Vol.7 Iss.4 2026
https://doi.org/10.37420/j.emr.2026.019

A Study on the Short Video Consumption Behavior of Left-Behind Rural Elderly under the Context of Digital Village Development—A Questionnaire Survey Analysis Based on Two Types of Rural Areas in Jiangxi

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Abstract
Based on rural survey data from Jiangxi Province, this study examines the short-video consumption patterns among left-behind elderly in pilot digital villages and non-digital villages. Comparative analysis reveals that elderly individuals in digital village pilot areas have advantages in mobile phone ownership, public network access, and regular digital training, resulting in significantly longer short-video viewing durations compared to those in non-digital villages. The primary needs of left-behind elderly in both types of villages for using short videos lie in emotional companionship and intergenerational communication, although their ability to discern information remains generally weak. Major barriers to short-video usage include false marketing, operational difficulties, and high data costs. Based on these findings, the paper offers insights from perspectives such as public service provision, platform adaptation for older users, and family-based collaborative support.

Keywords
digital countryside; left-behind rural elderly; short video consumption

1. Introduction

In recent years, the convenience of the internet has significantly increased and gradually expanded into rural areas and among elderly populations. The number of elderly internet users continues to grow, and short videos have become the primary way for rural seniors to access the internet. However, despite the rising number of elderly internet users in China, there remains a notable gap in digital usage between urban and rural areas, as well as across different regions. Jiangxi is a major agricultural province where large numbers of young and middle-aged people migrate to cities for work, leaving behind many elderly residents in rural villages. To pass the time, many of these left-behind elders use mobile short video apps, during which they are frequently

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exposed to digital consumption content such as live-streamed shopping and news advertisements. Our research shows that although rural internet infrastructure is continuously improving, the actual effectiveness of elderly users' short video engagement varies widely. Due to factors such as education level and limited life experience, some rural seniors can only watch videos passively and struggle to distinguish among complex advertisements. As a result, they are more likely to make impulsive purchases during live streams and face significant challenges when trying to protect their rights.

So far, researchers have primarily analyzed the psychological support role of short videos for left-behind elderly in rural areas from sociological and communication perspectives. However, studies from an economic standpoint—viewing short video usage as a form of digital consumption and comparing consumption patterns between elderly populations in digital villages and ordinary villages based on survey data—are relatively scarce. Moreover, from the perspective of digital village evaluation, government assessments currently focus mainly on hard indicators such as broadband and 5G coverage rates, while practical metrics like actual usage outcomes and consumption risks among left-behind rural elders are often overlooked.

Based on this, this paper employs primary survey data to conduct descriptive statistics, aiming to clarify and compare the basic conditions, needs, and risks of short video consumption among elderly residents in two types of villages. It analyzes the impact of digital rural development on digital consumption among rural seniors, thereby providing reference for governments to effectively implement digital rural policies and promote high-quality rural development.

2. Literature Review

Literature related to this article can be divided into three strands. The first is research on the inclusiveness of digital villages. Lu and Yang (2023) argue that current digital village development emphasizes hardware, yet there remains a significant gap in services tailored for elderly people. If attention is focused solely on hardware without considering the actual circumstances of left-behind seniors, the likelihood of their being digitally marginalized will be high. Rural digitization cannot rely solely on hardware investment; it must also address the genuine needs of older adults.

The second body of literature primarily focuses on the digital divide faced by older adults. Some studies point out that the digital divide encompasses not only access to mobile networks but also includes disparities in capability and psychological barriers. The heterogeneity in digital consumption experiences among left-behind rural elders is influenced by factors such as hardware availability, peer communication, and family support. However, mere access to hardware cannot overcome the differentiation caused by insufficient digital literacy.

The third study primarily examines digital consumption risks among the elderly. It finds that some left-behind rural seniors lack the ability to identify online information, showing particularly weak capacity to recognize and guard against health-related and agricultural input-related online content.

Distinguishing from previous studies, this paper treats the use of short videos by left-behind rural elders as a form of digital consumption behavior, and uses questionnaire data to compare differences between digital

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villages and non-digital villages in terms of digital infrastructure, consumption motivation, digital consumption capacity, and digital risks.

3. Survey Design and Data Description

Our survey participants are rural elderly individuals aged 55 and above, who have children working away from home for extended periods or living separately, located in three counties of Jiangxi Province—Ji'an, Wanzai, and Yifeng. These villages were divided into two groups: provincial-level digital countryside pilot villages and non-pilot villages.

