

Prioritization of Expanded Marketing Mix in Different Stages of the Product Life Cycle: The Case of Food Industry

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ABSTRACT

In today's competitive world, employing marketing concepts and methods while prioritizing the marketing mix approach for products can play an important role in increasing sales and ensuring greater success in the marketplace. The main objective of this study is to prioritize the marketing mix in each stage of the product life cycle using the ANP approach. For this purpose, a questionnaire was designed, and a survey of food industry marketing managers in Mashhad was conducted in 2015. The results show that between 7P's of marketing mix, in the introductory stage of the product life cycle, "promotion," and in other stages "price" have the highest priority. According to the fact that each marketing mix has some sub-indices, the results show that among all sub-indices, "advertising" in the introductory stage, "high price" in the growth stage, "kind of payment" in the maturity stage, and in the decline stage, "rebate" possess the highest weights. Therefore, prioritization of the marketing mix can be used at different stages of the product life cycle to help managers for better allocation of their resources and increase profitability.

Keywords: Food products, Marketing mix, Prioritizing, Product life cycle.

INTRODUCTION

The business environment is associated with rapid and unexpected changes in market conditions, and the food industry is not exempt from these issues. An appropriate marketing mix plays an important role in the realization of marketing strategies and it can also increase sales and profitability of the firm. The marketing mix is a combination of factors that can be controlled by a company to influence consumers to purchase its products. The 4Ps make up a typical marketing mix but nowadays the marketing mix increasingly includes several other Ps as vital mix elements. Marketing mix was developed from the single *P* (Price) of microeconomic theory (Chong, 2003). McCarthy classified marketing mix elements

into the four elements of place, promotion, product and price (Kotler and Armstrong, 2010).

The marketing mix idea has two main benefits. First, it is a tool used to enable one to see that the marketing manager's job is trading off the benefits of one's competitive strengths in the marketing mix versus the benefits of others. The second advantage of the marketing mix is that it helps to show another dimension of the marketing manager's job. All managers have to allocate scarce resources among various demands, and the marketing manager will in turn allocate these resources among the different competitive activities of the marketing mix (Londhe, 2014).

The marketing mix can be used at different stages of the product lifecycle to help managers for better allocation of resources.

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According to Kotler *et al.* (2014), the product lifecycle is divided often into four stages: introduction, growth, maturity and decline. The product lifecycle shows how a product enters the market, grows, and then exits the market. The duration of each stage of the product lifecycle depends on the market conditions, the type of product, the kind of industry, and the culture of the society (Dolgui and Proth, 2010). A lack of attention to the stages of the product lifecycle leads to the selection of inappropriate strategies and destroys the competitive advantage of a firm (Sharma, 2009). Therefore, it is important for managers to have appropriate strategy such as marketing strategy in different stages of the product life cycle.

In the previous studies, the elements of the marketing mix for industries were prioritized, but the concept of product lifecycle was often neglected. Herbst (2001) emphasized that people and physical evidence comprised the most important marketing mix in all stages of the product lifecycle. Senay (2010) showed that public relations is the most important marketing mix. Lin (2011) examined the role of the marketing mix in Taiwan's fast food industry and showed that the "product" was the most important factor in the food industry. Takata (2016) showed that marketing skills are the most important driver of performance and within the different marketing skills, new product development and pricing are the primary factors.

Pomeroy (2017), added processes and physical evidence, to the traditional 4Ps and introduced: promise, principles, and partnership, claiming that each of these may be considered a manageable marketing variable that will contribute to the creation of individual and social value. Kusumawati *et al.*, (2014) examined the factors that can influence consumer buying interest towards music products and their results showed that the prices have the highest influence on consumers to buy music products. Andrews and Franke (1996) examined market responses to advertising, price and distribution using data from six product categories and their results showed that

changes over the product life cycle are consistent with the findings for temporal dynamics.

