

# **An Empirical Study on the Willingness to Adopt E-commerce of Agricultural Machinery Parts Operators Under the Background of "Internet +"**

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**Abstract:** The e-commerce of agricultural machinery components can help the rapid development of the agricultural machinery industry and accelerate the implementation of rural revitalization strategies. The study selected the small and micro enterprises in Pangkou Auto Agricultural Machinery Parts City, Gaotang County, as the research subjects, and conducted an empirical analysis on the adoption willingness of e-commerce operators of agricultural machinery parts in Pangkou Auto Agricultural Machinery Parts City by building an economic model. The results showed that the accuracy of the economic model's prediction reached 76%, and the value of Nagelerke R<sup>2</sup> reached 0.580, indicating that the model has a good fitting effect as a whole, it has a good explanatory effect and statistical significance for the dependent variable. The results show that age has become a protective factor for the e-commerce willingness of agricultural machinery component operators, while other factors have a relatively weak effect on the e-commerce operation of hospitals. The research provided a specific explanation of the results and summarized the construction of a complete network system to improve the level of after-sales service; strengthen digital empowering retail and implement an e-commerce+live streaming marketing model; improve e-commerce capabilities and break down barriers to information exchange; strengthen financial policy support and a series of countermeasures to expand the e-commerce operation of agricultural machinery parts.

**Keywords:** Internet+, Business Entities of Agricultural Machinery Parts, E-commerce Model, Willingness to Adopt, Empirical Model

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## **1. Introduction**

With the development of the digital economy, the agricultural industry is facing the need for transformation and upgrading. In this context, modern agricultural machinery has become the driving force for changing agricultural development mode and has become an indispensable part of the transformation and upgrading process. As the production core of the agricultural machinery industry and the upstream of the industrial chain, the development of agricultural machinery parts and components will directly affect the quality of their development. It will influence whether the agricultural machinery industry chain can adapt to the transformation

and development of modern agriculture under the background of digitalization. Chinese agricultural machinery parts have long been subject to the large-scale, high-efficiency and development of the entire industrial chain of agricultural machinery parts in developed countries. The level of intelligence, precision, environmental protection and resource conservation is still low. There is still a significant gap in logistics concentration and other aspects [1]. Under the background of the new crown epidemic, rural e-commerce promoted by the "Internet +" boom has injected great vitality into agricultural management and circulation. Taking advantage of its advantages such as low cost, high efficiency, and no time and space intervals, it has gradually Promoting the sharing

and optimization of production resources for agricultural machinery parts, driving technology exchanges and manufacturing information sharing between small and micro enterprises and large enterprises, improving production and manufacturing levels and research and innovation capabilities, breaking through the barriers between upstream and downstream industrial chains, and realizing agricultural machinery The healthy and efficient development of parts and machine manufacturing and the collaborative innovation of the agricultural machinery value chain. The No. 1 document in 2022 clearly stated that "vigorously promote the construction of digital villages and promote the development of smart agriculture" and "expand the application scenarios of agricultural and rural big data and strengthen the construction of rural information infrastructure. [2]"

At present, the e-commerce marketing model of agricultural machinery parts is in a stage of rapid development. Due to the weak circulation of agricultural machinery parts, it is impossible to break through the gap between the upstream and downstream industrial chains, and the e-commerce of agricultural machinery parts is weak, so it is difficult to promote the coordinated development of agricultural machinery parts and complete machine manufacturing. Therefore, the study of the willingness to adopt e-commerce of agricultural machinery parts operators under the background of "Internet +" plays an important role in promoting economic development, technological innovation and rural revitalization. However, the research in this field in our country is relatively insufficient. After tracing back to the source, it is found that foreign research is mainly reflected in how to quickly establish an e-commerce system. Yan and Tian's research found that it is important and urgent to establish an e-commerce system in the field of agricultural machinery and by-product processing. Domestic research mainly focuses on how the marketing entities of agricultural machinery parts can achieve transformation and upgrading through the e-commerce model [3]. The research of Li Mingming (2014) pointed out that the two key factors in the development of agricultural machinery e-commerce era are platform and logistics. Only by solving the problem of agricultural machinery logistics can we better meet the demand [4]; Wu Jinke (2022) based on mobile e-commerce The innovation and exploration of agricultural machinery marketing model pointed out the deficiencies in China's current e-commerce marketing model, and put forward targeted suggestions [5]; Du Pu *et al.* The adoption willingness of the business entity's e-commerce marketing model has been empirically analyzed, and an economic model has been constructed to analyze it [6].

