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Scientific Research

Analyzing the purchase behavior of shrimp consumers and checking their preferences in Tehran's Besat market using Lisrel software

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ABSTRACT

The present study was conducted in order to investigate the behavior of shrimp buyers and evaluate their preferences with a statistical population of 600 people in Tehran's Besat market. In this research, shrimp buyers were asked three categories of questions. The questions of the first category were related to demographic characteristics and the questions of the second category were related to the amount and reasons for purchasing shrimp, as well as evaluating the preferences of buyers in indicators such as size, types of supply models, and species of shrimp (Friedman test). The third group of questions were prepared based on the Likert five-option scale and in order to investigate the factors affecting the attitude of the statistical community to the purchase of shrimp by using conceptual model design and structural equation modeling method (Lisrel software). The results of this research showed that buyers who purchase 3 or 4 times a year and selected each time 1 to 1.5 kg of shrimp, had the highest frequency (54.33 and 56.34%, respectively). 64.56 percent of the buyers cited the nutritional value and good taste (together) as the main reason for buying and consuming shrimp. In the study of buyer's preferences, it was found that large size shrimp (26 to 35 pieces per kilogram), bulk shrimp (compared to packaged and combined shrimp), marine shrimps (compared to cultured and combined shrimp) and the size of 500 to 750 grams of shrimp package have more fans. The results of the implementation of the research conceptual model showed that all hypotheses were confirmed; in such a way that variables of size, types of supply and shrimp species were significantly effective on buyer's attitudes with effect coefficients of 0.19, 0.33 and 0.47, respectively. In the following, the attitude of buyers with an effect coefficients of 0.68 on the decision to purchase and this element with an effect coefficients of 0.71 was effective on the purchase of shrimp. The results of such research will be of great help to production managers and sellers in order to meet the needs of the market, maintain its balance and sustainable profit.

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1- Introduction

Shrimp is one of the aquatic products that has a very low per capita consumption compared to fish in the country due to various reasons including high price and smell [1]. A research conducted in 2018 on the per capita consumption of shrimp in the country showed that the amount of this indicator was 98.5 grams in the statistical population and 487 grams for the consumption population [1]. According to the statistical yearbook of the Fisheries Organization, the total amount of shrimp production in 1401 was 68,267 tons, of which 37,598 tons, equivalent to 55.07%, were exported. The rest of the total production, which is equivalent to 44.92% and 30,669 tons, was consumed domestically, which indicates the low per capita consumption of shrimp in the country considering the population of the country.

An almost complete research was done on marketing and strategies to increase per capita consumption of shrimp in the country in the 90s, which brought remarkable results [1-7]. However, considering the benefits of increasing shrimp per capita in the country (employment and job stability of people working in fisheries sub-sectors, continuity of production in case of export problems, the role of shrimp in maintaining the health of the population and preventing the occurrence of various diseases [2]), conducting more detailed and accurate research in this area can lead to the achievement of appropriate production strategies.

Ba'ath Bazaar of Tehran, located on Ba'ath Highway and Manqte 15, is the most important market for buying all kinds of aquatic products in the capital, which is the final destination for the unloading of aquatic products from the north, south and other provinces of the country and the origin of the distribution of aquatic products in Tehran metropolis. The diversity of aquatic species and their products, as well as the reasonable price compared to other places, are two important features of Ba'ath market. Although the majority of buyers in this market are fish consumers, according to field research, shrimp buyers also have a significant population. For this reason, knowing the buying behavior of these people and presenting the report of this research can be of great help to the upstream workers and managers in creating market stability and responding appropriately to the needs of the clients. The managers and officials of this market and similar markets to know how many visitors come to this market to buy shrimp, to know that sea shrimp has more fans or farmed, to know that shrimp has more sales volume or to know which size of shrimp is most interested in people, to know what variables affect the attitude of buyers to buy shrimp and what variables are more effective on the behavior and decision to buy, can significantly inform them in order to choose A suitable production-economic strategy should be effective [5]. This type of aquatic marketing research inside the country [1-12] and abroad [13-18] has been of great interest during the last decade and has provided useful results to market managers, agricultural economists, and production operators.

Before conducting this research, a similar research was conducted in order to analyze the behavior of fish buyers in Baath market [10], but the behavior of consumers and shrimp buyers in this market has not been investigated yet. For this reason, the purpose of this research was to understand the behavior of shrimp buyers in Ba'ath market, evaluate their purchase priorities, and identify factors affecting the attitude of buyers to purchase this seafood, which was conducted by researchers in the second half of 1402.

