RANKING THE MARKETING MIX FACTORS INFLUENCING THE MARKET-MAKING FARMED FISH FROM THE PERSPECTIVE OF CONSUMERS IN BOJNOURD

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Abstract

Paying special attention to the issue of marketing of aquatics plays an important role in the prosperity and development of the industry.

This topic is discussed in order to get acquainted with marketing and the marketplace of the product. It is hope that this study would be helpful in planning, and production and consuming management of aquatics in North Khorasan Province. The purpose of this research is to identify the factors influencing the marketing mix (p4), and also market-making for farmed fish, and rating process of the effective factors from the perspective of consumers. Therefore, this study isimplemented to improve the per capita consumption of farmed fish by its market-making, using elements of the marketing mixin Bojnourd.

The research method is descriptive and this is a survey research. The method of sampling is multi-stage cluster. The data collection tool is a questionnaire that its validity and reliability was confirmed by Cronbach's alpha coefficient at a high level. The number of samples was 384 households and this number was determined using Krejcie and Morgan tables. Test of nonparametric sign (Sign Test) was used to test the main research questions (influencing factors) and the Friedman test was used for ranking the effective factor and indicators (sub questions). Also, to data analysis the SPSS version 16 was used and for drawing graphs the EXCEL software was used. The results indicate that all elements of the marketing mix of product include, price, distribution and promotion, the market-making farmed fish and thereby improving the per capita consumption of this product have been effective in Bojnourd. Also, there is a meaningful differences between the effective rate of each independent variablesand the relevant indices and market-making of farmed fish.

Keywords: marketing mix, market-making, fish farming, consumers, Bojnourd.

Introduction

Attention to the principles of marketing programs for aquaculture development is essential and undeniable and is the leader of this business. If there is demand for the product, production would be meaningful and will have natural support and the manufacturer will offer his output, tailored to market demand. So, planning is start with pre-production marketing required marketing research (Adeli, 1999: 3). Adam Smith in *Wealth of Nations* (1776) stresses that, consumption is the main purpose of production and the issues related to the producers should be considered based on the needs of consumers. Based on the urbanization development and as the consumption centers are away from production areas, caused that during 1950s, the United Nations considers the marketing of agricultural products as well as some other factors, such as the research and promotion as the effective factors in the development and subsequently calls for more government attention to this important issue in the field of agricultural economics. 10.2 percent growth in the last 30 years in Iran's fishery products, and increasing in population, especially the young population, are the evidence for changing in needs and the market mechanism which should be identified and considered (Adeli, 1999: 3).

