

The Dilemma of Live Streaming Economy from the Perspective of Digital Divide

— Taking Huangshaping as an Example

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Abstract: Tiktok is a very popular streaming video media that is popular with many Chinese viewers. The Chinese government is currently promoting the policy of rural revitalization. With the advancement of internet technology, more and more villagers are promoting their hometowns through short videos and live streaming video, and using them to sell their agricultural products. However, there are many drawbacks to this, such as poor information and literacy level make it more challenging to promote their videos. Through qualitative and quantitative research methods, this research examines factors affecting the effectiveness of the rural area broadcasting economy from some specific perspectives. In this research, data analysis and interviews are both included. The results have shown that the long-term existence of this vicious cycle of low illiteracy and low quality of agricultural goods will have a negative impact in the long run.

Keywords: digital divide, streaming video, information failure, literacy level

1. Introduction

As society enters the Internet age, when you walk around town, you will find people carrying cell phones. Villagers browse videos about Tiktok and Patron. This is becoming more and more common. Many people create their own self-release. As a result of ICT policy reforms since the early 1990s, the use of mobile services is increasing in low- and middle-income countries, while prices are falling, leading to a vibrant Internet ecosystem [1]. Supporting social connections between rural areas and older adults is critical to the survival of small rural communities [2]. Due to the limitations of potential connections in rural communities, information and communication technologies enable older adults in rural areas to build and deepen connections and enhance a sense of personal community [3]. The headline effect in Tiktok refers to the fact that certain topics or content take up a large amount of traffic resources, while other quality content receives less traffic or is not even recommended [4]. Most of the short videos that users watch on Tiktok rely on infomercial recommendations, and the algorithmic recommendation mechanism usually recommends a few short videos that have been tried by most users to a larger number of users. However, it is important to note that short videos with good play and completion rate data are not necessarily of high quality, and these data alone do not indicate whether these videos satisfy the personalized information needs that

overlap with recommendations. Since algorithmic recommendations recommend new content based on users' behavior when they are exposed to short videos, users are recommended a lot of content they like, gradually reducing the content they are not interested in, and they are exposed to a limited number of short video types. Users who are repeatedly exposed to the same type of content may lose interest in other areas of content, leading to stronger and stronger circles of identification and familiarity, and the formation of information silos.

Different Tiktok users in shooting video for rural areas, the main products for sale are agricultural products, mainly food-based goods. The live broadcast of agricultural products is mainly based on simple agricultural products to inform and introduce, live streaming is too direct and single [5]. In addition, the quality of agricultural products, production and the education level of the participants are also key reasons affecting the sales of agricultural products. Therefore, it is important to expand the capacity production and improve the villagers' cultural level for whether the sales of agricultural products in the form of short video can be Tiktok, and the content of the live broadcast itself can bring bad feelings to the audience. According to Tiktok's pushing method, it is difficult for such videos to get more viewers' attention.

Researchers around the world have studied the Internet information gap, and the gap between urban and rural areas in China is large, especially in the Internet era. In particular, rural education and agricultural production need more attention. Especially in some rural areas with low literacy levels, it is not only necessary to improve the production of agricultural products, but also to invite more talents to return to their hometowns to deliver information and technical support. This study focuses on a traditional village that is experimenting with online sales, through a combination of qualitative and quantitative analysis models and interview research methods. The goal is to study the issues regarding education level, product quality, capacity production and information gap through the typical case of Huangshaping village to provide reference for policy makers and grassroots workers.

2. Methodology

2.1. Research Design

This study uses both qualitative and quantitative analysis to investigate villagers in Huangshaping Village. The data were analyzed mainly through interviews and statistics of data, in-depth interviews with farmers who participated in Tiktok short videos, field visits to industrial parks to check the quality of agricultural products, and reference to villagers' profiles in Huangshaoping Village. The content for the research is to investigate topics like as education level, product quality, capacity production, and information gap using Huangshaping village as a case study.

2.2. Sampling

Before starting a study, a research paper must determine external validity, and this needs to start with a sample. In order to answer the question "who do you want to generalize to", the researcher is interested in generalizing to the specific group of people in the study. In theory, this paper hopes to sample all rural residents of Huangshaping Village in Phoenix County, but in this study, the theoretical population is the entire rural population of Qiangongping Township in Phoenix County, while the accessible population is only the residents of the three groups in the village. The mountainous areas of Hunan Province are vast, so the researcher tried to take a random sample, in order to get each part of the sampled subjects, the researcher had to sample many geographical areas in the mountainous townships, and after the researchers were selected, the study in this paper lasted for three years from field work and interviews. Starting from 2020, the researcher went deep into these areas, village committees, and visited households with the staff, and conducted.