2- Materials and method

2-1- Questionnaire design

In order to evaluate the behavior of shrimp buyers in Ba'ath market, three categories of questions were prepared with the help of university professors, various questionnaires and library studies. The questions of the first

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category were related to the demographic characteristics of the statistical population and the questions of the second category were related to the amount and reasons for buying shrimp, as well as evaluating the preferences of buyers in matters such as size, types of supply models, shrimp species, packaging characteristics and package size. The third group of questions were asked based on the five-choice Likert range (very little with code 1, little with code 2, moderate with code 3, much with code 4 and very much with code 5) and in order to investigate the factors affecting the attitude of the statistical population to buying shrimp (using conceptual model design and structural equation modeling method) [2].

2-2- Determining the reliability and validity of the questionnaire

Cronbach's alpha method was used to determine the reliability of the questionnaire questions. For this purpose, an initial sample including 30 questionnaires was pre-tested and then using the data obtained from these questionnaires and with the help of statistical software. $SPSS_{22}$ The confidence coefficient was calculated using the mentioned method as 0.93, which indicates an acceptable level of reliability for the questions asked of people. In order to check the validity of the questionnaire, face validity was first used. At this stage, by conducting various interviews and obtaining the opinions of experts, the necessary corrections were made, and in this way, it was ensured that the questionnaire measures the characteristics that the researchers wanted. In order to be more accurate and reliable in discussing the appropriateness of the questionnaire questions and the items (structures) of the model designed for the assumptions (validity of the questions), confirmatory factor analysis was used, the results of which are presented in Table 1. According to the values of factor loadings (which are greater than 0.3 for all questions) and T-value (which was recorded for all questions outside the range of -1.96 to 1.96) it can be seen that the designed questions have a good level of validity [4].

Table 1. Factor loadings and t-value for questions (Confirmatory Factor Analysis)

Questions	Factor loading	T-value	Questions	Factor loading	T-value
1.Size			4. Attitude		
Small	0.51	9.26	Pleasure feeling	0.63	11.23
Medium	0.29	4.98	Good feeling	0.42	7.86
Big	0.45	8.34	Bad feeling	0.49	9.12
Very big	0.64	11.25	5. Intention		
2. Type of supply			I want to purchase	0.55	9.68
Bulk	0.71	12.87	I have a plan to purchase	0.54	9.49
Packaging	0.58	10.18	Try to purchase	0.84	17.11
Combined	0.47	8.69	6. purchase		
3. Species of shrimp			1-2 times purchase in year	0.32	5.82
Farmed	0.35	5.77	3-4 times purchase in year	0.53	9.63
Marine	0.43	7.98	5-6 times purchase in year	0.66	11.24
Combined	0.3	5.11	7-8 times purchase in year	0.40	7.36

2-3- research assumptions and building a conceptual model based on them

By studying internal and external sources, certain assumptions were made and then a conceptual model was designed according to the assumptions, whose diagram is presented in Figure 1. In this model, the variables of size, types of supply and type of shrimp are independent variables. The attitude and decision to buy are the mediating variables of the model, and finally, the final behavior (purchase) is one of the dependent (endogenous) variables. The research hypotheses are:

1. The size of the shrimp has a significant effect on the attitude of buyers towards buying shrimp.
2. The type of shrimp supply has a significant effect on the attitude of buyers towards buying shrimp.
3. The type of shrimp has a significant effect on the attitude of buyers towards buying shrimp.
4. Buyers' attitude towards buying shrimp has a significant effect on the decision to buy shrimp.
5. The decision to buy shrimp significantly affects the final behavior (purchase).