Ourania and Aspasia (2015) investigated the changes in marketing strategies of 92 Greek food manufacturing companies during the economic crisis that started in 2010 and showed that Greek food manufacturing firms increased their efforts on developing new products, their promotions targeting to consumers and their efforts on producing high quality products and targeting new markets abroad. Astuti *et al.* (2015), considered the influences of 7P marketing mix variables, product, price, promotion, place, people, physical evidence and process on purchasing decision of consumers for determining appropriate marketing strategy. Their results showed that the most persuasive marketing mix variable was price and the odd pricing is the best strategy to increase the purchasing decision of consumers.

Moreover, services marketing is the marketing based on relationship and value. Marketing a service-based business is somewhat different from marketing a goods-based business. The major difference between service marketing versus regular marketing is that apart from the traditional 4P's, there are three additional "P's" consisting of People, Physical evidence, and Process (Afridi, 2009). Service marketing in a firm is much more extensive than production and traditional marketing activities. It requires collaboration between marketers and managers to improve the management of the firm's activities and human resources (Lovelock, 1996). Kushwaha and Agrawal (2015) examined the appropriate marketing mix strategy in banking services context in India and found that physical evidence, process, place, and people have a positive and significant effect on customers of the banking sector.

The use of an appropriate marketing mix at different stages of the product lifecycle is one of the challenges confronting managers in all industries such as food industry. It is essential to survey the marketing mix in the food industry, given the importance of the food

industry in employment, value-added, investment, and other micro- and macroeconomic variables. The food industry plays an important role in sustainable development and has direct and indirect effects on the agricultural sector. The agricultural sector is one of the most important economic sectors in Iran, and accounts for 80 percent of the country's food needs, 15 percent of GDP, and 33 percent of employment. The food industry in Iran has high share in employment (around 17 percent), and around 16 percent of industrial investment in Iran is devoted to the food industry. Iran has a comparative advantage in the food industry for various reasons, such as the diversity of climate and abundant raw materials and labor force. However, Iran's food industry has been facing several problems related to post-production, and it seems that the main cause of these problems is the lack of appropriate marketing strategies and the fact that little attention is paid to marketing mix, brand equity and customer preferences (Najafbeigi and Ardeshiri, 2010).

The aim of this study is to identify and prioritize the expanded marketing mix (7Ps) in different stages of the product lifecycle in the Iranian food industry. Data was obtained from questionnaires and by simple random sampling from medium- and large-scale firms (with 10 employees or more), according to the fourth edition of International Standard Industrial Classification (ISIC, 2015) division into sectors 10 (food products) and groups 101 (processing and preserving of meat), 103 (Processing and preserving of fruit and vegetables) and 105 (manufacturing of dairy products) in 2015. A random sample of 33 medium- and large-scale companies in the city of Mashhad was selected and interviews with their managers or marketing executives were conducted. Mashhad, the capital of Khorasan Razavi Province, is one of the main centers of the food industry in Iran, which has a comparative advantage in production and exports of food products. There are 887 active food industries in Khorasan Razavi Province (mainly in Mashhad), and around \$ 400 million of food products were exported

from this province to other countries in recent years (Industry, Mine and Trade Organization, 2015).

MATERIALS AND METHODS

In this research, the Analytic Network Process (ANP) approach was applied in order to prioritize the marketing mix in different stages of the product lifecycle. In fact, the ANP approach was applied to determine the weight of each sub-criterion, which affected the prioritization of the expanded marketing mix. The effects of elements on each other are considered as a super matrix in a network (Senay, 2010). In this study, according to Kotler *et al.* (2014), the 7P's marketing mix and its sub-indices are considered. The 7 P's of marketing and its corresponding sub-indices are demonstrated in Table (1).

The ANP is the general form of the AHP, which has all the positive characteristics like simplicity, flexibility, the simultaneous use of qualitative and quantitative criteria, and the ability to check the inconsistency in judgments. In addition, it can consider complex relationships (interdependence and feedback) between elements, using the network structure instead of the hierarchical structure (Saaty, 1999). The process of ANP includes 4 main steps of:

Creating Structure and Modeling

At this step the problem is clearly stated and decomposed into a logical system as a network.

