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# *Precise Market Strategy for Improving Nutrition Management of Animal Food*

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***Keywords:*** Animal Food, Nutrition Management, Market Strategy, Investigation and Analysis Method

***Abstract:*** With the continuous improvement of human living standards, people's pursuit of high-quality living standards has become an important research hotspot on the national development level. In recent years, due to the stable international situation, the rapid growth of population, the wide application of science and technology, human ethical factors and other reasons, the status quo of animal food nutrition management is worrying. Based on the above background, the purpose of this study is to study the current market demand range of animal food, and release a series of market strategies according to the situation. This study first elaborated the background knowledge of animal food nutrition management and the relevance between animal food market management. By collecting the animal market demand data and analyzing the correlation between the two, the experimental results show that since the 1990s, the per capita GDP has increased at an average annual rate of 4.6%. Animal food consumption also increased significantly. In 2019, the per capita consumption of animal food was 153.1 kg, an increase of 48.2% over 1990. It can be predicted that from 2020 to 2030, China's per capita consumption of pig, beef and poultry will increase steadily. From 2031 to 2035, the consumption of pork per capita will decrease to a certain extent, and other meat will still maintain an upward trend.

## 1. Introduction

The main food in our daily life is animal food. Therefore, the nutrition management of animal food has become a major point of food market management. However, due to the transformation of the traditional agricultural society to the modern industrial society, animal food production has also changed from natural and manual based on agricultural society to chemical additive preparation, assembly line and other ways. The focus of nutrition management of animal food has gradually shifted from "food and clothing" to "health", But now the leading way of governance is directly managed by the government, which leads to the poor adaptability of nutrition management and the poor environment of animal food production. Different regions have different cultural habits and

nutritional needs: in recent years, there are endless problems in the safety management of animal food, which has caused a very bad negative impact on the society.

Because of the importance of nutrition research on animal food, many research teams began to study the nutrition management and its mechanism of animal food, and achieved good results. Song et al. Used the method of questionnaire to study the identification and use of food nutrition management labels, This study not only investigated the consumers' understanding and acceptability of food nutrition labels, but also found out what aspects of food nutrition respondents most wanted to know, so as to further analyze the main reasons affecting consumers' purchase preference and identify the characteristics of how consumers use food labels, Through research, it is confirmed that a prerequisite for consumers to pay attention to nutrition labeling is that the food has nutritional value. If the food studied cannot guarantee its safety, then it is of no practical significance to continue to analyze the factors influencing consumers' market intention by food labels [1]. Ren carried out a series of research on the canteen of North China University of Finance and economics by means of questionnaire survey and field interview. Meanwhile, according to the results of the questionnaire, he analyzed the nutrition knowledge, attitude and behavior of the students in North China University of Finance and economics. The results show that there are still some problems in the canteen, such as incomplete food hygiene and unbalanced diet. Workers and students know little about food nutrition, and do not pay attention to food safety, leading to the occurrence of collective food poisoning incidents every year [2]. Although the current research results are relatively rich, there are still some deficiencies, mainly reflecting that the scope of the survey object is too large, which leads to the low accuracy of the survey results, and further research is needed.

As people pay more and more attention to food safety, the strategy of food market planning is paid more and more attention. The emergence of marketing strategy is of great significance. It helps enterprises to adapt to the harsh environment of market competition. How to obtain greater competitiveness of food in the market competition depends on whether the food strategy is effective or accurate. A. Parasuraman et al. Analyzed the importance of terminal sales by combining with the actual sales of leisure food [3]. Ataman B and others focused on investigating the transmission mode of the consumer terminal market, and concluded that the power of brand effect is an important factor affecting the consumer terminal market, arousing consumers' desire for the market. Therefore, when businesses need to carry out actual advertising activities, they need to understand consumers' ability to identify the actual brand, and take terminal communication as the main link of sales, so as to promote the smooth development of market activities [4]. Su uses PEST analysis method to analyze the external macro environment of Jijiao Food Co., Ltd., and the results show that the current external environment is conducive to the growth and expansion of the enterprise; SWOT analysis method is used to analyze the internal environment of the company, indicating that the rise of e-commerce sales mode will replace the franchise chain retail mode; the five model analysis method is used to analyze the industry competition environment of the company, The results show that enterprises ignore promotion and branding, the national market share is low, and the national market expansion is difficult [5]. Therefore, we should make full use of the technology in the information age, open up new marketing channels, pay attention to and strictly understand the implementation and evaluation of marketing strategy combination, strictly control the quality, and pay attention to the operation of financial aspects, so as to effectively implement the combined marketing strategy. It is the focus of current research.

