, this population was categorized into four categories of 125 and the types of food choices were investigated in each category. The data were analyzed to evaluate the groups using SPSS 16. ***Results:*** The results showed that the most important factor in selecting a food type was brand, whereas, the least important one was awards and lotteries. The price is the most important criterion for shopping in downtown areas and its rate was higher in men. ***Conclusion:*** It can be concluded that the brand, price, and physical and emotional characteristics of food items had greater impact on buyers.

Keywords: *Consumer; Food choice questionnaire; Food safety; Food consumption*

Introduction

The global concern is increasing about the right or wrong choices of food items by consumers since these choices effect the health of individuals (Deshpande *et al.*, 2009, Pearcey and Zhan, 2018). Food buyers are increasingly faced with new food products and better packaging. Moreover, producers sometimes try to attract new buyers by awards and lotteries. Although many criteria affect selection of food products, in this research we tried to investigate several general criteria for choosing a food item from other foods of the same kind.

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A great deal of research was conducted on the effect of color and odor on the increase of sales and consumption (Porcherot *et al.*, 2013, Yin *et al.*, 2017). This idea was categorized under the sub-title of physical and sensory characteristics and included all perceptual and physiological properties of goods. Label information includes the expiration date, nutritional information, product safety, and other useful information on the food product (Przyrembel, 2004). The type of brand, the reputation of a producer, and the buyer's trust in that product are related to a particular manufacturer (Cho, 2019, Dong and Gleim, 2018). The price suitable for the customer can also be one of the most important criteria (Cabral *et al.*, 2017, Dong and Gleim, 2018). In recent years, producers have started to allocate valuable prizes to their products in Iran to increase their sales. This may greatly affect the selection of a food from among other foods of the same type (Loucks *et al.*, 2017, Vandeweghe *et al.*, 2018).

In a study conducted over Chinese and American students, the results showed that price was important for most Americans, while the Chinese emphasized the sensory appeal of a food product (Pearcey and Zhan, 2018). In this study, we aimed to investigate the differences in food selection criteria among food buyers in upstate and downtown neighborhoods of the city. In addition, we tried to conduct a good research by comparing the data according to the participant' gender and the grocery store location.

Materials and Methods

Study design, participants and measurements: In this descriptive comparative study, after consulting with a statistician and determining the error range of $\alpha = 0.05$, the sample size was determined as 500. The participants were classified into four categories of 125 people from the affluent and downtown areas. The first group consisted of 125 male buyers in the retail store of upstate, the second group was 125 women shoppers in the same store, the third group included 125 male shoppers in a downtown store, and the last category was 125 females from the same downtown store. These buyers were aged over 18 and under the age of 65 years. For both affluent and downtown groups, three stores were selected, which are roughly equally well-suited to the question of **Table 1**. This study was carried out from 7 to 9 AM in six consecutive days. Considering the income level of people in the questionnaire, 5 million tomans per month was considered as the selection criterion; individuals who earned 5 milions or higher were considered wealthy. In this study, we used five general criteria to classify the food selection reasons: brand type, nutrition label information, physical characteristics, price, and prizes. An example of the questionnaire item is "when you are faced with fish cans of different types, what is your most important criterion for choosing one of them?"

Ethical considerations: All the ethical criteria were observed in this questionnaire: the names of people and their professions were not questioned. To identify the wealthy people, only their income range was included in the questionnaire. In other words, people were not asked about their total income.

Data analysis: Data were analyzed using descriptive (Mean, Standard deviation. Minimum, and Maximum), and analytical statistics (chi-square test). To compare the groups, the independent sample t-test or Kruskal-wallis test was conducted. Statistical analysis was carried out using SPSS 16.

Results

The results of this research are summarized in **Tables 2 to 6**. A large part of the society considered brands initially to buy products. According to **Table 2**, only a part of the consumers paid attention to the information label, which is probably because women paid more attention to the consumption of low-calorie foods. The results of this study showed a significant difference among the male participants living in the downtown and affluent areas in choosing a specific foodstuff ($P < 0.05$) **(Table 3)**. Similarly, a significant difference was observed between the

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two groups of women living in downtown and affluent areas **(Table 4).**

In another comparison between males and females living in downtown and affluent areas, results showed a significant difference ($P < 0.05$) **(Table 5 and 6).** The findings showed that the most significant effect and type of selection in affluent areas depended on brand and type of packaging, but the price was not very important in these areas **(Table 5).** On the other hand, female residents of the affluent areas selected their products mainly based on the brand and the physical characteristics of products.

In contrast, in downtown areas, no significant difference was observed between men and women regarding the section of the food type and characteristics under study ($P > 0.05$). In this group, the most important and the only significant criterion was price ($P < 0.05$) **(Table 6).** However, the criteria of awards and type of brand were not very noticeable. Focus on brand was dominant in a large part of society, especially among female consumers of affluent areas. Female buyers considered the label of information more than the males in the same area.

Table 1. What is the most important criterion for choosing a specific food for you compared to other foods of the same type?

