Research Paper: Factors Affecting Digital Entrepreneurship with the Approach of Sustainable Rural Development in Rural Areas of Iran

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ABSTRACT

Purpose: Many countries see digital entrepreneurship as central to economic growth, job creation and innovation. Digital entrepreneurship is one of the new opportunities to create new investments and transform existing businesses by developing new digital technologies. Due to being environmental-friendly, this emerging phenomenon provides social and cultural participation of different members of society and is a suitable means for the sustainable development of rural areas. Therefore, this research aims to identify and prioritize effective factors in exploiting digital entrepreneurship opportunities in rural areas with a sustainable development approach.

Methods: This research was based on exploratory mixed methodology, including qualitative and quantitative. In the first part, conducting interviews with 17 researchers of rural development, rural planning and digital entrepreneurship, we identified the factors affecting the exploitation of digital entrepreneurship opportunities in rural areas with a sustainable development approach. In the next part, the study used hierarchical analysis and paired comparison questionnaires from 108 experts and business owners in information technology in rural areas.

Results: The findings led to the identification of 8 main factors and 14 sub-factors. Among the main essential factors are telecommunication technology in rural areas, knowledge management of rural entrepreneurs, sustainability of rural businesses, and cultural-behavioral context. Also, sub-factors include training and empowerment, marketing strategy, entrepreneurial alertness, infrastructure and facilities in rural areas, staff skills and systemic thinking.

Conclusion: The research results indicate that to benefit digital entrepreneurship opportunities in rural areas, we need macro and inter-sectoral thinking so that comprehensively and systematically, all economic, social and cultural factors alongside technical and technological infrastructures and the characteristics of the entrepreneur can develop. Suggestions are presented at the end of the paper to improve using digital entrepreneurship opportunities in rural areas.

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1. Introduction

Today, entrepreneurship is seen as the engine of economic development, accompanied by rapid global changes and has caused the transition from an industrial society to an information society. Information and communication technology has affected all social activities, including entrepreneurship, creating a new dimension in business and trade called the network economy or digital economy. In this regard, the places will be successful if they do not limit job opportunities only to their geographical proximity but have a broad working space as wide as the world. In the last century, information and communication technology has been an effective means for economic and social development goals, which can significantly help many existing crises such as inflation, unemployment, limited financial resources, and negative trade balance of countries. Increasing communication speed and global production of goods and services have affected all markets, hence employment and entrepreneurship. Therefore, the development of employment and entrepreneurship is primarily influenced by information and communication technology (Store et al., 2018).

One of the dimensions of entrepreneurship is the digitalization. Digital entrepreneurship is a field in which new technological tools such as the Internet and information and communication technology are used for business. A digital entrepreneur is, therefore, someone who uses these tools to create business opportunities and earn money. With recent technological advent, digital entrepreneurship is more practical than entrepreneurship in other fields because it uses creative solutions at the lowest cost, drives added value and improve productivity in the market. Through digital entrepreneurship, employment, the growth and dynamism of the society's economy and a knowledge-based economy are created. This type of entrepreneurship is a concept beyond technology, and in fact, it is the interaction between technology, strategy and business process it deals with the function of information and communication technology by entrepreneurs to create value from the entire chain of business processes through acquisition, sustainability and improving the competitive position (Mahmood & Yu, 2005).

In the process of entrepreneurship in the digital field and starting a business in this sector, there are many opportunities that people and businesses take advantage of to meet their needs and seek opportunities. According to Kirzner (1973), entrepreneurial opportunity is fundamental to the entrepreneurial process, and in fact, entrepreneurship has no meaning without identifying the opportunity. Therefore, the correct timing and recognition of technological opportunities is the core business strategy in this kind of enterprise. Many studies on entrepreneurship highlight the importance of recognizing entrepreneurial opportunities. Therefore, identifying and choosing the right opportunities in businesses is the ability of a successful entrepreneur (Yadolahi Farsi et al., 2012) and is considered the foundation for a successful entrepreneurial process (Forouharfar et al., 2018).