A total of 650 questionnaires were distributed, with 466 valid responses collected, resulting in an effective recovery rate of 71.69%. Among these, 220 samples were from digital villages and 246 from non-digital villages. Additionally, we conducted face-to-face interviews with 12 left-behind elderly individuals and 2 village officials to record their authentic usage experiences, thereby verifying the questionnaire survey results.

The questionnaire consists of six main modules: personal and family information, hardware and network environment, digital literacy, short video usage needs, usage motivations, real-world barriers, and service demands. Some survey items use a five-point Likert scale, where 1 indicates "strongly disagree" and 5 indicates "strongly agree"; reliability meets the basic requirements for research. We primarily used SPSS software to conduct descriptive statistics, cross-tabulation analysis, multiple response analysis, and independent samples t-tests. The main sample analysis is shown in Table 1 below.

Table 1. Distribution of Sample Population and Household Characteristics (Unit: %)

Features	Category	Digital Village (n=220)	Non-digital villages (n=246)
Gender	Man	50.0	48.0
Gender	Woman	50.0	52.0
Age	55–60 years old	30.9	17.9
Age	61–68 years old	34.1	37.0
Age	69–75 years old	21.4	27.6
Age	76 years and older	13.6	17.5
Educational background	Illiterate / Never attended school	15.0	28.9
Educational background	Elementary school	38.2	52.4
Educational background	Junior high school and above	46.8	18.7
Stay-behind mode	Living alone	20.9	24.4
Stay-behind mode	Just the two of them, husband and wife	43.6	48.4
Stay-behind mode	Caring for grandchildren	35.5	27.2
Children's annual companionship	Less than 3 months	78.2	73.1

Note: Percentages are calculated based on valid samples within each group, and data have been organized using SPSS descriptive statistics.

The sample statistics show that the gender composition of the two groups is generally similar. However, in non-digital villages, the proportion of elderly individuals aged 70 and above and those with lower educational levels is relatively higher. Regarding household characteristics, over 70% of left-behind elders in both types

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of villages have less than three months of annual companionship from their children, indicating that the lack of children's presence is a common reality for this group.

4. Descriptive Statistics Results Analysis

4.1 Consumption Hardware Foundation and Short Video Usage Intensity

Table 2. Consumption Base Conditions and Usage Intensity (Unit: %)

Indicator	Category	Digital Village	Non-digital rural areas
Terminal	Own smartphone	68.2	46.3
Terminal	Children discard second-hand phones	21.8	40.7
Terminal	Feature phone / No mobile phone	10.0	13.0
Internet	There is no stable broadband available in the village.	0.0	8.9
Internet	Wi-Fi coverage throughout public areas	11.4	1.6
Training	Never conducted	17.3	82.1
Training	Two to three times or more per year	54.6	0.4
Duration	Within 30 minutes	11.8	24.4
Duration	30 minutes to 1 hour	30.0	32.1
Duration	1–2 hours	40.9	29.7
Duration	Over 2 hours	17.3	13.8

The data in Table 2 shows a significant gap between the two groups of rural left-behind elderly people in terms of hardware terminals, public network access, and digital training availability. The smartphone ownership rate among left-behind elderly in digital villages is 68.2%, compared to just 46.3% in non-digital villages—a considerable difference. Moreover, in non-digital villages, many elderly people use second-hand phones discarded by their children, which often suffer significantly reduced performance.

The most striking difference between the two types of villages lies in digital skills training. The survey found that 82.1% of non-digital villages have never provided digital training for elderly residents, compared to only 17.3% in digital villages—a gap of 64.8%. This disparity in digital training further widens the hardware gap: among left-behind elderly people living in digital villages, 58.2% watch short videos for over an hour daily, while in non-digital villages, the figure is only 43.5%.

The data shows that merely upgrading network hardware is insufficient to fully unlock the potential of elderly users in short video consumption; digital training and guidance are equally important. During interviews, village leaders also mentioned that although the village has relatively advanced internet infrastructure, due to a lack of reliable digital training, elderly residents often have no choice but to wait for their children to return home when encountering operational difficulties.