Paired Comparisons Matrix and Priority Vectors

The elements for each criterion are compared pair-wise toward control criteria, and then each criterion is compared pair-wise toward the goal. For example, a scale of 1 to 9 can be used with a score of 1



Table 1. The elements of marketing mix in the analytic network process.

| Product | Price | Place | Promotion | People | Process | Physical evidence |
|-----------|-----------------|------------------------------|----------------------|------------------------|----------------------|----------------------------|
| Quality | High price | Delivery on time | Flyer | Staff training | Information system | Environmental assessment |
| Brand | Rebate | Equipment storage | Advertising | Staff motivation | Deal with complaints | Organizational convenience |
| Guarantee | Low price | Market segmentation | Classify customers | Staff commitment | Automation | Organization's name |
| Diversity | Kind of payment | Outsourcing | Attending exhibition | Involving staff | Including customer | Organization's logo |
| Packaging | Reducing cost | Cooperating with competitors | Promotional support | Behavior with customer | Customer guidance | Staff appearance |

Source: Kotler et al. (2014).

representing the equal importance of two elements to each other, and a score of 9 representing the highest importance of an element (matrix row) in comparison to the other elements (matrix column). In a paired comparison matrix, the value of the other side is an inverse, that is:

$$a_{ij} = \frac{1}{a_{ji}}$$

Meanwhile $a_{ij} = (a_{ji})$ shows the importance of *i*th (*j*th) element in comparison to *j*th (*i*th) element. Paired comparisons are in the form of a matrix in ANP as well as AHP, and local priority vector is obtained from estimation of the relative importance of the elements, following Saaty (1999):

$$\lambda \max W = AW \tag{1}$$

Where *A* is the paired comparison matrix, *W* is the eigenvalue and $\lambda \max$ is the largest amount of *A*. If *A* denotes a consistency matrix, then eigenvector *X* could be showed using:

$$(A - \lambda \max I)X = 0 \tag{2}$$

Wind and Saaty (1980) introduced the Consistency Index (CI) and Consistency Ratio (CR) to verify the consistency of the comparison matrix. They are defined as follows:

$$CI = (\lambda \max - n) / (n - 1) \tag{3}$$

$$CR = CI / RI \tag{4}$$

Where, *RI* shows the average consistency index. If *CR* is less than 0.1, then the estimate is accepted.

The Super-Matrix Creation

These paired comparisons are entered into a large matrix called the super matrix. The super matrix can limit coefficients for the calculation of all the priorities. A super matrix is a matrix that every part of it represents the relationship between the two groups in a system. It is assumed that the decision system includes *C_k* component decision with *k*= 1, 2,..., *n*. Each *k* component has *m_k* element, shown as *ek1*, *ek2*, ..., *ekm*. The local priority vectors are obtained and listed in the proper place in the super matrix as follows (Saaty, 1999):

$$W = \begin{matrix} e_{11} \\ \vdots \\ e_{1n_1} \\ C_1 \\ C_2 \\ \vdots \\ e_{2n_2} \\ \vdots \\ C_N \\ \vdots \\ e_{N1} \\ \vdots \\ e_{Nn_N} \end{matrix} \begin{bmatrix} W_{11} & W_{12} & \dots & W_{1N} \\ W_{21} & W_{22} & \dots & W_{2N} \\ \vdots & \vdots & \vdots & \vdots \\ W_{N1} & W_{N2} & \dots & W_{NN} \end{bmatrix} \tag{5}$$

The final super matrix includes the entire network, with priority weights that can be

found in an alternative column in a normal super matrix.

The Selection of the Best Alternatives

The final preferences for each alternative are obtained as the solution of:

$$\lim_{x \rightarrow \infty} W_n^{2k+1}$$

Where, W_n is the super matrix and k is a large arbitrary number. Finally, the alternative with a greater priority is known as the best alternative. The ANP conceptual model is presented in Figure 1.

In this research, ANP approach was used in order to prioritize the marketing mix in different stages of the product life cycle and the Super Decision software was used to analyze the data and calculate the rankings. First, internal and external dependence between criteria were determined, using

Pearson correlation coefficients and then marketing mix in different stages of the product lifecycle was prioritized, using a paired comparison questionnaire.

