

THE IMPACT OF THE DIGITAL DIVIDE ON THE CONTENT ENTREPRENEURIAL BEHAVIOR OF FARMERS IN GUANGXI, CHINA

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ABSTRACT

This paper aims to examine the impact of the digital divide on farmers' content entrepreneurial behavior in Guangxi, China, and its mechanism of action by dividing the digital divide into four categories based on the UTAUT model: the access divide (physical access to ICT), the online learning ability divide (ICT mastery and information processing power), the capability divide (self-efficacy in using ICT), and the innovativeness divide (willingness to change and try any new ICT). By using a mixture of quantitative and qualitative research with survey data on farmers' content entrepreneurial behavior in Guangxi, China, this study aims to reveal the impact of the digital divide on the economy and society and to understand the determinants of farmers' content entrepreneurial behavior. This will provide a theoretical basis for the formulation of relevant policies and contribute to high-quality economic development.

Keywords: Access divide, Online learning ability divide, Capability divide, Innovativeness divide, Content entrepreneurial behavior

Research background

In the post-pandemic era, the international landscape is experiencing profound changes and the global system is undergoing significant adjustments. Faced with this evolving international situation, China is committed to promoting a dual-cycle development pattern, both domestically and internationally, accelerating the transformation of its economic development mode, and enhancing its ability to manage risks. Entrepreneurship is a key driver of national economic development and is seen as the "new engine" behind China's economic miracle (Li & Jiang, 2015).

The rapid development of information and communication technologies and the digital economy have brought about profound changes in the allocation of production factors, social governance models, and industrial structures. They have also built a new development model centered on networks, data, and platforms, which has injected new impetus into rural revitalization.

The development of the digital economy has given rise to many new forms of employment that are "de-employerized", such as online live shoppers. WeChat Official Accounts have sparked a wave of content entrepreneurship. The diversified development of business models has created significant survival space for the continuous growth of the content industry (Zheng et al., 2020). The emergence of self-media platforms such as Douyin and Kuaishou has lowered the threshold for people to participate in content creation. Some farmers have also started self-creation after farming, and some have obtained additional income through high-quality content creation. All of these developments provide new opportunities for farmers to start their own businesses in the digital age.

Problem statement

Although many farmers in China's rural areas already have access to network terminals such as smartphones, there is still a significant portion of the population who lack the necessary ICT application skills to fully utilize regular network functions such as information search, reservation booking, and online shopping. This lack of technological ability creates a barrier, preventing everyone from fully enjoying the benefits of the

information dividend brought by ICT.

Based on the category of content entrepreneurship, the digital divide may have a significant impact on farmers' content entrepreneurial behavior, especially as data resources and digital information technology become increasingly important. On one hand, the development of information and communication technology has lowered the threshold for farmers' content entrepreneurship and provided more operational feasibility for farmers' content entrepreneurs. This has led to a rapid increase in the number of farmers' content entrepreneurs and further diversification of content entrepreneurship forms, with many users becoming accustomed to various content provision models. On the other hand, the uneven distribution of information and communication technologies across regions and among farmers, as well as differences in their ability to use these technologies, have created a gap in the process, which "excludes" some farmers from the achievements of the digital economy. This limits the fair distribution of digital opportunities and digital dividends and in turn hinders the healthy and sustainable development of the economy and society.

Existing literature has accumulated academic research on the factors influencing farmers' entrepreneurship, with a focus on the impact of digital information technology such as the Internet, mobile payment, and e-commerce on farmers' entrepreneurship (Shi & Wang, 2017; Zhou & Fan, 2018; Wang & Li, 2017; Yin et al., 2019). However, there is currently a lack of research on the relationship between the digital divide, content entrepreneurial intentions, and content entrepreneurial behaviors in academic circles. Additionally, there is no research on whether farmers' content entrepreneurial intentions have a certain impact on the behavior mechanism.

Research questions

This paper integrates two perspectives, content entrepreneurial intention and content entrepreneurial behavior, and explores the internal mechanisms of the digital divide's impact on farmers' content entrepreneurial behavior in Guangxi, China, using a mixed quantitative and qualitative research approach. The specific research questions can be summarized into the following four aspects:

- (1) What are the four dimensions of the digital divide in this study, and how were they determined?
- (2) What is the precise impact of the digital divide on farmers' content entrepreneurial behavior in Guangxi, China? Moreover, which dimension of the digital divide has a greater impact on farmers' content entrepreneurial behavior?
- (3) What are the dimensions of the digital divide that affect farmers' content entrepreneurial intentions, and thus their content entrepreneurial behaviors in Guangxi, China?
- (4) What is the mediating variable, content entrepreneurial intention, between the digital divide and the content entrepreneurial behavior of farmers in Guangxi, China? Additionally, what kind of mediating role does it play (partial mediator/complete mediator)?