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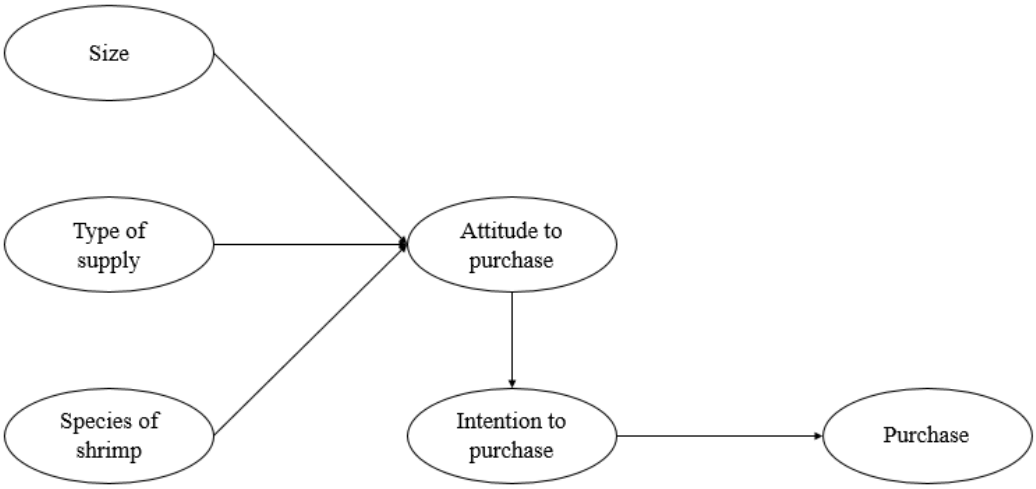

Fig 1. Diagram of conceptual model of research

2-4- Statistical population

The statistical population of this research was 384 people based on the minimum and maximum average purchase from 10 stalls of Ba'ath market and predicting a certain limit of the average annual purchase and finally the Kekran formula, but in order to obtain more reliable results, a number of 600 questionnaires (statistical population) were used.

5-2- Statistical analysis

In order to perform confirmatory factor analysis, checking the acceptance or rejection of the hypotheses (at 95% confidence level) as well as the intensity and direction of the relationship between the constructs of the model, structural equation modeling method and Lisrel software (version 8.80) were used.. **Next,** In order to evaluate and rank the priorities of the statistical community about some characteristics of shrimp, Friedman's test (software $SPSS_{22}$) was used.

3-Results

3-1- Demographic characteristics of the statistical population

Table 2 shows the demographic characteristics of the statistical population, including gender, age, education, marital status, occupation, place of birth, household size, and income. According to this table, the proportion of men and women in the statistical population is almost equal, and only 13.3% of them were single. Most of the buyers were in the age range of 20 to 50 years (89.8 percent), and 19.8 percent of them stated that they did not have a university education. In the following, it was found that 21.6% of the statistical population were born in coastal areas. As can be seen in Table 2, about 80 percent of the buyers had households of 4 people or more and also had an income of more than 200 million Rials. Also, about 50 percent of shrimp buyers were employees and retirees (with almost equal proportions) and 43.5 percent were self-employed people.

Table 2. Socio-demographic characteristics of the sample (% respondents, n=600)

Characteristics	Abundance	Characteristics	Abundance
Gender		**Place of birth**	
Male	50.2	Coastal city	21.6
Female	49.8	Non-coastal city	78.4
Age		**Household size**	
<20 years	1	Two	4.1
20-35 years	29.3	Three	16.8

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35-50 years	60.5	Four	54.4
50-65 years	8.2	Five and more	24.7
65-80 years	1	**Income (Rials)**	
Education		100-150 millions	1.1
College education	80.2	150-200 millions	18
Diploma & less	19.8	200-250 millions	55.2
Marital Status		≥ 250 millions	25.7
Married	86.7		
Single	13.3		
Job			
Free	43.5		
Employee	25.1		
Student	4.9		
Unemployed	1.1		
Retired	25.4		

2-3- Frequency and amount of shrimp purchase

Table 3 shows the frequency of shrimp purchases per year and the amount of each purchase, as well as the percentage of reasons for consumption in the statistical population. According to this table, buying three to four times a year had the highest frequency (54.33%), and buying 1 to 2 times a year (26.73%) was at the next level. The frequency of people who made purchases more than 5 times a year was less than 20%. As can be seen in Table 3, 85.1% of the people in the statistical community bought 0.5 to 1.5 kg of shrimp in each purchase, and the percentage of people who bought more than this amount in each purchase was less than 15%. Among the options related to the main reasons for buying and consuming shrimp, the majority of the statistical population, i.e. 64.56%, chose nutritional value and good taste together. Besides, 26.01% only bought and consumed shrimp because of its high nutritional value.

