

A Study of Factors Influencing Agricultural Product Consumption from the Perspective of New Media: An Investigation Based on Shandong Province.

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Abstract. At the advent of the information revolution, the information processing capabilities of computers and internet technology have greatly changed people's shopping concepts and consumption patterns. At present, consumers have shown a high interest in purchasing the necessary products through new media channels. The sales and consumption of agricultural products are closely related to people's health and safety. According to market data, agricultural e-commerce currently does not have obvious advantages in profitability. Therefore, with the aim of exploring ways to promote agricultural product consumption behavior, relevant data is collected by distributing a Likert 5-level survey questionnaire online, Constructing a structural equation model to reflect the influencing factors of consumer online purchase of agricultural products in the new media environment, using SPSS to test the reliability and validity of the sample, selecting Amos to verify the model and hypotheses, it was found that the purchasing environment, new media communication, and perceived behavioral control can indirectly and positively affect consumer willingness, while quality value and emotional value will directly and positively affect purchasing intention, The risk cost will have a direct negative impact, and these latent variables are also constrained by precursor factors, thus providing a relatively complete procedural mechanism for online consumption of agricultural products and providing reliable development and improvement directions for agricultural product sellers.

Keywords: new media, online consumption of agricultural products, structural equation modeling, influencing factors

1 Introduction

1.1 Research background

With the development of digital technology and network transmission technology, the media market is gradually extending towards the direction of information transmission. Among them, the new media industry has emerged, guiding the navigation mark of media development. The so-called "new" of new media is because this concept is relative, that is, relative to traditional mass media such as newspapers, television broadcasting, and outdoor media. The characteristics of new media are very prominent, such as media personalization, diverse forms of expression, timely information release, and interactive audience comments. Based on these characteristics, its nature has changed from one-way communication to two-way transmission, where audiences can obtain the information they need. Information publishers can also capture

user data through the Internet, use big data to depict user profiles, and achieve accurate delivery.

The online shopping market for agricultural products has also exposed many problems in terms of products, services, logistics, supervision, and other aspects. For agricultural e-commerce, consumers cannot truly feel the quality of agricultural products when purchasing them online. At the same time, there is a certain level of suspicion towards virtual trading platforms, which leads to consumers being more sensitive compared to offline procurement. In addition, the characteristics of difficult storage of agricultural products, Although agricultural e-commerce is developing rapidly, the profitability of merchants still needs to be improved; For consumers, due to the short development time of socialized e-commerce, there are still some areas that need improvement. Therefore, some consumers do not highly recommend purchasing agricultural products through new media channels and are in the observation stage. Moreover, due to the serious regional development imbalance in rural e-commerce, there is also a shortage of related technical talents.

1.2 Research innovation points

Firstly, it is the integration and innovation of theoretical knowledge. Currently, most people apply new media in fields such as finance, government affairs, university education, and communication. However, there is relatively little research on combining new media as a new marketing channel with agricultural product consumption. The real-time interactivity, wide dissemination, and convenient operation of new media can better compensate for the shortcomings of agricultural product sales in the market, such as being greatly affected by climate and weather, perishable, and less well-known brands.

Secondly, there is innovation in the construction of the model. Based on the integration of planned behavior theory and latent variables in the perceived value model, combined with the characteristics of new media environment and agricultural products, a three-layer structure of the model was set up, which includes precursor factors, transitional value, and willingness to act. Therefore, it can more comprehensively fit the impact mechanism of online consumption of agricultural products in real life.

2 Literature review

2.1 Related theoretical foundations

Perceived Value Theory. Zeithaml V A ^[1] constructed a conceptual model of perceived value theory based on the value chain theory proposed by Michael Porter ^[2] (1985) and the customer value that Woodruff R B believed could provide advantages for the enterprise ^[3], which includes three dimensions: low-level, high-level attributes, and cognition of low-level attributes. Scholars have different opinions on the dimension division of perceived value theory, which can be roughly divided into two categories: one is utilitarian dimensions based on economic perspectives, such as functional value, logical value, perceived cost or risk, etc.; the other is non utilitarian dimensions based on psychological perspectives, including consumer emotions, society, hedonic value, etc. The variables of the above types of values indicate that consumers believe that gains outweigh losses in the purchasing process, The

variables of risk and cost types represent consumers feeling that they have paid more than gained, such as time consumption, money expenditure, psychological exclusion, etc. [4].

