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Consumer Behavior Analysis under the "Lemon Dilemma" in the Market of Agricultural Products

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Abstract Based on the introduction of the connotation of "lemon market" and the phenomenon of "lemon" in the market of agricultural products, the consumers' behaviors in the "lemon market" of agricultural products are analyzed. Firstly, consumers feel unfair in their minds in the process of negotiation; secondly, the purchase decision rule tends to be simplified in the "lemon market" of agricultural products; thirdly, the consumers tend to follow the masses in the "lemon market" of agricultural products. The economics significance of the impact of "lemon dilemma" of agricultural products on consumers is analyzed. The causes of the impact are analyzed from two aspects the uncertainty of collecting the information of agricultural information and the uncertainty of using the agricultural information. The suggestions and countermeasures are put forward in order to solve the "lemon" problems in agricultural market. In the first place, the excellent mechanism for producing the information of agricultural products should be constructed; in the second place, the government should encourage the multi-channel, multi-form and multi-level operation mode of agricultural products, to promote the optimization of market functions; in the third place, the government should widen the channel of information dissemination for agricultural products and establish the high efficiency feedback path; in the fourth place, the traditional thought pattern of consumers should be changed, so as to promote the healthy, orderly and benign development of agricultural products market.

Key words Agricultural products market, Lemon dilemma, Consumer, Market risk, China

Agricultural products are the mass consumer products relating with people's life safety and health, the quality safety of which has a close relationship with every consumer's benefit. However, as the development of agricultural production and technological progress, the food quality security accidents such as "toxic rice", "clenbuterol", "red yolk egg", "toxic milk powder" mushroom incessantly. The reason of such accidents can be explained in two aspects: firstly, in the process of agricultural production, the producers use lots of pesticide, fertilizer, hormone and additive in order to obtain high profit and output. But if they are used inappropriately or abused, it is bound to cause the pollution accidents of food; secondly, due to the existence of information asymmetry phenomenon in agricultural products market, low quality agricultural products incessantly seize the existence space of high quality agricultural products, which causes plenty of low quality products glut the market, namely, the existence of "lemon market" in the market of agricultural products. I mainly discuss the impact of lemon dilemma on consumer behavior of agricultural products, in order to provide the reference for healthy, benign, and orderly development of China's agricultural products market.

1 "Lemon market" theory and "lemon dilemma" phenomenon in agricultural products market

"Lemon" originates from the popular call of substandard goods or second hand goods in the USA in the Second World War. American economist George Arthur Akerlof first used the

information economy to analyze the market of substandard goods in the year 1970, and then put forward the famous "lemon market" theory based on the analysis^[1]. The tenor of this theory is as follows: in the information asymmetrical market, if the sellers of the products own more complete quality information of products than the purchasers, they will have the impetus to offer low quality products that consumers cannot discern, while the purchasers only pay at the average quality price, which makes high quality products retreat from transaction, resulting in the overall low quality of products in market. Such vicious cycle makes market disintegrate entirely, or transact at a poor level, namely, multitudinous lemons surface. Now "lemon market" takes form, and the market mechanism of survival of the fittest works badly.

As of today, the researches of many scholars put the market as a market structure of perfect competitiveness. However, the market of agricultural products in reality does not mesh with the presumption of the market of perfect competitiveness, because most of agricultural products that do not coincide with the characteristics of market of perfect competitiveness are heterogeneous. In addition, the quality information of agricultural products is not asymmetrical between producers and consumers, which do not coincide with the characteristics of market of perfect competitiveness. Generally, the consumers hold that the external quality of agricultural products reflects their internal quality and determines the price. But due to the biological attribute of agricultural products, as regards their quality information, the consumers can perceive and evaluate precisely after tasting. Moreover, because of the technological progress, increasing development of modern processing and packaging technology, the characteristics of asymmetry regarding consumption information of agricultural products loom large. Con-

sequently, when the consumers purchase agricultural products, they can judge and choose by instinct or experience. The quality information asymmetry of agricultural products not only exists between producers and consumers, but also exists between producers and producers, which makes it difficult to form market mechanism of high quality agricultural products^[2]. As the producers of agricultural products master more information of products, they like to mention the positive information of products, even ballyhoo when selling. Meanwhile, they circumvent negative information and sell the low quality products to consumers. Because these products have timeliness, so the longer the time of poor market, the higher risk of market. The incessant cycle reverse behavior of choosing ultimately brings about the phenomenon of "lemon market" of agricultural products.

2 The behavior characteristics of consumers under "lemon dilemma" of agricultural products market

Agricultural products are the main consumers in people's daily life. The characteristics of agricultural products and property of consumers determine the outstanding characteristics of consumers' decision-making of purchase. In the "lemon market" of agricultural products, consumers' mentality activity of purchase is unique.