Today's world is in the post-epidemic era. At the same time, affected by the conflict between Russia and Ukraine, the security of the global industrial chain and supply chain has also been damaged. The International Monetary and

Economic Organization predict that the global economy will continue to decline next year.

The economic outlook has seriously deteriorated. In order to change the situation that China's large-scale agricultural machinery mainly relies on foreign imports in the past, in addition to promoting the research and development of agricultural machinery equipment to make up for shortcomings, it is also necessary to establish a systematic and standardized sales platform, so e-commerce marketing is a good strategy [7]. The study takes the operators of agricultural machinery parts as the research object, and through the establishment of a behavioral economic model, studies the willingness of the main body of agricultural machinery parts and its influencing factors to provide evidence for the establishment of an e-commerce system for agricultural machinery parts in the future.

## 2. Basic Research

In order to effectively study the specific situation of the willingness to adopt e-commerce of agricultural machinery parts, the research team traced the source of the literature and based on other research results, continuously optimized and improved, and obtained the survey questionnaire. The study selects small and micro enterprises in Pangkou Automobile and Agricultural Machinery Parts City, Gaotang County, Baoding City, Hebei Province as the research subject. Since the establishment of Pangkou Automobile and Agricultural Machinery Parts City in 1993, the market has formed the distribution and retail of the complete machine and eight parts of automobiles, agricultural vehicles, motor tricycles, tractors, agricultural machinery, agricultural row, harvester, and agricultural and sideline products processing machinery [8]. The products radiate all over the country. And exported to Indonesia, Pakistan, Russia, Nigeria and other South Asia, Southeast Asia, Africa sales network of more than 20 countries and regions, has become a new landmark for China to lead the development of agricultural machinery industry and serve the progress of agriculture, rural areas and farmers. The study conducts random interviews with agricultural machinery parts dealers, and investigates their individual characteristics, sales methods, behavioral attitudes, coping abilities, willingness to participate, and e-commerce models. A total of 560 questionnaires were distributed in the survey, of which 523 were valid questionnaires, with an effective rate of 93.39%.

### 2.1. Basic Situation of Individual Characteristic Factors

According to the analysis of the survey data, most of the surveyed subjects are middle-aged and middle-aged men, with a general education level of middle school education, most of the operating time is 5-10 years, and the annual income is generally average (see Table 1 for details).

**Table 1.** Statistical table of sample individual characteristic factors.

Individual Characteristic Factor Indicators	options	Number of subjects (person)	Proportion (%)
Gender	male	414	79.16%
	female	109	20.84%
Age	under 25	29	5.54%
	25-35	237	45.32%
	35-55	218	41.68%
	over 55	39	7.46%
	primary school	56	10.71%
Academic qualifications	Junior high school and technical secondary school	214	40.92%
	high school	218	41.65%
	University and above	35	6.69%
Operating hours	under 3 years	16	10.71%
	3-5 years	168	32.12%
	5-10 years	241	46.08%
	over 10 years	98	18.74%
Annual income (yuan)	Below 50,000	37	7.07%
	50,000-100,000	110	21.03%
	100,000-200,000	315	60.23%
	More than 200,000	61	11.66%

Data source: Calculated based on statistical data

## 2.2. Basic Situation of Sales Method Factors

The basic situation of the sales method factors in this survey mainly involves the situation of commonly used sales channels, the larger probability range of customer-facing regions, and the more commonly used sales methods. After

investigation, it is found that the business entities are more familiar with offline direct sales, the scope of business is mostly domestic, and the mode of operation is mostly ordering and wholesale (see Table 2 for details).