In this study, from the perspective of region, city level, gender, population, demand and nutritional function, the market was gradually refined to determine the similarity of each region, and to investigate the differences of demand and main demand among people of different age groups, so as to determine the market selection and market positioning of animal food.

## 2. Market Strategy of Nutrition Management of Animal Food

### 2.1. Food Nutrition

Food nutrition simply refers to the sum of substances and their characteristics that human body can absorb in order to maintain activities, including all types of nutrients in food, including hydrocarbons, protein and fat, large amounts of nutrients, inorganic components, vitamins and other micronutrients. It is of great significance to ensure the normal operation of the body mechanism and health [6]. For example, animal foods provide proteins that make body tissues and strengthen muscles; all types of oily fruits can provide fat and fatty acids to promote vitamin absorption; vegetables and fruits provide different micronutrients for energy metabolism and maintain normal body function.

### 2.2. Relationship between Food Safety and Food Nutrition

They are two different but interrelated nouns. First of all, in terms of food quality, safe quality food should have the characteristics of sensory quality, safety quality and food quality. However, food safety pays more attention to food hygiene and the cleanness of food and its packaging; food nutrition pays more attention to the normal function and health benefits of human body. Secondly, from the perspective of safety, food nutrition is one of the links of food safety. Thirdly, food safety is the basis of nutrition [7]. Food safety is the minimum requirement and the most basic guarantee. Without food safety, food safety is the most basic guarantee. There is no guarantee of food safety, let alone food nutrition, and as long as food safety is respected, we can constantly optimize the food structure, adjust the food structure and achieve a balanced diet.

### 2.3. Nutritional Standards

The main indexes, basic concepts and implementation of dietary evaluation and dietary planning were introduced in detail in the nutritional standards. Meanwhile, the implementation of dietary evaluation and dietary planning was discussed. The reference tables of energy, hydrocarbon, protein and fat, inorganic components, vitamins and water absorption were provided. Nutrient intake is the reference value of a group of daily average dietary nutrient intake, so as to ensure proper intake of nutrients and prevent nutrient shortage or excess. In recent years, a large number of nutrients have been added to the acceptable range [8]. The recommended intake (PI) for the prevention of non-communicable chronic diseases (PI) and 3 indicators of specific recommended value were also included. Because the population is too large, it is difficult to understand and design individuals, and it is difficult to control micronutrients. So the indicator part takes energy and three nutrients as the main research objectives. The results show that the average demand (ear), recommended recruitment (RNI), flexible selection of appropriate intake (AI) and maximum allowable intake (UL) as indicators of nutritional evaluation and dietary composition are scientific and comprehensive. The three indicators can guide residents to pursue and ensure nutritional balance [9].

