

# A Study on the Willingness of Farmers to Adopt the E-commerce Distribution Model of Agricultural Products in Southwest China

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**Abstract:** Farmers face many challenges to benefit from marketing opportunities. Agricultural e-commerce is a relatively new way for smallholders to sell agricultural products to buyers, including agribusinesses, retailers, restaurants, and consumers. Agricultural e-commerce creates better market access and higher transparency in the value chain. There are three research objectives of this study: to explore the difference in perceived value, attitude, and behavioral intention in using e-commerce by Southwest farmers; to examine the relationship between perceived value, perspective, behavioral intention, subjective norm, behavioral attitude, and perceived behavioral control with adoption intention; to suggest respective policies to e-commerce distribution model for farmers adoption.

**Keywords:** Willingness of Farmers; E-commerce Distribution Model; Agricultural Products

## 1. Introduction

With the popularization of the Internet and the Internet construction in rural areas, “broadband enters the countryside and enters the village” as of 2019, there are about 31.81 million rural broadband users, accounting for 23.60% of the country’s rural broadband users, laying a solid foundation for rural e-commerce. And solid foundation. Farmers’ demand for the Internet has gradually increased, coupled with the transmission and influence of external information. Their awareness of competition has also steadily increased, which has accelerated the process of informatization in the western rural areas and greatly improved the quality of life. In 2019, of the rural online retail sales in various country regions, the eastern region accounted for 78.6% of the country, while the central region accounted for 12%. Finally, the western region accounted for 9.4%. There are widespread problems connecting “small farmers” to the “big market,” resulting in two significant problems: information asymmetry and poor sales channels. The e-commerce of agricultural products has effectively improved the problems of traditional agricultural information asymmetry and unsmooth sales channels.

## 2. Theoretical Basis

### 2.1 Theoretical Significance and Value

Theoretical value: At present, the research on rural e-commerce at home and abroad primarily studies rural e-commerce from the perspectives of the internal and external environment of rural e-commerce service stations, rural e-commerce for rural revitalization and poverty alleviation mechanisms, operation models, and future development. And the research is more concentrated, and the scope is relatively narrow. Few scholars have explored farmers’ attitudes towards rural e-commerce from a farmers’ perspective, one of the prominent participants in rural e-commerce. In selecting research models, most kinds of literature are based on TAM, TPB, and other models to research user willingness and behavior. This paper takes farmers in the southwest region as the research object, integrates the theory of perceived value, TAM model, and TPB theory, and explores the influencing factors of farmers’ willingness to adopt in the southwest region from multiple dimensions.

### 2.2 Practical meaning and value

Theoretical significance: Combined with previous viewpoints, the perceived preference of the sample population for things is often based on the perceived value that they have come into contact. Therefore, when exploring people’s wishes, we need to pay attention to the impact of perceived value on the target population. The theory of planned behavior is a theory that explains the general decision-making process of individual behavior from the perspective of information processing and starting from the view of expected value. People’s willingness to adopt innovative technology products is positively and significantly affected by attitudes based on the technology acceptance model.

## 3. Understanding the Influencing Factors of the willingness of farmers to adopt the e-commerce distribution model of agricultural products in Southwest China

### 3.1 Formation of adoption intentions

Peng: et al. (2011)<sup>[1]</sup> believed that due to the information asymmetry between consumers and enterprises, individuals’ unfamiliarity in the face of new things, individuals will perceive risks and increase in adopting new things. To eliminate uncertainty, individuals will continue to look for product information related to new things and constantly correct the judgment of existing knowledge.

### 3.2 Perceived value

Zeithaml (1988)<sup>[2]</sup> first proposed the theory of customer perceived value from consumers’ perspective and defined it as an evaluation of the overall utility of a product or service after weighing the benefits that customers can perceive with the cost of obtaining a product or service. Therefore, perceived value in marketing is usually understood as the difference between the total value

of the customer's purchase and the total cost of the customer's purchase.

### **3.3 Technology acceptance model**

Davis (1989)<sup>[3]</sup> proposed the Technology Acceptance Model (TAM) based on rational behavior theory to study people's adoption behavior of information technology. In this study, Davis believed that people's acceptance behavior of "technology" is affected by "attitude" force is more vital than subjective norms. Technology acceptance models are widely used to study users' use and acceptance of new technology products.

### **3.4 Planned behavior theory**

The theory of planned behavior originated from the theory of rational behavior (TRA) proposed by Ajzen, and later Ajzen (1991)<sup>[4]</sup> formally proposed the theory of planned behavior (TPB) in his article "Theory of Planned Behavior." The theory of planned behavior believes that the three main variables that determine behavioral intention are behavioral attitude, subjective norm, and perceived behavioral control. These three variables have a significant positive impact on behavioral intention.

## **4. The Conceptual Framework for the Research Study**

First Xu (2019)<sup>[5]</sup> proposed that for rural e-commerce, rural e-commerce service stations are bridges connecting rural areas and cities and the primary way for e-commerce to go to the countryside. It is believed that the rural e-commerce service stations exist such as the low efficiency of rural e-commerce service stations, the inactive staff, the asymmetry of relevant information, and the lack of implementation of appropriate policies.

Second To sum up, the development of rural e-commerce is in line with the national policy of implementing the rural revitalization strategy. However, due to the unbalanced regional economic growth, the development of rural e-commerce in the eastern and western regions has been unstable. E-commerce plays a substantial role in suppressing poverty, so studying the distribution model of agricultural products e-commerce in Southwest China is of great significance.

## **5. The Countermeasures for Influencing Factors of the willingness of farmers to adopt the e-commerce distribution model of agricultural products in Southwest China**

### **5.1 Usage intention**

A person's behavior is influenced by their intention to act. This intention is determined by people's attitudes and subjective feelings about the behavior.

### **5.2 Perceived value**

In marketing terms, perceived value is a customer's evaluation of a product or service's merits and ability to meet their needs and expectations, especially compared to its peers.

### **5.3 Behavioral intention**

Behavioral intention refers to the motivational factors that influence a given behavior. The more potent the purpose of performing the behavior, the more likely it is to serve the behavior. Subjective Norms refer to beliefs about whether most people approve or disapprove of behavior.

## **6. Conclusion**

The proposal of rural revitalization indicates that my country's rural development has long given priority to serving the needs of industrial and urban modernization. The result of agriculture and rural areas has changed from focusing on "three rural" issues to concentrating on "three rural" modernization and focusing on poverty alleviation. The orientation is changed to the goal of comprehensively promoting rural revitalization. Rural revitalization needs to transcend the limitations of the constructive awareness of "three rural issues" and following the "five-in-one" socialist modernization overall strategic requirements of "economic construction, political construction, cultural construction, social construction, and ecological civilization construction," use industry and agriculture, urban and rural, east and west coordinated and equal development concept of development justice to understand and understand the importance of "three rural" modernization as an integral part of comprehensive modernization.

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