Technical Acceptance Model. The two most important factors in the model are perceived usefulness and perceived ease of use, which scholars believe play a crucial role in users accepting new technological systems. If an individual believes that using the new system greatly improves implementation efficiency, it indicates that the perceived usefulness of a new technology is good; If the user does not feel much difficulty and complexity in the process of using the system, it indicates that their perceived ease of use is good. After research, it has been found that consumers' perceived ease of use significantly affects usefulness and has a positive impact. Moreover, perceived usefulness and behavioral intention are positive factors in decision-making behavior.

2.2 Research status

From the perspective of exploring the content of previous literature, most scholars have focused their research on the consumption motivation, willingness, and satisfaction of agricultural products. Most of the literature has explored the relevant content of green agricultural products and fresh agricultural products. Wang Wei (2018) mainly explored the relevant factors that affect consumers' willingness to shop online, which can be divided into three dimensions: consumers (individual characteristics and online shopping experience), online store quality, and logistics level. At the same time, he also pointed out that there is significant development space for agricultural product e-commerce at present, and the key to success or failure lies in whether it can capture consumer needs. Finally, he proposed maintaining a price advantage, improving logistics delivery efficiency, and providing high-quality online services. Implement an O2O model that integrates with traditional channels and create a unique brand. Wang Yuzhen et al. (2017), from the perspective of consumers, retrospectively collected data on consumer choice of online shopping, determination of required product characteristics, comparison of multiple online agricultural stores, and trust in channels during the transaction process, and conducted correlation hypotheses and regression tests. The conclusions showed that buyers felt functional and hedonic value, effective operation experience, online store page layout, etc. when consuming agricultural products. The level of sales and customer service is a significant influencing factor in improving satisfaction [6].

Many mathematicians have constructed Probit models or structural equation models to study the influencing factors of agricultural product consumption in this field. Fu Lifang et al. (2014) took residents of Heilongjiang Province as the research object and developed a questionnaire based on planned behavior theory and sampling survey theory. They conducted a survey on indicators of consumption and social attributes, consumption motivation and habits, risk acceptance ability, cognitive level, and other characteristics. They used contingency tables and analysis of variance to screen variables and constructed a Probit model for econometric analysis [7]. Guo Bin et al. (2014) believe that age, attention to green information, the intersection of the two, and consumer health have a significant impact on agricultural product consumption behavior. After stepwise regression analysis of the Probit econometric model, measures were proposed to promote moderate scale production and operation of agricultural products, strengthen management of various links in the supply chain, select appropriate advertising channels for green agricultural products, and actively guide middle-aged people's

consumption habits of green products ^[8].

From the perspective of research methods, most literature has constructed binary logistic models or linear regression models to test the reliability and effectiveness of sample data, and verify the rationality of the models. In addition, some literature has constructed structural equation models related to the factors affecting online consumption of agricultural products and used Amos and other software for verification. Gong Yingmei (2019), based on situational theory, believes that stimulus variables can be defined from the perspectives of website settings, reference objects, promotional plans, conditional assumptions, etc., and then studies their relationship with the organism variable customer trust and the dependent variable network consumption intention of agricultural products. After testing convergence and discriminant validity, the maximum likelihood estimation method was used to estimate, modify, and test the fit of the path in the conceptual model. Finally, it was found that the stimulus variable had a positive impact on customer trust, and the customer trust factor had a significant positive impact on consumer purchase intention; Customer trust has a complete mediating effect under the influence of website, reference, and conditional factors, while a partial mediating effect under the influence of promotional factors ^[9].

From the perspective of research methods, most literature has constructed binary logistic models or linear regression models to test the reliability and effectiveness of sample data, and verify the rationality of the models. Jialin Guo et al. (2021), on the other hand, focused on the influence between the main variables, and after factor analysis and multiple linear regression equation model testing concluded that health awareness, shop reputation, price factor, convenience factor, familiarity with the online shopping process, and the amount of money spent on the purchase of agricultural products all had different degrees of significant influence on consumers^[10]. In addition, some literature has constructed structural equation models related to the factors affecting online consumption of agricultural products and used Amos and other software for verification. Gong Yingmei (2019), based on situational theory, believes that stimulus variables can be defined from the perspectives of website settings, reference objects, promotional plans, conditional assumptions, etc., and then studies their relationship with the organism variable customer trust and the dependent variable network consumption intention of agricultural products. After testing convergence and discriminant validity, the maximum likelihood estimation method was used to estimate, modify, and test the fit of the path in the conceptual model. Finally, it was found that the stimulus variable had a positive impact on customer trust, and the customer trust factor had a significant positive impact on consumer purchase intention; Customer trust has a complete mediating effect under the influence of website, reference, and conditional factors, while a partial mediating effect under the influence of promotional factors^[11]. Yingmei Cang et al. (2021) investigated the effects of variables such as product quality, logistics service quality, Internet word-of-mouth and website information quality on consumers' willingness to purchase fresh produce online through AMOS structural equation modelling. The results show that all latent variables have a significant effect on consumers' willingness to purchase fresh produce, except for website information quality, which has no significant effect^[12].