### 2.4. Animal Market Analysis

The theoretical basis of animal market analysis is utility, and the premise of this theory is that consumers seek to maximize the cost performance ratio when they consume [10]. Different from the external market, it needs to form a comprehensive commodity from the requirements of different forms of food. Based on the consumption of basic products (such as spareribs, frozen meat, etc.), when the consumption of commodity I is Xi (I = 1,2,3 )When the price is p and the total

income is Y, the maximum utility (U) is:

$$Max U(x_1, x_2, x_3, \ldots, x_R), s.t. \sum_{i=1}^{R} p_i x_i = Y \tag{1}$$

Based on the comprehensive commodity theory, the maximization of household utility (U) expressed by comprehensive commodity is as follows:

$$Max U(Q_1, Q_2, Q_3, \ldots, Q_N), s.t. \sum_{G=1}^{N} P_G x_G = Y, Q_G = Q_G(P_G, Y) \tag{2}$$

Therefore, in this study, pork, beef and veal, mutton and poultry are involved if the cost and unit value of the first comprehensive product are the sum of the following: the base quantity of the third comprehensive goods can achieve the following results:

$$V_G = \frac{E_G}{q_G} = \frac{P_G Q_G}{q_G} \tag{3}$$

So we can get the average quality (VG) of a particular composite commodity:

$$v_G = \frac{V_G}{P_G} = \frac{Q_G}{q_G} \tag{4}$$

According to (3) and (4), $V_G = P_G v_G$ it can be concluded that $V_G = P_G v_G$ :

$$\ln V_G = \ln P_G + \ln v_G \tag{5}$$

It can be seen from the above formula that the unit price includes both price difference and quality factor, that is to say, it reflects quality factors other than price coefficient. Therefore, in the evaluation of price elasticity, using market price instead of unit price will lead to evaluation deviation. In addition, in order to get the relationship between the unit price elasticity and the price elasticity, we can find the partial derivation $\ln P_G$ of equation (5)

$$\frac{\partial \ln V_G}{\partial \ln P_G} = 1 + \frac{\partial \ln v_G}{\partial \ln p_G} \tag{6}$$

In G, the elasticity of unit value $\pi_{GG}^{U}$ and price $\pi_{GG}^{P}$ are the elasticity of income $\varepsilon_G$ and the elasticity of quality $\eta_G$ to G. by substituting their specific expressions into equation (6), the relationship between $\pi_{GG}^{U}$ and $\pi_{GG}^{P}$ can be obtained as follows:

$$\pi_{GG}^{P} = \pi_{GG}^{U} / (1 - \eta_G \frac{\pi_{GG}^{U}}{\varepsilon_G}) \tag{7}$$

It can be seen from the above formula that the price elasticity of commodity demand estimated on the basis of unit value actually includes not only the external influence of price, but also the existence of unit value elasticity, quality elasticity and income elasticity, which can be calculated as market price flexibility.

## 2.5. Animal Food Market Analysis

Based on the basic theory of marketing, the marketing strategy of animal food in China is analyzed. Taking animal food (including chicken, beef, pork, other animal food, etc.) as the research object, and based on the basic theory of marketing, this paper summarizes the most

effective strategies and methods of animal food in the current market environment. Nowadays, with the improvement of consumer demand for animal food, it is necessary to meet the needs of consumers and speed up the pace of enterprise development so as to make enterprises competitive in the market. The research on the marketing strategy of animal food has certain practical significance for improving its competitiveness, increasing its share and promoting its rapid development [11].

### 2.6. Marketing Strategy

The implementation of a series of actions of enterprise marketing strategy must be well grounded, and then formulate the corresponding marketing plan, and finally carry out according to the plan. There are some problems that are difficult to control or even give up halfway in the implementation of marketing strategy in the complex and changeable and fierce market competition. Therefore, we must consider carefully when making the effect plan, simulate all the situations that will happen, and prepare corresponding solutions. After determining the draft marketing strategy to be carried out, different objectives should be assigned to different departments and each marketing personnel. Long term communication and coordination with all service departments to ensure the correct implementation of the marketing plan, and in the process of monitoring the implementation of marketing strategy according to some internal and external factors, such as: significant changes in internal personnel, systematic review and change, organizational structure changes. Major natural or man-made events, policy changes, etc. Considering these changes, the marketing organization must make appropriate evaluation, adjust the initial plan, and continuously monitor the new trends in the implementation process of the project, so as to ensure the smooth progress of the project and the timely completion of the company's objectives.