On the other hand, today, development planners have concluded that the best and most appropriate strategy to respond to challenges and crises in rural areas, especially economic challenges, is to encourage villagers to be entrepreneurs and start businesses in these areas (Lalezari Mosla et al., 2022). Rural entrepreneurship is an effort to create value by identifying a business opportunity, managing risk for that opportunity, and mobilizing the human, material, and financial resources necessary to exploit that opportunity (Zhu et al., 2022). The researchers found the basic principles of entrepreneurship in rural areas to be the optimal use of local resources, investing in entrepreneurial activities to improve the welfare of villagers, increasing employment and providing alternative jobs to reduce class discrimination, providing primary resources such as money, materials, machinery, and the market for the rural population (Fahmi & Savira, 2023).

This research aims to identify and rank the factors affecting the exploitation of digital entrepreneurial opportunities in rural areas with a sustainable development approach.

The innovation of this research is in terms of subject and methodology. The background of the research shows that despite researching the topic of entrepreneurship opportunities, less attention has been paid to digital entrepreneurship opportunities, especially in rural areas. In addition, entrepreneurial opportunities in the digital field will also bring new concepts due to the novelty of digital entrepreneurship applications.

Also, most of the studies on entrepreneurial opportunities are about discovering, creating or recognizing entrepreneurial opportunities, and fewer studies have investigated exploiting entrepreneurial opportunities. Therefore, this research can fill the research gap regarding this subject. Also, the methodological innovation uses a mixed exploratory method. Conducting mixed exploratory research and combining qualitative and quan-

titative research methods will shed light on theorizing and modelling for exploiting digital entrepreneurship opportunities.

2. Literature Review

According to the report of the United Nations Development Program, sustainable development is the improvement that meets the world's current needs without compromising the future generations to meet their own needs (Minbashi et al., 2022). Developing countries have realized there is only progress if the rural communities are included in development (Nwankwo & Okeke, 2017). Meanwhile, rural entrepreneurship is one of the most critical driving forces for the progress and development of rural and regional social and economic systems (Polbitsyn, 2019).

Jonathan Murdoch believes sustainable rural development requires a mutual relationship between the environment and society so that economic, social and environmental factors should be along with the creation of organized behavioral patterns, so the needs of the current rural generation should be provided without harming the natural resources on which the lives of future generations depend. In this development, environmental support systems try to prevent pollution, destruction, and destruction of life and ecosystem diversity. Also, it works effectively, considers the needs of society and environmental limitations, and does not ignore the correlation between the environment and society (Murdoch, 1993).

In general, sustainable rural development is everlasting in the framework of which the capacities and abilities of rural communities meet their material and spiritual needs and effective participation in the processes that shape the local settlement system (ecological, social, economic and institutional) grow. This kind of development is based on principles like empowerment, capacity building, ecological security, social security and economic security (Minbashi et al., 2022).

Today, rural development is more dependent on entrepreneurship development than ever before, and researchers think of rural entrepreneurs as critical support for developing rural areas (Aggarwal, 2018). Rural development is generally the process of improving the quality of life and the economic status of people who live in relatively isolated areas with low population density. Traditionally, rural development has focused on exploiting natural land resources such as agriculture and forestry (Elkafrawi, 2022). However, information technology has currently overcome all aspects of human life, and it is only possible to imagine a society with the benefit of information technology. Therefore, information technology can play a significant and valuable role in sustainable development in rural areas without any risk or threat to the environment and the village ecosystem.

Opportunity is a fundamental concept in entrepreneurship (Short et al., 2010). Timing and recognizing technological opportunities is an essential part of business strategy. In this regard, exploiting technological opportunities is very important according to the time of exploitation (Shin, 2016). Some entrepreneurs identify opportunities more, and these opportunities create benefits for them that others fail to do (Rindova et al., 2009). Opportunity is the distance between the current situation and the potential future, and reducing this distance is done by entrepreneurs. Therefore, opportunity identification is the main characteristic of entrepreneurs; without it, entrepreneurial activity has no meaning (Vang et al., 2021).

Digital entrepreneurship is one of the new opportunities to create new investments and transform existing businesses by developing new digital technologies (European Union, 2015). Many countries see digital entrepreneurship as central to economic growth, job creation and innovation. A nation's digital entrepreneurship capacity largely depends on digital entrepreneurship behavior, culture, strategies, and a supportive innovation ecosystem in which governments, industries, businesses, educational institutions, and non-governmental organizations work together (Srinivasan & Venkatraman, 2018).

