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IDENTIFYING AND PRIORITIZING MARKETING PROBLEMS IN IRAN'S POULTRY INDUSTRY

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ABSTRACT

The marketing of poultry products is a critical component of all production systems. Given the importance of the poultry industry in Iran and the marketing challenges it faces, this research aims to identify and prioritize the marketing problems within the industry. Using the Delphi technique, 15 experts from the poultry industry helped identify the main factors causing marketing issues in poultry units. These factors were then ranked according to their importance using the AHP method. The findings classified the main marketing problems into six categories: product, price, supply, promotion, resources, and structure. The "resources" category emerged as the highest priority, while "promotion" was deemed the lowest. Among the sub-indicators, the lack of government support and inadequate facilities from banks and related organizations ranked the highest priority, whereas insufficient advertising for chicken meat ranked the lowest. The most important innovation of this research lies in its comprehensive ranking and prioritization of marketing problems specific to the poultry industry in Iran, an area that previous research has not yet explored.

Keywords: Poultry industry, marketing, Delphi technique, Iran.

INTRODUCTION

Creating superior value for customers through an effective sales and marketing relationship provides companies with a competitive advantage (Madhani, 2016). Administrators of successful companies often ask whether it is necessary to implement specific strategies and tools to develop long-time

relationships with customers. Establishing such relationships is a real challenge that requires a deep understanding of marketing concepts and their practical applications (Cruceru & Moise, 2014). Companies that incorporate critical marketing inputs into their strategy formation process tend to achieve significantly better business performance compared to those where marketing plays a minor role. In the other words, a company's outcomes improve when management recognizes the significance of marketing. This is particularly true during times of rapid change, where the role of marketing is evolving swiftly. However, studies that directly measure managerial assessments of the importance of marketing activities are scarce and typically only address this aspect indirectly. (Urbonavieius & Dikeius, 2008). Historically, the production and consumption of poultry products were negligible due to the low productivity of poultry. By the 20th century, poultry products had not yet entered the global market. However, this changed fundamentally with the industrialization of poultry farming (Rozhkova & Stepanova, 2021). Today, the production of primary poultry products such as meat and eggs are increasing quickly, driven by consumer demand for these relatively low-cost and high-quality products resulting from improved production efficiency. When comparing poultry meat production statistics with those of beef and pork, the poultry sector shows faster growth worldwide (Scanes, 2007). In the current economic climate, companies must remain competitive by monitoring their strengths and weaknesses and outperforming their competitors in order to survive in the market. Currently, the market has numerous poultry farms that supply meat products. Companies strive for market leadership by improving product promotion, diversifying their offerings, enhancing quality, and advancing production technologies. The poultry industry is rapidly expanding and holds great potential to supply dietary products to the population. Poultry farming is particularly important for agricultural companies due to the rapid breeding cycle of poultry. This activity has become highly profitable for many agricultural companies, thanks to scientific advancements, improved production technologies and government support. Poultry products play a strategic role in economic development, driving demand in related sectors such as feed production, pharmaceuticals for the production of food additives and vitamins, and food and confectionery industries (Rozhkova & Stepanova, 2021). The poultry breeding industry is a key sector of the country's strategic industries, with broiler and egg-laying chicken production being especially important for meeting society's protein needs (Jafari, 2011). However, according to Ghadami, et al. (2010), the number of poultry slaughterhouses in the country is limited compared to the vast number of meat poultry farms, despite the industry's signficance. In addition, these slaughterhouses are not proportionally distributed across the country, leading to a non-competitive structure in the chicken meat processing industry in many regions, giving it market power over poultry farmers. Over the years, the government policies in the chicken meat market have fluctuated, affecting product pricing and causing structural disruption in the price trends (Ghadami et al., 2010). One of the major challenges faced by the poultry industry's production and distribution sectors is the lack of alignment between production capacity and distribution infrastructure, as well as a significant gap. between producer and consumer prices. It is vital to investigate the factors contributing to this disparity Profitability in the poultry industry depends not only on productivity but also on the sale price of poultry products. According to Nikita (2021), the marketing of poultry products is as important as its production. An efficient marketing system can reduce costs, decrease intermediary profit margins, and improve efficiency for producers. Therefore, analyzing the marketing aspects is necessary and relevant (Nikita, 2021). Given the importance of the poultry industry and the existing marketing challenges in the country, this study aims to identify and address the marketing issues within Iran's poultry sector. Savojbolagh city has been selected as a case study Due to its large number of chicken farms and significant poultry breeding activities. The main goal of this study is to identify the marketing problems of the poultry industry in Savojbolagh city of Iran and provide actionable solutions. To achieve this goal, the study will focus on accurately identifying and prioritizing these marketing issues at the city level, employing a qualitative model, and leveraging insights from field research and previous studies.

The main research question is: What are the marketing problems in the poultry industry of Savojbolagh city, and how significant are they?