### 2.7. STP Strategic Positioning

Today, with the rapid development of economic globalization and network information technology, the values, lifestyle, consumption behavior and consumption concept of consumers are changing rapidly, and the market faced by enterprises is more complex and changeable. Any enterprise's products or services cannot meet all consumption demands, but only meet one or several kinds of consumption needs; In order to obtain the corresponding market returns, enterprises must provide useful customer value for the target consumers. The marketing activities of enterprises are not simple imitation or follow. In order to achieve greater success in the highly competitive animal food market and to expand the market together with the same industry enterprises, it is necessary to subdivide the animal food consumption market, and make reasonable target market selection and market positioning based on the company's own resources and capabilities, In order to meet the target consumption demand and create customer value. "The marketing process is to segment the market, select the appropriate target market, and develop the value orientation of supplies. Its formula is "segmentation, target, positioning - STP", STP marketing is the essence of marketing strategy [12].

## 3. Market Analysis on Nutrition Management of Animal Food

### 3.1. Subjects

The subjects of this study are selected from 5 cities and villages in different regions, and more than 1100 animal food consumers are selected. The selected experimental items are as follows:

(1) The subjects were aged between 26 and 55

(2) The age of the subjects was equally distributed according to the requirements of the group, and the proportion of men and women was equally distributed

(3) The subjects were local residents (living for more than 3 years)

(4) The subjects included mixed family situations

(5) The subjects should have higher or higher education

(6) The subjects should come from different professions

(7) The subjects were from middle and high income animal food users (refer to the data provided by the Bureau of Statistics)

(8) If the subjects can accept two or more potential users of animal food, they can accept any form of product

(9) The subjects obviously need to maintain and keep healthy, and animal food is not excluded.

53% of the respondents were male, so the average of male and female was male; The respondents are divided into different age groups, and the high standard deviation of age also reflects the high difference of age distribution; the educational level of respondents is distributed at all levels, of which, the majority of interviewees are interviewed in high school and University, while the proportion of people receiving education at another level is determined by the physical condition of the respondents. The proportion of healthy people is higher, and a few of them are in poor health the percentage of good or bad health is the family status of the respondents, which is also an important aspect of their demographic and socio-economic characteristics. Especially because the behavior of being required to eat pork appears in the family, their consumption behavior will be affected by the family, family structure, family income and other variables.

### 3.2. Experimental Design

The experiment designed in this study is to interpret animal food from the perspective of consumer consumption, deeply explore consumer demand and preference, and then dynamically optimize and improve food market positioning and products according to the results of the analysis. According to the results, it can be divided into qualitative and quantitative analysis.

In the qualitative stage of product quality, we need to divide it into two levels according to animal food consumers and potential animal food consumers, and observe the current consumer's interpretation of animal food and the nutritional and health needs of animal food from different aspects.

In the quantitative stage of product quality, we need to further verify the information mined in the quality stage. From the perspective of animal food consumers and potential consumers of animal food, this study has a comprehensive and fair understanding of consumer demand: first, the analysis of different environments, consumers' normal age and daily life is to objectively reflect social changes Secondly, to further verify the attention of existing or potential nutritional and health needs. In the experimental population of this study, the proportion of male is 53% and that of female is 47%, and the difference is not significant. However, in terms of age, 27.8% of respondents are under 20-30 years old, 39.6% are under 31-40 years old, and 32.7% are under 41-50 years old. Regardless of gender, age and other factors, the proportion of men and women is equal, which is more universal and representative.

### 3.3. Statistical Analysis Method

According to the collected data for statistical analysis, to understand its reality and law. The statistical method is mainly used to analyze the current situation and characteristics of residents' demand for animal food, and analyze residents' understanding and demand for animal food, and urban residents' confidence in the quality and safety characteristics of animal food.