Table 3. Frequency of purchases, amount of each purchase of shrimp and reasons of consumption

Purchase frequency in year	Abundance (%)	Purchase amount per time	Abundance (%)	Main reasons of consumption	Abundance (%)
1 or 2	26.73	0.5 to 1	28.76	Just nutritional value	26.01
3 or 4	54.33	1 to 1.5	56.34	Nutritional value and taste	64.56
5 or 6	10.27	1.5 to 2	10.23	Just taste	9.43
7 or 8	5.86	2 to 2.5	3.57		
9 and more	2.81	2.5 and more	1.1		

3-3- The priorities of the statistical community regarding the size of shrimp, the purchase of packaged shrimp and the weight of the package

Table 4 shows the priority (ranking) of the statistical community regarding shrimp size, shrimp packaging specifications and package size. As can be seen in this table, among the different sizes of shrimp, the large size (26 to 35 pieces per kilogram) ranked first (with an average rating of 1.82); In such a way that 49.3% of the respondents put it as the first priority and 33.9% of them put this size as the second priority. In the following,

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it was found that very large shrimp with a size of 16 to 25 pieces per kilogram is in the second place (with an average rating of 2.29) and a total of 67.6 percent of buyers put this size in the first and second priorities. Medium-sized shrimps or 36 to 50 pieces per kilogram were ranked third (with an average rating of 2.97), and only 11.2% of the respondents ranked this size as the first priority. Finally, small shrimps (51 to 70 pieces per kilogram) were ranked fourth (with an average rank of 3.66); Thus, only 2.4% of the statistical population chose this size as the first priority.

As can be seen in Table 4, the first thing buyers paid attention to when buying packaged shrimp was the brand name (1st rank with an average rank of 1.18); So that a total of 85.6% of them put this factor in the first and second priorities. After the brand, it was the design and color of the packaging that was the second most important in the eyes of the buyers (2nd rank with an average rank of 1.96); In this way, a total of 64/3 of the statistical population paid attention to this factor as the first and second priority when shopping. Package size and weight ranked third in importance (3rd rank with an average rank of 2.85) and only 12.4% of people ranked this factor as the first priority. According to Table 4, the fourth rank (rank 4 with an average rank of 3.74) belonged to the type of packaging, and only 4.5% of the respondents put this factor as the first priority when shopping.

The ranking of the priorities of the statistical community regarding the weight of the package of shrimp (Table 4) showed that the weight of 500 to 750 grams has the first rank (with an average rank of 1.11); So that a total of 84.9% of the respondents put this weight in the first and second priorities. Also, the weight of 250 to 500 grams was ranked second (with an average rating of 1.73) and a total of 72.2% of the statistical population placed this weight in the first and second priorities. The weight of 750 to 1000 grams was ranked third (with an average rating of 2.68) and only 12.1% of buyers placed this weight as the first priority. Finally, the statistical community placed the sizes more than 1000 grams in the fourth place (with an average rating of 3.39) and only 6.8% of them chose these weights as the first priority.

Table 4. The priorities of the statistical community regarding shrimp size, packaging characteristics and packed size

Options	Consumer preferences				Average score	Rank	Friedman	Significance level
	1	2	3	4				
Size (pieces per kg)								
Small (51 to 70)	2.4	11.1	39.4	47.1	3.66	4		
Medium (36 to 50)	11.2	24.5	25.5	38.8	2.97	3		
Big (26 to 35)	49.3	33.9	14.7	2.1	1.82	1	323.26	0.001
Very big (16 to 25)	37.1	30.5	20.4	12	2.29	2		
Packed shrimp								
Size and weight	12.4	21.6	34.5	31.5	2.85	3		
Color and design	32.2	32.1	19.3	16.4	1.96	2	293.64	0.001
Material	4.5	11.6	36.4	47.5	3.74	4		

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Brand	50.9	34.7	9.8	4.6	1.18	1		
Packed size								
250 to 500 gr	36.8	35.4	15.1	12.7	1.73	2		
500 to 750 gr	44.3	40.6	12.4	2.7	1.11	1	301.57	0.001
750 to 1000 gr	12.1	19.8	36.7	31.4	2.68	3		
More than 1000gr	6.8	4.2	35.8	53.2	3.39	4		

3-4- The priority of the statistical community regarding the types of supply models and types of shrimp

In Table 5, the priorities of the statistical community regarding the types of supply models and types of shrimp are presented. According to this table, among the types of shrimp supply models, full shrimp was ranked first (with an average rank of 1.12) and 72.4% of the people of the statistical population placed this model as their first purchase priority. Packaged shrimp ranked second (with an average rating of 1.85) and 22.6% of the respondents chose this supply model as the first priority and 61.8% as the second priority. Combined purchase meant the purchase of whole shrimp and packaging in each purchase, which ranked third (with an average rank of 2.47), and only 5% of the statistical population put this type of purchase as the first priority. Among sea shrimp, cultured and combined purchase, the first rank (with an average rank of 1.28) was related to sea shrimp, and 81.5% of the statistical population ranked marine species as the first priority. 17.6% of buyers chose farmed shrimp as their first priority, and 45% of them chose these shrimp as their second priority, and these shrimps ranked second (with an average rating of 1.99). The statistical community placed the combined purchase (buying both marine and farmed shrimp in each purchase) in the last place with an average rating of 2.67, and the percentage of people who chose this purchase model as the first priority was less than 1%.