One of the characteristics of industrial is mass production and factors such as increases in productivity, expanded markets, the geographical distribution of the population, monopoly, market-making and so on led to large manufacturers to use some special ways for exploring the market and consumers' opinions. Accurate prediction of future market allows manufacturing firms to adjusted the volume of their activities and thereby improve survival their economic condition of their institution and then regulate their operations. The importance of marketing due to the specialization of production and subsequent preoccupations of the stakeholders in production, their lack of awareness of the situation of appetite, becomes clearer. With regard to these concepts, field marketing activities are very wide and even includes pre-production stages such as the preparation of raw materials. Marketing is a set of commercial activities that conducts the flow of goods or services from the manufacturer. These activities include a range of actions such as raw material purchasing, production, pricing, customer identification, advertising, and sales and after-sales service (Kotler, 2001: 44).
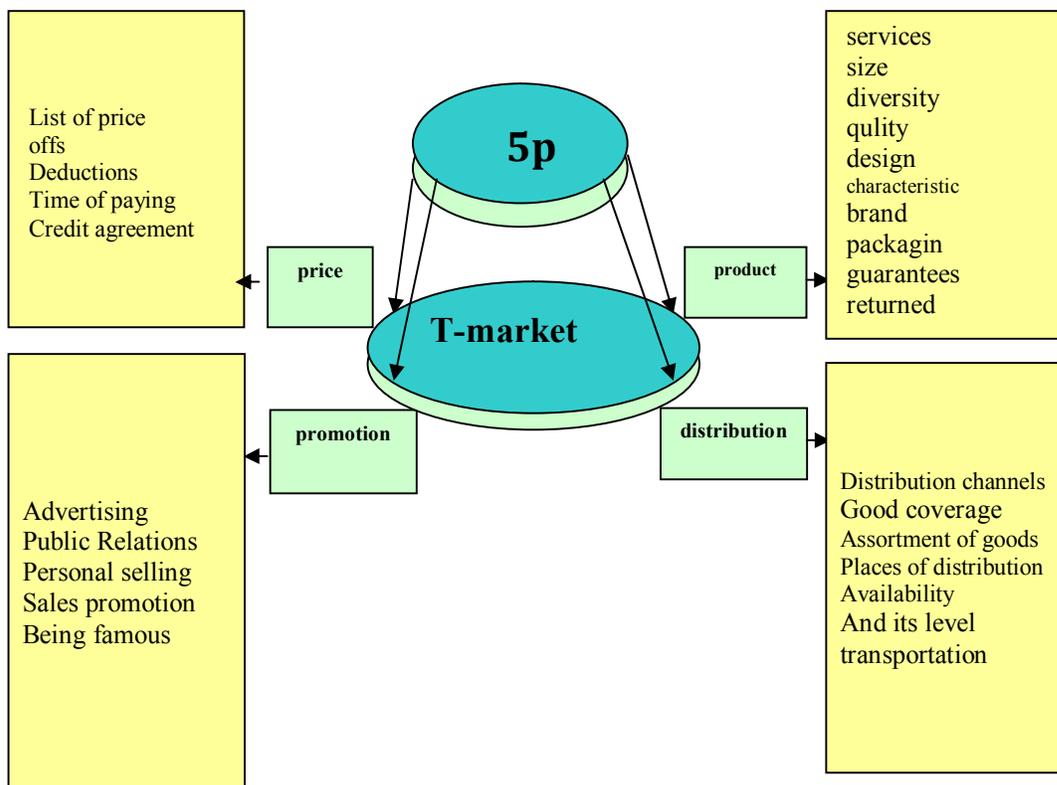
According to the report published by the Food and Agriculture Organization, in near future human societies of the world will tend to use marine resources for nutritionso that the forecast for 2010 in global market demand for fishery products will rise to 50 million tons more than supply and the demand for 2030 is around 150 to 160 tons and the consumption capacity of fishery will be about 19 to 20 per year. This issue emphasizes the importance of planning in this field in our country and the need for greater efforts to achieve the average of global indices due to the country's current consumption of 8 kg (Adeli, 1999: 7).

One way of increasing the production and marketing of farmed fish is focusing on the marketing of this product. The concept of the market-making means penetration into the market, and introducing and recognition of the organization, and its products and services using the factors controlling the marketing like 4p, and finding the right image anywhere on the market (Roosta et al., 2002: 11). The concept of marketing means reminiscent of the pre-production planning. The proper management of production, distribution and consumption requires knowledge of the market condition (Marketing research). Awareness of the needs and consumer behavior can lead to marketing and production planning, and ultimately help increase per capita consumption (BoloorianTehrani, 2001: 15). In developing countries, changes in food habits of

people occur more quickly, so in these societies, the need for continuous monitoring of the market becomes more urgent (Karimzadeh, 1998: 23). Accordingly, this research is done to improve and increase the capacity and capabilities of the sale and in other words, more market-making of farmed fish through the use of marketing mix elements. The marketing mix consists of four elements: product, price, place and promotion activities. The product is what the firm presents including product design, quality, specifications, branding and packaging. Price is amount money that the customers pay for delivering the product. Distribution includes all activities that is done with the aim of delivering the product to the customer. A distribution channel is a set of institutions that are dependable to each other, institutions responsible for the delivery of goods or services to the consumers or the industrial users.

Promotion activities are those that create a relationship with customers (Roosta et al., 2002: 70).
Figure 1, shows the elements of the marketing mix and related components

List of price
offs
Deductions
Time of paying
Credit agreement

price

5p

T-market

product

services
size
diversity
qulity
design
characteristic
brand
packagin
guarantees
returned

promotion

Advertising
Public Relations
Personal selling
Sales promotion
Being famous

distribution

Distribution channels
Good coverage
Assortment of goods
Places of distribution
Availability
And its level
transportation

Figure 1: Four P (4p) a combination of marketing mix (Kotler, 2001: 44).