At present, relevant literature has relatively complete research methods, such as structural equation modeling and binary logistic modeling, which can scientifically and reasonably study the influencing factors of agricultural product consumption behavior. However, from the perspective of research content, Chinese and foreign scholars prefer to study marketing

strategies, consumer willingness, and satisfaction under the influence of new media, lacking research on consumer behavior and its influencing factors, and more importantly, relevant research in the field of agricultural products. Therefore, this article takes the perspective of agricultural product consumers as a guide, explores the influencing factors of their behavior in the context of new media, helps agricultural product sales accurately capture consumer needs in the trend of new media prevalence, and provides feasible improvement directions for the development of agricultural product enterprises, e-commerce, and the promotion of agricultural product brands.

3 Model construction and indicator design

3.1 Model construction

The structural equation model of online agricultural product consumption behavior constructed in this article integrates relevant indicators of planned behavior, perceived value theory, and technology acceptance model, analyzes the meanings and ways of action of the latent variables of the three, and integrates them. Based on the original foundation, combined with the characteristics of timely interaction, efficient online services, and digital technology of new media, new media elements are integrated into the setting of emotional value indicators, and considering the new media environment in which agricultural product sales merchants operate, add new media communication factors. The model is mainly divided into three modules, namely: antecedent factors, transitional value, and willingness to act, which contain 7 latent variables. Precedent factors include purchasing environment, perceived behavioral control, and new media communication. Transitional value factors include quality value, emotional value, perceived risk, and cost. The willingness to act dimension uses purchase intention as the latent variable. See Figure 1 below for details.

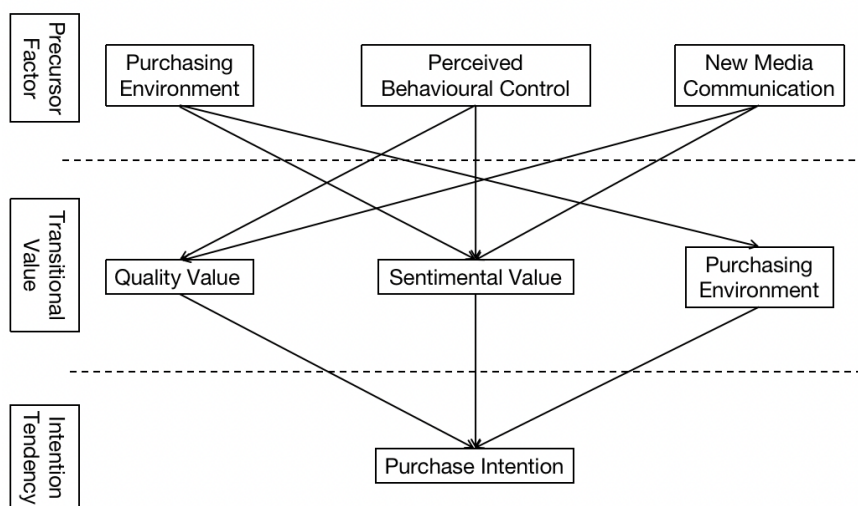


Figure 1 Model Structure Diagram.

3.2 Indicator design and research hypotheses

New media communication. New media communication refers to the advertising and promotion of products by businesses on mobile phones, computers, or through digital television through the internet. Due to the fact that merchants explain information such as product quality, packaging, and price during the process of disseminating products, the level of detail and authenticity, as well as the scope and intensity of dissemination, to a certain extent affect consumers' perception of the product; Usually, the more detailed and engaging new media advertisements are, the more they will leave a good impression on agricultural product online merchants in the minds of consumers, thereby enhancing the pleasure of the experience.