**Table 2.** Statistical Table of Sales Mode Factors.

Sales Style Factor Index	options	Number of subjects (person)	Proportion (%)
Commonly used sales channels	Electronic business platform	154	29.45%
	Offline direct sales	369	70.55%
Larger probability range for customer-oriented regions	Near town	193	36.90%
	Many provinces and cities in China	288	55.07%
	global	42	8.03%
More common selling methods	individual retail	166	31.74%
	Wholesale order	224	42.83%
	Individual retail and order wholesale are the same	133	25.43%

Data source: Calculated based on statistical data

## 2.3. Basic Situation of Behavior and Attitude Factors

The behavior and attitude factors of this survey mainly include the attitude towards the long-term development of the current business situation, the attitude towards the e-commerce sales of agricultural machinery parts will become the general trend, and the attitude towards the increase in income of the e-commerce model. According to the survey,

46.27% of the surveyed subjects fully agree with the current business status; 68.45% agree with the e-commerce sales of agricultural machinery parts, but 31.55% of the surveyed subjects hold opposing opinions; 85.09% of the surveyed subjects Agree that the e-commerce model can increase revenue, but nearly 15% of the respondents disagree (see Table 3 for details).

**Table 3.** Statistical table of information on behavioral attitude factors.

Behavioral attitude factor indicators	Option	Number of subjects (persons)	Weight (%)
The attitude that the business status quo can be developed in the long run	Strongly agree	242	46.27%
	Relatively agree	137	26.20%
	Relatively disagree	124	23.71%
	Strongly disagree	20	3.82%
Attitude toward the trend that e-commerce sales of agricultural machinery parts will become a big trend	Strongly agree	177	33.84%
	Quite agree	181	34.61%
	Relatively disagree	112	21.41%
	Strongly disagree	53	10.14%

Behavioral attitude factor indicators	Option	Number of subjects (persons)	Weight (%)
Approval of e-commerce model to increase revenue	Approval	166	31.74%
	Not sure	134	25.62%
	Somewhat agree	145	27.72%
	Don't agree	76	14.53%
	Disagree	2	0.38%

Data source: Calculated from statistical data

#### 2.4. Basic Situation of Coping Ability Factors

The coping ability factor of this research mainly involves the understanding of agricultural machinery parts and components business subjects to the electric business model of agricultural machinery parts and components, whether they have the ability of electric business sales and the degree of understanding of the policies related to the electric

business of agricultural machinery parts and components products. It was found that 80.88% of the respondents indicated that they understood the e-commerce sales model of agricultural machinery parts; 52.77% of the respondents believed that they currently had e-commerce sales capability; 74.38% of the respondents admitted that they understood the policies related to the e-commerce of agricultural machinery parts (see Table 4 for details).

*Table 4. Statistical table of information on coping ability factors.*

	Option	Number of subjects (persons)	Ratio (%)
Degree of understanding of agricultural machinery parts e-commerce sales model	Understanding	236	45.12%
	Fairly know	187	35.76%
	Don't know much	78	14.91%
	Don't know	22	4.21%
Availability of e-commerce sales capacity	Yes	276	52.77%
	No	247	47.23%
Understanding of policies related to agricultural parts and components e-commerce model	Very well	140	26.77%
	Better understand	249	47.61%
	Don't know	123	23.52%
	Don't know	11	2.10%

Data source: Calculated from statistical data

#### 2.5. Analysis of Willingness to Participate

For the analysis of the willingness of agricultural machinery parts and components business entities to participate in the "Internet+" background of e-commerce adoption, the statistical analysis of 523 valid questionnaires shows that 94.07% of the agricultural machinery parts and components business entities showed a positive willingness to participate, fully demonstrating the development of the wave of industrial digitalization (see Table 5 for details).