Research objectives

- (1) To identify the conceptual sources and research scope of the online learning ability divide, capability divide, and innovativeness divide on social cognitive theory, innovation diffusion theory, and learning ability.
- (2) To create a model of the relationship between the digital divide and content entrepreneurial behavior based on the Unified Theory of Acceptance and Use of Technology (UTAUT) model and verify whether its path of action holds.
- (3) To investigate the logical relationship between the digital divide, content entrepreneurial intention, and content entrepreneurial behavior.
- (4) To verify whether content entrepreneurial intention has an influence on the mechanism of farmers' content entrepreneurial behavior.
- (5) To investigate the logical relationship between the digital divide, content entrepreneurial intention, and content entrepreneurial behavior.

LITERATURE REVIEW

Self-efficacy of social cognitive theory

Social Cognitive Theory (SCT) is a classic theory in education and social psychology that was proposed by American psychologist Bandura in the late 1970s and rapidly developed in the 1990s. SCT combines cognitive components with the traditional behaviorist personality theory, with its main components being triadic interaction determinism, observational learning, and self-efficacy.

Self-efficacy can have a positive or negative impact on an individual's actions and choices in their surrounding environment. People with strong and positive self-efficacy will work harder to overcome difficulties, whereas those with low self-efficacy may doubt themselves and give up easily. The digital capability divide proposed in this study pertains to individuals' self-efficacy in using ICT. Mariën & Prodnik (2014) argue that the digital divide is no longer based on digital devices or internet access, but rather on the digital skills of the user. Wei et al. (2011) propose that the "digital capability divide" refers to the inequality in IT capabilities, specifically the "ability to use IT technology," which is caused by the first digital divide and other environmental factors.

Computer self-efficacy, defined as an individual's judgment of their ability to use a computer to accomplish a specific task (Compeau & Higgins, 1995), plays a crucial role in the capability divide. When farmers who engage in content entrepreneurship have high self-efficacy in using ICT, they are more confident and more likely to engage in content entrepreneurial behavior. On the other hand, low self-efficacy in using ICT can hinder content entrepreneurial behavior.

Innovation diffusion theory

Rogers & Shoemaker (1971) proposed the Innovation Diffusion Theory in the 1960s to explain how the media can persuade people to accept an innovation.

Rogers & Shoemaker (1971) argue that the spread of new ideas, novelties, and products in the diffusion of innovation follows an 'S'-shaped curve. In the early stages, the number of adopters is small, and the rate of progress is slow. When the number of adopters expands to 10-25%, the rate of progress accelerates and the curve rises rapidly, resulting in the "take-off period." As the saturation point is approached, the progress slows down again, and the entire process resembles an 'S'-shaped curve. This 'S'-shaped curve occurs because some people adopt innovations earlier and persuade others to do the same, while others adopt them later.

Rogers & Shoemaker (1971) defined personal innovativeness and developed the concept to suggest that differences in personal innovativeness led to different consumer attitudes towards new technologies. Users who are more personally innovative generally accept innovations earlier. Personal innovativeness reflects an inherent, ongoing characteristic that users exhibit when confronted with innovative products.

In this study, the innovativeness divide refers to the personal innovativeness of the diffusion of innovation theory, which is the willingness of individuals to change and try out any new information technology.

Learning Power Theory

The study of online learning capabilities originated from the discussion of learning capabilities, and in 1965, Jay Forrester introduced the concept of the "learning organization," which led to the term "learning capabilities" (Cao et al., 2016).

Online learning has become a crucial form of education in the modern age. As a derivative of learning ability in the digital era, online learning ability incorporates both the traditional attributes of learning ability and the unique characteristics of online learners' activities. Online learning ability places a greater emphasis on information literacy and independent learning within the context of the online learning environment.

The online learning ability described in this study refers to the capacity to transform online resources into intellectual capital through the acquisition and synthesis of vast amounts of information in the online environment. Hu (2016) defined this as the online learning ability.

Unified Theory of Acceptance and Use of Technology

Venkatesh et al. (2003) proposed the Unified Theory of Acceptance and Use of Technology (UTAUT), which integrates various theories such as Theory of Rational Behavior (TRA), Technology Acceptance Model (TAM), Motivational Model (MM), Theory of Planning Behavior (TPB), Technology Acceptance Model combined with Theory of Planning Behavior (C-TAM-TPB), Model of PC Utilization (MPCU), Innovation Diffusion Theory (IDT), and Social Cognitive Theory (SCT).

The UTAUT model consists of four core variables: Performance Expectancy (PE), Effort Expectancy (EE), Social Influence (SI), and Facilitating Conditions (FC). Additionally, the model includes four moderating variables: Gender, Age, Experience, and Voluntariness of Use.

The UTAUT model is widely employed in research on user information technology acceptance across behavioral, sociological, and other disciplines. Venkatesh et al.'s (2003) research findings reveal that the UTAUT model integrates the constructs of predicting intention and behavior, leading to the model's explanatory power of 70% and more effectively explaining individuals' acceptance and use behavior of information technology. Presently, both domestic and foreign research on the application of the UTAUT model primarily concentrate on studies of information technology and system use intention, social media and system use intention, and consumer network willingness research.