H_{1a}: New media communication has a positive impact on the perceived quality value of consumers

H_{1b}: New media communication has a positive effect on the emotional value perceived by consumers

Purchase environment. The purchasing environment is a newly designed indicator aimed at expressing the opposing or approving power of the social environment, interpersonal relationships, and other factors that consumers are in. It mainly manifests in the process of negotiating with online agricultural product merchants, making it easier to feel their meticulous services, timely and effective interaction, and convenient and easy to understand operations; Meanwhile, due to the direct impact of the purchasing environment, consumers will not feel strong transaction risks, information security and other issues during online transactions.

H_{2a}: The purchasing environment has a positive effect on the emotional value perceived by consumers

H_{2b}: The purchasing environment has a negative impact on the perceived risks and costs of consumers

Perceived Behavior Control. This concept focuses on reflecting the degree of hindrance to consumer knowledge, experience, resource accumulation, and expectations. When consumers have rich online shopping platform resources and online consumption experience, it reflects that they are more likely to identify high-quality agricultural product online trading platforms. Therefore, consumers gain greater benefits in the consumption process, manifested in their purchased agricultural products having better quality, and they feel better interactive communication, better operational processes, and more effective demand satisfaction in new media channels.

H_{3a}: Perceived behavioral control has a positive effect on the perceived quality value of consumers

H_{3b}: Perceived behavioral control has a positive effect on the emotional value perceived by consumers

Quality value. The issue reflected by quality value is whether consumers can experience the existence of value after actually receiving and using the product, compared to their initial imagined product characteristics and utility. If the buyer believes that the quality is excellent,

the price is reasonable, the packaging is exquisite, the taste is pleasant, and the variety is complete, that is, the more the product quality meets consumer expectations and meets consumer purchasing needs, the stronger their willingness to purchase.

H4: The perceived quality value of consumers has a positive impact on their willingness to consume online agricultural products

Emotional value. Emotional value, this latent variable includes whether consumers have a good experience and emotional feelings in the shopping process. If consumers believe that the operation is simple and smooth, the interaction is real and effective, and the service is meticulous and timely, then their impression of high-quality products will deepen, and their interest and enthusiasm for use will also increase. Therefore, their willingness to purchase will become stronger.

H5: The emotional value perceived by consumers has a positive impact on their willingness to consume online agricultural products

Perceived costs and risks. Perceived cost and risk are negative factors in this model, which represent the uncertainty factors perceived by consumers in online agricultural product transactions and the costs they need to pay. The cost mainly includes the investment of time, currency, energy, etc., while the risk mainly refers to the risks that consumers face in terms of payment, product security, personal information, etc. during the transaction process with online agricultural product sales platforms. Therefore, when consumers perceive strong costs and risks, they will develop a greater sense of distrust and insecurity, and their willingness to consume online agricultural products will decrease.

H6: Perceived costs and risks can have a negative impact on the willingness to consume online agricultural products

Purchase intention. Purchase intention represents the purchasing tendency and positive attitude of consumers towards a certain product. According to the existing theoretical framework, purchase intention is widely believed to be able to accurately predict whether actual purchasing behavior will occur and the likelihood of occurrence, that is, willingness has a positive orientation towards purchasing behavior. See Table 2 below for details.

Table 2 Research Hypothesis Content and Expected Direction Map.

name	content	direction
H1a	New media communication has a positive effect on consumers' perceived quality value	positive
H1b	New media communication has a positive effect on consumers' perceived emotional value	positive
H2a	The purchasing environment has a positive effect on consumers' perceived emotional value	positive
H2b	The purchasing environment has a negative effect on consumers' perceived risks and costs	negative
H3a	Perceptual behavior control has a positive effect on consumers' perceived quality value	positive
H3b	Perceptual behavior control has a positive effect on consumers' perceived emotional value	positive

H4	The quality value perceived by consumers has a positive effect on the consumption of online agricultural products	positive
H5	The emotional value perceived by consumers has a positive effect on the consumption of online agricultural products	positive
H6	Perceived cost and risk can have a negative impact on the willingness to consume agricultural products online	negative

4 An empirical study on the factors influencing agricultural product consumption from the perspective of new media

4.1 Survey questionnaire distribution and collection

Before this formal survey, a pre survey of 25 people was conducted to check whether the logic, structure, indicators, and question design of the questionnaire were concise, easy to understand, and in line with scientific principles. The overall plan of the survey was supported during the implementation process. The pre survey process mainly includes communicating with participants to discuss the rationality of the questionnaire questions, recording feedback content, and discarding certain non-standard items. Unreasonable secondary indicators, with some additional items added, will be tested for reliability and validity to form the final formal survey questionnaire.