*Table 5. Willingness of agricultural parts and components operators to adopt e-commerce.*

Willingness to adopt	Subtotal	Proportion
Agree	492	94.07%
Disagree	31	5.93%

Data source: Calculated from statistical data

#### 2.6. Analysis of the Advantages of the E-commerce Model and the Reasons for Its Development

The basic situation of the factors analyzing the advantages of the e-commerce model in this research mainly involves lower operating costs, improving transaction efficiency, expanding the trading market, making transactions transparent, and having more choices; the basic situation of the factors promoting e-commerce mainly involves a perfect network system, good after-sales

service, thoughtful and comprehensive e-commerce consulting and training services, convenient transportation, and fast and reliable loan services.

##### 2.6.1. Analysis of the Advantages of the Electric Business Model

The study found that the research subjects agree with the advantages of the e-commerce model of agricultural machinery parts. Among them, the top three most recognized by the research subjects are "expanding the trading market", "making the transaction transparent" and "lower operating costs", with 73.80%, 73.23% and 71.89% respectively. The top three most recognized by the respondents were "expanding the trading market", "making transactions transparent" and "lower operating costs", with 73.80%, 73.23%, and 71.89% respectively, and more than half of the respondents agreed with the advantages of e-commerce (see Table 6).

*Table 6. Analysis of the advantages of the e-commerce model.*

Specific advantages	Subtotal	Proportion
Lower operating costs	376	71.89%
Improve transaction efficiency	343	65.58%
Expanding the trading market	386	73.80%
Make transactions transparent	383	73.23%
More choices	76	14.53%

Source: Calculated from statistical data

### 2.6.2. Analysis of Factors to Promote E-commerce

In terms of factors to promote the development of agricultural machinery parts e-commerce, the research subjects agree that fast and reliable loan service is very important to promote the development of e-commerce, the degree of approval of nearly 70%; followed by a comprehensive network

system, accounting for 59.85% of the total sample; thoughtful and comprehensive e-commerce consulting and training services, good after-sales service and convenient transportation also more than half of the approval (see Table 7). It can be seen that the subject of the research has a thorough understanding of the conditions affecting the development of e-commerce.

**Table 7.** Analysis of factors promoting e-commerce.

Specific advantages	Subtotal	Proportion
Perfect network system	313	59.85%
Good after-sales service	301	57.55%
Thoughtful and comprehensive e-commerce consulting and training services	298	56.98%
Convenient transportation	291	55.64%
Fast and reliable loan service	356	68.07%
Other	26	4.97%

Data source: Based on statistical data

## 3. Empirical Factor Setting, Directional Expectations and Framework Construction

### 3.1. Factor Setting and Expectation

There are 14 variables in this study, among which the

influence expectations are positive except for the influence of the selling method on the results, the influence of education status, time engaged in the agricultural machinery business, annual income status, the geographical range of the customers oriented, and the belief that agricultural machinery parts and components e-commerce sales will become a general trend, and the rest are all negative (see Table 8 for details).

**Table 8.** Variable descriptions and expected direction of impact.

Variable	Variable definition	Impact expectation
Gender	1=Male 2=Female	Reverse
Age	1=Under 25 2=16-35 3=35-55 4=55 years old and above	Reverse
Education status	1=Elementary school 2=Junior high school and junior college 3=High School 4=University and above	Positive
Time in farm machinery business	1=Less than 3 years 2=3-5 years 3=5-10 years 4=10 years or more	Positive
Annual income	1=less than 30,000 yuan 2=30,000-50,000 yuan 3=50,000-100,000 yuan 4=more than 100,000 yuan	Positive
Common sales channel	1=e-commerce platform 2=Offline Direct Selling	Reverse
Geographical range of customers	1=adjacent towns 2=Multiple provinces and cities in China 3=Globally oriented	Positive
Method of sale	1=order wholesale 2=Individual retail 3=A, B all the same	Not sure
Think the business status quo is good enough for long	1= Strongly disagree 2=Somewhat disagree 3=Compare to agree 4=Strongly agree	Reverse
Believe that the e-commerce sales of agricultural machinery parts will become the general trend	1= Strongly disagree 2= Somewhat disagree 3= Compare to agree 4= Strongly agree	Positive
Knowledge of e-commerce of agricultural machinery parts	1= Understanding	Reverse