LITERATURE REVIEW

Customers are among the most significant assets for any company, because the existence of a business is meaningless without them. This is a major reason why companies should always address customer needs and preferences (Olexova & Chlebikova, 2020). The customer is the primary focus of any business, being the intended recipient of the product or service. Each business requires marketing in order to sustain itself in the market, every business requires effective marketing. According to Kotler and Armstrong (2012), marketing is described as the process by which companies create value for customers and build strong relationships to receive value in return. (Kanyundo, 2020). In today's highly competitive market, companies must focus on gaining a competitive advantage which enables them to attract more customers and thereby strengthen their market position. To be successful, a company needs clearly defined marketing objectives. Additionally, it is crucial to accurately identify the target group of customers and tailor the marketing strategies, tools, and marketing mix accordingly (Olexova & Chlebikova, 2020). During the first conference on agricultural economics in Iran, Dashti and Yazdani (1996) highlighted that chicken meat has become widely used for human nutrition and providing needed protein. Broiler chicken farming offers several advantages, including the use of enclosed space, ease of feeding, high density, rapid growth, and a low feed conversion rate compared to other protein sources. Moreover, it contains essentials nutrients required by the human body. However, failure to adhere to proper management principles and technical standards in the production and breeding of chicken has led to considerable losses, for producers and for the broader society and national economy. In Iran, this sector has struggled to achieve its development goals due to factors such as low productivity, weak management, inefficient operations, and reliance on traditional methods of production (Allahyari, 2011).

According to Hosseini and Permeh (2010), the poultry industry ranks second only to the oil industry in importance within the country. Despite the expansion of the production facilities and its crucial role in the national food supply, this industry faces numerous challenges. These include high production costs linked to low feed-to-meat conversion rates, extended breeding periods that result in increased chicken weight, poor management across the production-consumption chain, and low per capita consumption of chicken meat and eggs. Fluctuations in the prices of chicken meat, eggs and their input costs represent a major challenge for the poultry industry, leading to annual market imbalances. Addressing these price fluctuations is a key concern for the government. Such variations can be influenced by supply factors, such as price changes in production costs and shifts in consumer demand. However, other factors such as the market structure, (e.g., monopoly or competitive dynamics) can also affect these fluctuations. This is evident in the market for products such as chicken meat and eggs, where exclusive market conditions can disrupt pricing and supply. Despite government efforts to regulate the markets of these products, complete success has yet to be achieved (Hosseini & Permeh, 2010). This industry also faces issues such as production efficiency, increased losses and waste, and most importantly, domestic market instability and a lack of export growth. These challenges have led to a decline in competitiveness of domestic products compared to those of international competitors (Mostafavi, 2012). In turbulent economic conditions, effective marketing systems play a crucial role by facilitating exchange functions, which are essential for specialization and economic development. These systems provide coordinated exchange mechanisms via price signals that guide the motivations of both producers and consumers, aligning supply with demand. Efficient marketing systems are necessary for connecting livestock

products, particularly poultry products with consumer demand. Without such systems, the high demand for high quality food items cannot be met efficiently, resulting in higher costs for consumers and lower incentives for producers (Kerbaga, 2010). Product risk poses a significant challenge for consumer behavior, particularly in the poultry sector (Bhatti & Ur Rahman, 2019). The poultry section continues to industrialize and expand globally, driven by urbanization, increased purchasing power, and population growth (Ami et al., 2020). Poultry farming has considerable social, cultural, and economic importance, supporting livelihoods and contributing to national GDP. The future growth and development of the poultry industry will likely enhance its role in these areas (Amirthalingam et al., 2017). The poultry sector also provides significant employment opportunities, particularly for the growing population. If the government focuses on strengthening the agribusiness value chain—encompassing feed commercialization, poultry product processing, marketing, hatcheries, and farmers—the industry could attract a large number of unemployed youths across the country. An efficient feed marketing network is crucial for every factor of the poultry feed supply chain (Gbigbi & Chuks-Okonta, 2020). Scholars and practitioners have noted that globalization and the shift towards a knowledge-based economy have transformed modern business competition from individual organizations to entire supply chains. Therefore, supply chain management has become a significant area of focus, serving as a catalyst for organizations aiming to compete in the global markets. Isa and Al Dweiri (2020). The poultry industry plays a crucial role in the economic development of a country due to its high profitability and numerous benefits. It generates rapid capital flow for foreign exchange and attracts investors, thereby contributing to the country's GDP. Additionally, it serves as a source of income for many individuals, provides a source of employment, and enhances food security by supplying essential protein, particularly in poorer countries. The poultry industry's activities are closely related to the government's economic and agricultural policies.

Major government policies influencing poultry production and marketing include tariffs on imported goods and subsidies aimed at supporting local poultry production (Hagan, 2020). An efficient marketing system is characterized by the maximization of profit with minimal total operational costs. Marketing efficiency can be assessed by calculating the ratio of marketing output to marketing input (Achoja et al., 2006). The prices of livestock products have been increasing in both domestic and international markets due to high population growth and increasing incomes in newly developing countries. Livestock products exhibit high income elasticity, with demand increasing rapidly as income rises. The increase in poultry consumption has been specifically widespread, while demand for pork, beef and dairy products varies depending on cultural differences across countries (Kerbaga, 2010). The price of poultry products is influenced by several factors including the season of sale, breed and quality characteristics of the birds or eggs. Due to greater demand for local chicken products, their prices tend to be higher than those of imported breeds or hybrids. Prices are often negotiated between buyers and small-scale producers, with sellers in some markets utilizing weight to determine the price of meat and live birds. In certain markets, informal or formal contracts (either written or oral) are established between poultry traders and product suppliers. Poultry marketers are categorized as "licensed" or "unlicensed" sellers. Licensed sellers are required to pay monthly taxes, annual licensing fees and daily sales fees. In contrast, unlicensed sellers are either unregistered traders or marketers who occasionally sell their own poultry products. Poultry markets can be public or private, with private markets sometimes established by local investors through agreements with the government (Birhanu et al., 2021). In almost all developing countries, it is essential for the government to provide business support services such as access to storage facilities, market information, credit, and training on production to assist marketing stakeholders in navigating dynamic and active markets (Kerbaga, 2010). The poultry industry is expected to face further challenges following the conclusion of current government financial

aid schemes, including loan suspensions and cash assistance programs (Majid et al., 2023). The main marketing issues affecting the poultry industry in Iran are as follows:

Product: A product refers to anything a company offers for consumption or purchase in the market that can meet the wants or needs of customers. It can include not only physical goods, but also experiences, ideas, information, services, or a combination of these. It is vital for a company to select a service or product that aligns with the interests of potential customers. Customers have certain expectations and preferences regarding the quality and features of the services and products offered by a company, and businesses strive to meet these expectations. For popular products, companies can utilize various features to differentiate themselves from competitors. These features may include variations in materials used, diverse functional benefits, differences in durability, performance, repairability, quality, and reliability. Other aspects may involve unique shapes, designs, sizes, packaging, or quantities. Additionally, customization to meet individual customer preferences, distinct delivery conditions, faster delivery times, warranties, installation options, and a range of additional services can set a company apart (Olexova & Chlebikova, 2020). With consumers becoming more informed, there is growing pressure on companies to improve product quality and reduce prices. Companies that successfully improve product quality are more likely to gain market entry (Verbeke, 1992).

Price: Price refers to the amount a customer pays for a product. It plays an important role because it determines the company's profit and overall survival. Price adjustments have a significant impact on marketing strategy, and can affect both sales and demand, depending on the product's price elasticity. While Pricing is not generally considered as the most exciting aspect of a marketer's role, making hasty pricing decisions without sufficient analysis, research, and strategic consideration can lead to loss of revenue for the organization. Setting prices too low may reduce potential profit if the target market is willing to pay more for the product. Conversely, raising the price of an initially lower-priced product can lead to customer resistance, as they might perceive the company as taking advantage of their willingness to buy. Similarly, pricing the product too high can discourage potential customers and negatively affect sales. Finding the appropriate price level usually requires remarkable market knowledge and, especially for new products, requires testing various pricing options. (Bempah et al., 2013). During the course of a product's life cycle, industry prices tend to decrease due to increased competition, which impacts profits. Although increased efficiency may help mitigate this effect, its impact on profitability remains unclear. Over time, consumers generally become more price-sensitive and seek the best "value" for their money. The perceived relationship between price and quality, as evaluated by consumers, plays a crucial role in determining the attractiveness of a product (Verbeke, 1992).

Supply: Major economic changes, such as globalization, have driven market development and prompted companies to offer higher levels of customization, product variety and enhanced service. In this evolving context, demand management aims to balance and strategically align demand with a company's operational capabilitues throughout the supply chain. It involves the rapid and effective integration of market needs into the supply chain management and marketing processes. Integrating supply and demand begins with recognizing that an organization employs specific tactics and strategies related to both supply and demand management (Melo & Alcantara, 2016). Market demand and supply can be viewed as the cumulative distribution of the reserve prices of sellers and buyers (Inoua & Smith, 2020).

Promotion: Promotion encompasses a range of marketing techniques and actions, as well as communication strategies aimed at boosting sales by attracting the attention of potential buyers. It

involves various activities such as conveying information, educating customers and keeping them engaged with the company and its product (Alexandrescu & Milandru, 2018). Essentially, promotion deals with the relationship between buyers and sellers, and includes sales promotion, advertising, public relations and other sales-related activities. It is the aspect of the marketing mix focused on persuading, informing and reminding consumers to purchase a company's products or services. Promotion plays a vital role in building goodwill for the company, sustaining customer satisfaction, and maintaining sales volume at a profitable level. Promotion is the most visible aspect of marketing and often the most engaging aspect of marketing, used to enhance brand recognition and foster customer loyalty (Bempah et al., 2013). The primary goal of sales promotion is to increase the rate of sales or sales volume by eliciting a strong and immediate response from consumers (Alexandrescu & Milandru, 2018).

Resources: Despite the extensive literature on resources and their impact on competitive advantage and performance across economics, management and marketing, numerous challenging issues and unanswered questions remain that require further empirical and theoretical investigation. These resources can encompass physical or human processes, intangible or tangible assets, as well as intellectual or relational attributes (Davcik & Sharma, 2016). Companies have various bundles of resources, even within the same industry. This concept of resource heterogeneity implies that some companies are more skilled in performing certain activities due to their unique resources. Barney and Hesterly (2012), further explain that these resource differences can be sustained because of the difficulty of trading resources between companies (resource immobility assumption). This immobility allows the advantages of unique and heterogeneous resources to persist over time (Kozlenkova et al., 2013).

Structure: The economic viability of chicken farming begins with the proper design of poultry houses tailored to the specific breed and local environmental conditions. However, in some countries, the design of poultry houses is based on incorrect information or outdated methods rather than scientific and engineering principles. Consequently, there is a high mortality rate among chickens due to these suboptimal designs. The lack of adherence to scientific and engineering standard in constructing poultry houses has led to a variety of non-standard and inconsistent shed sizes, which are often inadequate for large-scale production, or the use standard mechanization (e.g., automated drinking and feeding systems). Properly selecting the dimensions of poultry house is crucial to enable efficient mechanization and optimal ventilation. Failure to apply scientific guidelines in the design of poultry houses can lead to production challenges, reduced efficiency, higher production costs, and unnecessary waste of resources (Alchalabi, 2014).

Theoretical Framework of the Research

Based on the studies in the literature review, the main marketing challenges in the poultry industry can be categorized into six key areas: product, price, supply, promotion, resources, and structure. These categories as shown in Figure 1, represent the main dimensions of the industry's marketing problems. In the subsequent sections, the specific issues within each of these categories will be identified and prioritized for analysis.