In spite of considerable importance of marketing in the production, marketing and consumption of agricultural products, the marketing of these products is not effective because of the problems such as weakness and expensive packaging, weakness in transportation, poor communication and advertising, lack of consumption, avoiding the use of advanced marketing techniques, a large distance between the farms and markets, high cost and seasonal demand (BoloorianTehrani, 2001: 6). One way to overcome the above mentioned obstacles is using elements of the marketing mix including product, price, distribution and promotion which leads to the development of the consumer market and improvement of per capita consumption.

Elements of the marketing mix includes those of controllable marketing variables that the economic unit achieves its business objectives in the target market by monitoring them. North Khorasan is one of the non-coastal province that due to abundant water resources including the existence of the only permanent river in the East of Iran, Atrak, and its numerous branches as well as several seasonal and permanent rivers, aqueducts, fountains, deep and semi-deep agricultural wells and several dams such as, Bidvaz, Ashayer, ShirinDarreh, Shork, Gordlan, Barzoo and many others like Rooyin and Garatiwould be used as a fishing pole region. In line with the optimal use of these resources, North Khorasan Province's Fisheries Department has done good work, so that now and according to available statistics the per capita consumption of fish in North Khorasan province that in the first year of the establishment of the province was less than one kilogram, with the efforts made by the provincial fisheries management this number became 4.9 kilograms in 2008.

However, due to nutritional habits and the consumption of other types of meat and especially red meat, the emerging aquaculture industry in the province and the lack of modern marketing, and unfortunately there is not an appropriate consumer market for fish. This threat raises concern for producers and stop the new investors in the aquaculture industry. Comparison of per capita of the consumption of red meat, chicken and fish shows that despite the value of food and medical of fish compared to alternative products, poverty of consumption of fish in most parts of the country is clear. 6.16 kg is the average per capita of fish in the world while in our country, according to the latest statistics that are related to 2006, fish production to 575560 tones, or in other words 8 kg per capita consumption which ismuch lower than the world average. For example, the world's highest per capita consumption is 203 kg in Maldives. China's per capita consumption is 25.7 kg. Compared to developing countries with 14.5 kg and developed countries with 23.7 kg and even low-income countries with food poverty rate of 13.9, our consumption is much less so it will require proper planning (Adeli, 2008: 5).

Hence, the importance and necessity of this research is to answer the question that to consumers, which one of the elements of the marketing mix (p4), are effective in the market-farmed fish, in Bojnourd. And how the ranking of each of these factors and relevant indicators, in relation to the degree of their impact on the market-rearing of fish is working. Or in other words, which elements of the marketing mix and its indicators has more important influence on consumer behavior? Accordingly, some recommendations should be presented in order to prompt the development of the market in farmed fish consumption, and consequently the prosperity and development of production in Bojnourd.

The research theoretical model
Based on the questions of the theoretical foundation of research, the conceptual model of the research is as follows:

Product	Price		Market making for farmed fish
Promotion	Distribution	→	
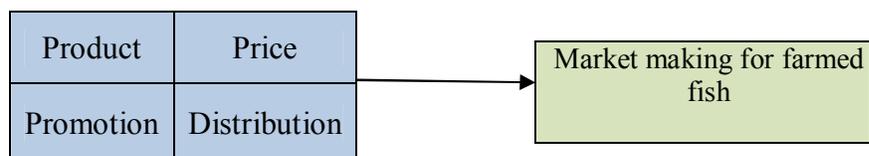
Figure 2: The conceptual model

• Independent variables: 1. Product 2. Price 3. Distribution 4. Promotion and each of these variables and indexes have been expressed in table. 1.
• The dependent variable in this study is the market-making for farmed fish.