Variable	Variable definition	Impact expectation
Acceptance of the e-commerce model to increase revenue	2= know better	Reverse
	3=Not very well known	
	4= Don't know much	
	1= Approval	
	2= unclear	
Ability to sell goods through e-commerce	3= More agreement	Reverse
	4= Not very much	
	5= disagree	
	1=Yes	
	2=No	
Knowledge of policies related to the e-commerce model of agricultural machinery parts	1=Very knowledgeable	Reverse
	2=Relatively well known	
	3= less well known	
	4= Not well understood	

### 3.2. Model Setting

The research takes the willingness of agricultural machinery parts sales subjects to accept the e-commerce marketing model as the dependent variable, sets the willingness to accept as 1, the reluctance to accept as 0, and sets the factors affecting the adoption of the e-commerce model as explanatory variables. Due to the different resource endowments and specific circumstances of agricultural machinery parts dealers, the influence trends and directions of each variable are also different. Therefore, the study uses logistic regression to carry out empirical analysis.

The verification formula is:

$$\text{logit}P = \ln \Omega = \ln p / (1-p) = \beta_0 + \sum \beta_i x_i$$

### 3.3. Empirical Calculation and Analysis

It is estimated that the prediction accuracy of this study reaches 76%, Nagelerke.

R<sup>2</sup> Is 0.580, indicating that the model as a whole has good fitting effect, good explanatory effect and good statistical significance for the dependent variables. As can be seen from Table 9, it can be known that such factors as the range of customers targeted, the belief that e-commerce sales of agricultural machinery parts will become the general trend,

the degree of recognition of the income increase of e-commerce model and the degree of understanding of the relevant policies of the e-commerce model of agricultural machinery parts can better explain the factor of whether the business entities of agricultural machinery parts are willing to adopt the e-commerce marketing model, with obvious significance. The overall fitting effect of the model is good. The regression coefficient of thinking that e-commerce sales of agricultural machinery parts will become the trend is 2.212, reflecting that the degree of recognition that e-commerce sales of agricultural machinery parts will become the trend is positively correlated with whether the main business of agricultural machinery parts is willing to adopt the e-commerce model, that is, the more they recognize that the e-commerce sales model will become the trend, the more willing they will adopt the e-commerce sales model. The regression coefficient of understanding degree of policies related to the e-commerce model of agricultural machinery parts reached 6.189, and the Wals value ranked the first, indicating that this factor has the greatest impact on the dependent variable; The Wals value of the customer-oriented geographical scope factor is 5.359, which ranks the second, indicating that the customer-oriented geographical scope plays a decisive role in the adoption intention of e-commerce.

*Table 9. Logistic analysis results of e-commerce willingness adopted by the main body of micro agricultural machinery business.*

Explanatory variables	Models					
	B	S.E.	Wals	df	Sig.	Exp (B)
Constant	-10.571	5.992	3.113	1	0.026	0.004
Gender	-1.829	1.073	2.907	1	0.088	0.161
Age	-0.153	1.002	0.023	1	0.878	0.858
Education	1.319	0.931	2.007	1	0.157	3.739
Hours engaged in farm machinery business	-1.057	0.76	1.934	1	0.164	0.347
Annual income	-1.026	1.02	1.011	1	0.315	0.359
Common sales channels	1.304	1.106	1.389	1	0.243	3.683
Geographic range of customers	1.844	0.797	5.359	1	0.037	6.324
Method of sale	-0.969	0.685	2.003	1	0.157	0.379
Thinks the business status quo is good enough for the long haul	-0.906	0.852	1.13	1	0.288	0.404
Believes that e-commerce marketing of agricultural machinery parts will become the trend	2.212	1.116	3.927	1	0.048	9.133
Knowledge of sales patterns for farm machinery parts	-1.393	0.855	2.653	1	0.103	0.248
Agreement on revenue increase of e-commerce model	0.459	0.608	0.57	1	0.045	1.582
Whether to have e-commerce sales ability	-0.456	1.05	0.188	1	0.664	0.634
Knowledge of the development policy of agricultural machinery parts e-commerce	1.684	0.677	6.189	1	0.013	5.39