In sampling, there are three major threats to external validity, because person, place or time are three possibilities of error [6]. Therefore, in this paper, we will make a good selection of cases before starting the study, such as villagers who participate in this study, have special characteristics, or villages have special characteristics, or cases with problems in sampling methods.

In the process of problem solving, in order to make this sample closer to the real situation, this paper uses random sampling instead of non-random sampling, so that the sample size can be increased, and at the same time the data can be richer and more convincing. After sampling, the study will try to involve as many respondents as possible in your study and try not to have a situation where they refuse to participate. This study uses language that the average person can understand and will not use too much written language. Also, it will require multiple repetitions of the sampling experiment to ensure the validity of the sample.

2.3. Measurement Phase

After the selection of survey respondents is completed, the measurement phase begins. At this point, observation and recording become critical. When conducting the survey, the researchers will conduct interviews. Over the course of three years, data and information on the village economy, the production of various agricultural products, farmers' income, and literacy levels are accessed. What are the reasons for leaving the village during the study about the short video economy, what subsidies or support are available in the village? How about something more attractive to young people? But if you want to go deeper into a certain point of view, then you need to accompany the interview and take notes of the interview. The interview allows the interviewee to explain his or her point of view more quickly and in more detail. The researcher has practiced the village committee before the beginning to get information about the whole village and take almost typical cases for face-to-face interviews.

The program required some simple adjustments at the time of the survey to reflect the local conditions in the locations this study had chosen. For example, the interviewees' ability to read and write is crucial, and considering the literacy level of the residents in the western mountainous areas, we try to read the interview questions aloud in order to accommodate those with limited literacy, and in the case of minority language areas, local residents are invited to be translators for the public renters. And we actively took notes throughout the interview process. This not only expands the sample, but also provides insight into the entire population. Whether people are willing to work with my point spread is a tough question. Even if the researcher does not intend to cause damage, respondents may be hesitant to answer questions due to time constraints, worry, fear, etc., perhaps resulting in an inadequate sample size. Telephone or mail interviews do not appear to be realistic options in the region due to the wide geographic area, the lack of fixed cell phones in households, and the cost of telephone calls to conduct the study. The focus of this study is on industry development and the use of short video accounts, so the questions asked by the questioners often focus on this area.

2.4. Attentions of the Research

In conducting this research, disruptive events had the potential to affect the validity of villagers' responses to questions, such as the epidemic of New Crown Pneumonia, which resulted in local village committees not being able to send out timely agricultural subsidies, insufficient income to purchase Tiktok traffic, the inability to conduct online courses in education, the summer cooling of agricultural yields, and most importantly, the inability of large-scale projects to enter the market. Individual changes, such as household income, which is greatly affected for many families in the context of the current epidemic in China, low production levels in township enterprises, and all traditional primary and secondary industries, the arrival of the epidemic will lead to lower

productivity and a drop in orders. Obviously, there is a social dimension to the changes here, all of which can make the answers relatively negative.

In the interview, when the interviewer throws out a question, they were not eager to continue the question first after the villagers or staff have answered. This is because the interviewee does not know how far he or she should go and sometimes simply answers to test you. If the villager or staff member pauses after the interviewer quickly picks up, the interviewer thinks the information you just provided is enough and they may have more information to say than they need to say. But if you remain silent, the interviewee may understand that you are still waiting for more answers from him and want to know more, and will continue to express it. Even if he has just finished, he will further express and restate what he means. When we communicate with the interviewee, we try to let them tell and restore the whole picture of the incident, and understand the context of the causes and consequences, in order to fully connect the interviewee's behavior, to know what happened to cause them to behave in this way, and what led to the subsequent development, and to dig out their needs and key points from it.