Table 5. The priorities of the statistical community regarding types of supply and species of shrimp

Options	Consumer preferences			Average score	Rank	Friedman	Significance level
	1	2	3				
Type of supply							
Bulk	72.4	19.7	7.9	1.12	1		
Packaged	22.6	61.8	15.6	1.85	2	296.58	0.001
Combined	5	18.5	76.5	2.47	3		
Species of shrimp							
Farmed	17.6	45	37.4	1.99	2		
Marine	81.5	8.8	9.7	1.28	1	281.33	0.001
Combined	0.9	46.2	52.9	2.67	3		

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5-3- Implementation of the conceptual model of research in standard and meaningful mode

Figure 2 shows the implementation of the research conceptual model in two standard and meaningful modes (Lisrel software). According to this figure, all research hypotheses were confirmed (due to the placement of values T-Value outside the range of 1/96 to 1/96); In this way, the variables of size, types of supply and type of shrimp were significantly effective on the attitude of buyers (relative to buying shrimp) with effect coefficients of 0.19, 0.33 and 0.47, respectively. In the continuation of the structure of buyers' attitude (regarding the purchase of shrimp) with an effect coefficient of 0.68 on the decision to buy and this structure (decision to buy) with an effect coefficient of 0.71 on the purchase of shrimp (final behavior). According to the values of the effect coefficient, the most effective variable affecting the buyers' attitude (regarding the purchase of shrimp) was the type of shrimp (marine, cultured and mixed).

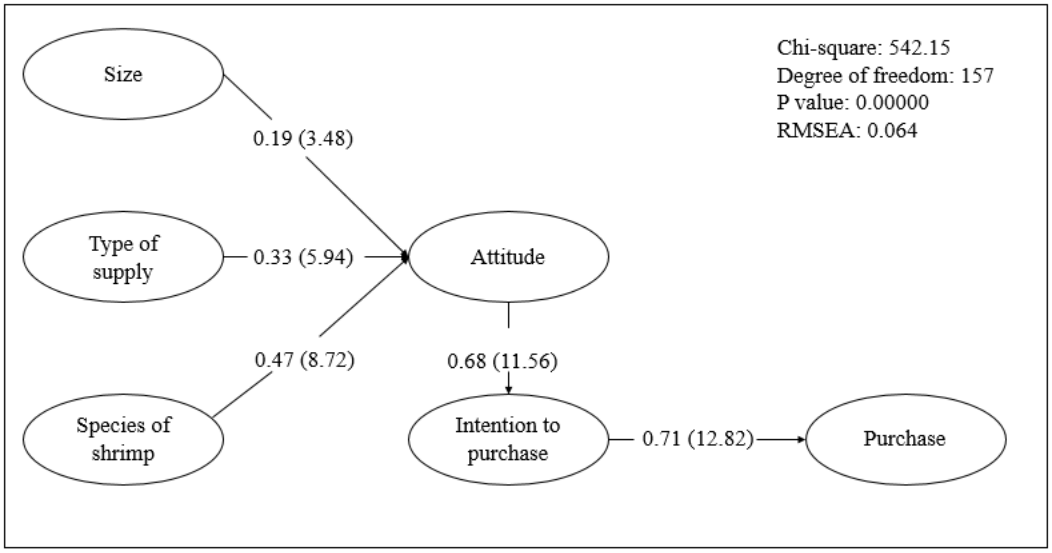

Figure 2. Implementation of the research model in two standard and significant modes

3-6- Model fit indices

Table 6 shows the fit indices of the model. Considering that these indicators are at an acceptable level compared to the standard, it can be claimed that the model has a good fit. This means that the model has a very high validity for measuring and evaluating the relationships between the investigated variables.