Explanatory variables	Models					
	B	S.E.	Wals	df	Sig.	Exp (B)
Prediction accuracy	76.6					
Nagelkerke R2	0.580					
Maximum likelihood value	66.680					

Note: The data are calculated from survey data, and the confidence interval of Exp (B) is 95%

### 3.4. Comparison of the Main Influencing Factors of Business Entities' Willingness to Adopt E-commerce

#### 3.4.1. Age Structure

It can be seen from the analysis results that age is a protective factor for the e-commerce business intention of the operators of agricultural machinery parts, that is, the age of the respondents plays a promoting role in the e-commerce business. By analyzing the age structure of the respondents, most of them are between 25 and 35 years old. This age group is deeply affected by the current information age, with more people using mobile phones and shopping online. Therefore, they have good expectations for the e-commerce business of agricultural machinery parts and are willing to operate in the mode of e-commerce. However, the significance of the explanatory variable age was 0.875, which did not pass the verification of confidence interval. The reason may be that the age structure of the respondents was seriously maladjusted, and the proportion of different age groups was seriously uneven. The operators under 35 accounted for 50.86%, and the people over 35 showed 49.14%. Relatively speaking, this group of people is not as receptive to emerging affairs as the group under 35, and tends to be more conservative in character.

#### 3.4.2. Time in the Business of Agricultural Machinery Parts

From the results of the analysis, the significance of the operating time of the explanatory variables was 0.849, which did not pass the set confidence interval. The reason for not passing the validation of the time engaged in the operation of agricultural machinery parts may be because the proportion of those engaged in the operation of agricultural machinery parts for less than 5 years is too large, accounting for 42.83%. The situation may be because the e-commerce model of agricultural machinery parts has just emerged and is not so perfect in all aspects, and the pre-sale, sale and after-sale problems have not been properly solved. In addition, the logistics management system still needs to be improved, the resources cannot be radiated to remote areas, and poor logistics may lead to parts being damaged or stranded. Finally, agricultural machinery parts enterprises are mostly small and micro enterprises, lack technology, capital, etc., and the survival time is even less optimistic. The above reasons finally caused the empirical study to fail.

#### 3.4.3. Availability of E-commerce Sales Capability

From the analysis results, this empirical study shows that whether or not having e-commerce sales ability does not pass the data verification, the indicator at the significance level of 0.664, fails to pass the set confidence interval

verification. The reason why the indicator of having the ability of e-commerce sales did not pass the verification may be because the agricultural machinery parts business organizations are often small and medium-sized enterprises, which are difficult to form relatively professional e-commerce marketing teams and lack experience in e-commerce sales; secondly, the lack of capital and technology has become an important factor hindering the digital development of agricultural machinery parts sale enterprises; again, the market already has a large e-commerce platform for agricultural machinery parts, this leads to huge competitive pressure on the e-commerce of small and micro enterprises of agricultural machinery parts. Finally, professional talents tend to flow to large enterprises, which makes small and micro enterprises fall into the vicious circle of lack of talent, leading to the difficulty of improving the e-commerce sales capacity of agricultural machinery parts operators, which in turn shows that the empirical study does not pass.

#### 3.4.4. Other Factors

From the analysis results, the significance of the factors of gender, education, annual income, common sales channels, selling methods, a perception that the current business status is sufficient for long-term development and knowledge of the e-commerce sales model of agricultural machinery parts did not pass the set confidence interval verification. The reason why the gender factor did not pass the validation may be because women accounted for a larger proportion of the respondents in this study, reaching 20.84%. Women generally have low knowledge of mechanical supplies such as farm machinery parts in general, resulting in lower significance. The significance of the factor of education did not pass the verification may be because most of the respondents have a low education level, mostly junior and senior high school education, and the percentage of those with higher education is relatively low, which leads to the low significance and does not pass the empirical test; the significance of the factor of annual income is 0.315, which does not pass the confidence interval. The significance of the factor of annual income is 0.315, which does not pass the confidence interval, probably because most of the subjects' annual income is less than 200,000 yuan, which makes it difficult for this group to take risks and try to apply the e-commerce model to their products due to financial constraints, and thus the significance is low and thus it is difficult to pass the empirical test; the factor of common sales channels accounts for 70.55% of the offline direct sales, which still puts the traditional marketing model in the first place and