2.1 The inequality of consumers' psychological contract in the process of agricultural products negotiation in the market The exchange of agricultural products is completed by bargaining market negotiation between the sellers and buyers. Their respective negotiation status determines the results of two parties. Because the consumers who go to agricultural transaction market have strong desire of need and are sometimes hectic, making them want to obtain all the information regarding agricultural products urgently while this is sellers' bottleneck of buyers. So in the process of negotiation, the sellers of agricultural products will try their best to provide the positive information regarding agricultural products or recommend low quality products to consumers in order to allay market risk. Under this circumstance of information asymmetry, the transaction mentality contract is obviously imbalanced.

2.2 The consumers' decision-making rules tend to be simplified in "lemon market" of agricultural products The quality safety of agricultural products has a close relationship with people's life safety and health. Once there is problem concerning quality safety, it is disseminated orally and then the precautionary measures are adopted, resulting in the simplified disposal of purchasing decision-making rules, which facilitates the further development of "lemon market" of agricultural products. In addition, the factor of context when buying agricultural products also can easily change consumers' attitude so as to change their purchasing behavior or make their purchasing behavior vanish. This will easily magnify several factors when consumers choose so as to preclude other important factors. When the sellers propagate emphatically the magnified factors, the consumers will give less consideration to the precluded factors, resulting in the simplified purchasing decision-making behavior.

2.3 The consumers more easily conduct conformity behavior in "lemon market" of agricultural products The ordinary and daily consumption of agricultural products along with the biological and physical properties of agricultural products make the information asymmetry loom large in the market of agricultural products. In the process of buying, the consumers always refer to others. There is behavior propagation easily caused by consumers' oral transmission, namely, conformity behavior. The consumers frequently involve purchasing agricultural products, so the property of products and merchant's promotion always make the consumers desire to buy. Especially when the consumers cannot easily know the quality of products, they more easily believe sellers' promotion. Out of verifying their judgment and making them be in safe state psychologically, the consumers even persuade their friends to buy, resulting in the phenomenon of conformity behavior.

3 Economic analysis of the impact of "lemon dilemma" in agricultural market on consumers

From the perspective of economy, the impact of "lemon dilemma" in agricultural market on consumers is mainly the impact on consumer surplus. When the poor quality agricultural products provided by the seller of agricultural products increase, the welfare of consumer, namely the consumer surplus will be deprived at the same level of demand condition^[3].

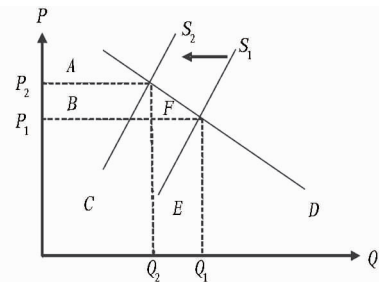


Fig. 1 Influence of the "lemon" market of agricultural products on consumer surplus

In Fig. 1, D is the demand curve of the agricultural products under certain conditions. S_1 , S_2 are the supply line in the normal agricultural market and agricultural "lemon market" respectively. If the market is normal, the consumer surplus of agricultural products is $A + B + F$, and agricultural producer surplus is $C + E$. However, due to generation of "lemon dilemma" of agricultural products, the seller will promote their own low quality agricultural products at high price, which causes the market to increase the supply of low quality agricultural products. Now the price of agricultural products tend to P_2 , and the supply line will shift to the left, reducing the consumer surplus of agricultural products to A , finally the producer surplus of agricultural products is $B + C$. F is consumer surplus of agricultural products deprived by agricultural producers. As can be seen from the above analysis, the existence of "lemon dilemma" of agricultural products will inflict adverse impact on the consumers, reduce the consumers' satisfaction degree, and is not conducive to

the healthy development of the agricultural market.

4 The analysis of the main causes of the formation of "lemon dilemma" of agricultural market

Asymmetric information in agricultural market is the main factor responsible for the formation of the "lemon market", and the main reason causing asymmetric information is as follows:

4.1 Some uncertainties in the collection of agricultural information Due to the separation between the external quality and internal quality of agricultural products, and uncertainty of production, agricultural products can not be directly accepted by consumers and still need more extra information to form information set^[4]. The agricultural products rely on the overall strength of information set to affect consumers' cognizance. However, during the agricultural production process, the following problems are prone to arise: firstly, the quality uncertainty of agricultural producing process lead to the uncertainty and difference of the quality information of finished product; secondly, the differences in the process of production technical environment, region, transportation, storage and so on often bring uncertain information; thirdly, the credibility of the main body of production affects the quality of information set while the seller and buyer of agricultural products with low credibility are the freeman in the market transaction.

4.2 Some uncertainties in the course of using agricultural information In the process of transmission, the agricultural information is easily disturbed by medium. If the relevant products or alternative products have the problems of information quality, it will affect the agricultural products. In addition, due to the strong similarity of agricultural products, we cannot know the information about producing area and producers by the products if there is no label, which will easily make information distorted or not easily discerned by customers in the process of using.