Table 6. The measurement of model goodness of fit index (GOFI)

Fit Index	Result	The Fit Criteria	Model Evalution
Chi-Square/Df	3.45	Chi-Square/Df ≤5	Good Fit
RMSEA	0.064	RMSEA ≤ 0.08	Good Fit
CFI	0.96	CFI ≥ 0.90	Good Fit
GFI	0.92	GFI ≥ 0.90	Good Fit
AGFI	0.93	AGFI ≥ 0.90	Good Fit
IFI	0.95	IFI ≥ 0.90	Good Fit
NFI	0.92	NFI≥ 0.90	Good Fit
NNFI	0.95	NNFI ≥ 0.90	Good Fit

1- discussion

By reviewing the demographic characteristics of the statistical population of

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this research, it is clear that a wide range of people were selected to complete the questionnaire, which makes the research results more accurate and reliable. In addition, the number of samples in the leading research is more and significant compared to similar researches.

The results related to the frequency of purchases in a year and the amount of each purchase of shrimp in the statistical population praised that the per capita consumption of shrimp in the country is very low compared to other food items and even other aquatic products, which the result of the research of Reyhani Pool and colleagues [1] about the per capita consumption of shrimp in the country had already announced this. In the leading research, buyers who buy 1 to 1.5 kg of shrimp three or four times a year had the highest frequency (54.33% and 56.34%, respectively). In a research that studied the amount of shrimp purchased in the market with the statistical population of the entire country, it was found that 44.2% of the people questioned bought shrimp once a year and 28.6% of them bought shrimp twice a year. Also, the result of the mentioned research showed that 76.3 percent of consumers prefer 1 kg and 20.2 percent prefer 0.5 kg in each purchase [6]. In the leading research, most of the respondents, i.e. 64.56%, reported that the main reason for buying and consuming shrimp was the nutritional value and good taste (combined). Also, 26.01% of people mentioned only the nutritional value as the main reason for buying and consuming shrimp. These two reports show that the majority of the statistical population is aware of the nutritional value and the role of shrimp in maintaining health (preventing the occurrence of various diseases).

The evaluation of the priorities of the statistical community regarding the shrimp size showed that the large shrimp size, i.e. 26 to 35 pieces per kilogram, is the most popular compared to other sizes. Next, very large, medium and small sizes were placed in the next categories in terms of popularity. Such findings were also confirmed in the research that examined the priorities and obstacles of shrimp consumption in the country [1]. This result shows the marketers and production workers that in order to provide the desired shrimp of the statistical community, most of their focus should be on the production and distribution of large size shrimps so that both the market needs are met and people buy their favorite products, and in this way production is optimized and waste is reduced. Very large shrimps were probably given the second priority due to the incompatibility of price and size (lack of economy). Small shrimps were probably at the last rank of popularity due to the high wastage and discarding during cleaning and cooking. All these results can help the authorities in creating a suitable strategy to adjust the market needs [1].

One of the important characteristics of packaging is the product brand [5]. In such a way that it can be said that the famous brand name is so important in selling a product and attracting the attention of customers that sometimes the quality of food is hidden behind the brand name. The results of the leading research showed that when buying packaged shrimp, the product brand was the most important factor that was the first consideration of the statistical community. In a study that was conducted to evaluate the behavior of shrimp buyers and consumers in the country, among the different characteristics of packaging, the brand was reported to be the first characteristic of the statistical community to buy packaged shrimp [1], which is consistent with the present research.

Package color is one of the important aspects of packaging It is the first symbol that attracts the consumer's attention. People's sensitivity to colors has a completely psychological nature and they indirectly affect a person's reactions and behaviors. The color of the package arouses interest and increases the purchasing power of the product. In decisions where the consumer is less involved, since the