RESULTS AND DISCUSSION

According to Table (1), each marketing mix (7P's) has some sub-criteria or sub-indices. For instance, promotion has five sub-indices of flyer, advertising, classifying customers, attending exhibition and promotional support. Therefore, 7P's of marketing mix and 35 sub-criteria corresponding to these marketing mixes are considered in this research and their definition and categorization is explained in the references such as Kotler *et al.*, (2014) and Kotler and Armstrong (2010). The priorities for the sub-criteria of each marketing mix are reported in Tables 2 to 5.

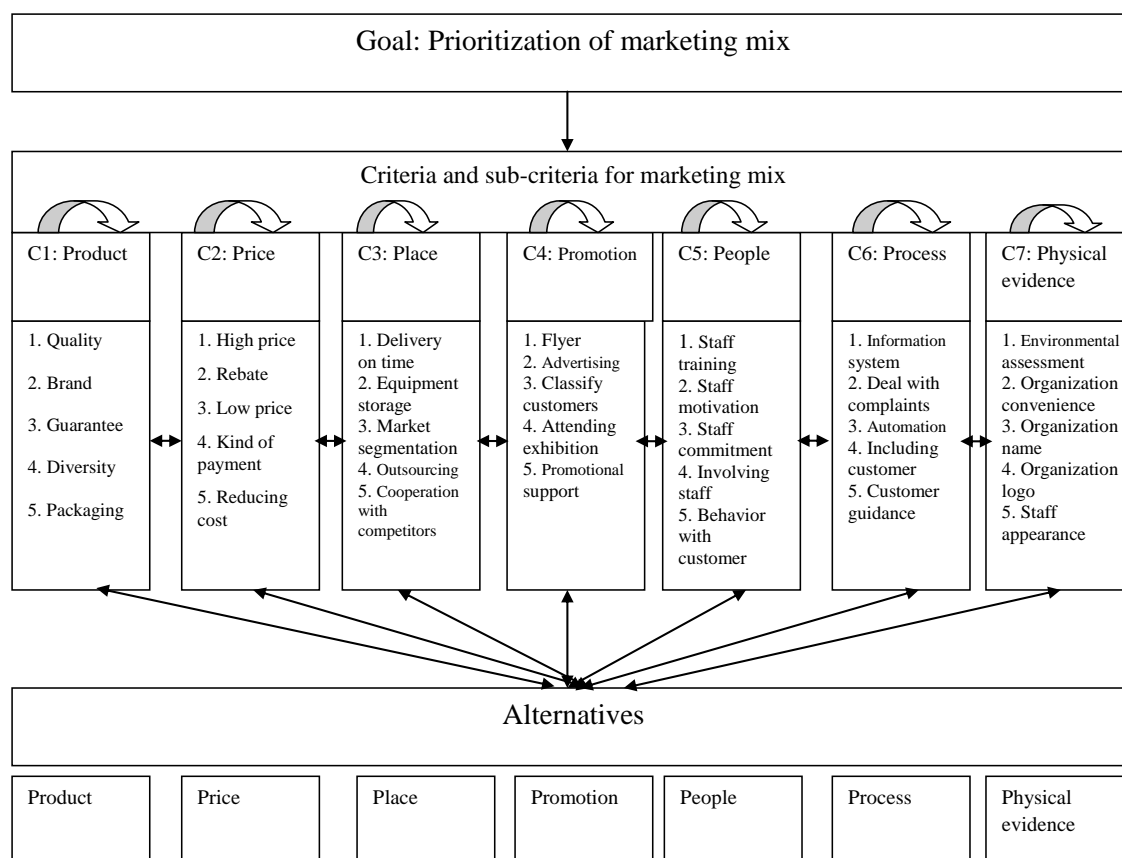


Figure 1. The ANP conceptual model.