In this study, content entrepreneurship is defined as a series of behaviors in which entrepreneurs utilize the existing material and human resources around them to publish high-quality content through internet platforms, with the aim of obtaining economic returns.

Content entrepreneurial behavior not only requires mastery of information and communication technology but also necessitates the exertion of subjective initiative on the part of the content entrepreneurs themselves.

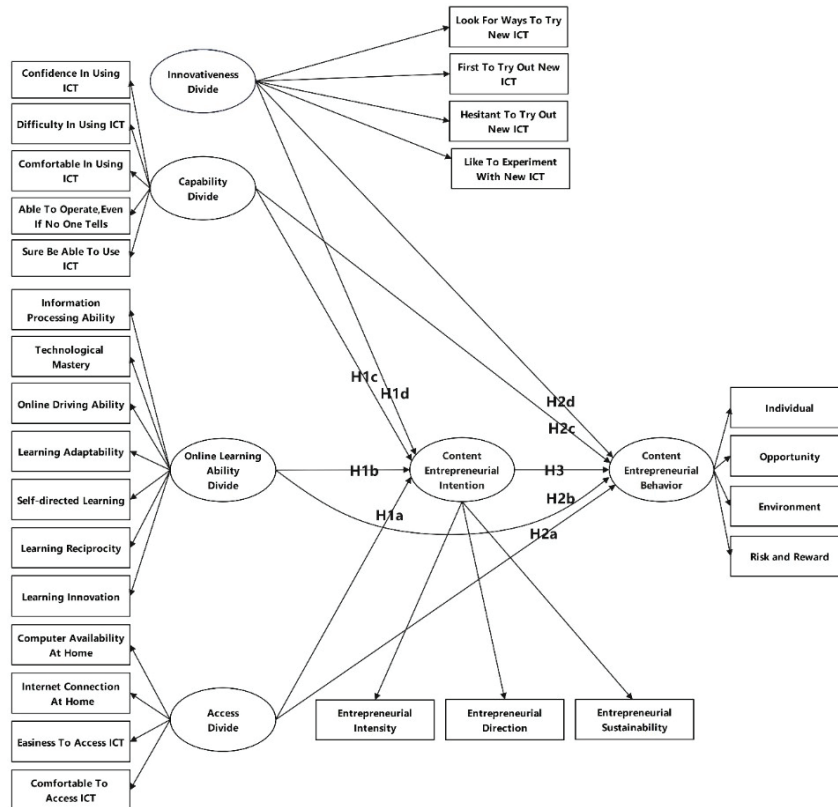
Thus, in the Chinese context, this study divides the digital divide into four dimensions: access divide, online learning ability divide, capability divide, and innovativeness divide.

Finally, the four core variables of the UTAUT model - convenience, social influence, effort expectation, and performance expectation - were respectively replaced, and a content entrepreneurial behavior influence relationship model was constructed with content entrepreneurial intention as an intermediary variable, to explore the impact on farmers' content entrepreneurial behavior.

Theoretical framework

This study is based on the UTAUT model and divides the digital divide into four categories: access divide (physical access to ICT), online learning ability divide (ability to master ICT and process information), capability divide (self-efficacy in using ICT), and innovativeness divide (willingness to change and try any new ICT). The study focuses on farmers in Guangxi, China and uses survey data on their content Entrepreneurial behavior, supplemented by content Entrepreneurial intention as a mediator variable. The study uses a mixed quantitative and qualitative approach to examine the impact of the digital divide on content Entrepreneurial behavior among farmers in Guangxi, China, as well as its underlying mechanisms.

Figure 1 Conceptual Framework



RESEARCH METHODOLOGY

By using a mixture of quantitative and qualitative research with survey data on farmers' content entrepreneurial behavior in Guangxi, China, this study aims to reveal the impact of the digital divide on the economy and society and to understand the determinants of farmers' content entrepreneurial behavior. This study's mixed-method approach is known as a sequential mixed-method design.

DISCUSSION AND CONCLUSION

This paper integrates two perspectives, content entrepreneurial intention and content entrepreneurial behavior, and explores the internal mechanisms of the digital divide's impact on farmers' content entrepreneurial behavior in Guangxi, China, using a mixed quantitative and qualitative research approach.

- (1) Enrich the measurement methods of the digital divide, and provide new ideas for measuring the digital divide of farmers' content entrepreneurial behavior.
- (2) Provides a reference for scholars to pay attention to the influence of the digital divide and expand research content in the field of entrepreneurship when they carry out research related to the field of entrepreneurship in the future.
- (3) Help farmers rationally evaluate and proactively solve the digital divide they face. Guide farmers to actively learn and use information and communication technology, so that farmers can increase their income and sense of gain while enjoying digital dividends.
- (4) It will help the government understand the difficulties faced by farmers in entrepreneurship and formulate targeted support policies for entrepreneurship.

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