## 4. Discussion and Analysis

### 4.1. Analysis of Consumer Considerations in Animal Food Market

The questionnaire asked respondents in all the cities surveyed: "what is the key point and what is the secondary focus?" The survey results show that 43% of people give priority to the nutritional impact of animal feed, and 17% give priority to the label of animal feed, and the sum of the two is more than 50%. In the top two market factors, the higher the score is, 28%, followed by the nutritional effect of 21%, as shown in Figure 1.

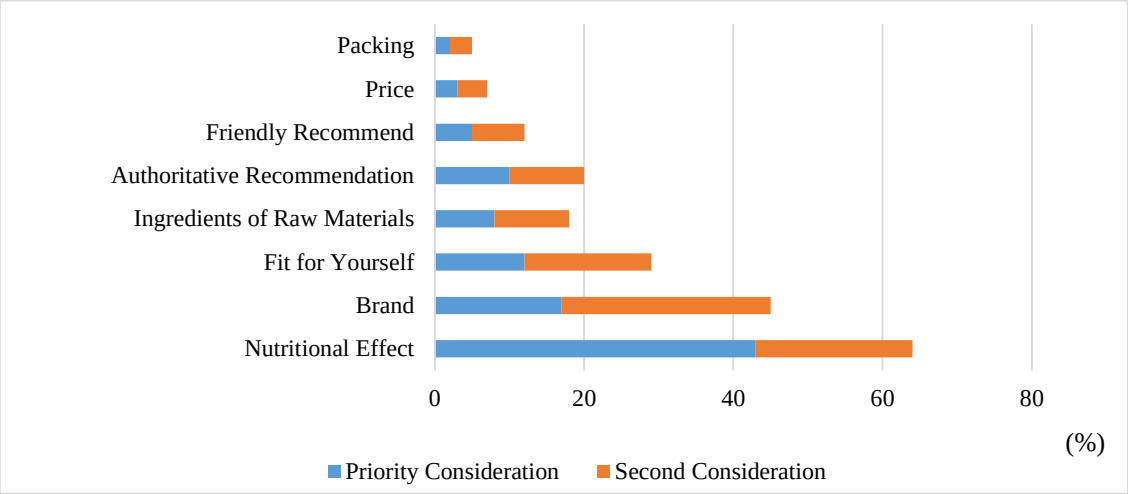


*Figure 1. Consumer considerations when buying animal food*

From the data collected above, it can be determined that when consumers choose animal food, the nutritional impact of animal food is the first, followed by the trademark. In the process of product development, the most important thing for enterprises is to ensure that the products can meet the needs of consumers for product functions, and cannot rely on excessive or false publicity to deceive consumers' temporary confidence, otherwise, consumers will not be able to reproduce and establish trust in customers. Fair promotion of brand is also necessary. It is necessary to keep up-to-date and determine the consumption target groups of products fully and without exaggeration, so that consumers can easily find products that really meet the needs of consumers.

### 4.2. Importance of Different Gender Consumers for Different Nutritional Function Needs

The importance of nutritional function needs of different gender consumers was statistically analyzed. Among male consumers, 77% of male consumers think that it is very important to enhance immunity, 66% of male consumers think it is very important to protect the liver; among female consumers, 78% are immune enhancement and 62% are calcium supplement. The details are shown in Figure 2.

Compared with the male and female consumers, the nutritional needs of male and female consumers are firstly: there are obvious gender differences in other functional needs, and the needs of different genders are also different. Male consumers pay attention to the typical needs with male characteristics, such as kidney tonifying, kidney tonifying and so on, while female consumers pay attention to the health needs of women with obvious characteristics, such as blood stimulation and excretion Poison nourishes the face. Obviously, there are obvious differences in nutritional needs between men and women, which is also an obvious market differentiation opportunity.