The formal survey questionnaire is mainly disseminated and collected through online channels, with an effective period from April 17, 2022 to May 1, 2022. For residents of Shandong Province, after statistical analysis of the number of questionnaires from various channels, a total of 117 questionnaires were distributed and 117 valid questionnaires were collected. This means that the effective response rate of the questionnaire in this survey meets the standard, which is 100%.

4.2 Data analysis

Reliability testing. The Cronbach's alpha of the independent and dependent variables in this survey questionnaire is 0.958, which is greater than the standard value of 0.7, indicating that the entire set of data is relatively stable and reliable; All design questions have CITC values above 0.4, meeting the standard. See Table 2 and Table 3 below for details.

Table 2 Reliability Analysis.

Cronbach α coefficient	Cloning Bach based on standardized projects α coefficient	Item Quantity
0.958	0.958	15

Table 3 Overall Statistics of the Project.

	Mean after exclusion	Differences after exclusion	Revised total correlation	Multiple correlation squared	After exclusion α value
SN1	46.31	150.336	0.761	0.701	0.955

SN2	46.29	149.846	0.798	0.714	0.954
NMC1	46.31	149.749	0.822	0.805	0.954
NMC2	46.19	151.188	0.791	0.762	0.954
PBC1	46.47	150.217	0.789	0.764	0.954
PBC2	46.55	150.491	0.780	0.679	0.955
QV1	46.28	150.084	0.829	0.810	0.954
QV2	46.28	149.808	0.809	0.754	0.954
EV1	46.09	151.155	0.818	0.774	0.954
EV2	45.90	151.955	0.814	0.759	0.954
EV3	45.98	153.500	0.785	0.761	0.955
RC1	46.44	155.715	0.580	0.628	0.959
RC2	46.35	159.919	0.484	0.472	0.960
PI1	46.03	153.792	0.786	0.724	0.955

The overall KMO value of the collected samples is 0.931 and the P-value approaches 0, indicating that the survey questionnaire has good validity. The collected data is very suitable for factor analysis. See Table 4 below for details.

Table 4 Validity Analysis.

Validity measurement statistics	0.931
Inspection value	1592.644
Bartley's test statistical value	freedom
	105
	P value
	0.000

Structural equation model. In the fitting index of the initial model, the chi square/degree of freedom, CFI, and TLI all meet the standards for constructing a structural equation model, but the RMR is greater than 0.05, and the GFI and NFI values are both less than 0.9. This indicates that there is still a certain gap in the structural fitting degree between the model and the data collected from the survey, so further model correction is needed. See Table 5 below for details.

Table 5 Initial Model Fit.

Type	CMIN/DF	RMR	GFI	CFI	NFI	TLI
Value	2.233	0.065	0.831	0.937	0.893	0.918

After model modifications, including adding bidirectional correlations with residual factors and removing paths that did not pass the significance test, the final model was formed as follows in Figure 2:

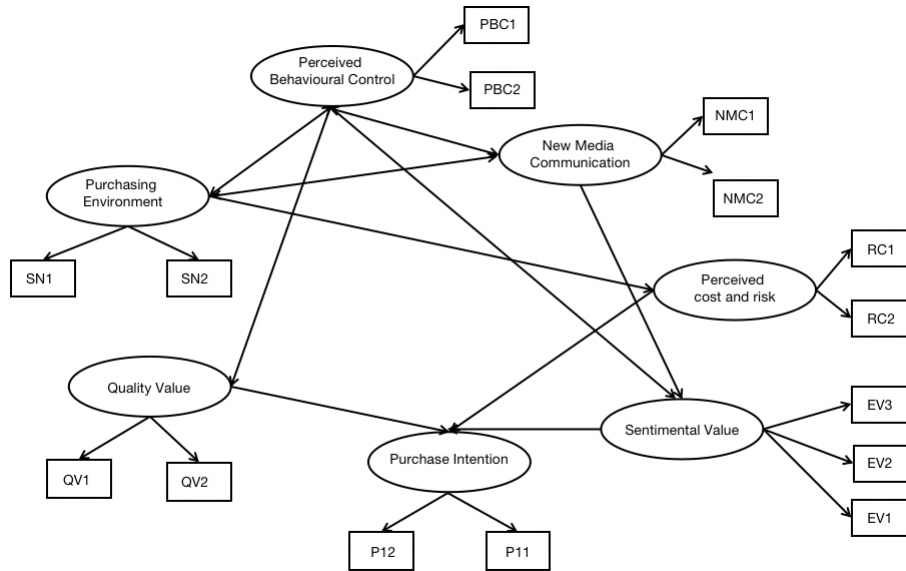


Figure 2 Revised Model of Network Consumption Structure Equation for Agricultural Products.