Technology is a critical business source, severely affecting the company's competitiveness (Razavi & Samadi Ansari, 2019). Today, it is clear that information and communication create many opportunities for businesses and society. An example is successful businesses that have made the best use of digital entrepreneurship opportunities and experienced rapid growth. Quick access to knowledge and information is the crucial advantage of information technology. Information technology and globalization have also created unique opportunities and threats for businesses. Most of today's start-up businesses use the digital economy and virtual space resulting from it to develop and improve their performance. In fact, the opportunities caused by technological changes today have led to the formation of a new approach to entrepreneurship named digital entrepreneurship. Recent developments in entrepreneurship research have

addressed the issue of digitalization for entrepreneurship (Eggers et al., 2012).

Digital enterprises are rapidly using new digital technologies to improve business activities, invent new business models and business intelligence, interact with customers and stakeholders, and create jobs and future growth opportunities. Arguably, digital entrepreneurship is the most vivid concept of entrepreneurship today and impacts business structure. In this regard, the impact will be profound in all developed economies. Entrepreneurial values are more for creating employment and commercializing new inventions. New opportunities and adopting new methods and technologies lead to the creation and formation of competition, and it is logical to conclude that digital entrepreneurs will have a profound effect on the development of the Internet and the digital economy. Davidsson et al. contend that digital entrepreneurship is a way to create jobs through information and communication technology directly, meaning an entrepreneur can use information and communication technology tools to create different job opportunities (Davidsson et al., 2018).

Digital entrepreneurship carefully examines digital technologies and their unique characteristics in shaping entrepreneurial activities. Today, digital entrepreneurship is emphasized due to its role in online business. According to the knowledge-based economy, organizations use the digitization process in their business to organize and compete globally (Dy et al., 2018). Digital entrepreneurship is not limited to technology companies and IT sectors (Nambisan, 2017). Therefore, digital entrepreneurship leads to technological advances and creates different opportunities for entrepreneurs (Kuester et al., 2018).

The issues of opportunity are the same in different categories, but technological opportunities can be mentioned among the most influential ones. Digital entrepreneurship includes identifying and utilizing opportunities, turning opportunities into profitable goods and services, taking risks and making a profit. It can happen in different environments, including old and new businesses or non-profit and government institutions.

In short, creating new value is one of the characteristics of digital entrepreneurship (Siegel & Renko, 2016). In digital entrepreneurship, two features of digitization and entrepreneurship are the fundamentals. This concept uses the network actor theory, which proposes mutual interactions between human and machine actors (Tan, 2016). This type of entrepreneurship requires culture, strategy and a supportive ecosystem (Zhao et al., 2016).

Since this research has an interdisciplinary nature and several concepts such as entrepreneurship, sustainable development and information technology are used, the examination of its theoretical foundations is extensive and includes several frameworks and concepts. Nevertheless, the review of the background did not lead to finding any research similar to this study. Some close studies are listed in the following. Minbashi et al. (2022) researched to analyze the role of coordinated management in rural development planning in Gilan Province. The research results showed that sustainable rural development can be achieved by creating coordinated management of rural development planning.

Guan et al. (2020) researched Information Technology and its impact on the rural economy of Iran. The results show that due to the youth of the rural population, there is acceptance of the use of information and communication technology in these areas, and there are no specific cultural and social barriers. Also, technology can help the relationship between the rural and national economies. Some benefits of information and communication technology in rural areas are empowering the rural economy and marketing for products, finding business opportunities in the market, boosting agricultural production and reducing possible risks.

Also, Keshavarz et al. (2019) identified the success drivers of digital entrepreneurship with a mixed method. This research showed that the way of marketing and communicating with customers in the virtual space, the infrastructure of information and communication technology and the culture of accepting digital entrepreneurship in the organization are the most critical factors affecting the success of digital entrepreneurship. Akhli et al. (2018) designed a conceptual model for recognizing the opportunity of nascent academic technology entrepreneurs. The results show that the most critical characteristics of entrepreneurial opportunity recognition in this research include opportunity understanding, opportunity evaluation, capabilities related to opportunity recognition and exploitation, determinants of opportunity recognition and exploitation, and learning mechanisms.

Mirvahedi et al. (2018) identified the factors affecting the recognition of entrepreneurial opportunities including individual factors (prior knowledge, sense of self-efficacy, creativity, regular search for opportunities, motivation and entrepreneurial awareness) and social factors (training and coaching, information flows, intellectual

property, driving forces, intellectual capital, social communication network and social learning).