Figure 1

Conceptual Framework of the Research
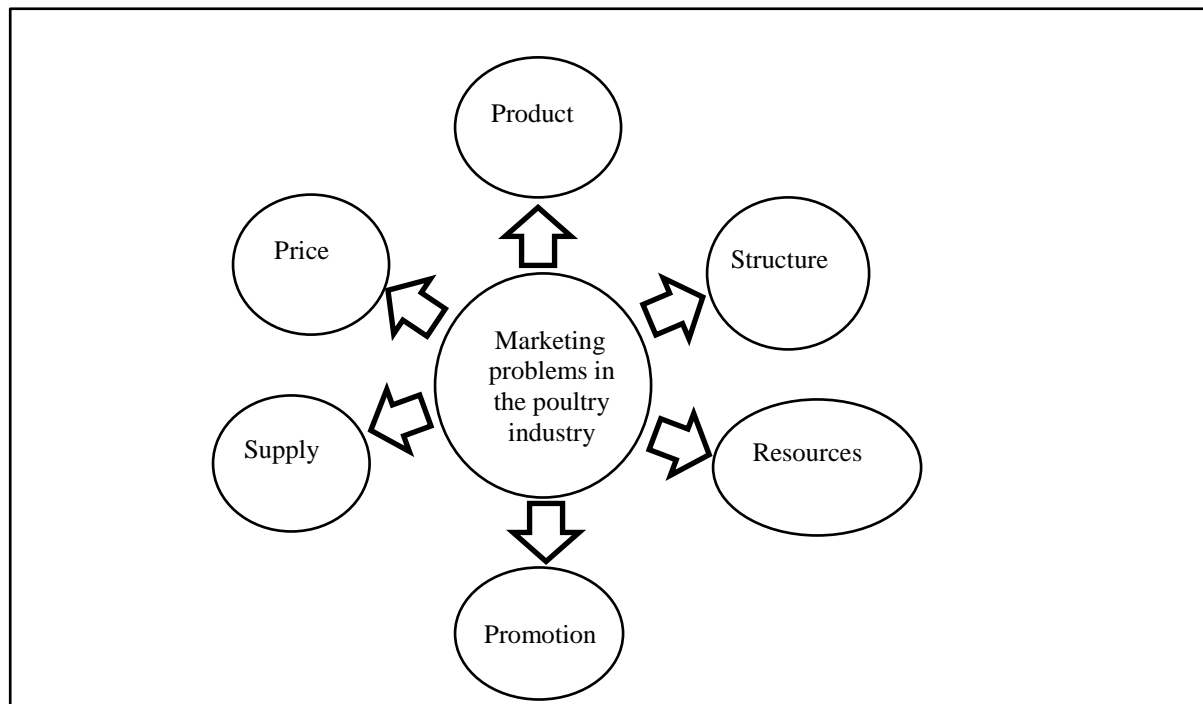
METHODOLOGY

This research employed a qualitative approach using the Analytical Hierarchy Process (AHP) method. The AHP modeling method is structured as a hierarchical tree representing the research problem. The hierarchy starts with the main goal at the top level, followed by the decision criteria in the intermediate levels and the competing alternatives at the bottom level. AHP is a decision-making tool that decomposes complex problems into a hierarchy of criteria and sub-criteria, which are mutually independent (Lee et al., 2009). The AHP method aids decision-makers by organizing critical aspects of a problem into a hierarchical structure, presented in a tree format, thereby simplifying the decision-making process. Decision-makers often prefer pairwise comparisons of options, which is provided in AHP. This method allows them to determine criteria weights and option scores through comparison matrices instead of directly measuring weights and scores (Bevilacqua & Braglia, 2000). If the inconsistency index in the pairwise comparison is less than 0.1, the calculated weights are deemed reliable. In this study, the decision structure of the research problem in this study consists of a defined goal and several criteria, which are further broken down into lower levels. Given the requirements of the research and the advantages of the hierarchical analysis model, the AHP method was selected as a suitable tool for this research. The research community included specialists and experts in the executive, production and cooperative sectors of the poultry industry in Savojbolagh city. Marketing problems in Savojbolagh city's poultry industry were identified using the Delphi technique, which involved 15 senior executives and production officials in the poultry industry and affiliated with the Agricultural Jihad Organization. The Delphi technique is a method for obtaining consensus by using a series of questionnaires and providing feedback to participants who have expertise in key areas (Habibi et al., 2014). Initially, a sample of 15 experts was selected, followed by the preparation and distribution of a Delphi questionnaire. The responses were collected, and in subsequent rounds, some indicators were

either added or removed based on expert feedback. This process continued for three rounds until all the experts reached a consensus.

RESULTS

The identified marketing problems were categorized into groups based on main indicators and secondary indicators. These classifications are summarized in Table 1.

Table 1

Marketing Problems of the Poultry Industry

|	Main indicator	Sub-indicator
1	Product	Inadequate chicken freezing facilities.
		Lack of organic product offerings.
2	Price	Price instability affecting product supply rates.
		Discrepancies between supply rates and product cost.
		High cost of frozen chicken.
3	Supply	Inefficient transportation systems.
		Improper hot packaging of chicken in some slaughterhouses.
		Unhygienic and unregulated distribution of chicken meat by retailers.
4	Promotion	Limited advertising efforts for chicken meat.
		Insufficient knowledge of effective promotional strategies.
5	Resources	High cost of raw materials and poultry feed.
		Poor quality vaccines.
		Lack of government support and inadequate access to financial facilities.
6	Structure	Inappropriate design and construction of production halls.
		Nonconformity of expert recommendations in design and layout.

