

## Research Article

# Analysis of the Influence of Back Home to Start Undertaking and Rural Revitalization Based on Artificial Intelligence

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Received 25 August 2022; Revised 22 September 2022; Accepted 28 September 2022; Published 7 October 2022

Academic Editor: Chi Lin

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The strategy of rural revitalization is to take measures to deal with the big problem of rural decline, mainly from the aspects of developing rural economy, getting rid of poverty, and adjusting rural structure, and changing the traditional thinking of rural development when implementing policies. With the number and scale of rural laborer's back home to start undertaking expanding continuously, it is more important to improve the quality of rural laborer's back home to start undertaking. On the basis of analyzing the motivation and problems of rural laborer's back home to start undertaking, this paper puts forward a risk identification model based on artificial intelligence (AI) algorithm and explores the development path of rural laborer's back home to start undertaking under the background of rural revitalization. Through simulation experiments, the effectiveness and superiority of this algorithm are analyzed. The results show that the accuracy rate of venture risk assessment in this paper is 93.95%, and the error is 10.24% lower than that of the back propagation neural network (BPNN). It can be seen that this method has a significant effect in the analysis of the risk and influencing factors of rural laborer's back home to start undertaking. The overall requirements of rural revitalization strategy for industrial prosperity will inevitably encourage and attract more rural laborer's to back home to start undertaking, and "starting a business to help the poor" will become a new path for rural poverty alleviation and development in the future.

## 1. Introduction

Urban and rural development must be continually integrated and supportive of each other in the areas of resource development and people mobility in the new era. With the gradual deepening of the policy of "mass entrepreneurship and innovation," more and more rural laborer's choose back home to start undertaking, but the phenomenon of entrepreneurial failure affects their entrepreneurial motivation and willingness. With the steady advancement of the rural revitalization strategy, the countryside has shown a strong development momentum. Under the dual influence of the unsatisfactory work and life in the city and the good development prospects in the countryside, rural laborer's have the idea of back home to start undertaking [1, 2]. The strategy of rural revitalization is to take measures to deal with the big problem of rural decline, mainly from the aspects of developing rural economy, getting rid of poverty,

adjusting rural structure, and so on, and changing the traditional thinking of rural development when implementing policies [3]. On the one hand, rural laborer's back home to start undertaking can bring investment, technology, and new market opportunities to their hometown, and drive the economic development of their hometown. On the other hand, the uncertainty of starting a business may also put it at risk or even fail to start a business and choose to go out to work again. With the number and scale of rural laborer's back home to start undertaking expanding continuously, it is more important to improve the quality of rural laborer's back home to start undertaking [4]. Enhancing the entrepreneurial risk awareness of rural laborer's back home, establishing a risk early warning system, monitoring and preventing entrepreneurial risks, and taking timely countermeasures are helpful to enhance the enterprise's ability to resist risks, prolong the operating cycle of enterprises, and promote economic development.

Under the background of rural revitalization strategy, rural laborer's back home to start undertaking injects new kinetic energy into rural economic development, which helps to improve rural industrial structure and promote urban-rural integration [5]. Many coastal enterprises in China began to develop inland, speeding up the pace of rural laborer's back home. Moreover, many rural laborers have chosen the road of self-employment when they return home. From the outbreak of the information revolution to the present, its influence has now penetrated into everyone's daily life. Nowadays, rural laborers have become an important factor for China to build a well-off society in an all-round way, and back home to start undertaking is a new way to help rural laborers get rid of poverty and get rich and solve the current predicament [6, 7]. With the continuous development of information technology, an AI-based risk assessment algorithm for homecoming entrepreneurship emerged, which fitted the results of homecoming entrepreneurship risk assessment with high precision and got a good result. On the basis of analyzing the motivation and problems of rural laborer's back home to start undertaking, this paper puts forward a risk identification model based on AI algorithm, and explores the development path of rural laborer's back home to start undertaking under the background of rural revitalization.