Khosh Maram et al. (2018) explained the model for identifying entrepreneurial opportunities in the agricultural sector. The main components of the model for identifying entrepreneurial opportunities in the agricultural sector were human capital, social capital, environmental support, psychological characteristics and market turbulence. Mir Parsa (2013) prioritized the factors affecting the development of digital entrepreneurship. The results showed that the variables of opportunity perception, management processes, technology, structure and strategy are influential on the development of digital entrepreneurship.

Imani et al. (2016) investigated the effect of social networks on digital entrepreneurship. They found that social networks and their dimensions (the content of social relations, method of information transfer, and social sources of information) have a positive and significant effect on the development of digital entrepreneurship. Yaghubi Farani (2015) investigated the role of knowledge and skills in the development of digital entrepreneurship intention of public university students. The results indicated that the developed model of the theory of planned behavior is an acceptable predictive, and the factors of promoting entrepreneurial culture, improving attitude and creating and strengthening entrepreneurial knowledge and skills for students are also practical.

Roshandel Arbatani et al. (2015) identified the factors affecting the commercialization of digital innovations in media entrepreneurial companies. These factors include factors related to resources, company, product and strategy as controllable factors and infrastructure as an uncontrollable factor in commercializing digital innovations in effective media entrepreneurial companies. Allah Dadi (2016) conducted a study to design a digital entrepreneurial marketing ecosystem for online retail. The final model includes new concepts such as product development through interactive investment, integrated channels, the use of big data, sustainable service centers, sharing economy, consumer production, and different actors.

Gerli and Whalley (2022) studied digital entrepreneurship in a Rural Context and the consequences of the rural-urban digital divide. The analysis of the results confirms that the first and most important factor is proper infrastructure in rural areas. Also, the emergence of digital entrepreneurship depends on the level of digital skills available. The findings highlighted the extent an individual can engage with more advanced forms of digital entrepreneurship, which creates the highest value for the entrepreneur and the economy. In addition, digital literacy programs that are purposefully designed for rural entrepreneurs are specifically crucial.

According to Berg (2018), entrepreneurship in the digital society has caused changes in opportunities, personal characteristics of the entrepreneur, risk and uncertainty, and the selection of repetitive or innovative entrepreneurship. Leong et al. (2017) addressed the issue of digital entrepreneurship, companies and digital products. The results showed that effectiveness is a vague concept in the evaluation of digital entrepreneurship, so a correct understanding of the process of digital entrepreneurship in businesses can be created.

Sebora (2015) investigated the fundamental success factors of digital entrepreneurship among Internet entrepreneurs. In this regard, the success of Internet entrepreneurs has a significant relationship with the two characteristics of the desire to succeed and internal control. Davidsson (2015) examined the elements of digital entrepreneurship. The research showed that digital entrepreneurship is limited or strengthened by information and communication technology through which economic and institutional structures interact.

3. Methodology

The current research is applied. Its purpose is descriptive, so a mixed exploratory method was used to collect and analyze qualitative and quantitative data. The statistical population of the qualitative part of the research was experts in rural development, rural planning and digital entrepreneurship opportunities. Sampling was done in a targeted way, in which respondents were selected based on the purpose of the research and according to their expertise and experience. Selection criteria for experts included the history of activity in management, education and research in sustainable development and digital entrepreneurship. Ultimately, 17 people were selected. Semi-structured interviews were used to collect data in the qualitative part of the research, which was conducted between 45 and 60 minutes. During the interviews, we found that the collected data reached the point of saturation. The content analysis method was used to analyze the data by applying the coding process: open, axial and selective stages. Finally, the factors affecting the exploitation of digital entrepreneurship opportunities in rural areas with a sustainable development approach were identified.

Participants and peers confirmed the validity of the research tool. The results were evaluated by eight experts in sustainable development and technological entrepreneurship to determining reliability, and by making the necessary corrections, the dimensions and components were reviewed and evaluated. Also, in the research process, a protocol was used, which greatly reduced the problems caused by the unreliability of the findings of the qualitative part.