Steps of the AHP Method

Step 1: Creating a Hierarchy (Hierarchical Tree)
The decision-making hierarchy for this study is illustrated in Figure 2.

Figure 2

Hierarchy of Decision-making
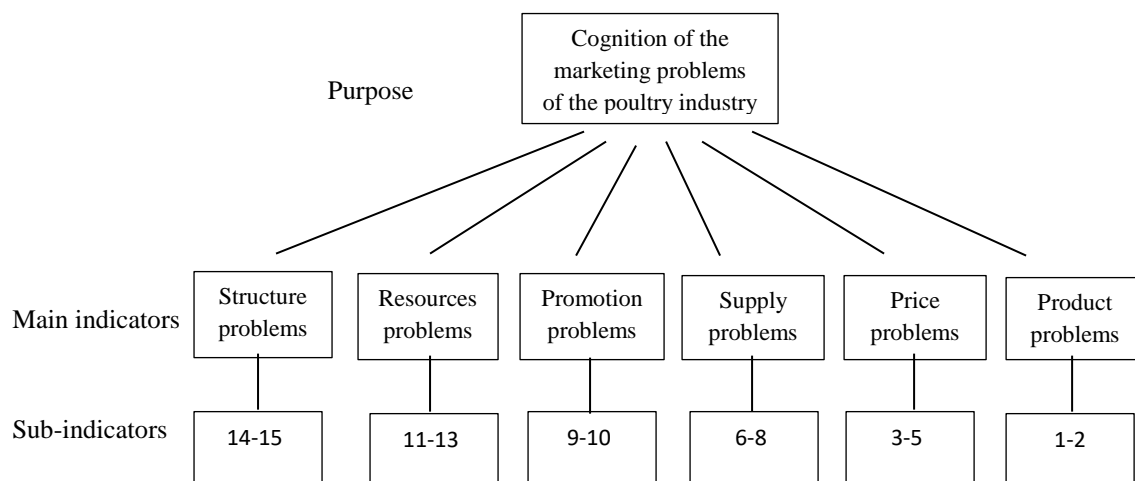
Step 2: Pairwise comparison of components

Based on the defined hierarchical structure, questionnaires were developed to collect expert opinions from 15 specialists in poultry farming. The experts conducted pairwise comparisons of the main indicators of decision-making, evaluating the relative importance of each component in contributing to the identified problems. Using the AHP scale, the experts completed a pairwise comparison matrix for the main indicators. Additionally, the relative importance of each sub-indicator was assessed separately under each main indicator, resulting in a matrix of pairwise comparisons for the sub-indicators. Table 2 presents the AHP scale used for these comparisons.

Table 2

AHP Scale

The degree of importance	Definition	Description
1	Equal importance	These two factors are equally important
3	Relatively preferred	One factor is relatively preferred over another
5	Highly preferred	One factor is more preferred than the other
7	Very much preferred	One factor is highly preferred over another
9	Extremely high preference	One factor has a great preference over another
2,4,6,8		It shows intermediate values between preferred values

Note. (Momeni & Salim, 2017)

Based on the points mentioned, the pairwise comparison of the main criteria and sub-criteria are shown in Table 3.

Table 3

Pairwise Comparison of the Main Criteria

Criteria	Production	Price	Supply	Promotion	Resources	Structure	Weight	Rank
Production	1	0.162	3.417	8.274	0.1244	0.3014	0.094	4
Price		1	3.533	7.162	0.285	0.627	0.192	2
Supply			1	6.538	0.303	0.608	0.075	5
Promotion				1	0.266	0.127	0.029	6
Resources					1	8.255	0.457	1
Structure						1	0.153	3

* *Incompatibility rate 0.04

The pairwise comparison matrix illustrates the main criteria used to determine their respective priorities. Based on the calculated weights, the "resources" criterion has the highest rank with a weight of 0.457, while the "promotion" criterion has the lowest rank with a weight of 0.029. Table 4 shows the pairwise comparison matrix of the sub-criteria related to production, aimed at determining their respective priorities.

Table 4

Pairwise Comparison of the Sub-criteria of Production

Sub-criterion of production	Frozen chicken	Organic production	Weight	Rank
Inadequate chicken freezing facilities	1	0.806	0.446	2
Inadequate production of organic products		1	0.554	1

** Incompatibility rate 0.000

According to the calculated weights, the sub-criterion of "Inadequate production of organic products" ranks the highest with a weight of 0.554, while the sub-criterion of "inadequate chicken freezing facilities", has the lowest rank with a weight of 0.446. Table 5 shows the pairwise comparison matrix under the price criterion.

Table 5

Pairwise Comparison of the Sub-criteria of Price

Sub-criterion of price	Price instability	Supply and price imbalance	High cost of frozen chicken	Weight	Rank
Price instability	1	1.075	8.101	0.486	1
Discrepancies between supply rates and product cost		1	7.674	0.454	2
High cost of frozen chicken			1	0.06	3

** Incompatibility rate 0.0004

This matrix is used to prioritize the sub-criteria related to price. Based on the weights obtained from the pairwise comparisons, the sub-criterion of "Price instability affecting product supply rates" holds the highest rank with a weight of 0.486, while the sub-criterion of "high cost of frozen chicken" ranks the lowest with a weight of 0.06. Table 6 presents the pairwise comparison matrix for the supply sub-criteria.