In the absolute fitting index, the CMIN/DF value is 1.358, which is significantly lower than the standard value of 3, the GFI is 0.905, which is greater than the required 0.9 for structural equation modeling, and the RMR value is 0.44, which also reaches the safe range of less than 0.5; In the relative fitting index, CFI is 0.984, NFI is 0.942, and TLI is 0.976, all exceeding the minimum standard value of 0.9. CFI and TLI are close to 1. Overall, the modified model has a good fitting effect with the measured data. The fit effect data are summarised in Table 6.

Table 6 Revised Model Fit.

Type	CMIN/DF	RMR	GFI	CFI	NFI	TLI
Value	1.358	0.044	0.905	0.984	0.942	0.976

Hypothesis verification of structural equation modeling

(1) Verification hypothesis: The new media communication of agricultural product merchants has a positive impact on the emotional value experienced by buyers.

The standard estimated value is 0.581, the C.R. value is 3.253, and the P-value is 0.001, indicating that the hypothesis has passed the test. That is to say, the more effective it is for agricultural product online stores to use new media to disseminate advertisements, the more it can motivate consumers and enable them to have a comprehensive and profound understanding of agricultural product quality, price, packaging, brand, and other information. Consumers will experience greater emotional value throughout the entire purchasing process.

(2) Verification hypothesis: Consumer's own perceived behavioral control positively affects the emotional value experienced by the buyer.

The standard estimated value is 0.374, the C.R. value is 2.143, and the P-value is 0.032,

indicating that this path has passed the test and the hypothesis is valid. The buyer's behavioral control can have a positive impact on emotional value. The more experience, knowledge, and resources consumers have in online purchasing of agricultural products, the less obstacles they encounter during the purchasing process, and the greater the emotional value they perceive.

(3) Verification hypothesis: Consumer's own perceived behavioral control positively affects the quality value experienced by the buyer.

The standard estimated value is 0.978, the C.R. value is 13.656, and the P-value is displayed as * * *, indicating that this path has passed the test. The hypothesis is valid, and behavioral control can have a positive impact on quality value. It can be understood that the more experience, knowledge, and resources consumers have in online shopping of agricultural products, the less obstacles they encounter during the purchasing process, and the greater the quality value consumers measure in the purchasing decision-making process.

(4) Verification hypothesis: The negative impact of the purchasing environment accepted by consumers on the perceived risk and cost of the buyer.

The standard estimated value is 0.568, the C.R. value is 4.469, and the P-value is displayed as * * *, indicating that the path has passed the test and the hypothesis is valid. The more the group around consumers supports or actively promotes online shopping of agricultural products, the lower the perceived risks and costs for consumers.

(5) Verification hypothesis: Consumer perceived risk and cost have a negative impact on the willingness of buyers to consume agricultural products online.

The standardized estimated value is 0.331, the C.R. value is 3.793, and the P-value is displayed as * * *, indicating that the path has passed the test and the hypothesis is valid. The more consumers feel that purchasing agricultural products online will cause personal information leakage, higher payment risks, and no definite guarantee for returns and exchanges. That is, the greater the risk and cost they feel, the lower their willingness to purchase agricultural products online.

(6) Verification hypothesis: The quality value experienced by consumers positively affects the willingness of buyers to consume agricultural products online.

The standardized estimated value is 0.407, the C.R. value is 3.351, and the P-value is displayed as * * *, indicating that the path has passed the test and the hypothesis is valid. This indicates that the better the quality, packaging, or price of agricultural products purchased through the internet, the greater the perceived quality value, and the stronger the consumer's intention to consume agricultural products online.

(7) Verification hypothesis: The emotional value experienced by consumers positively affects the willingness of buyers to consume agricultural products online.