4.2 Comparison of Consumption Demand Structure

Table 3 Means of Consumer Demand Dimensions and Between-Group Tests

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Demand Dimension	Digital Village Average	Non-digital rural average	P value
Intergenerational communication	4.15	3.99	0.028
Emotional comfort	3.90	3.78	0.112
Leisure and Entertainment	3.45	3.40	0.593
Agricultural product e-commerce	3.48	2.54	0.655
Policy Acquisition	3.31	3.00	0.002
Convenient Services	3.30	3.31	0.092
Agricultural Technology Learning	2.83	3.00	0.163
Self-expression through creation	2.48	3.11	0.061

At the top of Table 3 are intergenerational communication (4.15 vs. 3.99) and emotional comfort (3.90 vs. 3.78), followed closely by leisure and entertainment; transactional needs all fall below 3.5 points. This ranking itself is a conclusion: for these elderly users, short videos are primarily a channel to "see their children," while shopping, price comparison, and selling agricultural products are merely incidental.

Here is a figure that can be easily misinterpreted. The digital rural score for agricultural e-commerce stands at 3.48, compared to 2.54 for non-digital rural areas, with a mean difference of nearly one point—appearing significant. However, the p-value is 0.655, failing to pass the inter-group difference test, indicating this gap stems from a small number of elderly individuals with high willingness and does not reflect the general needs of most people. Similarly, self-expression through digital creation scores lower in digital rural areas (2.48) than in non-digital ones (3.11), with p=0.061. This should not be interpreted as "elderly people in digital villages dislike expressing themselves." The main reason likely lies in the fact that older adults in digital villages, having greater exposure to the internet, are more aware of the difficulty involved in filming and editing, making them hesitant to try it themselves. Overall, elderly individuals in both types of villages tend to consume content created by others rather than produce their own.

Policy access (3.31 vs. 3.00, p=0.002) was the indicator showing a genuine difference between the two groups of villages. Although the score itself was not high, the inter-group disparity was striking, suggesting that after improvements in internet infrastructure, the needs of elderly villagers left behind gradually shifted from "passive observation" to "information seeking," transitioning from passive to active engagement.

4.3 Digital Consumption Capacity (Digital Literacy)

Table 4 Mean Scores and Group Comparisons of Sub-dimensions of Digital Literacy

Sub-dimension	Digital Village	Non-digital rural areas	P value
Operational capability	3.60	3.18	0.000
Help needed with a question	3.51	3.30	0.035
Device Settings	3.30	2.95	0.001
Information Retrieval	3.03	2.64	0.000
Information Verification	3.05	2.80	0.000
Composite average	3.30	2.97	0.000

The mean digital literacy scores for the two groups of elderly individuals were 3.30 and 2.97, respectively, with a between-group difference significant at P = 0.000. Furthermore, when examining individual components, elderly residents in digital villages consistently scored higher than those in non-digital villages, with

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advantages ranging from 0.2 to 0.4 points, and all differences between groups were statistically significant.

Analyzing the two indicators—operational skills and information discernment—the difference in operational ability between the two groups of elderly people was 0.42, while the gap in information discernment was only 0.25 points. This suggests that although digital villages have invested more in training and network infrastructure, significantly improving seniors' operational proficiency, their ability to discern information has improved only slightly compared to those in non-digital villages. During interviews, left-behind elders could easily recall the content of recent health-related short videos, but when asked whether such content was reliable, they often responded, "They explained it well." This indicates that regardless of the type of rural area, elderly individuals still need further improvement in their ability to evaluate and distinguish information.

4.4 Consumption Barriers and Risk Conditions

Table 5 Use of barriers to multiple response statistics (Unit: %)

Obstacle items	Digital Village	Non-digital rural areas
False advertising and fraudulent information—can't trust them.	24.0	22.6
Limited literacy and inability to type	19.1	22.4
High data charges make it hard to use.	20.7	16.3
Few training opportunities and no one to help when problems arise	18.2	18.2
Looking at screens for too long harms your eyes and takes a toll on your body.	17.4	19.3
No significant difficulties exist.	6.0	1.2

Table 5 shows that 24.0% of elderly people in digital villages are concerned about false advertising and fraud, slightly higher than the 22.6% in non-digital villages. Normally, better-conditioned villages should have lower risks, but here the opposite is true. This can be explained by referring back to sections 4.1 and 4.3: 58.2% of people in digital villages watch for over one hour, 14.7 percentage points higher than in non-digital villages, while their ability to discern misinformation only exceeds the other group by 0.25 points. The longer they watch, the more frequently they encounter live-stream promotions and health product advertisements, yet their ability to recognize these as deceptive does not keep pace—thus increasing their vulnerability. During interviews, village officials mentioned cases where elderly villagers had believed short video ads and purchased health supplements.