Table 6

Pairwise Comparison of the Sub-criteria of Supply

Sub-criterion of supply	Transportation	Few slaughterhouses	Unhygienic distribution	Weight	Rank
Inefficient transportation systems	1	0.195	1.241	0.166	3
Few slaughterhouses		1	3.03	0.663	1
Unhygienic distribution			1	0.171	2

** Incompatibility rate 0.06

This matrix is used to prioritize the sub-criteria related to supply. Based on the weights obtained from the pairwise comparisons, the sub-criterion of "few slaughterhouses" ranks the highest with a weight of 0.663, while the sub-criterion of "lack of efficient transportation" ranks the lowest with a weight of 0.166. Table 7 presents the pairwise comparison matrix for the promotion sub-criteria.

Table 7

Pairwise Comparison of the Sub-criteria of Promotion

Sub-criterion of promotion	Limited advertising efforts for chicken meat	Insufficient knowledge of effective promotional strategies	Weight	Rank
Limited advertising efforts for chicken meat	1	0.286	0.222	2
Insufficient knowledge of effective promotional strategies		1	0.778	1

** Incompatibility rate 0.000

This matrix is used to prioritize the sub-criteria related to promotion. Based on the weights obtained from the pairwise comparisons, the sub-criterion of "insufficient knowledge of effective promotional strategies" ranks the highest with a weight of 0.778, while the sub-criterion of "Limited advertising efforts for chicken meat" ranks the lowest with a weight of 0.222. Table 8 shows the pairwise comparison matrix for the resources sub-criteria.

Table 8

Pairwise Comparison of the Sub-criteria of Resources

Sub-criterion of resources	High costs of raw materials and poultry feed	Poor quality vaccines	Lack of government support	Weight	Rank
High costs of raw materials and poultry feed	1	8.635	0.905	0.462	2
Poor quality vaccines		1	0.124	0.057	3
Lack of government support			1	0.482	1

** Incompatibility rate 0.00314

Table 9

Pairwise Comparison of the Sub-criteria of Structure

Sub-criterion of structure	Inappropriate construction of halls	Nonconformity of expert recommendations	Weight	Rank
Inappropriate construction of production halls	1	1.071	0.517	1
Nonconformity of expert recommendations		1	0.483	2

** Incompatibility rate 0.000

This matrix helps to prioritize the sub-criteria associated with resources. According to the weights obtained from the pairwise comparison, the sub-criterion of "lack of government support" holds the highest rank with a weight of 0.482, while the sub-criterion of "poor quality vaccines" ranks the lowest with a weight of 0.057. Table 9 presents the pairwise comparison matrix for the structure sub-criteria.

This matrix prioritizes the structural criteria through pairwise comparisons of the components. According to the weights obtained from the comparison of sub-criteria, the sub-criterion of "Inappropriate construction of production halls" ranks the highest with a weight of 0.517, while the sub-criterion of "nonconformity of expert recommendations" ranks the lowest with a weight of 0.483. In the final stage, the group AHP method was employed, applying the geometric mean method to calculate and determine the experts' opinions.

Step 3: Prioritization

After combining the experts' feedback, the following process was used for each matrix: the sum of the numbers in each column was calculated, followed by normalization (dividing each number by the total of the corresponding column). The average of each row was then calculated and included in the desirability column (Lee et al., 2009). The collected data obtained from questionnaires distributed among 15 experts in the field of poultry industry, were analyzed using Expert Choice software version 11. This software is a multi-criteria decision support tool based on the AHP method. The results of the analysis are presented in Tables 10 and 11. In Table 10, the main indicators were prioritized based on their weights. The order of priority is as follows: sources, price, structure, production (product), supply, and promotion. Table 11 shows that resource-related problems, with a weight of 0.457, are the most significant factors affecting the poultry industry in the city. In contrast, promotion, with a weight of 0.029, has the lowest priority. The schematic model of the identified marketing problems in the poultry industry, categorized under six main indicators: product, structure, sources, promotion, supply and price is shown in Figure 3.

Figure 3

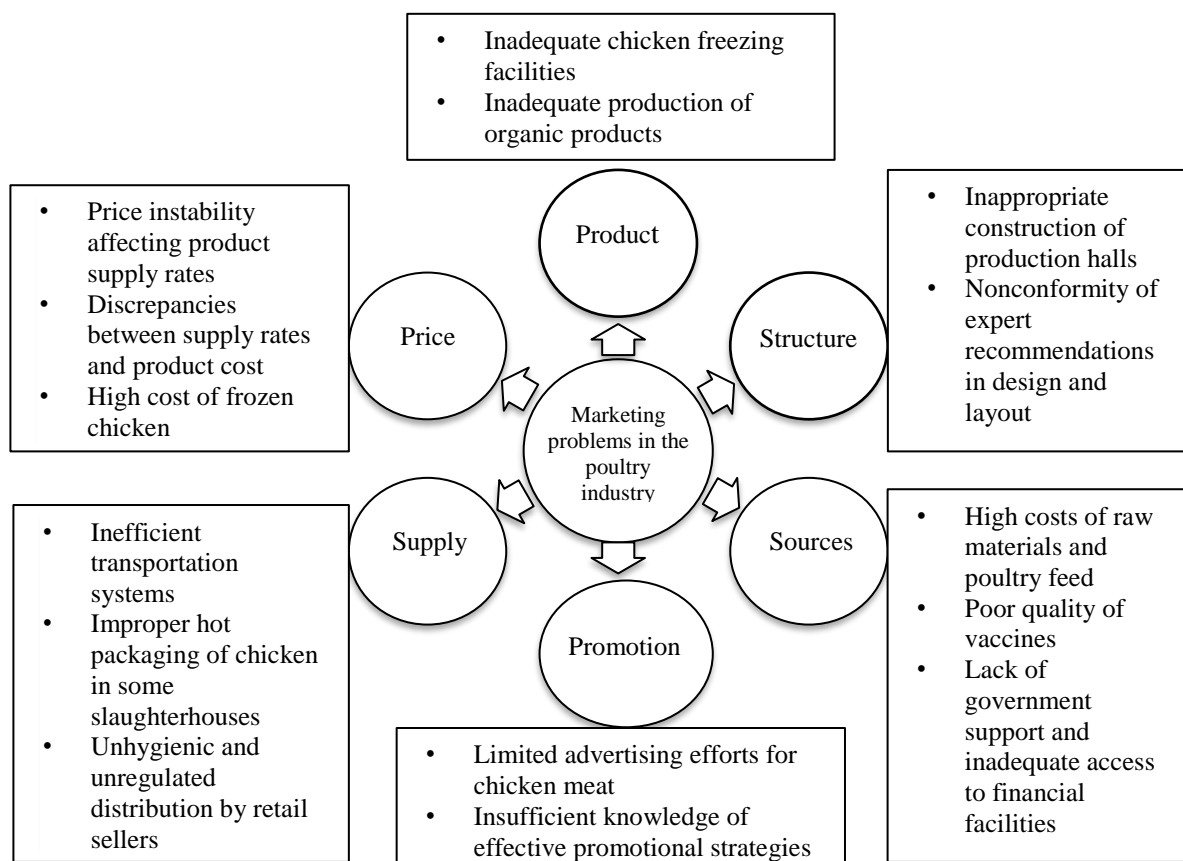*Marketing Problems Pattern in the Poultry Industry*