It closely resembles the modernization and urbanization conditions found in the majority of nations worldwide. As a result of ongoing development and economic growth, farmers' incomes in rural China have improved in recent years. In many rural areas, there has been a decline, whether it is the environment or irrigation and water conservancy [8]. The massive loss of labor force leads to problems such as urbanization and aging in rural areas, which is an important reason for the decline of rural areas in China. Because of their rich working experience, rural laborer's back home plays a positive role in promoting the goal of rural prosperity and development, and they are the main force of rural modernization [9]. Entrepreneurship of rural laborer's can promote the development of economy and technology, promote the employment of people, and solve the problems of empty nesters and left-behind children. Initially, the entrepreneurial risk was evaluated by manual method, the evaluation process of this method was very tedious, and the evaluation results deviated from the actual risk level, so the blindness of the evaluation results was serious. In this paper, the risk identification and analysis of rural laborer's back home to start undertaking based on the AI algorithm is proposed. The main innovations are as follows:

- (1) This paper puts forward a risk assessment algorithm based on AI algorithm and analyzes the effectiveness and superiority of this algorithm through simulation and comparison experiments.
- (2) From the perspective of individual entrepreneurs, and using grounded theory, we try to dig out the key factors that affect the success or failure of rural laborer's back home to start undertaking. To a certain extent, we can make up for the lack of attention paid to entrepreneurs' main body and entrepreneurial

process in the existing research, and serve as a reference for the following research.

The rest of the article is arranged as follows: The second section is related work, which expounds the research of related scholars on rural development and entrepreneurship; the third section is the method part, which realizes the risk assessment of back home to start undertaking through the AI algorithm. The fourth section is the experimental analysis, which verifies the effectiveness of this method through simulation experiments and puts forward the development strategy of rural laborer's back home to start undertaking. The fifth section is the summary, which expounds the methods and contributions of this article, summarizes the realistic path of back home to start undertaking, and puts forward the future development direction.

## 2. Related Work

Under the urging of the city and hometown, rural laborers interact with each other to encourage rural laborer's back home to start undertaking. Serrano and others analyzed the motivation of rural laborer's back home to start undertaking from the difficulties of rural laborer's integration into cities and the abundant resources of back home to start undertaking [10]. Wang et al. pointed out that social integration difficulties, economic integration difficulties, and psychological integration difficulties are the main factors of financial difficulties, which have become the main thrust factors for rural laborer's to back home to start undertaking, while natural resources, human resources, and social resources provide powerful conditions for rural laborer's to back home to start undertaking and are the main pulling factors for rural laborer's to back home to start undertaking [11]. Martínez et al. analysts believe that the multiple causes leading to rural laborer's back home to start undertaking include the global economic downturn, industrial upgrading in large- and medium-sized cities, high housing prices and living costs in cities and towns, the extensive application of the AI technology, and the limitation of professional ceiling [12]. Zhou and Li, by studying the generation mechanism of rural laborer's back home to start undertaking to absorb surplus rural labor force, pointed out that rural laborer's back home to start undertaking has positive significance for driving poor farmers out of poverty and getting rich, helping poor farmers to increase their income, and embarking on a well-off road of prosperity [13]. Feinerman and Komen pointed out that after back home to start undertaking, rural laborer's will encounter livelihood risks from three levels, and the livelihood risks encountered at this time will be more risky. The sources of risks mainly include capital, technology, and management, and further pointed out that once rural laborer's fail to start a business, they will follow the rational logic of survival to minimize the risks and make another choice of livelihood [14]. The study by Cieslik and D'Aoust found that education level, work experience, personal ability, partners, local resources, and industry threshold have a very significant impact on rural laborer's choice of entrepreneurial mode [15]. Ngorora and Mago

found that the main factors affecting rural laborer's back home to start undertaking are related to their age, education, family factors, and government assistance [16]. Deng pointed out that learning culture, policy culture, and rural information culture have a significant impact on rural laborer's entrepreneurial behavior when they return home and put forward some targeted policy suggestions [17]. Naminse et al. pointed out through analysis and research that there are still some problems to be solved in the policy of supporting rural laborer's to back home to start undertaking and proposed that the government should take multidimensional measures to support rural laborer's to back home to start undertaking [18]. Güzel et al.'s point of view is that it is also very important to study farmers' entrepreneurial psychology. The most important thing for farmers to start entrepreneurial behavior is the social repercussions [19].