As these tables show, from the results of this research and from respondents' opinions, in the introductory stage among all sub-criteria, "advertising" has the highest priority. The results also show that in the introductory stage, among the sub-criteria of the product "guarantee", among the sub-criteria of price "high price", among the sub-criteria of place "market segmentation", among the sub-criteria of promotion "advertising", among the sub-criteria of people "staff commitment", among the sub-criteria of process "deal with complaints" and among the sub-criteria of physical evidence "organizational convenience" have the highest ranks of importance.

In the growth stage, among all sub-criteria, "high price" has the highest priority. Also, the results show that in the growth stage, among the sub-criteria of products, "quality", among sub-criteria of price "high price", among sub-criteria of place "market segmentation",

among sub-criteria of promotion "advertising", among sub-criteria of people "staff involvement", among sub-criteria of process "dealing with complaints" and among sub-criteria of physical evidence "environmental assessment" have the highest ranks of importance.

In the maturity stage, among all sub-criteria, "kind of payment" has the highest priority. Also, the results indicate that in the maturity stage of product life cycle, among the sub-criteria of product, "packaging", among sub-criteria of price, "low price", among sub-criteria of place, "market segmentation", among sub-criteria of promotion, "advertising", among sub-criteria of people, "behavior with customer", among sub-criteria of process, "customer guidance" and among sub-criteria of physical evidence "staff appearance" have the highest ranks of

Table 2. Weights and rankings of goods marketing mix: Introductory and growth stages.

| Criteria | Sub-criteria | Introduction | | | Growth | | |
|-----------|------------------------------|--------------|---------------|---------|------------|---------------|---------|
| | | Row weight | Normal weight | Ranking | Row weight | Normal weight | Ranking |
| Product | Quality | 0.017 | 0.144 | 16 | 0.046 | 0.718 | 9 |
| | Brand | 0.014 | 0.119 | 20 | 0.009 | 0.142 | 22 |
| | Guarantee | 0.052 | 0.43 | 3 | 0.007 | 0.107 | 25 |
| | Diversity | 0.029 | 0.242 | 7 | 0.0006 | 0.009 | 33 |
| | Packaging | 0.007 | 0.063 | 27 | 0.001 | 0.021 | 31 |
| Price | High price | 0.024 | 0.520 | 10 | 0.146 | 0.432 | 1 |
| | Rebate | 0.012 | 0.268 | 21 | 0.054 | 0.162 | 6 |
| | Low price | 0 | 0 | 33 | 0.069 | 0.206 | 3 |
| | Kind of payment | 0.009 | 0.210 | 25 | 0.064 | 0.191 | 4 |
| | Reducing production cost | 0 | 0 | 34 | 0.002 | 0.006 | 29 |
| Place | Delivery on time | 0.018 | 0.230 | 14 | 0.047 | 0.353 | 8 |
| | Equipment storage | 0.021 | 0.263 | 13 | 0.015 | 0.114 | 20 |
| | Market segmentation | 0.022 | 0.280 | 12 | 0.049 | 0.370 | 7 |
| | Outsourcing | 0.007 | 0.095 | 28 | 0.018 | 0.140 | 15 |
| | Cooperation with competitors | 0.010 | 0.130 | 23 | 0.002 | 0.020 | 27 |
| Promotion | Flyer | 0.053 | 0.295 | 2 | 0.016 | 0.126 | 17 |
| | Advertising | 0.084 | 0.466 | 1 | 0.060 | 0.465 | 5 |
| | Classifying customers | 0.017 | 0.099 | 15 | 0.043 | 0.330 | 12 |
| | Attending exhibition | 0.008 | 0.049 | 26 | 0.008 | 0.064 | 23 |
| | Promotional support | 0.015 | 0.088 | 18 | 0.001 | 0.012 | 30 |

Table 3. Weights and rankings of service marketing mix: Introductory and growth stages.