Table 10

Prioritization of Main Criteria based on the AHP Technique

	Main criteria	Final weight	Final rank
1	Product	0.094	4
2	Price	0.192	2
3	Supply	0.075	5
4	Promotion	0.029	6
5	Resources	0.457	1
6	Structure	0.153	3

In Table 11, the sub-criteria for each main criterion have been ranked based on their weights. The results indicate that the sub-criterion of lack of government support and failure to provide appropriate facilities through banks and relevant organizations has the highest ranking, with a final weight of 0.22. Conversely, the sub-criterion of lack of advertisement for chicken meat at the county level has the lowest ranking, with a final weight of 0.006, when compared to the other sub-criteria.

Table 11

Prioritization of Sub-criteria based on the AHP Technique

Criterion	Criterion weight	Sub-Criteria	Weight sub-Criteria	Rank of sub-Criteria	Final weight of sub-Criteria	Final rank
Product	0.094	Inadequate chicken freezing facilities in the township	0.446	2	0.041	9
		Inadequate production of organic products	0.554	1	0.052	7
Price	0.192	Price instability affecting product supply rates	0.486	1	0.093	3
		Discrepancies between supply rates and product cost	0.454	2	0.087	4
		High cost of frozen chicken	0.06	3	0.011	14
Supply	0.075	Inefficient transportation systems	0.166	3	0.0124	13
		Improper hot packaging of chicken in some slaughterhouses	0.663	1	0.049	8
		Unhygienic and unregulated distribution by retail sellers	0.171	2	0.0128	12
Promotion	0.029	Limited advertising efforts for chicken meat at the city level	0.222	2	0.006	15
		Insufficient knowledge of effective promotional strategies	0.778	1	0.022	11
Resources	0.457	High cost of raw materials and poultry feed	0.462	2	0.211	2
		Poor quality of vaccines	0.057	3	0.026	10

(continued)

Criterion	Criterion weight	Sub-Criteria	Weight sub-Criteria	Rank of sub-Criteria	Final weight of sub-Criteria	Final rank
Structure	0.153	Lack of government support and inadequate access to financial facilities	0.482	1	0.22	1
		Inappropriate construction of production halls	0.517	1	0.079	5
		Nonconformity of expert recommendations in design and layout	0.483	2	0.073	6

DISCUSSION AND IMPLICATIONS

According to Birhanu et al. (2021), the main marketing challenges faced by the poultry industry in Cambodia include chicken mortality, high feed prices, limited technical expertise, adverse weather conditions (e.g., hot weather), limited access to water during dry seasons, inadequate land size, supply-demand imbalance of chicken, outdated and unhygienic infrastructure, limited market power, lack of access to market information, price fluctuations, insufficient transportation facilities, and poor marketing infrastructure. The issues of supply-demand imbalance of chicken, outdated and unhygienic infrastructure, price fluctuations, and inadequate transportation facilities align with the findings of this study.

Kerbaga (2010) noted that in most developing countries, the marketing system for local poultry is largely informal and lacks proper documentation. The absence of crucial market information (e.g., price, supply and demand), limited or no financial access, and inconsistent supply of live birds and eggs are among the significant barriers in Ethiopian markets. The existing structure of the marketing system affects the behavior of marketing actors and subsequently affects overall performance, findings that are consistent with our study. Ami et al. (2020) identified fluctuating demand, broken eggs, price instability, lack of transportation facilities, intermediary challenges, poor communication, insufficient capital, lack of storage facilities, and adverse conditions (e.g., strikes, floods, and natural disasters) as major marketing problems in the poultry sector. The issue of fluctuating demand and prices, as well as inadequate transportation, are consistent with the results of our study.