In the quantitative part of the research, the multi-criteria decision-making method based on the Analytical Hierarchy process-AHP technique was used to prioritize the factors. This method is used when the decision-making process is faced with several decision-making criteria. This procedure was done using Expert Choice software. A pairwise comparison questionnaire was used to collect data for hierarchical analysis. The statistical population of this stage includes experts, rural entrepreneurs and activists in this field who have settled in rural areas and have used the digital space to develop their businesses. The number of these people was 150. For selection, a simple random sampling method was used, and Cochran's formula was used to calculate the sample size, and the statistical sample size was at the confidence level of 95% (z=1.96), and the error was 5% (d=0.05) and the assumption of p = q = 0.5. 108 people were calculated:

$$n=\frac{150.\ 1/96^2.\ 0/5.\ 0/5}{150.\ 0/05^2+1/96^2.\ 0/5.\ 0/5}\cong 108$$

The inconsistency rate of the matrix is calculated and evaluated to ensure the reliability of the results in the hierarchical analysis process. However, if the number of samples is more than 15 people, there is no need to calculate the inconsistency rate, and in total, the matrix will be consistent (Fadai Vahad & Mayeli, 2014). The number of samples in the quantitative part of the research was 108, so there is no need to calculate the inconsistency rate. To ensure reliability, face and content validity were used so that the questionnaire was reviewed by experts in terms of content and appearance.

4. Findings

In open coding, which is the first step of the analysis, 334 open codes were identified. In the axial coding stage, the sub-themes are getting connected to the main themes. In this stage, the categories extracted from the initial coding stage were refined and separated from each other for axial coding. The purpose of this section is to categorize codes that belong to a concept. In this step, 113 core codes were identified. An example of core codes extracted from the interviews is presented in the Table 1.

Selective coding is the final step of qualitative analysis. The concepts and themes introduced in the previous step were aggregated and classified in this step. In this step, 22 codes were identified and checked by experts to ensure the validity and reliability of the results. According to experts, the codes can be classified in the form of primary and secondary factors. Therefore, with the opinion of experts, the main and secondary factors were determined, the results of which are presented in Table 2.

Table 1. Categories extracted in axial coding

Open coding	Axial code
Effect of using new information technologies on Production Use of new knowledge in service delivery Importance of virtual networks in the development of new opportunities	Information technology
Up-to-date technology compared with global technology Specialized infrastructures have a significant impact on the creation and transfer of technology Technical facilities of businesses	Specialized infrastructure

JSRD

Table 2. Factors affecting the exploitation of digital entrepreneurship opportunities in small and medium businesses

Main factors		Sub-criteria (sub-components)		
Cultural-behavioral context Knowledge management Participation and social support Environmental protection laws	Sustainability of rural businesses Environmental conditions Telecommunication technology Implementation costs in rural areas	Entrepreneurial alertness Knowledge and awareness of employees Staff skills Marketing strategy Information technology	Specialized infrastructures Computer facilities Training and empowerment Learning the culture of rural entrepreneurs Systematic thinking	Work engagement Compatibility with the village environment Social adaptability in the village Social, cultural mission

JSRD

In the following, the factors affecting the exploitation of digital entrepreneurship opportunities in rural areas were prioritized with a sustainable development approach. Knowledge management has the highest coefficient for exploiting digital entrepreneurship opportunities in rural areas with a sustainable development approach. Following that are technical and security factors. The ranking for other factors is presented in Table 3.

The following is the result of factors affecting the exploitation of digital entrepreneurship opportunities in rural areas with a sustainable development approach. In this regard, organizational learning, marketing strategy, Entrepreneurial alertness, telecommunication infrastructure and facilities in rural areas are ranked higher factors. The ranking results of sub-factors are presented in Table 4.

As can be seen from the table, among the identified factors, training and empowerment are the first to exploit digital entrepreneurship opportunities in rural areas. After that, there are entrepreneurial marketing strategies and entrepreneurial alertness. Technical infrastructures, technical facilities and information technology are in the next place. The following are factors related to the entrepreneur's skill, knowledge and learning culture. In the end, systemic factors such as social-cultural mission, social adaptability, Work engagement and compatibility of entrepreneurial activity with the village environment were ranked.