Table 1: represents the independent variables and indices:

No	Independent variable	Indexes of each of the independent variable
1	Product	1. Tasting 2. Smell 3. The nutritional benefits of service units 4. The existence of tiny bones 5. corruptibility 6. Healthy appearance 7. Appropriate species of fish 8. Easy Bake 9. difficult to erase 10. Proper packaging 11. Short-term sintering 12. The method of keeping fit 13. appropriate fishing methods 14. processing (curing)
2	Price	1. List of Price 2. Reasonable price 3. Allowances 4. The credit agreement 5. Checkout
3	Distribution	1. The appropriate distribution points 2. appropriate intermediaries 3. convenient transportation 4. continuous supply
4	Promotion	1. The establishment of cooperative companies and unions 2 performance of exhibition 3. Education providers, vendors 4. Advertising in mass media about the benefits of fish 5. Teaching them how to cook the fish. 6. Championship about benefits associated with of fish 7. Insert the articles about the benefits of fish

Research methodology
The methodology used in this study is a descriptive survey. Statistical population was, 48163 typical family in Bojnourd with 182,751 inhabitants, respectively. Sampling method was multistage cluster sampling. Sampling units was the household sampling and the frame was all of the households living in Bojnourd and the study period was the summer of 2006. The required sample volume, supporting the tables provided by Krejcie and Morgan, the sample size can be

estimated from the size of the population (Taghizadeh, 2005: 47). On this basis, 384 questionnaires were distributed in 4 working class and finally 371 questionnaires were returned. The data collection tool was a researcher- made questionnaire with face and content validity and Cronbach's alpha was used to determine the validity and reliability. Cronbach's alpha coefficient using SPSS version 16 and Cronbach's alpha reliability of the questionnaire and its variables are set forth in Table 2.

Table 2: Cronbach alpha values and its subscales

No.	Variables	Values
1	Details of farmed fish	%69
2	Price	%74
3	Distribution	%68
4	Distribution	%83
5	Effective elements of the marketing mix of farmed fish	%73

Due to the high Cronbach's alpha coefficients the reliability and internal validity is approved. In this study, descriptive statistics such as frequency tables and bar charts as well as mean and standard deviation and variance were used. In analytical methods, the tests of Kolmogorov - Smirnov were used to determine normality of variables and equivalent non-parametric test was used to identify influencing factors and Friedman nonparametric test was used for rank equivalent relevant factors and indices. To analyze the data, the software package SPSS version 16 and for charting, Excel software was used.

Test of the normality of variables
To determine the type of the test, especially in comparative tests it is necessary to ensure the normality of variables. If the variables are normal, parametric test is recommended. Otherwise, using non-parametric tests equivalent will be considered. Since the variables assessed in this study are interval, Kolmogorov - Smirnov test to determine the normality of variables is the best option. The assumptions are as follows:
Null hypothesis: variable under consideration are normally distributed.
Alternative hypothesis: variable under consideration are not normally distributed.
If the significance of the number is less than 0.05. We say that the variable under study is not normal and if the significance level of 0.05 higher number, we say variable under study is normal.

Table 3: Results of assuming normal variables

No.	Scales under investigation	Average	Standard deviation	Kolmogorov-Smirnov statistic of z	The significance level
1	Characteristics of farmed fish	3.57	%45	1.639	0.009
2	Price	4.04	%58	1.894	0.002
3	Distribution	4.12	%57	2.745	Zero
4	Distribution	4.10	%59	1.707	0.006

The result: all independent variables are abnormal.

Analysis of data
Data collected by questionnaire were analyzed by statistical software. First part of the questionnaire contains data on participants that the characteristics of the data is analyzed using descriptive statistics. The second part of the questionnaire included questions concerning the current status of the farmed fish market. This has also been studied using descriptive statistics. Due to the use of Likert scale (the scale is ordinal qualitative). And non-the normality of the independent variables in this study, the test of nonparametric sign (Sign Test) and Friedman non-parametric tests was used to test the hypothesis Questions researching and ranking factors and indexes of each mixture was used.