Ahaotu et al. (2016) highlighted key challenges in West Africa's poultry industry, such as high production costs, safety concerns due to lack of sanitary controls, and technical limitations in processing and marketing. The safety concerns and marketing restrictions align with the current research findings. Nikita (2021), ranked the challenges faced by poultry farmers in India, which included lack of capital, high cost of establishment, high cost of variable inputs, lack of government policies and subsidies, limited management knowledge, resource scarcity, inadequate storage facilities, high disease incidence, social factors, elevated mortality rates, poor veterinary services, significant price fluctuations and underdeveloped facilities. The lack of government support in terms of policies and subsidies, resource shortages, price volatility, and insufficient development align with the results of this research. Hafez and Youssef (2020) noted that rising feed costs remain a critical issue. Unforeseen diseases and new regulations continue to pose significant challenges in many countries. Rajendran and Balusamy (2018) described the poultry industry as being trapped in a cycle of high feed prices, low product prices, reduced income, high mortality risk, low productivity and high production costs. Achoja et al. (2006)

highlighted the prominence of feed-related issues among the numerous problems faced by the poultry industry. Strengthening the linkage system for poultry inputs through efficient marketing is crucial for improving poultry production. Gbigbi and Chuks-Okonta (2020) emphasized the importance of an efficient feed marketing network for all stakeholders in the poultry feed supply chain. Issues such as high costs of feed, low quality of feed, and intermittent shortages call for enhanced feed production and marketing strategies. Additionally, there is limited information on feed formulation and production, packaging, product handling, processing, storage, and marketing strategies among many poultry producers and marketers in Delta State, Nigeria.

Palouj and Adryani (2020), identified major structural barriers in chicken marketing, including insufficient marketing management knowledge, lengthy marketing chains, high marketing margins, inadequate transportation, and inconsistent market information. Other challenges include multiplicity in decision-making in the market and marketing, government intervention, broiler price fluctuations, conflicting market interests, weak infrastructure, poor management coordination, weak exports, legal inadequacies, tax restrictions, monopoly issues, insufficient chicken meat market supply, pricing challenges of chicken, limited farmer participation, and ineffective intervention of the Livestock Affairs Support Company. Mostafavi (2012) outlined the most important problems of Iran's poultry industry as challenges in the supply and production of feed and vaccines, risk of diseases, risk of credit sales, fluctuations in the exchange rate, risk of liquidity of assets, market risk, incomplete and non-transparent information, and a lack of training and promotion programs for industry stakeholders. Additionally, the fragmentation of decision-making centers in this industry and the lack of integration across the production and ancillary industries to the end consumer are also highlighted.

According to the findings of this study, resource-related issues were identified as the highest priority, while promotion-related challenges were deemed the least significant in priority. Among the critical resource problems highlighted are the high costs of raw materials and poultry feed, poor quality vaccines, inadequate government support, and insufficient access to financial facilities from banks and related organizations. The increasing cost of livestock, poultry feed and raw materials has driven up overall livestock production costs. This escalation affects the final price of the product, thereby reducing the purchasing power of consumers. Poor quality of vaccines can lead to ineffective immunization, resulting in higher risks of disease outbreaks. Consequently, this can lead to the production of contaminated or diseased meat posing significant health risks and economic losses. The lack of adequate government support remains one of the most pressing issues for the poultry industry stakeholders. industrialists face numerous financial challenges when attempting to secure facilities from banks. Ineffective government policies regarding financial support, leave many industrialists without sufficient resources. bank often require substantial collateral for loans, which many poultry producers are unable to afford. This lack of access to credit hinders the growth and expansion of poultry businesses, limited their capacity to address other operational challenges.

CONCLUSION, LIMITATIONS AND FUTURE RESEARCH DIRECTIONS

The efficiency of the poultry industry is influenced not only by productivity but also on the marketing and selling price of poultry products. An effective marketing system for poultry products is important as it can help reduce marketing costs and intermediary profit margins while boosting productivity and profitability for producers. Therefore, studying the marketing aspects of the poultry industry is important and relevant to the current need. Despite the awareness of various stakeholders in the poultry business— such as poultry farmers, feed manufacturers, wholesalers, and retailers—about the

challenges in production and marketing, a comprehensive scientific analysis has often been lacking. Therefore, this research aimed to fill the gap by examining the marketing system of the poultry industry in Savojbolagh city of Iran and identifying the problems and barriers of the system, followed by proposing potential solutions.

In this research, experts identified and prioritized 15 major marketing problems related to poultry products. The findings indicated that resource-related issues were the most significant. Specifically, the sub-criteria of highest priority included: lack of government support and inadequate access to financial facilities from banks and relevant organizations; high costs of raw materials and poultry feed; poor quality vaccines. Among these, the lack of government support and the challenges in securing financial facilities were found to be most pressing sub-issues. This underscores the need for intervention by officials of Jihad Construction and the Ministry of Jihad Agriculture, who are expected to take decisive necessary measures to address these resource challenges. Conversely, the promotion factor was identified as the least critical issue. This suggests that marketing and promotional activities have not been sufficiently prioritized, and poultry farmers of this city have struggled to effectively inform consumers about the quantity and quality of their products. Such promotional shortcomings hinder the effective marketing of poultry products, limiting market reach and consumer awareness.

This study faced several limitations. Firstly, there is a lack of prior research and theoretical literature focusing on marketing problems of the poultry industry, making it challenging to establish a strong theoretical foundation. Additionally, this research is cross-sectional, with data collected and analyzed at a specific point in time, which may not capture the evolving dynamics of the industry. For future studies, it is recommended that researchers and industry stakeholders identify and investigate additional marketing problems to further refine and expand the model presented in this study. Furthermore, exploring the marketing challenges of the poultry industry on a global scale and comparing those findings with the results of this research could provide valuable insights and broader perspectives.

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