3. Results and Analysis

3.1. Results

After three years of field investigation and in the interview with Mr. Wu He Xian, a village cadre. We can find out. The overall villagers of Huangshaping Village although Huangshaping Village has two pillar industries. Peach and *Momordica grosvenori*. It is also a direction of their current short video promotion. The producers of the short video are also farmers of these two crops, one of whom is also a staff member of the village committee. By bringing the goods live on the internet, one of the villagers, has an annual income of about 30,000 RMB, while the other large farmer is less than 10,000 RMB. The literacy level of these two villagers is similar to that of the entire village of Huangshaping, which is not very high in terms of overall literacy and education. Some people are illiterate or have only elementary school education. 60% of the village's population is employed outside the village. It is mainly over 18 years old and under 55 years old. Fifteen percent of them work in the city, while the rest go to work in other provinces or other counties and cities. The areas where these young villagers mainly work are the more economically developed areas of China, such as the Yangtze River Delta and the Pearl River Delta. Their education level, 30% of the outworking population are college students, and among the college student group, 60% become civil servants, teachers, doctors, police officers, and 40% become managers of enterprises, all earning more than 100,000 yuan a year. However, most of the laborers who work outside the village have high school, junior high school, junior college or even elementary school diplomas, and they can only do some simple technical jobs, such as waiters, factory workers, welding masters, etc. Their annual income is around 60,000 to 70,000 RMB. It is also the main source of income for a family in Huangshaoping village. Those who work in the primary industry, almost all of them stay in the village, which accounts for about 40% of the population, and they are all older people and children. The main occupation of this population is farmer, they either go to the county to do odd jobs, or participate in the village's industrial projects, but also part of them is doing plantation. Because the volume of planting is relatively small, almost all of them are self-produced, and do not count in the village's, total economic volume, if they participate in the village's collective economic project of industry, the income is about 6,000 to 7,000 RMB per year, and the people in the village are mainly, primary and secondary school education and illiterate.

In the short video production, although Huang Shaping Village and Phoenix County, a cultural and travel media platform, there is cooperation signed and set up a promotional base, but limited by the village industry is not very large, *Fructus Momordicae* industry only developed 30 acres, 280 acres of peach industry, only more than 100,000 pounds, pears only 10,000 pounds, at the same time, the villagers involved in the short video project is older, the production of video content copy is more

traditional, and not Master, the present-day editing and editing release procedures, although these products have business licenses and test reports, but still did not reach, many customers expect. Audience platform is also restricted, the purchase of people almost the province, few people from outside the province to buy. Therefore, the main sales method is also temporarily changed to the mode of acquisition by entrepreneurs, able to have a total income of about 600,000 yuan. Although there are more earnings from working outside, from 2023, there will be some young college students of media majors joining the ranks of short video production, which can reduce the disadvantage of poor information.

3.2. Evaluation and Discussion

At present, China's economic development imbalance is prominent, and the phenomenon of urban-rural dual economy has become a prominent obstacle to the high-quality development of the rural economy [7]. Looking at the basic situation of Huangshaping village. Is a typical rural area, the problem reflected is also one of the many villages in China is a common phenomenon, the current situation is clearly reflected, the villagers with higher education level are going to work abroad, and as the education becomes higher and higher, the income they get every year, is also satisfactory, however, the people who make short videos and those involved in the primary industry are the same group of people, most of them Only middle school and high school education, and do not have a very high level of education, and from just the data, we can see that the income of people engaged in agriculture is even less than 10,000 yuan, through the live economy can only, at most, have an annual income of 20 to 30,000 yuan, which actually reflects some problems about poor information, education, and the production of agricultural products itself.

3.2.1. Diseconomies of Scale and Quality Concerns

Due to the relatively backward development of rural areas, the development of live e-commerce and agricultural economy faces many difficulties, such as imperfect facilities, lack of systematic management, uneven quality of agricultural products, lack of assurance of some quality, and inadequate logistics and distribution systems and service systems [8]. From some data of Huangshaping Village, we can conclude the following at present. The scale of agricultural products is not large enough, not enough to form a scale economy, in the sales economy, need a large number of goods as a guarantee, in the current situation in Huangshaping Village, the total production of peaches is only more than 100,000 pounds, this is not high enough capacity, in the sales strategy, entrepreneurs and villagers purchase of goods. These varieties also need to improve their quality, according to the proposed shake platform on the quality of goods, must have test reports and goods, production, business license and some other certificates, and if these information is still incomplete, e-commerce platform sales restricted to enter. Currently, the village has a simple test report and some, government and shopping platforms do not have the required certificates. At the same time, from their sales methods, through acquisition by entrepreneurs, or through simple Tiktok publicity, WeChat's purchase model can not accept the shopping platform supervision, but from the portrait of the audience groups and consumers are largely familiar with sales, 70% of the audience is village and provincial residents, and people from outside the province, such as anchor friends, to these people are mainly middle-aged and elderly. They also do not know much about online shopping and still buy goods in the traditional way.