| Criteria | Sub-criteria | Introduction | | | Growth | | |
|-------------------|----------------------------|--------------|---------------|---------|------------|---------------|---------|
| | | Row weight | Normal weight | Ranking | Row weight | Normal weight | Ranking |
| People | Staff training | 0.014 | 0.157 | 19 | 0.029 | 0.381 | 13 |
| | Staff motivation | 0.031 | 0.333 | 6 | 0.016 | 0.211 | 19 |
| | Staff commitment | 0.035 | 0.374 | 4 | 0.008 | 0.106 | 24 |
| | Involving staff | 0.010 | 0.106 | 24 | 0.016 | 0.216 | 16 |
| | Behavior with customer | 0.002 | 0.027 | 32 | 0.006 | 0.083 | 26 |
| Process | Information system | 0.023 | 0.290 | 11 | 0.010 | 0.050 | 21 |
| | Dealing with complaints | 0.028 | 0.355 | 8 | 0.08 | 0.394 | 2 |
| | Automation | 0.017 | 0.214 | 17 | 0.044 | 0.216 | 11 |
| | Including customer | 0 | 0 | 35 | 0.045 | 0.220 | 10 |
| | Customer guidance | 0.011 | 0.139 | 22 | 0.024 | 0.117 | 14 |
| Physical Evidence | Environmental assessment | 0.005 | 0.08 | 30 | 0.016 | 0.814 | 18 |
| | Organizational convenience | 0.032 | 0.443 | 5 | 0.002 | 0.124 | 28 |
| | Organization's name | 0.007 | 0.098 | 29 | 0.001 | 0.052 | 32 |
| | Organization's logo | 0.002 | 0.040 | 31 | 0.0001 | 0.005 | 34 |
| | Staff appearance | 0.025 | 0.338 | 9 | 0.00005 | 0.002 | 35 |

Table 4. Weights and rankings of goods marketing mix: Maturity and decline stages.

| Criteria | Sub-criteria | Maturity | | | Decline | | |
|-----------|------------------------------|------------|---------------|---------|------------|---------------|---------|
| | | Row weight | Normal weight | Ranking | Row weight | Normal weight | Ranking |
| Product | Quality | 0.020 | 0.138 | 16 | 0.072 | 0.482 | 3 |
| | Brand | 0.01 | 0.07 | 21 | 0.012 | 0.083 | 21 |
| | Guarantee | 0.045 | 0.312 | 9 | 0.015 | 0.101 | 20 |
| | Diversity | 0.0006 | 0.004 | 33 | 0.01 | 0.066 | 25 |
| | Packaging | 0.069 | 0.473 | 3 | 0.04 | 0.266 | 7 |
| Price | High price | 0.06 | 0.199 | 7 | 0.026 | 0.08 | 14 |
| | Rebate | 0.06 | 0.2 | 6 | 0.129 | 0.391 | 1 |
| | Low price | 0.063 | 0.211 | 4 | 0.071 | 0.215 | 4 |
| | Kind of payment | 0.101 | 0.337 | 1 | 0.045 | 0.138 | 6 |
| | Reducing production cost | 0.015 | 0.051 | 18 | 0.057 | 0.174 | 5 |
| Place | Delivery on time | 0.027 | 0.117 | 12 | 0.023 | 0.280 | 15 |
| | Equipment storage | 0.008 | 0.037 | 22 | 0.002 | 0.035 | 32 |
| | Market segmentation | 0.098 | 0.426 | 2 | 0.039 | 0.465 | 8 |
| | Outsourcing | 0.033 | 0.143 | 11 | 0.01 | 0.129 | 24 |
| | Cooperation with competitors | 0.063 | 0.276 | 5 | 0.007 | 0.088 | 29 |
| Promotion | Flyer | 0.005 | 0.099 | 25 | 0.005 | 0.046 | 30 |
| | Advertising | 0.021 | 0.420 | 15 | 0.002 | 0.018 | 34 |
| | Classifying customers | 0.011 | 0.225 | 20 | 0.017 | 0.151 | 18 |
| | Attending exhibition | 0.011 | 0.232 | 19 | 0.012 | 0.108 | 23 |
| | Promotional support | 0.001 | 0.021 | 32 | 0.076 | 0.675 | 2 |



Table 5. Weights and rankings of service marketing mix: Maturity and decline stages.