Table 3. Prioritizing the main factors affecting the exploitation of digital entrepreneurship opportunities

The main criteria affecting the exploitation of digital entrepreneurial opportunities	Calculated weight	Priority
Knowledge management	0.216	1
Telecommunication technology	0.144	2
Sustainability of rural businesses	0.133	3
Cultural-behavioral context	0.128	4
Environment conservation laws	0.108	5
Implementation costs in rural areas	0.102	6
Participation and social support	0.098	7
Environmental conditions	0.069	8

JSRD

Table 4. Ranking of factors affecting the exploitation of digital entrepreneurship opportunities

Factors affecting the exploitation of digital entrepreneurship opportunities	Calculated weight	Priority
Training and empowerment	0.109	1
Marketing strategy	0.106	2
Entrepreneurial alertness	0.102	3
Specialized infrastructures	0.093	4
Computer facilities	0.086	5
Information technology	0.081	6
Staff skills	0.072	7
Knowledge and awareness of employees	0.068	8
Learning the culture of rural entrepreneurs	0.064	9
Systematic thinking	0.062	10
Social, cultural mission	0.049	11
Social adaptability in the village	0.045	12
Work engagement	0.038	13
Compatibility with the village environment	0.023	14

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5. Discussion

This research aimed to identify and rank factors affecting the exploitation of digital entrepreneurship opportunities in rural areas with a sustainable development approach, and 14 factors were identified.

The results of the analysis of the weights of the main factors show that generally, knowledge management, with a weight of 0.216, is in the first place, followed by telecommunication technology factors, with a weight of 0.144, the sustainability of rural businesses, with a weight of 0.133, cultural-behavioral context with a weight of 0.128, Environment conservation laws with a weight of 0.108, implementation costs in rural areas with a weight of 0.102, participation and social support with a weight of 0.098, and environmental conditions with a weight of 0.069.

Also, among all the 14 sub-factors identified as the exploitation of digital entrepreneurship opportunities in rural areas, the most important ones are education and empowerment factors, and marketing strategy, respectively.

The next priority is entrepreneurial alertness, specialized infrastructure, computer facilities, information technology, staff skills, knowledge and awareness of employees, the learning culture of rural entrepreneurs, systemic thinking, socio-cultural mission, social adaptability in the village, work engagement, and compatibility with the village environment.

These findings are consistence with the previous studies, namely Gerli and Whalley (2022) and Keshavarz et al. They concluded that the first and most crucial factor for the development of digital entrepreneurship in rural areas is the existence of a suitable infrastructure. Also, the level of digital skills, the importance of creating value in digital entrepreneurship, the culture of accepting digital entrepreneurship and digital literacy programs were emphasized in this research.

In addition, Berg et al. (2018) emphasized the nature of opportunities, the personal characteristics of entrepreneurs in digital businesses and the acceptance of using technology, which lead to the empowerment of the rural economy and marketing for products, and the development of existing business opportunities. Also, Leong et al. (2017), Sabura (2021), draw a connection between the primary factors of digital entrepreneurship success to the individual factors of the entrepreneur. This study also highlighted other factors such as opportunity understanding and evaluation, capabilities related to opportunity recognition and exploitation and their determinants and learning mechanisms.

Among the main factors identified in this research, knowledge management is the first, followed by factors like telecommunication technology, sustainability of rural businesses, cultural-behavioral context, laws, implementation costs, participation and social support, and environmental conditions. These findings are consistence with Mirvahedi et al. (2018), Davidsson (2015), Cheng & Leong (2017), which are related to knowledge management.

In addition, there are factors such as knowledge of the entrepreneur, creativity, search for opportunities, entrepreneurial awareness, education, legislation, social communication and learning, which are consistence with Zivdar and Sanaeepour (2022).

Based on the results, solutions at individual levels (organizational behavior, systemic thinking, compatibility to the village environment, adaptability, etc.), organizational (cases such as organizational participation, knowledge management, sustainability of rural businesses, technology development, etc.) and the social macro level (things such as laws, cultural context, environmental conditions, etc.) can be provided to develop the exploitation of digital entrepreneurship opportunities.

The solutions include the development of technical and operational infrastructures in villages, introducing digital entrepreneurship in rural areas and stressing the role in macro-level policies, training and upgrading skills in digital entrepreneurship, and planning to increase learning opportunities in rural areas, establishing a knowledge management system, institutionalizing digital entrepreneurship in rural areas, providing incentives and motivators for the participation of villagers and explaining the specific rules of digital businesses and maximizing opportunities for their activities to emerge in rural areas.

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Conflict of Interest

The authors declared no conflicts of interest.

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