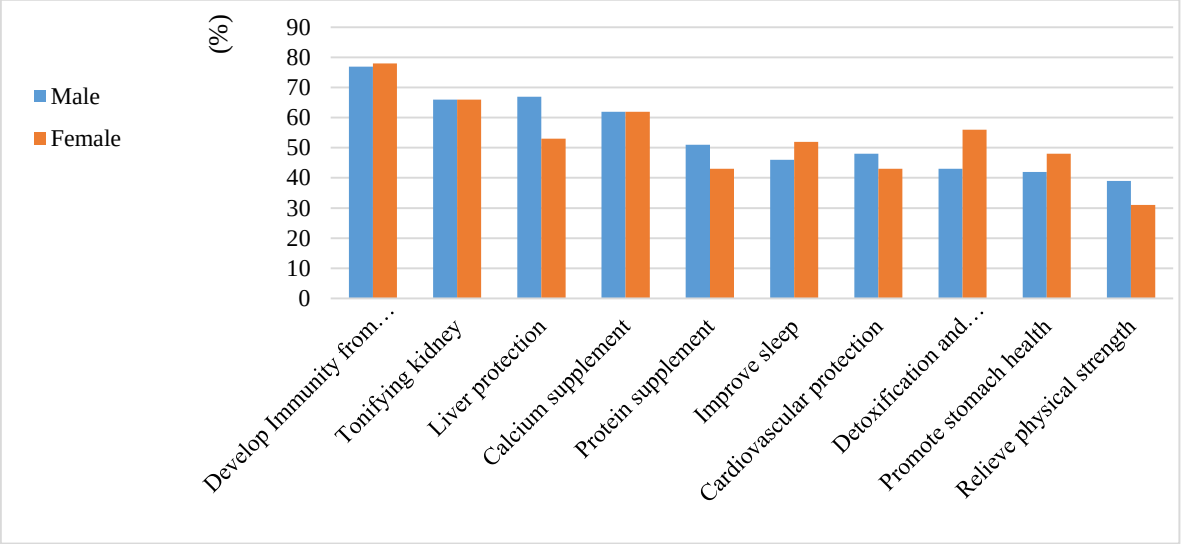


*Figure 2. Nutritional function needs of different gender consumers*

### 4.3. Importance of Food Business Needs of Consumers of Different Ages

The importance of nutritional needs of consumers of different ages was statistically analyzed. As shown in Table 1, consumers of different ages have relatively consistent nutritional needs. In some nutritional needs, for example, consumers of any age group pay special attention to enhancing immunity. In terms of protecting the liver and stimulating the kidney, there are significant differences between the consumers aged 46-55 and those in the low age group in terms of delaying aging and increasing bone mineral density. Air conditioning is a feature of aging, and female consumers are particularly concerned about it.

*Table 1. The importance of health function needs of consumers at different ages*

| Nutritional Needs | 26-35 years old | 36-45 years old | 46-55 years old |
|---|---|---|---|
| Develop Immunity From Disease | 32% | 35% | 33% |
| Calcium Supplement | 25% | 25.2% | 26.3% |
| Delay Aging | 13.7% | 23.4% | 25.1% |
| Increase Bone Mineral Density | 7.8% | 10.3% | 13.7% |
| Regulating Endocrine | 10.3% | 12.7% | 8.2% |
| Tonifying Kidney | 23.5% | 25.6% | 26.3% |
| Liver Protection | 23.1% | 25.2% | 25.9% |

### 4.4. Comparison of Animal Food Demand between Urban and Rural Residents

The data obtained in Figure 3 is the difference between urban residents and rural residents in the consumption level of animal food. It is not difficult to see that the consumption of various animal food of urban residents is higher than that of rural residents, and it also reflects that the living standard of urban residents is higher than that of rural residents. And the biggest difference between urban and rural residents in animal food consumption is pork, and the smallest difference is between beef and poultry consumption. In 2009, the per capita consumption of pork, beef and poultry of urban residents was 6.5 kg, 6.2 kg and 2.2 kg more than that of rural residents, while the difference of consumption of pork, beef and poultry in 2019 was 6.1 kg, 6.4 kg and 1.7 kg, respectively. It can be seen that the consumption gap of various animal food between urban and rural residents has basically not changed in the past decade. In China, the proportion of pork consumption in animal