Moreover, the platform requires a large amount of stocking, because the village's product volume could not reach the live sales volume. So it was not possible to break through the "comfort zone" and expand the sources of customers. In terms of quality assurance, far from relying on anchor advertising, the company needed to pass two documents, a test report and a production and operation permit, to

explain to consumers and shopping platforms that their products are fine. In this case, it is difficult to expand the customer base. To implement a new sales model, it is necessary to start with the essence of the product, economies of scale agriculture, to reach a quantity that can be sufficient to complete the sale, the expansion of production capacity is one of the necessary conditions, as in the process of mass production of agricultural products, ensuring the source of goods, the purchase of seedlings also reduce the cost of production. Thus, the increased production will allow more products to be sold, which will also provide the impetus for more farmers and home-grown farmers to generate income. At the same time, quality assurance is important to ensure stable sales over the long term. Chinese shopping platforms require users to upload their business licenses, production and operating permits for agricultural and sideline food products as well as timely and up-to-date test reports, fruit product tests, and facilitate access to shopping platforms, as well as consumer may be responsible for. This can increase their business reputation as well as re-purchase rates.

3.2.2. Problems Regarding the Video Production

From the perspective of live-streaming anchors, due to the lack of deep excavation of the cultural connotation of agricultural products and brand identity image creation, their products are difficult to highlight the distinctive characteristics and unique value in many agricultural products categories, and it is more difficult to make their products occupy a certain share in the fierce live-streaming market, which restricts the influence and repurchase rate of local agricultural products in the consumer group [9]. The village casters are older and also new to e-commerce. Therefore, they can only shoot simple videos based on their own ideas, and the content of the videos is limited to product introductions. In terms of population composition, only 30% of the village's students are university students, 60% of the population works outside the home, and few people return to their hometowns to engage in primary industry. And these farmers who remain in the village often do not know how to promote and introduce their products, and for a more other audience segment, the content they like is not well understood. from the background music, to the shooting angles, to the copywriting content, some of this is only suitable for the elderly and local people seem to be suitable, the viewing area is local and surrounding residents. Therefore, there is a need to improve and expand the capacity of the team by having as many younger teams and people with experience in online sales as possible to mentor and participate in the production. Currently, the village videos are at a low level and are limited to simple introductions of themselves and their personal lives. It will not gain the support of the younger group, needs some quality live business, better public relations skills, and a better time to buy some traffic products. In the future, Huang Shaping Village will invite some of the new media know or media professional college students to go home, rural brand and short video optimization. Especially in rural areas, ethnic minority areas, culture is very different from other areas, the video should avoid homogenization, in addition to the introduction of agricultural products, can be through the dissemination of agricultural culture, ethnic culture, etc. Allow viewers to understand more intuitively the product and the background information behind the product.

3.2.3. Education and Information Failure

Differentiated behaviors based on data and algorithms can be used for precision push. Accurate pushing exists in a large number of digital news reports and information in the field of reading information, where platform companies or media organizations conduct covert data on readers' topic preferences, concerns and excitement, reading habits, etc., and then continuously The platform companies or media organizations collect hidden data on readers' preferences, concerns and excitement, and reading habits, and then continuously push similar articles and materials to them [10]. In the current situation, the massive popularity of Internet information has also made more residents

start using the Internet. Despite the daily routine of promoting hometown, introducing agricultural products and villagers through short videos, some industry insiders said that the current sales of agricultural products through short video window with goods sales model is also facing some impact. This article argues that the anchors are not highly educated, older, the video content is too simple, and many of the effects used in the videos are long outdated. When shooting videos, the role played by the anchor is that of a guide, who can objectively show the value of agricultural products and provide more information to the audience by vividly introducing their hometown, introducing agricultural farming culture, product features and advantages, etc. However, in reality, there are fewer short videos that can do the above requirements. Many videos receive low education because the creators do not know how to edit the video, including post-production, shooting, copywriting, etc. The content on the account is often homogeneous. Make people feel more outdated, most of the audience are villagers in the village and nearby villages, or people of the same level of education, mainly workers in the primary and secondary industries. And can not be extended to a larger audience, while the audience in urban areas, "entertainment videos are more likely to be loved by users" [4], especially young groups, hoping to get more diverse information, the algorithm recommendation mechanism can not recommend some audience narrow but high-quality content of short video to the corresponding user information flow.