5 Suggestions and countermeasures for solving the "lemon dilemma" of agricultural market

The root cause of "lemon problems" is the information asymmetry caused by the poor transmission of high quality agricultural products. The information of agricultural products cannot be transmitted to consumers in time, which needs to make the information channel unclogged, and improve transmission of information in order to promote the information balance between producers and consumers. Based on this, the suggestions and countermeasures from the perspective of consumer behavior analysis are put forward as follows:

5.1 We should form the generating system mechanism of information of high quality agricultural products The generation and formation of high quality agricultural products information cannot only depend on strengthening human's quality. It is important to build and perfect the generating formation mechanism of high quality information. The information of agricultural products mainly comes from the producer and consumer of ag-

ricultural products, so we should promote large scale, standardized modern scientific production and operation in the chain of production in order to ensure the generation of high quality information from the root. We should also encourage producers of agricultural products to conduct verification of high quality agricultural products and famous brand operation. In the chains of production and sales, we have to develop various kinds of intermediate organizations, produce and transmit high quality information effectively in order to make consumers obtain high quality market information and make sure the will of payment on the basis of high quality market information, which avoid the game behavior between the operators of ordinary agricultural products and operators of high quality agricultural products^[5]. So the consumers can ensure the high quality and good price in the market. And we can obviate the market dysfunction caused by information asymmetry, and offer information basis for solving the "lemon problems".

5.2 We should encourage multi-channel, multi-form, multi-layered operation model of agricultural products production, and promote the optimization of market function The transaction of agricultural products generally happens in the agricultural trade market, while the modern commercial forms, such as supermarket and shop of agricultural products are not the mainstream of consumption. So we should expedite the innovation and reform of producing operation organization form of agricultural products. In the light of practical experience home and abroad, there are mainly three approaches to perfect system function of production and consumption of agricultural products: firstly, we should develop the farmers' cooperative economic organizations, such as farmers' cooperatives and professional technology association, in order to reinforce the integration of resources^[6], promotion and progress of technology, and promote the industrial organization efficiency; secondly, we should nurture professional intermediate organizations of agricultural products market trade, call into full play its professional advantage to discern quality of agricultural products and market reputation, decrease cost of information search of sellers and buyers, and play the role of medium of information transmission to improve the information asymmetry; thirdly, we should establish "company plus rural households" agricultural industrialization model, enhance the industrial unification and agricultural standardization, set up shops of agricultural products, chain supermarkets, professional sales zone to sell agricultural products, transmit high quality information, and finally form benign cycle and optimization of market holistic function.

5.3 We should broaden information transmission channel of agricultural products, build high efficiency feedback path The production and consumption of agricultural products is a traditional field. Along with the development of social production force, traditional information transmission channel is too narrow, and cannot meet the new development need, like the consumption need of low carbon nowadays. Due to the technological progress and development of network technology, the information of agricultural products can be released, exchanged, distributed, and used via exchange meeting, net marketing and

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labor unions should be expanded. As for migrant workers, finding jobs and earning money are very important, so the labor union should set up the connection network throughout the nation and their functions include not only collecting job information, but also warning the migrant workers the enterprises who frequently violate the rights of them. Besides, the labor unions should also provide the training in terms of interest and right protection, safety protection and professional skills. The labor unions with so many functions will indefinitely attract more migrant workers.

In the forth place, the stable capital sources of the labor unions should be widened. As an organization for masses, its capital sources is limited. The capital problem is one of the blocks that impede the labor unions to improve their reputation. Therefore, stabilizing and enlarging the capital sources are the powerful measures for improving the strength of the organization in right protection and elevating its social reputation. In the fifth place, the labor union can socialize its functions in right protection to improve their social reputation. The socialization of the labor union refers to through motivating the strength of the various aspects to achieve the aim of right protection. The following aspects can be applied^[9]: in terms of establishing the organization, the labor union can deepen into the inside of the enterprises and make its system and positions in the vertical direction; in the horizontal direction, the labor union can establish the connection cooperation system among the provinces; in terms of information exchange, except for the communication among the provincial organizations, the labor union should intensify the connection with the government and the media and the legal service institutes, so as to turn the right protection of the labor union to the socialized activity. By this way, the repu-

tation of the labor union will be high in the society, so as to get close to the demand of the model, and finally the labor union will turn the individual right protection activity of the migrant workers to the organizational behaviors, and then the interests and rights of migrant workers will be well protected.

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other channels. This requires government, producers and consumers to fulfill their responsibilities. The government should try its best to establish information transmission platform. We need the timely and effective information release and transmission to produce agricultural products. The consumers also should become the vehicle of positive information. Besides, the government should balance all the main body's information status in market, avoiding the formation of "lemon market" of agricultural products.

5.4 The consumers should transform traditional consumption thinking and pattern into scientific, healthy and rational consuming behavior The era of frequently consulting friends to choose products and blind conformity behavior cannot meet the need of development. The consumers of agricultural products have to launch a creative revolution, change traditional outdated consuming pattern, and advocate scientific, nutritious high quality consuming pattern and consuming concept. The consumers must learn to discern right and wrong, good and bad information, collect extensively various kinds of information regarding agricultural products, improve their processing and using ability, avoid blind consumption, establish scientific, green, low carbon consuming concept,

advocate rational consuming behavior culture so as to promote consuming culture upgrade of agricultural products and the healthy, orderly and benign development of market of agricultural products.

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