food consumption of urban residents is generally declining, but the per capita pork consumption of rural residents in the proportion of total consumption of animal food decreases slightly, so pork in rural areas plays a more important role in animal food demand than urban residents. The proportion of beef consumption per capita in the whole animal food consumption of urban residents is increasing, and the proportion of beef consumption of urban residents is higher than that of rural residents, and the proportion of poultry consumption in animal food consumption proportion of urban residents and rural residents shows an increasing trend. Therefore, the growth of animal food demand of urban residents is slowing down, the consumption of animal food of rural residents is still at a low level, and the increasing tendency of animal food consumption caused by the increase of income is still continuing. It can be predicted that the gap of animal food demand between urban and rural residents will gradually narrow.

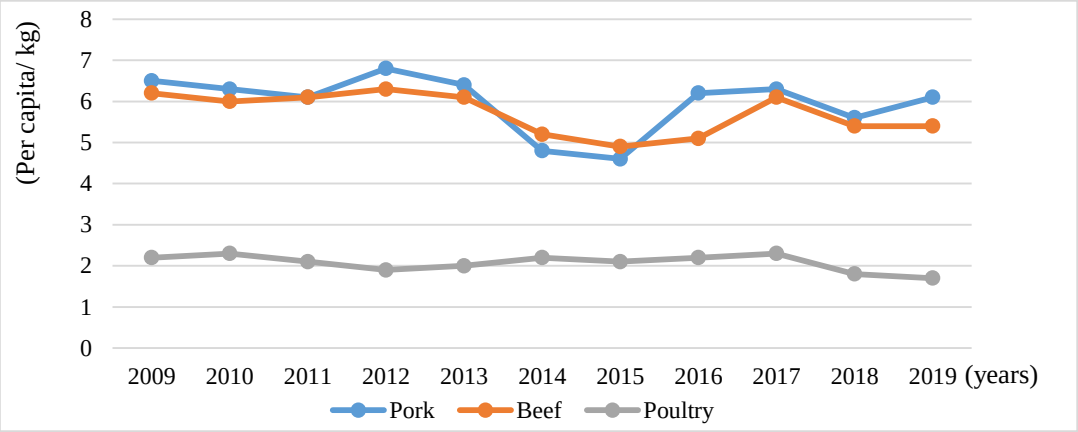


*Figure 3. The difference of meat consumption between urban and rural residents*

### 4.5. Analysis of Market Development Trend of Animal Food

In 1990, the consumption of animal food exceeded 100 kg. In 1990, the per capita consumption of pork, beef and poultry was 51.8 kg, 15.3 kg and 33.8 kg, respectively, which increased by 32.6%, 60.1% and 32.4% compared with 1979. Since the 1990s, per capita GDP has grown at an average annual rate of 4.6%. Animal food consumption also increased significantly. In 2014, the per capita consumption of animal food was 148.6 kg, an increase of 70.9% over 1990. Among them, the consumption of pork has risen slowly since 1993. By 2014, the per capita consumption of pork reached 62 kg, an increase of 40.2 percentage points compared with that in 1993, and the proportion of pork in animal food decreased from 43.6% to 41.7%; beef consumption increased the most, from 17.2 kg to 21.6 kg, an increase of 25.58%, accounting for 14.5% from 11.7%; The consumption of poultry meat increased rapidly from 1990 to 1996, and then decreased. It resumed growth in 2009-2014, reached the highest level of 67.1 kg in 2014, dropped to 54.9 kg in 2016, and gradually recovered from 2017 to 2019. As shown in Figure 4, the data can access the literature and data related to the research topic of this paper through the library and school online library resource database.