Test of the hypothesis of the research questions
Question 1: Which of the marketing mix elements were effective on the market of farmed fish Bojnourd?
A) Variable of the product:
Hypothesis: element of farmed fish product on the market of Bojnourd is effective.
Since the variable is not normally distributed, so the equivalent non-parametric test mark (Sign Test) will be used to test the hypotheses.
If we assume that:
θ: Middle-ranging product in the population is studied. Values less than or equal to 3 as ineffectiveness and above 3 is considered to be affected. Therefore, we must test the following assumptions:

$$\begin{cases} H_0 : \theta \leq 3 \\ H_1 : \theta > 3 \end{cases}$$

Assuming zero means no impact and assume a means to influence product. A rule against a null hypothesis test is as follows.
If the P-value <0.05, then reject the null hypothesis and accept the default.

Table 4: The results Sign test for the product element

Mean in the sample	Number less than mean	Number equal to mean	Number more than the mean	Level of significance
4	5	4	289	0

As can be seen from the results table above $\alpha = 0.05$ because the significance is zero. We reject the null hypothesis and accept the default, the element is effective product on the market of farmed fish in Bojnourd.

B) Variable of price:
Hypothesis: the price is effective in market-making of farmed fish in Bojnourd

As the price variable is not normally distributed, therefore, non-parametric sign test will be used to test the hypotheses. If we assume that:

θ : Real median of the price in the population is changing.

Values less than or equal to 3 are considered as non-effective and above 3 is considered to be affected. Therefore, we must test the following assumptions:

$$\begin{cases} H_0 : \theta \leq 3 \\ H_1 : \theta > 3 \end{cases}$$

The null hypothesis means no influence and assume an element meant to influence the price. A rule against a null hypothesis test is as follows.

If the P-value <0.05, then reject the null hypothesis and accept the default.

Table 5: results Sign test for the element of price

Mean in the sample	Number less than mean	Number equal to mean	Number more than the mean	Level of significance
4.25	9	4	254	0

As can be seen from the results table above $\alpha = 0.05$ because the significance is zero, thus rejecting the null hypothesis and accept the default. That element of the market price of farmed fish in Bojnourd is effective.

C) Variable of distribution:
Hypothesis: the distribution is effective in market-making of farmed fish in Bojnourd

As the distribution variable is not normally distributed, therefore, non-parametric sign test will be used to test the hypotheses. If we assume that:

θ : Middle-ranging of distribution in the population is studied.

Values less than or equal to 3 are considered as non-effective and above 3 is considered to be affected. Therefore, we must test the following assumptions:

$$\begin{cases} H_0 : \theta \leq 3 \\ H_1 : \theta > 3 \end{cases}$$

The null hypothesis means no influence and assume an element meant to influence the price. A rule against a null hypothesis test is as follows.

If the P-value <0.05, then reject the null hypothesis and accept the default.

Table 6: results Sign test for the element of distribution

Mean in the sample	Number less than mean	Number equal to mean	Number more than the mean	Level of significance
4.875	3	1	208	0

As can be seen from the results table above $\alpha = 0.05$ because the significance is zero, thus rejecting the null hypothesis and accept the default. That element of the market distribution of farmed fish in Bojnourd is effective.

D) Variable of promotion:

Hypothesis: the promotion is effective in market-making of farmed fish in Bojnourd

As the distribution variable is not normally distributed, therefore, non-parametric sign test will be used to test the hypotheses. If we assume that:

θ : Middle-ranging of promotion in the population is studied.

Values less than or equal to 3 are considered as non-effective and above 3 is considered to be affected. Therefore, we must test the following assumptions:

$$\begin{cases} H_0 : \theta \leq 3 \\ H_1 : \theta > 3 \end{cases}$$

The null hypothesis means no influence and assume an element meant to influence the price. A rule against a null hypothesis test is as follows.

If the P-value <0.05, then reject the null hypothesis and accept the default

Table 7: results Sign test for the element of promotion.

Mean in the sample	Number less than mean	Number equal to mean	Number more than the mean	Level of significance
4.129	8	6	322	0

As can be seen from the results table above $\alpha = 0.05$ because the significance is zero, thus rejecting the null hypothesis and accept the default. That element of the market promotion of farmed fish in Bojnourd is effective.