The standardized estimated value is 0.276, the C.R. value is 2.087, and the P-value is 0.037, indicating that the hypothesis is valid after testing. It can be understood that the more consumers feel the high efficiency, ease of operation, and strong interactivity of the agricultural product online shopping system throughout the entire purchasing process, the greater the emotional value they feel, and the greater their willingness to implement online shopping behavior. The path test coefficients are summarised in Table 7.

Table 7 Standardized Path Estimation Values.

	Path name		Path estimation value
Emotional value	<---	New media communication	0.581
Emotional value	<---	Perceived behavioral control	0.374
Quality value	<---	Perceived behavioral control	0.978
Perceived risk and cost	<---	Purchase environment	0.568
Purchase intention	<---	Perceived risk and cost	0.280
Purchase intention	<---	Quality value	0.490
Purchase intention	<---	Emotional value	0.294
QV1	<---	Quality value	0.918
QV2	<---	Quality value	0.886
PI1	<---	Purchase intention	0.862
PI2	<---	Purchase intention	0.872
EV2	<---	Emotional value	0.869
EV3	<---	Emotional value	0.878
EV1	<---	Emotional value	0.888
RC1	<---	Perceived risk and cost	0.914
RC2	<---	Perceived risk and cost	0.676
NMC1	<---	New media communication	0.939
NMC2	<---	New media communication	0.865
SN1	<---	Purchase environment	0.803
SN2	<---	Purchase environment	0.800
PBC2	<---	Perceived behavioral control	0.791
PBC1	<---	Perceived behavioral control	0.872

5 Countermeasures and suggestions

5.1 Research conclusion

After model validation, consumers perceive that the quality value of agricultural products, such as quality, packaging, and price, is positively influenced by their mastery of online experience and cognition. The emotional value perceived by consumers in receiving online platform services, such as perceived usefulness, perceived ease of use, and perceived interactivity, is positively influenced by their resource capacity, the strength and scope of online promotion by merchants, The perceived risk and cost of consumers are negatively affected by the level of support from their social circle for online purchasing of agricultural products. The above conclusion reflects the influence path of precursor factors on transitional value. When verifying the effect of transitional value on willingness to act, it is concluded that the quality value and emotional value experienced by online shoppers will positively affect

their willingness to purchase agricultural products online, while the risks and costs perceived by buyers will negatively affect their willingness.

5.2 Suggestions for countermeasures

Strengthen the new media dissemination of online merchants. By leveraging the communication advantages of websites, social media platforms, and live streaming platforms, we can stimulate consumers' willingness and actions to purchase agricultural products through the internet in terms of visual and auditory aspects. For example, we can open WeChat mini programs and Weibo accounts to update the cultivation, picking, transportation, and other processes of a certain agricultural product in a timely manner. We can also penetrate brand concepts to attract and consolidate consumers; Or live broadcast the actual situation of agricultural products through Tiktok, Kwai and other applications, and introduce the logistics and payment methods in detail, which is easier to enhance the quality value experience of consumers and reduce the perceived risk of agricultural tea buyers. While spreading on the platform, attention should be paid to achieving precise marketing and utilizing the advantages of new media to timely match consumer favorite agricultural products to corresponding audiences.

Enhancing the emotional value of website settings. Secondly, agricultural product online merchants should strengthen their website and page settings to ensure that consumers can search for the agricultural products they want to purchase in a short period of time, ensure that the entire purchasing process is simple and easy to operate, and provide 24-hour online Q&A by online store staff. For example, the image recognition function can be set up, so that as long as consumers scan the actual product, they can obtain detailed information and purchase entry points on a certain website or mini program; At the same time, pop-up tags can be set up to guide first-time users, and special areas for communication and exchange between consumers and sellers can be set up; In addition, the staff of online agricultural product sales merchants should provide pre-sale recommendations, in sales Q&A, after-sales support and other services to minimize the obstacles consumers encounter when purchasing agricultural products through new media channels, narrow the gap in experience with offline purchasing of agricultural products, and thereby enhance consumers' perceived usefulness, ease of use, and interactivity.

Reduce perceived risks and costs for consumers. We should continuously strengthen the supervision and rectification of the new media sales industry, and increase efforts to ensure the quality and safety of agricultural products, online transaction processes, and logistics and shipping supervision. We should collaborate with companies engaged in agricultural product production, supply, and sales to form a full supply chain management system. Based on big data technology, we can manage information from various links and achieve seamless integration. This not only enables businesses to trace products and transactions, but also provides consumers with a more transparent agricultural product flow route and transaction information; At the same time, online sales merchants should strengthen the quality standards of agricultural products for supply enterprises, and reasonably use methods such as cost oriented pricing, demand oriented pricing, and competition oriented pricing to set prices.