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evaluation of product features is less important, a visible factor such as color is very important. [1]. Colors are one of the verbal signs that are known as an important element in product marketing. In the food industry, the importance of colors increases, especially when they are related to advertising or packaging, due to their role in attracting customer attention. [19]. use of The right color for product packaging، Typography and one Designed appearance It can indicate who the target audience of the products are. For example, brands that want to create luxury feelings in customers often use colors such as black, silver and gold to make bold statements. Therefore, the package color can be used to communicate with the customer or promote an emotional reaction [20]. after Another packaging is its design. This dimension refers to the attractiveness of packaging and related to the existence of designs, images, combinations Colors, signs, signs and graphics are closed. According to studies, the tendency and attention of consumers is more directed towards products with more attractive packaging [21]. It is a plan for suitable and efficient packaging that can win the manufacturer over the competitors in all marketing processes. In such a way that this plan should quickly attract attention, intensify the interest and willingness to buy in the consumer, make people buy and finally seek the satisfaction of the customer so that it can cause continuous sales of the product. In order to achieve communication goals effectively and optimize packaging potential, food product manufacturers must be aware of the consumer's response and reaction to their packages and consider the consumer's perceptual processes with integrated design and in different dimensions of packaging. Also, in the design process, marketers and packaging designers must consider the past experiences of the consumer, his needs and desires. [22]. In the present study, the design and color of shrimp packaging were the second most important packaging features that were noticed by buyers. In a research where the characteristics of shrimp packaging were ranked in terms of the statistical population (the whole country), the design and color of the package were ranked second in importance. [1]. The findings of the present study with the research results Ares and Deliza [23] which evaluated the dimensions of the package (color, attractiveness, shape, product information on the package, size, etc.), is completely consistent. The results of the research of Ismailpour et al [24] Regarding the role of packaging on purchasing decisions, it is similar to the present study. The results of the mentioned research showed that more attractive designs are chosen more and there is a positive relationship between attractive designs and product selection. As the attractiveness of the design, color and graphics increases, the desire of people to choose the product increases. Therefore, it can be concluded that the attractiveness of the color, design and graphics of the product packaging has a positive and significant effect on the purchase decision of consumers, and as a result, food manufacturers to attract the attention of consumers and influence the decision. They should look for attractive packages with suitable designs, colors and graphics so that they can encourage consumers to buy shrimp in competitive markets. The result of the study by Mehrani et al [22] Regarding the impact of domestically produced food packaging on consumer behavior, it showed that the most important characteristics of packaging from the point of view of buyers are packaging design, the packaging's distinctiveness from other types, the portability of the packaging, and mentioning the consumer's price on the packaging.

The third rank of packaging characteristics (out of 4 items) was related to the size and weight of the shrimp package. Packaged shrimp available in the market are available in different weights from 250 to more than 1000 grams, and buyers buy their desired weights depending on the needs of the family

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and restrictions such as price. In a research conducted to evaluate the behavior of shrimp buyers in the whole country, the package weight of 250 to 500 grams was more popular than other weights [1], which is contrary to the results of the present research. In the leading research, the package size in the range of 500 to 750 grams was ranked first.

In the previous research, most buyers preferred bulk shrimp to packaged shrimp and did not show a desire to buy a combination (packaged and bulk). Probably easier access (lack of stock of packaged shrimp in all shopping places), cheaper price, as well as the sense of freshness and freshness, are the reasons for preferring large shrimp over packaged shrimp. Of course, packaged shrimp also had its own fans. Perhaps the processing that leads to the improvement of smell and taste, the feeling of hygiene and also the luxury of the product are among the reasons for the tendency of buyers to package shrimp.

In the present study, marine (wild) shrimps were more popular than farmed shrimps, which is consistent with the researches of Rihani Poole et al. This finding shows that marketers and officials related to the production and distribution of shrimp in Ba'ath market and other places should focus more of their efforts to supply marine shrimp to meet the needs of buyers. Marine shrimps have a higher price than farmed shrimps, as well as better taste, nutritional value and quality. In addition, hormones and antibiotics may be used during the production of farmed shrimp, which in the long run cause side effects in consumers [26]. Since in the previous research, sea shrimp was the priority of most people, the buyers' awareness of the nutritional superiority and health of this type of shrimp is confirmed to a large extent. The next finding in this section was related to the majority of buyers' unwillingness to buy mixed shrimp (marine and cultured) in each purchase order. This means that most buyers either buy farmed shrimp or marine shrimp. In a research, Haina et al. [25] investigated the awareness and behavior of Bushehari citizens regarding the consumption of farmed and wild shrimp. In this research, it was found that Bushehri households use wild shrimp because of its better taste, nutrition, and health compared to farmed shrimp.

The results of the implementation of the model in a standard and significant mode showed that the attitude of shrimp buyers in the market is influenced by three variables: size, supply model and type of shrimp. The two variables of supply model and shrimp size were placed in the next categories in terms of importance, respectively. In a research that investigated the behavior of shrimp buyers and consumers in Tehran, the type of shrimp supply and processing was reported to be one of the most effective variables on citizens' attitudes toward purchasing and consuming shrimp [5]. Attitude refers to positive or negative feelings that a person has towards performing a behavior. More broadly, attitude means relatively stable feelings, inclinations, or sets of beliefs directed toward an idea, object, person, or situation. Regarding the purchase and consumption of a food item, attitude refers to the different feelings that people have towards the purchase and consumption of that food item [2]. In many researches that have been conducted on the evaluation of the behavior of buyers and consumers of aquatic products, marine products and other edible ingredients, attitude has been reported as the most effective structure on the purchase decision [13, 27-30]. Therefore, the results of this part of the research confirm that the size of shrimp, the supply model of this aquatic animal, as well as its species, are effective on the feelings that buyers have towards buying and consuming shrimp, and since the hypothesis of the effect of the attitude structure on the decision to buy shrimp and finally on the final behavior has been confirmed with a high coefficient of effect, the managers of the production, distribution and sale of shrimp in the Ba'sat market and

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other places should consider the size, supply model and species of shrimp according to the tastes and interests of the buyers (which in the research It has been addressed) to pay special attention so that they can meet the needs of their clients and subsequently their sustainable profit.