In addition to this, education is an important reason for selling agricultural products in the village in the form of short videos. In its findings, the study mentions that the villagers are generally older and less educated, and the literacy rate in the village as a whole is low, referring to the fact that many rural villages in the world have been able to develop at a high quality level. Modernization of agriculture and technology is needed, and more qualified human resources are needed to achieve this. The low literacy rate is reflected to some extent in the showing of short videos, which may be viewed and liked by the same ethnic group. However, it is also true that it is difficult to roll out to the masses. The general lack of interest in education in the villages, weak students cannot get help in time, as can be seen from the majority of middle and high school education, they miss the opportunity to study in school and are very quickly in low paid high intensity jobs.

Talents are the first resource and an important driving force for economic and social development. Therefore, the effective implementation of rural revitalization strategy cannot be achieved without the high-quality talent support. In other words, China's rural economy must be supported by high-quality talents to achieve high-quality development. However, at this stage, the lack of composite high-quality talents has become the main obstacle facing the high-quality development of rural economy [11]. And the low literacy rate of bloggers leads to homogenization of live broadcasts in rural areas, there is a lot of imitation and plagiarism, giving a bad impression to the audience. It also affects the reputation of live broadcasting with goods. Now, what is needed in rural areas is to be able to have a cultural level, especially in the field of agricultural media and e-commerce college student talent, can gradually introduce new technology, new platforms to the village and promote the sale of traditional products to the wider market. In addition to introducing talents, the industrial structure of the village should be improved so that talented young people can have satisfying jobs and stable income in rural areas. For example, in the village of Huangshaping, the scale of agriculture needs to be expanded to allow for higher incomes through mass marketing.

According to the mechanism of Tiktok's algorithm, it will push the viewer's favorite video to each individual, if the literacy level of the video producer is not high, the production is not good enough, the copy is not creative enough, the content is not attractive enough, the occurrence of these phenomena but also often and literacy is not unrelated. After, systematic learning in college often makes them more knowledgeable, able to do a better job in e-commerce, they also tend to be more knowledgeable than people in the village, for they understand what the needs of the world outside the mountain are and are able to update their sales strategies in real time. Short videos in particular

require a combination of advanced filming techniques, slogans, and product enhancements. If the village staff does not care about the overall network market in the same way, then business will only get worse. The network market is changing rapidly, and the Village needs people who are educated and able to identify trends, and these people are a good choice. The specific challenge for the supply side is to analyze the big data market in detail and manage it well to establish data concepts and ideas. By doing so, anchors will have access to more data information at the right time, which will allow them to better understand the leading agricultural products and make it easier to introduce and promote their products. Thus, highly educated people who have access to a variety of market information and trends outside the village at university can provide timely feedback to the village to reduce information gaps, share the latest market conditions with villagers, and earn good incomes while keeping up with the times. However, the village council and government should provide welfare and assistance to these people who want to return to their villages, as they face difficulties that need to be resolved at the starting stage and they also need to ensure their quality of life.

4. Conclusion

Many villages have their own productions, such as Huangshaping Village, and with the constant development of Internet technology, each village has the opportunity to set up its own printing presses and post promotional materials. The opportunities for live broadcasts have also greatly expanded, and villagers are beginning to use Tiktok to promote their products, but the danger of malicious information still exists, and the possibility of villagers not being able to keep up with the general market and receiving too much information is not good for the presentation of agricultural products. and is not good for agricultural product promotion. This is something that should be quietly determined. First, the marketing of agricultural products must go back to the product itself, improve its quality, and obtain national inspection certificates and licenses. When building the whole team, more young professionals with high literacy skills are needed. They are the key to closing the information gap, and by analyzing a variety of data, they will be able to identify demand for specific products in a timely and accurate manner and adjust sales strategies in real time. The importance of young professionals is also reflected in the production of videos, even if they have a high number of views, with residents of nearby neighborhoods and people of similar age and culture, the population is boosted. Market expansion requires such human resources in a timely manner, and the way to apply and correct the trends of the times and solve these problems through education is to look back in history and see that Internet users were the only technicians, and with the spread of the Internet, everyone became an Internet user. The long-term existence of this vicious cycle of low illiteracy will have a negative impact in the long run. And the government must provide support, especially to the youth, while at the same time strengthening supervision of agricultural products and allowing farmers to boost their opportunities and sales.

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