adheres to the traditional sales ideology. The significance of this factor is low, which makes it difficult to pass the empirical test; most of the selling methods are still individual retail, and the scale of operation is small, so it is difficult to further promote the development of e-commerce business, so the significance is low, which makes it difficult to pass the empirical test; among the factors that the current situation of the business is sufficient for long-term development, a large proportion of people agree that the current development can last, so they are unwilling to take the risk to try e-commerce, which leads to a low significance, which makes it difficult to pass the empirical test. It is difficult to pass the empirical test; 19.12% of the respondents chose not to know and not to know much about the factor of understanding the electric business marketing mode of agricultural machinery parts, which did not pass the verification probably because the current electric business policy is more publicity is the agricultural products electric business, the electric business marketing mode of agricultural machinery parts has not been promoted centrally, lack of extensive publicity.

### 3.5. Conclusion

With the wide application of "Internet plus", the agricultural machinery parts industry has developed rapidly. The results show that there are still many factors that cannot pass the empirical test, and need to be further optimized and adjusted, and set up empirical models to accelerate the verification and promote the development of agricultural machinery industry.

## 4. Suggestions for Countermeasures [11-15]

### 4.1. The Establishment of an Independent and Complete Network System, Intervention to Improve the Level of After-Sales Service

Need to establish an independent and complete network system to solve the problem of lagging network management security, maintain network operation security, data security, content security, good software ensure, system ensures, service ensure, mission ensure, and provide a good network environment for China's e-commerce development. The state should intervene to improve the level of after-sales service of agricultural machinery parts and components electric business, the introduction of appropriate support policies, for China's agricultural machinery parts market bigger, and stronger to provide strong support, so that the people enhance the degree of trust in agricultural machinery parts and components electric business, to promote the development of agricultural machinery parts and components and agricultural machinery business of the large domestic cycle, to improve the ability of China's agricultural machinery market self-sufficiency.

### 4.2. Digital Empowerment Retail, the Implementation of E-commerce + Live Marketing Model

The widespread use of new media technology has led to the flourishing of the e-commerce industry, and agricultural machinery parts can use its digital dividend to reduce sales costs after entering the e-commerce industry. Compared with the traditional e-commerce sales model, the e-commerce + live streaming marketing model is more flexible and convenient [9], and is a low-cost and high-efficiency public digital pipeline, which can overcome the limitations of graphic sales on product display, and can also show the performance of agricultural machinery parts products more comprehensively. Moreover, through the interaction in live streaming, operators can further introduce products based on customer feedback, giving consumers a sense of authenticity and thus enhancing their trust in the operators.

### 4.3. Improve the Ability of E-commerce and Break the Information Exchange Barrier

Online training for operators of agricultural machinery parts, improves the ability of e-commerce, build information exchange platform, and reduce the information gap. First, increase the publicity of e-commerce knowledge, popularize the advantages and disadvantages of e-commerce of agricultural machinery parts, and improve the operator's ability to resist risks. Second, do a good job of regional industry research, to understand the type of agricultural machinery parts needed and the situation of e-commerce, according to market demand, the introduction of products, to do the right thing. Third, build an information exchange platform, a timely and accurate reflection of commodity sales and use, as well as the problems that exist, to ensure that the goods are before, during, and after-sales service [10].

### 4.4. Strengthen the Financial Policy Support, and Increase the Financial Institutions to Help Farmers

Agricultural machinery parts business economic efficiency is low, the lack of safe and fast financing, and agricultural machinery parts e-commerce business requires a large economic investment, the lack of investment funds for the main business is unwilling to risk trying, so strengthen financial policy support, adding financial institutions to help farmers is very important. Agricultural machinery parts and components business entities have sufficient funds, and the rate of e-commerce has a more significant increase.

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