5.3 Research outlook and shortcomings

Research Outlook. Although scholars have explored diverse conceptual models in the field of agricultural product consumption, there is relatively little research on combining agricultural product purchases with new media channels, and more of it focuses on the sales and dissemination of agricultural products, qualitatively analyzing the marketing models and promotion methods of agricultural product e-commerce; Some scholars have also tested the direction and magnitude of the effects of various factors on online agricultural product consumption through logistic regression models, and there are still a few scholars who use structural equation modeling to study this field. Identifying the intersection between agricultural product consumption and new media forms, and constructing a scientific structural equation model can more systematically depict the process scenarios of agricultural product consumption, is a development trend in this field of research. Leaving the scope of new media technology, with the further development of the information revolution, new information technologies such as 5G technology, artificial intelligence, and blockchain can also be combined with consumer purchases of agricultural products for research, thereby expanding the sales channels and scale of agricultural products and promoting agricultural development to keep up with the times.

Insufficient research. When constructing the model, the direct impact of precursor factors on the dependent variable was not considered, so there was a lack of path validation in terms of quality value, emotional value, and the impact of new media communication on purchase intention; Meanwhile, in the path where purchase intention affects purchase behavior, many scholars have confirmed that the stronger the willingness to purchase a certain product, the greater the likelihood of consumers implementing purchase behavior. This model has not delved into the moderating factors of this path, which is also an area that needs to be supplemented.

References

- [1] Zeithaml V A. Consumer Perceptions of Price, Quality, and Value: A Means-end Model and Synthesis of Evidence [J]. *Journal of Marketing*, 1988, 52 (3): 2-22.
- [2] Michael Porter. *Competitive advantage* [M] Translated by Chen Xiaoyue Beijing: Huaxia Publishing House, 2005: 34-36.
- [3] Woodruff R B. Customer Value: The Next Source for Competitive Advantage [J]. *Journal of the Academy of Marketing Science*, 1997, 25 (2): 139-140.
- [4] Wang Qiwan *Research on Integrated Marketing Communication Based on Customer Perceived Value Orientation* [M] Xuzhou: China University of Mining and Technology Press, 2013: 19, 26-27.
- [5] Wang Wei. Research on the influencing factors of online shopping willingness of fresh agricultural products consumers in chain enterprises [J]. *Public Investment Guide*, 2018 (19): 207-208.
- [6] Wang Yuzhen, Xu Xiaoyun. Analysis of Factors Influencing Consumer Satisfaction with Online Shopping of Fresh Agricultural Products [J]. *Journal of Applied Functional Analysis*, 2017,19 (03): 323-329.
- [7] W. Yang and Y. Liu, "Research on Purchase Intention of Fresh Agricultural Products Based on TAM Model in Pre-sale Mode," 2021 2nd International Conference on E-Commerce and Internet

- Technology (ECIT), Hangzhou, China, 2021, pp. 302-309, doi: 10.1109/ECIT52743.2021.00071.
- [8] Liu X, Kao Z. Research on influencing factors of customer satisfaction of e-commerce of characteristic agricultural products[J]. *Procedia computer science*, 2022, 199: 1505-1512.
- [9] Zheng, Shi, et al. "Enhancing Sales of Green Agricultural Products through Live Streaming in China: What Affects Purchase Intention?." *Sustainability* 15.7 (2023): 5858.
- [10] Guo J, Hao H, Wang M, et al. An empirical study on consumers' willingness to buy agricultural products online and its influencing factors[J]. *Journal of Cleaner Production*, 2022, 336: 130403.
- [11] Gong Yingmei, Zhang Lei, Liu Junbo A Study on Situational Factors Influencing Online Customer Purchase Intention of Agricultural Products: A Mediating Effect Based on Customer Trust [J]. *Journal of Chongqing University of Technology (Social Sciences)*, 2019, 33 (02): 56-68.
- [12] Cang Y, Wang D. A comparative study on the online shop** willingness of fresh agricultural products between experienced consumers and potential consumers[J]. *Sustainable Computing: Informatics and Systems*, 2021, 30: 100493.