In terms of expenditure, since, the animal food expenditure of urban residents has shown a significant upward trend, but the proportion of animal food consumption expenditure in total consumption expenditure and food expenditure has steadily decreased; the proportion of animal food expenditure in food expenditure of urban residents with different income levels also shows a downward trend, but compared with urban residents with different income levels, the higher the income level, The proportion of animal food expenditure in food expenditure is lower. In terms of quantity, the number of animal food purchased by urban residents has increased steadily, of which

pork accounts for about three fifths of the total amount of animal food purchased, beef accounts for about one tenth of the purchase amount, and poultry meat accounts for about three tenths of the purchase quantity; the consumption of various animal food of urban residents is higher than that of rural residents, and the biggest gap is pork, The smallest gap is between beef and poultry consumption, which lies between pork and beef. The animal food demand of urban residents also showed some regional differences. Through the analysis of the characteristics of animal food demand of urban residents, it is concluded that the food demand of urban residents is developing towards more diversified choices, and they begin to pay more attention to quality and safety.

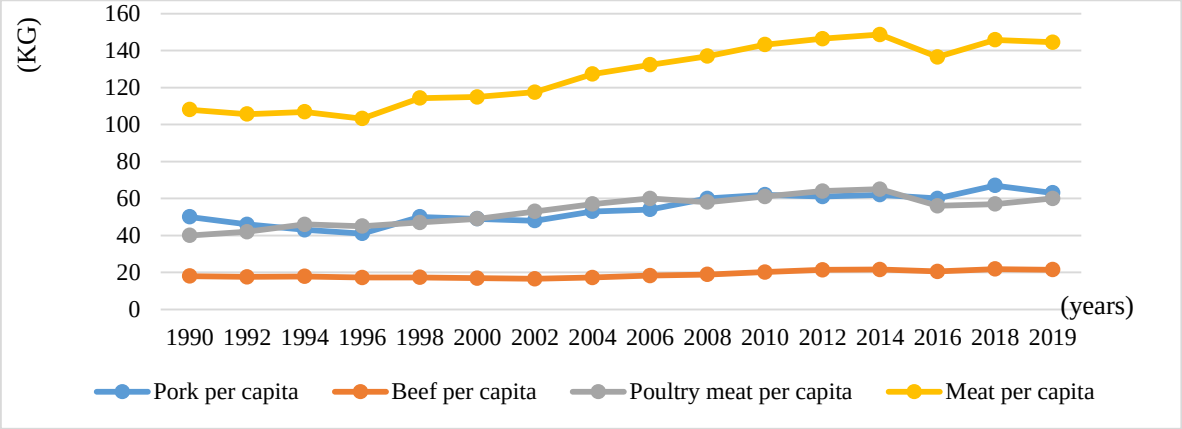


*Figure 4. Trend of animal food consumption per capita*

## 5. Conclusion

The quality and safety of animal food is a hot issue of the whole society at this stage. Considering the common nutritional management needs of customers, regardless of gender, because of the fierce competition and the largest number of substitutes, it is easy to realize self-management. Through other ways, we must improve the market competitiveness in terms of product quality, price and marketing methods.

In this study, the market demand theory is used as the main theoretical framework, and the demand of urban animals for food is studied from the perspective of quality and safety. The experience shows that there are differences between the elasticity of urban animal food demand and the elasticity of unit value and unit value, and the price caused by quality factors. From the perspective of consumers, this study evaluated the preferences and willingness of urban residents for the quality and safety characteristics of hot spots, and provided specific reference for the formulation and implementation of food quality and safety policies; in terms of factors affecting consumer demand, the study should evaluate the preference and willingness to pay for hot spots for animal feed. This study mainly discusses food in public media the impact of quality and safety information on the food demand of urban residents can help us understand the behavior of urban residents in the information age and provide suggestions for decision-making.

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## Data Availability

Data sharing is not applicable to this article as no new data were created or analysed in this study.

## Conflict of Interest

The author states that this article has no conflict of interest.

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