Brand	History of using that brand or its reputation, or because this product came from a specific country and manufacturer
Label information	Checking the expiration date, nutritional information, and food safety
Physical characteristics of packing	Good visual and emotional effect of the product, due to its packaging, transportation, and facilitative application
Price	The price of the food stuff is matched with the financial status and need of the consumer
Awards	Awards such as lotteries or prizes within the food packaging

Table 2. Frequency of individuals according to the criteria in each region based on gender

Criteria	Affluent areas		Downtown areas	
	Men	Women	Men	Women
Brand	82 (65.6)[a]	72 (57.6)	31 (24.8)	49 (39.2)
Label	9 (7.2)	19 (15.2)	6 (4.8)	16 (12.8)
Physical appearance	29 (23.2)	25 (20.0)	30 (24.0)	5 (4.0)
Price	1 (0.8)	0 (0.0)	51 (40.8)	39 (31.2)
Awards	4 (3.2)	9 (7.2)	7 (5.6)	16 (12.8)
Total percentage	125 (100)	125 (100)	125 (100)	125 (100)

a: Number (%)

Table 3. Comparing Men in affluent and downtown areas according to the criteria under study

Criteria	Groups	Mean ± SD	P-value
Brand	Affluent area Downtown area	82.50 ± 0.20 31.66 ± 0.15	< 0.05
Label information	Affluent area Downtown area	9.43 ± 0.25 6.38 ± 0.10	< 0.05
Awards	Affluent area Downtown area	4.63 ± 0.25 7.21 ± 0.25	< 0.05
Packaging	Affluent area Downtown area	29.42 ± 0.41 30.45 ± 0.18	0.05 <
Price	Affluent area Downtown area	1.18 ± 0.10 51.31 ± 0.12	< 0.05

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Table 4. Comparison of Women in affluent and downtown areas according to the criteria under study

Criteria	Groups	Mean ± SD	P-value
Brand	Affluent area Downtown area	72.40 ± 0.26 49.60 ± 0.52	< 0.05
Label information	Affluent area Downtown area	19.68 ± 0.16 16.49 ± 0.14	< 0.05
Awards	Affluent area Downtown area	9.60 ± 0.36 16.26 ± 0.20	< 0.05
Packaging	Affluent area Downtown area	25.36 ± 0.20 5.33 ± 0.15	< 0.05
Price	Affluent area Downtown area	0.30 ± 0.20 39.76 ± 0.20	0.05 <

Table 5. Comparison of men and women in Affluent areas according to the criteria under study

Criteria	Groups	Mean ± SD	P-value
Brand	Men Women	82.50 ± 0.20 72.40 ± 0.26	< 0.05
Label information	Men Women	9.43 ± 0.25 19.68 ± 0.16	< 0.05
Awards	Men Women	4.63 ± 0.25 9.60 ± 0.36	0.05 <
Packaging	Men Women	29.46 ± 0.41 25.36 ± 0.20	< 0.05
Price	Men Women	1.18 ± 0.10 0.30 ± 0.20	0.05 <

Table 6. Comparison of men and women in Downtown area according to the criteria under study

Criteria	Groups	Mean ± SD	P-value
Brand	Men Women	31.66 ± 0.15 49.60 ± 0.52	0.05 <
Label information	Men Women	6.38 ± 0.10 16.49 ± 0.14	< 0.05
Awards	Men Women	7.23 ± 0.25 16.26 ± 0.21	< 0.05
Packaging	Men Women	30.45 ± 0.18 5.33 ± 0.15	0.05 <
Price	Men Women	51.31 ± 0.12 39.76 ± 0.20	< 0.05

Discussion

Similar studies were conducted in many parts of the world. A study conducted in nine European countries showed that in countries such as Spain, Greece, Ireland, Portugal, and the Netherlands, the most important criterion for food selection was price. While sensory appeal was important in England, Germany, and Norway. In Poland nutritional compounds were the most important (Markovina *et al.*, 2015). A research indicated that one of the most important criteria in India was sensory appeal (Sushma *et al.*, 2014). In a study conducted in the Philippines, healthfulness and price were the priorities of the participants (Januszewska *et al.*, 2011). Steptoe et al. reported that price, healthfulness, and sensory

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characteristics were the most important criteria (Steptoe *et al.*, 1995). In a study carried out among the American and Chinese students, brand type was ranked as the lowest criteria (Pearcey and Zhan, 2018). These results are agreement with our findings and show that brands, prices, and physical characteristics are among the most important criteria in Iran and throughout the world. However, previous studies reported that brand was less important, but this is an important criterion in Iran.

Conclusion

Considering the development of the food industry and the diversity of products, choosing a food product is a source of confusion for a wide variety of foods in the market. Various properties can affect choices. In this study, we tried to examine and rate several criteria and their impacts on the population under study. It was observed that the type of brand was the most important criterion studied in this research. From this study, we found that the price did not affect the selection of a food in rich areas of Yazd, but in the downtown area, this criterion was significantly important. In addition, the information label of products attracted the participants' attention to a small degree, which could be considered as a risky behavior with regard to the food safety. By increasing the consumers' awareness about the food label information (expiration date, calories in the food, ingredients in that food, etc.), we can promote the health level of the community and prevent from the spread of many diseases.

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Conflict of Interest

The authors declare no conflict of interests.

Authors' contributions

Safavizade V and Aman Mohammadi M contributed in designing the study. Alizade-sani M, Rostami M contributed, and Heydari A contributed in data collection and wrote the first draft of the manuscript. All authors studied and approved the final version of the manuscript.

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