Question 2: How is the ranking each marketing mix factors on the market-making of the farmed fish?

Now, using non-parametric Friedman we will attempt to prioritize each of these factors.

The null hypothesis: there is no priority between the factors.

The alternative hypothesis: there is priority between the factors.

Table 8: Results of Friedman test to check the status of marketing mix factors affecting the farmed fish market.

No	Statistics	value
1	K2 Friedman	220.22
2	Degrees of freedom	3
3	The significance level	0

As can be seen from the table above, because the significance is zero, so reject the null hypothesis and accept the default. Among the factors affecting the marketing mix of market-making farmed fish is top priority.

Table 9: Results of the mean ranks to investigate the factors affecting marketing mix on the farmed fish market.

No	Variable	Mean
1	Product	1.56
2	Price	2.76
3	Distribution	2.91
4	Promotion	2.78

Table 10: Results priorities marketing mix factors affecting the farmed fish market.

Priority	Variable
1	Distribution
2	Promotion
3	Price
4	Product

Question 3: How is the ranking each marketing mix factors on the market-making of the farmed fish?

A) The index of product variable
Now, using non-parametric Friedman we will attempt to prioritize each of these factors.
The null hypothesis: there is no priority between the factors.
The alternative hypothesis: there is priority between the factors.

Table 11: Results of Friedman test to check the status indicator variable effect of the product on the farmed fish market.

No	Statistics	value
1	K2 Friedman	1243.796
2	Degrees of freedom	13
3	The significance level	0

As can be seen from the table above, because the significance is zero, so reject the null hypothesis and accept the default. Among the factors affecting the marketing mix of market-making farmed fish is top priority.

Table 12: Results for the Study of the Effects of variable of product average rating of farmed fish market.

No.	Index	The mean of ranks
1	Taste	9.59
2	Medical benefits	10.24
3	Tiny bones	4.54
4	The smell of fish	4.74
5	Healthy appearance	8.93
6	Suitable species	8.80
7	Easy Bake	8.88
8	Difficulty of clearing	4.67
9	Suitable packaging	8.29
10	Processing	5
11	Short cooking time	7.91
12	Fishing methods	8.31
13	Proper maintenance	9.47
14	Corruption Vulnerability	5.63

Table 13: Results of priorities Effects of variable product on the farmed fish market

No.	Index
1	Medical benefits
2	Taste
3	Proper maintenance
4	Healthy appearance
5	Easy Bake
6	Suitable species
7	Fishing methods
8	Suitable packaging
9	Short cooking time
10	Corruption Vulnerability
11	Processing
12	The smell of fish
13	Difficulty of clearing
14	Tiny bones

B) The index of price variable

Now, using non-parametric Friedman we will attempt to prioritize each of these factors.

The null hypothesis: there is no priority between the factors.

The alternative hypothesis: there is priority between the factors.

Table 14: Results of Friedman test to check the status indicator variable effect of the price on the market of farmed fish.

No	Statistics	value
1	K2 Friedman	135.901
2	Degrees of freedom	4
3	The significance level	0

As can be seen from the table above, because the significance is zero, so reject the null hypothesis and accept the default. Among the factors affecting the marketing mix of market-making farmed fish is top priority.

Table 15: Results of The mean ranks for the Study of Effects of changing prices on the farmed fish market.

No.	Variable	Average
1	Price list	3.01
2	Proper price	3.53
3	Discounts	3.15
4	Time for paying	2.51
5	Condition for paying	2.80

Table 16: Results priorities index variable effect on the price of farmed fish market.

Priority	Variable
1	Proper price
2	Discount
3	Price list
4	Credit conditions
5	pay time

C) Variable of Distribution Index
Now, using non-parametric Friedman we will attempt to prioritize each of these factors.
The null hypothesis: there is no priority between the factors.
The alternative hypothesis: there is priority between the factors.

Table 17: Results of Friedman test to check the status indicator variable effect of the price on the market of farmed fish.

No	Statistics	value
1	K2 Friedman	36.047
2	Degrees of freedom	3
3	The significance level	0

As can be seen from the table above, because the significance is zero, so reject the null hypothesis and accept the default. Among the factors affecting the marketing mix of market-making farmed fish is top priority.