| Criteria | Sub-criteria | Maturity | | | Decline | | |
|-------------------|----------------------------|------------|---------------|---------|------------|---------------|---------|
| | | Row weight | Normal weight | Ranking | Row weight | Normal weight | Ranking |
| People | Staff training | 0.001 | 0.019 | 30 | 0.038 | 0.422 | 9 |
| | Staff motivation | 0.02 | 0.354 | 17 | 0.009 | 0.101 | 28 |
| | Staff commitment | 0.0005 | 0.009 | 34 | 0.012 | 0.135 | 22 |
| | Involving staff | 0.001 | 0.019 | 31 | 0.003 | 0.042 | 31 |
| | Behavior with customer | 0.033 | 0.596 | 10 | 0.027 | 0.297 | 13 |
| Process | Information system | 0.025 | 0.220 | 13 | 0.028 | 0.265 | 10 |
| | Dealing with complaints | 0.024 | 0.213 | 14 | 0.020 | 0.188 | 17 |
| | automation | 0.003 | 0.026 | 28 | 0.021 | 0.197 | 16 |
| | Including customer | 0.003 | 0.032 | 27 | 0.028 | 0.26 | 11 |
| | Customer guidance | 0.057 | 0.506 | 8 | 0.009 | 0.088 | 27 |
| Physical Evidence | Environmental assessment | 0.001 | 0.082 | 29 | 0.015 | 0.284 | 19 |
| | Organizational convenience | 0.004 | 0.220 | 26 | 0.027 | 0.495 | 12 |
| | Organization's name | 0.007 | 0.329 | 24 | 0.002 | 0.045 | 33 |
| | Organization's logo | 0.00008 | 0.003 | 35 | 0.009 | 0.173 | 26 |
| | Staff appearance | 0.008 | 0.362 | 23 | 0.00006 | 0.001 | 35 |

importance.

In the stage of decline, among all the sub-criteria, “rebate” has the highest priority. Also, the results show that in the stage of decline, among the sub-criteria of product, “quality”, among the sub-criteria of price, “rebate”, among the sub-criteria of place, “market segmentation”, among the sub-criteria of promotion, “promotional support”, among the sub-criteria of people, “staff training”, among the sub-criteria of process “information system” and among the sub-criteria of physical evidence “organizational convenience” have the highest rates of importance.

The raw weight of each marketing mix and prioritization of alternatives for all stages of the product lifecycle are reported in Table (6). As the results show, in the introductory stage, “promotion” has the highest weight and, in other stages, “price” has the highest weight. The inconsistency rate of paired comparisons was less than 0.1 and the prioritization was reliable.

In the introductory stage, “promotion” has the highest weight and among all sub-criteria, “advertising” has the highest priority. According to Belch and Belch (2004), the ability of advertising and other promotional methods to deliver messages to

Table 6. Weights and ranking alternatives.

| Marketing Mix | Introduce | | Growth | | Maturity | | Decline | |
|-------------------|------------|------|------------|------|------------|------|------------|------|
| | Raw weight | Rank | Raw weight | Rank | Raw weight | Rank | Raw weight | Rank |
| Product | 0.041 | 4 | 0.002 | 5 | 0.013 | 3 | 0.009 | 3 |
| Price | 0.004 | 7 | 0.009 | 1 | 0.021 | 1 | 0.02 | 1 |
| Place | 0.028 | 6 | 0.004 | 4 | 0.015 | 2 | 0.008 | 4 |
| Promotion | 0.082 | 1 | 0.006 | 2 | 0.011 | 4 | 0.005 | 5 |
| People | 0.050 | 3 | 0.001 | 6 | 0.005 | 6 | 0.004 | 6 |
| Process | 0.079 | 2 | 0.005 | 3 | 0.008 | 5 | 0.011 | 2 |
| Physical Evidence | 0.034 | 5 | 0.001 | 7 | 0.001 | 7 | 0.004 | 7 |