The remaining items point to different types of shortcomings. Literacy difficulties are 3.3 percentage points higher in digital villages, consistent with their relatively high illiteracy rate; however, data fees are actually 4.4 percentage points higher in digital villages (20.7% vs. 16.3%), and public WiFi coverage is only 11.4%. Residents still have to pay for data when watching videos daily, and elderly people, reluctant to incur costs, often use neighbors' networks instead—yet the pilot identity does not eliminate this expense.

The only two options that were equally balanced were "limited training and no one to help when problems arise," both at 18.2%, indicating no difference between the groups. This suggests that the lack of offline support is a shared issue for both types of villages, regardless of their level of digitalization. The demand also centers on this point: elderly residents need more anti-fraud education and regular classes. One elder put it directly: "Teaching me how to spot scams is more useful than teaching me how to click."

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5. Research Findings and Implications

The conclusions of this paper are as follows:

First, the development of digital villages has significantly improved rural seniors' access to hardware and public services for using short videos, thereby increasing their usage intensity. However, this hardware advantage has not automatically translated into enhanced resilience against consumption risks.

Second, elderly individuals left behind primarily use short videos for emotional and social needs, with transactional demands taking a secondary position; only after external conditions improve will instrumental needs such as accessing policy information or agricultural news gradually emerge.

Third, there is a structural gap in digital literacy; while basic operational skills can be improved through training, the inability to identify false marketing information cannot be easily resolved simply by expanding internet access.

Fourth, both types of villages face their own challenges: non-digital villages are mainly constrained by lack of training and insufficient public network infrastructure; digital villages must deal with the risks of live-streaming consumption caused by elderly users spending more time online.

The insights gained are as follows:

From a government management perspective, evaluations of digital rural development should not focus solely on hardware indicators such as broadband coverage and smartphone ownership. Instead, metrics like elderly participation in digital training and the effectiveness of anti-fraud awareness campaigns should also be included in assessment criteria. Moreover, digital training for seniors should go beyond teaching basic phone operations; it is more important to incorporate content on identifying fake advertisements and preventing fraud.

From a market perspective, short-video platforms should implement age-friendly modifications tailored to elderly rural residents left behind, rather than simply applying models designed for urban seniors. Given that rural elders often have lower literacy levels and are more susceptible to emotional marketing tactics, features such as consumption alerts specifically for older rural users could be introduced.

At the family and community levels, it is important to actively leverage the roles of families and communities by encouraging children to provide digital support at home. Villages can also appoint dedicated personnel to offer digital assistance, helping elderly individuals who are advanced in age or live alone.

Funding

Jiangxi University of Water Resources and Electric Power College Student Innovation Training Program(202611319017), Corresponding author:He Xiangmin.

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References

[1] Lu Jiehua, Yang Qiqi. Interaction at Fingertips: An Exploration of Rural Elderly People's Use of Short Videos and Social Integration [J]. Journal of Guizhou University for Nationalities (Philosophy and Social Sciences Edition), 2023 (06): 51-68.

[2] Shen Feiwei, Du Fang. Inclusive Governance of Elderly Participation in Digital Rural Development [J]. Journal of Hangzhou Normal University (Social Sciences Edition), 2022, 44(01): 103-111.

[3] Pei Yuanyuan. A Study on the Short Video Usage Behavior of Rural Elderly Population from the Perspective of Digital Divide [D]. Beijing Institute of Graphic Communication, 2024.

[4] Zhu Hui, Wang Shuyan. Rural Digital Intelligence: A New Driving Force for Rural Elderly Care Services in the 15th Five-Year Plan Period [J]. Journal of China Agricultural University (Social Sciences Edition), 2026, 43(02): 86-101.

[5] Qiu Dandan, Chen Ji. "Digital Myth" of Rural Elderly Living Alone in the Context of Healthy Aging [J]. Journal of Kunming University of Science and Technology (Social Sciences Edition), 2026, 26(02): 5462. -

[6] Dong Shuhua, Xia Yingjie. A Study on Characteristics, Barriers, and Solutions to Digital Reverse Support in Rural Households [J]. Journal of Zhejiang Sci-Tech University (Social Sciences), 2024, 52(03): 314-321.

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