Table 18: Results for the Study of Effects of variable average rating of farmed fish distribution on the market

No.	Variable	Average
1	Proper place	2.71
2	Proper Mediator	2.31
3	Convenient transportation	2.54
4	Continuous supply	2.44

Table 19: Results priorities index variable effect on the market distribution of farmed fish

Priority	Variable
1	Proper place
2	Convenient transportation
3	Continuous supply
4	Proper Mediator

D) Variable of Promotion Index

Now, using non-parametric Friedman we will attempt to prioritize each of these factors.

The null hypothesis: there is no priority between the factors.

The alternative hypothesis: there is priority between the factors.

Table 20: Results of Friedman test to check the status indicator variable effect of the price on the market of farmed fish.

No	Statistics	value
1	K2 Friedman	221.854
2	Degrees of freedom	6
3	The significance level	0

As can be seen from the table above, because the significance is zero, so reject the null hypothesis and accept the default. Among the factors affecting the marketing mix of market-making farmed fish is top priority.

Table 21: Results for the Study of Effects of variable average rating of farmed fish promotion on the market

No.	Variables	Average
1	Unions	3.53
2	Exhibition	4
3	Education breeders and dealers	4.44
4	Social media advertisements	4.34
5	Culinary training techniques	4.78
6	Competitions	3.25
7	Benefits include fish in scientific papers	3.68

Table 22: Results priorities index variable impact on market promotion of farmed fish

Priority	Variable
1	Culinary training techniques
2	Education breeders and dealers
3	Social media advertisements
4	Exhibition
5	Benefits include fish in scientific papers
6	Unions
7	Competitions

Conclusions and recommendations

Using hypothesis testing, test results show that the first question that the use of marketing mix of product, price, distribution and promotion of effective market-making cultured fishes in Bojnourd. The Friedman test (second question), it was found that the respondents, a significant difference between the effect of each independent variable as well (third question) represent the indices of the market-making farmed fish there.

According to the results of the first question, which is based on theoretical research, it was determined according to the market-making elements of the marketing mix can be effective farmed fish. In this regard, it is suggested with regard to the problem of low per capita consumption of these products in our country than the per capita consumption of other countries, including industrialized countries, developed, developing and even countries with poor food and

by taking advantage of special that this product is recommended to coincide with plans for improving the production and development of investment in this industry need to focus and principles of marketing, especially considering the quality of mixed marketing the product on the agenda be administrators.

Because as of theoretical study and the results of this study will be taken,and only if compliance with these principles that any investment will be accounted for production and its ultimate goal to realize.

The second question test indicates that between the effectiveness of each marketing mix elements on market-making farmed fish, there is a significant difference this means that the effect of each of these elements is the priority and ranking. The result: 1. Distribution 2. Promotion 3. Price 4. Product.

1. Distribution

With regard to the second question test results showed that among the elements of the marketing mix factors affecting the distribution of primary concern remains. Therefore, market-making in Bojnourd farmed fish due to the distribution element should be the focus of the industry's stakeholders. This result shows that the distribution of fish farmed in Bojnourd, there are some problems and shortcomings. According to the results of the test, ranking third question indexes specifies the distribution element makes it possible to identify existing problems. Indexes ranking the distribution element according to the third question test using the Friedman test are: 1. convenient location 2.convenient transportation 3. Continuous supply and 4. Suitable intermediaries.

As the results indicate the proper location indicator is a top priority. Fish market, 5.6 percent of respondents farms, 4.2% of respondents from fish commercially and 9/12 percent of respondents from other centers, the fish they buy. 10 percent of people have not answered the question. Therefore, the dominant channel in farmed fish distribution in Bojnourd are respectively dealerships and supermarkets.

According to the above results, it can be concluded that farmed fish distribution channel in Bojnourd special attention is given to increasing per capita consumption of it can be effective. Consumers from dealerships and supermarkets are the top choice of shopping places. Which can be caused by high consumer confidence index to these places and also on how to maintain hygiene, convenient packaging and so on. Which requires separate study.