4-conclusion

The per capita consumption of shrimp in the country is very low and this is when people are aware of the nutritional value and health benefits of shrimp and get a good taste from consuming this seafood. Exhibitors in Baath Bazaar and other places selling aquatic (shrimp) should use well-known brands and at the same time with reasonable prices in the discussion of packaged shrimps and their focus More than 500 to 750 kg. Next, the marketers should pay special attention to the sizes of 26 to 35 pieces in one kilogram and whole sea shrimps in order to meet the needs of the market. Managers of shrimp production, distribution and sales should pay special attention to the tastes and interests of the buyers in discussing the size, supply model and type of shrimp, so that in this way they can meet the needs of the customers and subsequently their sustainable profit. Therefore The results of such research will be of great help to production managers and sellers in order to meet the needs of the market and maintain its balance; At the same time, the correct use of these results guarantees and secures the stable profit of the sellers.

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مقاله علمی_پژوهشی

تحلیل رفتار خرید مصرف‌کنندگان میگو و بررسی ترجیحات آن‌ها در بازار بعثت تهران با استفاده از نرم‌افزار لیزرل

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چکیده

پژوهش حاضر به منظور بررسی رفتار خریداران میگو و ارزیابی ترجیحات آن‌ها با جامعه آماری ٦۰۰ نفر در بازار بعثت تهران انجام شد. در این پژوهش خریداران میگو مورد سه دسته سوال قرار گرفتند. سوالات دسته اول مربوط به ویژگی‌های جمعیت‌شناختی و سوالات دسته دوم در ارتباط با میزان و دلایل خرید میگو و همچنین ارزیابی اولویت‌های خریداران در شاخص‌هایی نظیر سایز، انواع مدل عرضه و گونه میگو (آزمون فریدمن) بودند. سوالات دسته سوم بر اساس طیف پنج‌گزینه‌ای لیکرت حاضر و به منظور بررسی عوامل موثر بر نگرش جامعه آماری به خرید میگو با استفاده از طراحی مدل مفهومی و روش مدل‌سازی معادلات ساختاری (نرم‌افزار لیزرل) مطرح شدند. نتایج این تحقیق نشان داد خریدارانی که در سال سه یا چهار مرتبه و در هر مرتبه ۱ تا ۱/۵ کیلوگرم میگو خریداری می‌کنند، دارای بیشترین فراوانی بودند (به ترتیب ٥٤/۳۳ و ٥٦/۳٤ درصد). ٦٤/٥٦ درصد از خریداران ارزش غذایی و مزه مطلوب (به صورت توام) را دلیل اصلی خرید میگو عنوان کردند. در بررسی اولویت‌های خریداران مشخص شد که سایز بزرگ میگو (۲٦ تا ۳٥ قطعه در هر کیلوگرم)، میگوی فله‌ای (در مقایسه با میگوی بسته‌بندی و ترکیبی)، میگوهای دریایی (در مقایسه با میگوی پرورشی و ترکیبی) و سایز ٥۰۰ تا ۷٥۰ گرم بسته میگو دارای طرفداران بیشتری هستند. نتایج اجرای مدل مفهومی تحقیق نشان داد که همه فرضیات تائید شدند؛ به این صورت که متغیرهای سایز، انواع عرضه و گونه میگو به صورت معنی‌داری به ترتیب با ضرایب اثر ۰/۱۹، ۰/۳۳ و ۰/٤۷ بر نگرش خریدارن موثر بودند. در ادامه نگرش خریداران با ضریب اثر ۰/٦۸ بر تصمیم به خرید و این سازه با ضریب اثر ۰/۷۱ بر خرید میگو اثرگذار بودند. نتایج چنین تحقیقاتی به مدیران تولید و فروشندگان در جهت تامین نیازهای بازار، حفظ تعادل آن و سود پایدار کمک شایانی خواهد کرد.

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