target audiences has given them a major role in the marketing programs. Advertising is the best-known and most widely discussed form of promotion, probably because of its pervasiveness. Advertising can be a very cost-effective method for communicating with large audiences especially at the introductory stage of the product life cycle. Buil *et al.* (2013) also showed that the individuals' attitudes toward the advertisements play a key role in influencing brand equity dimensions. In other stages of the product life cycle, "price" has the highest weight. In the growth stage, among all sub-criteria, "high price", in the maturity stage among all sub-criteria, "kind of payment" and finally in the stage of decline among all the sub-criteria, "rebate" has the highest priority among all sub-criteria of the price. Pricing decisions are prominent to the achievement of marketing objectives. Many pricing objectives can be classified as profit-oriented objectives; cost-oriented objectives; demand/sales-oriented objectives; and competition-oriented objectives. The competitive situation for a product changes throughout the life cycle of a product and each different phase in the cycle may require a different strategy and pricing plays a particularly important role in this respect. With innovatory new products, a company can elect to choose between two extreme pricing strategies or price skimming or price penetration (Lancaster and Massingham, 2001). Choosing between these two strategies depends on factors such as product type, market size, degree of competition and so on. Astuti *et al.*, (2015), also emphasized that the most persuasive marketing mix variable was price and the odd pricing is the best strategy to increase the purchasing decision of consumers.

CONCLUSIONS

The use of an appropriate marketing mix at different stages of the product lifecycle is one of the challenges confronting managers in all industries. A lack of attention to the

stages of the product lifecycle and appropriate marketing strategies in each stage, leads to the selection of unsuitable strategies and destroys the competitive advantage of a firm. Therefore, it is important for managers to have appropriate marketing strategy in different stages of the product life cycle. Prioritization of marketing mix will help marketing managers to better allocate their scarce resources between competitive marketing activities in different stages of the product life cycle for achieving the highest productivity. In this study, the elements of the expanded marketing mix (7Ps) in different stages of the product lifecycle were prioritized for the food industry in Mashhad, Iran by applying the ANP approach. The results of the ANP based on the responses by managers in the food industry, showed that in the introductory stage, "promotion," and in other stages of the product life cycle, "price" had the highest priority. Since promotion has the highest importance in the introductory stage, the marketing manager of food industries can focus on using this factor to attract customers and increase sales. According to the results, advertisements and flyers comprise the most important elements of promotion. Therefore, in the introductory stage, the use of advertising tools and dissemination of information among consumers can be more effective than other strategies. Because of the higher importance of price in the three latest stages of the food industry's lifecycle, firms in the food industry should pay special attention to the selection of appropriate pricing strategies in other stages of the product lifecycle.

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اولویت بندی آمیخته های گسترش یافته بازاریابی در مراحل مختلف چرخه عمر محصول: مطالعه موردی در صنایع غذایی

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چکیده

در دنیای رقابتی امروز به کارگیری روش ها و مفاهیم بازاریابی با رویکرد اولویت عناصر آمیخته های بازاریابی برای محصولات، می تواند نقش مؤثری در افزایش فروش و موفقیت بیش تر محصول در بازار داشته باشد. هدف اصلی این تحقیق، اولویت بندی آمیخته های بازاریابی در هر مرحله از چرخه عمر محصول با رویکرد ANP می باشد. برای این منظور داده های مربوط به معیارهای اصلی آمیخته های بازاریابی برای سال ۱۳۹۴ با توزیع پرسشنامه میان مدیران صنایع غذایی در مشهد جمع آوری گردید. نتایج نشان داد که از بین آمیخته های VP بازاریابی، در مرحله معرفی کالا، ترفیع و در سایر مراحل قیمت دارای بیشترین اولویت می باشد. با توجه به این موضوع که هر کدام از آمیخته های بازاریابی خود شامل زیرمعیارهایی می باشند، در میان تمامی زیرمعیارها، در مرحله معرفی؛ تبلیغات، در مرحله رشد؛ قیمت بالا، در مرحله بلوغ؛ نحوه پرداخت و در مرحله افول؛ تخفیف دارای بیشترین وزن می باشند. از این رو اولویت بندی آمیخته های بازاریابی می تواند در مراحل مختلف چرخه عمر محصول کمک زیادی به مدیران در جهت تخصیص بهتر منابع و افزایش سودآوری داشته باشد.