Since the time of the study (Summer of 1388) Price farm, wholesale price and retail price of a kg of salmon (the fish produced and consumed most of the province) on average and almost all channels 36,000 and 39,000 and 45,000 rials that is, it can be sold through agency distribution channel margins are calculated as follows:

$Mm = Pr - Pf$

$Mm = 45000-36000=9000$

In the above equation bloated farm prices, Pr retail price, and Mm marketing margin, for a kilo grams of fish breeding. Since the marketing margin is usually a percentage of the sale price is expressed, we can say that 20% of the sale price of a kg of fish farmed in Bojnourd the services of marketing products that retail share 13.34 percent share wholesale 6.66 percent.

We also suggest that, given poor roads and communication between farms and local supply of fish, which causes lesions in fish and reduce market-making be it, maintenance and repair of

roads, existing and construction of roads standard is necessary. Also, due to the perishable fish, be sure the product is shipped frozen over long distances and to carry vehicles used refrigerator.

2. Promotion

The results show that the second question should be the second priority product promotion, market-making affecting farmed fish in aquaculture industry is the focus of those involved. The third question was clear from the test results also introduced an element indices promotion of investment priorities to the effect that the results are as follows.

1. Teaching cooking, 2. Education breeders and dealers, 3. The mass media, 4. Exhibitions 5. Insert the scientific benefits of fish, 6. The existence of unions, 7. Competitions.

Due to the ignorance of the people of various methods of cooking fish) today, more than 400 kinds of fish food is prepared), learning different methods of cooking fish to consumers through various media is suggested. Given the role of advanced marketing techniques, such as customer orientation, market orientation rather than sales-oriented, creating value for customers and the customer's satisfaction and pushing them to take more products holding time once, showcasing local supply of fish that they have different methods of cooking fish should be taught about the benefits of food and medical Fish information, such as what is the culture of fish consumption among the people promoting and preaching slow.

3. Price

The second question test results show that the cost element as the third priority market-making affecting farmed fish raised in Bojnourd and should be of interest to those involved in the provincial aquaculture industry. The third question was clear from the test results also indexes the cost element for the effectiveness of the priority that the results are as follows. 1. Price is right, 2. Allowances, 3. Price List, 4. The credit agreement, 5. Checkout. The results of the study show the price of fish rearing compared to the price of a substitute, especially chicken meat is more expensive, it is recommended that producers by reducing production costs, standardizing products, competitive production, large-scale production, review production, however, is based on advanced technologies and increase investment in processing industries, fish prices tending to be balanced with falling prices, the purchasing power of the people according to per capita income lower them gone up and as a result, demand for fish rearing increase.

4. Product

The results suggest that the second question, which is the product (product characteristics) as the fourth priority market-making affecting farmed fish in Bojnourd, it is necessary to be of interest to those involved in aquaculture industry. The third question was clear from the test results between the component indexes of investment priorities to the effect that the results are as follows. 1. Food and medical benefits, 2. Tasting, 3. Proper maintenance, 4. Health appearance, 5. Easy Bake, 6. Suitable species, 7. Appropriate fishing methods, 8. Packaging 9. Short cooking time, 10. Putrefying, 11. Process, 12. Smell, 13. The difficulty of cleaning, 14. There are tiny bones.

Given the importance of tasting, convenient maintenance, appearance and health of farmed fish to consumers, it is recommended to reduce odor and unpleasant taste of the food and nutritional materials, the quality of the water in which the fish are reared and the smell and taste of supply it

with materials that breathe them less fish will be considered. Among other proposals, the creation of additional processing industries, because these industries increased during maintenance products, perishable prevention, waste reduction, changing consumption patterns, time adjustment of supply and demand, facilitate storage, is job creation and exchange technology. Especially when the fish processing into value-added products such as canned fish, fish paste, fish oil, etc. as another way to improve farmed fish raised in Egypt is changing.

The supply of fish to be cleaned and packed with the information placed on it in terms of weight, maintenance procedures, methods of cooking, food should come and medical and kept in the refrigerator showcase with one of the other approaches that could lead to the improvement of farmed fish consumption patterns.

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