### 3. Methodology

*3.1. Joint Mechanism of Rural Laborer's Back Home to Start Undertaking and Targeted Poverty Alleviation.* With the continuous emergence of the strategic advantages of rural revitalization, the conditions required for returning rural laborers to start businesses tend to be better, which will attract a large quantity of knowledgeable, capable, and capital-reserved rural laborer's back home to start undertaking. Their return brings new ideas, which can not only change the concept of rural economic development but also greatly promote the promotion of regional economic competitiveness [20]. Accurate poverty alleviation focuses on the hematopoietic function of the poor, which depends on the endogenous power of rural economic growth. Rural laborer's back home to start undertaking is the endogenous power source of rural economic growth. They complement each other and promote each other, which can boost rural economic growth while improving poverty alleviation benefits. Rural laborer's back home to start undertaking will stimulate the local employment rate in rural areas, and to a certain extent, increase farmers' income. Successful rural laborer's enterprises can also set an example for other rural laborer's who back home to start undertaking and stimulate their enthusiasm for back home to start undertaking. Rural laborers need to rely on the advantages of local resources to help rural poverty alleviation. On the one hand, rural laborers choose to back home to start undertaking, because the labor-intensive industries in large- and medium-sized cities have shrunk in recent years, which leads to the rising pressure of continuous employment competition. On the other hand, it is influenced by the gradual improvement of preferential policies for rural entrepreneurship.

In order to realize the overall revitalization of rural areas and effectively increase farmers' income and rural employment rate, it is necessary to improve and perfect the rural industrial structure. In this process, rural laborer's back home to start undertaking has gradually become an indispensable force. Most of the rural laborers who back home to start undertaking are small- and medium-sized enterprises, which have affinity for farmers. Promoting and developing in their hometown have more advantages and can improve

the efficiency of poverty alleviation in rural areas [21]. However, rural laborers are faced with problems such as land, capital, and entrepreneurship guidance in the process of returning to their hometowns, which requires that the precise poverty alleviation policy should be tilted towards rural laborer's enterprises in the implementation, and effective capital, land, and technical support should be provided for returning rural laborer's to start their own businesses by relying on the government platform and the advantages of rural resources. Endogenous motivation is the key to poverty alleviation in rural areas. Supporting rural laborer's to back home to start undertaking not only breaks the original pattern of one-way flow of urban and rural human resources but also provides talent support for rural development. The key to rural development lies in talents. Only when talents flourish can rural economic construction show a good development trend. It is necessary to improve the rural industrial structure, stimulate the vitality of rural economic development, encourage and support rural laborer's to back home to start undertaking, further increase the employment rate of rural residents, practically raise the income level of farmers, narrow the gap between urban and rural areas, and realize a new pattern of urban-rural integration.

*3.2. Risk Assessment Algorithm for Back Home Entrepreneurship.* We add new kinetic energy for accelerating the building of a well-off society in an all-round way and boosting the modernization of agriculture and rural areas. The linkage development of rural laborer's entrepreneurship and precision poverty alleviation is based on the commonality between them. Employment can achieve accurate assistance through back home to start undertaking to drive employment, so as to transfer agricultural surplus labor force, realize the two-way flow of human resource elements between urban and rural areas, create more room for farmers to increase their income, and create demographic dividend for rural development. From the perspective of rural laborer's back home to start undertaking and precision poverty alleviation, on the one hand, rural laborer's have poured into cities in one direction to realize the two-way flow between urban and rural areas, and a large quantity of rural laborer's back home to start undertaking have injected new blood into county economic development and poverty alleviation in the central and western regions.

The venture risk assessment of rural laborer's back home is a very complicated problem, which is caused by the high difficulty, strong professionalism, and many constraints and influences on the success of venture capital. At the same time, the main body of entrepreneurship is the special group of rural laborers who return home. They often have some defects and uncertainties in entrepreneurship, which leads to the greater risk of entrepreneurship than other groups. The risk assessment process of back home to start undertaking based on AI is shown in Figure 1.

Assuming that there are a total of  $m$  risk assessment indicators for back home to start undertaking, which are represented as  $\{x_1, x_2, \dots, x_m\}$ , then the risk assessment

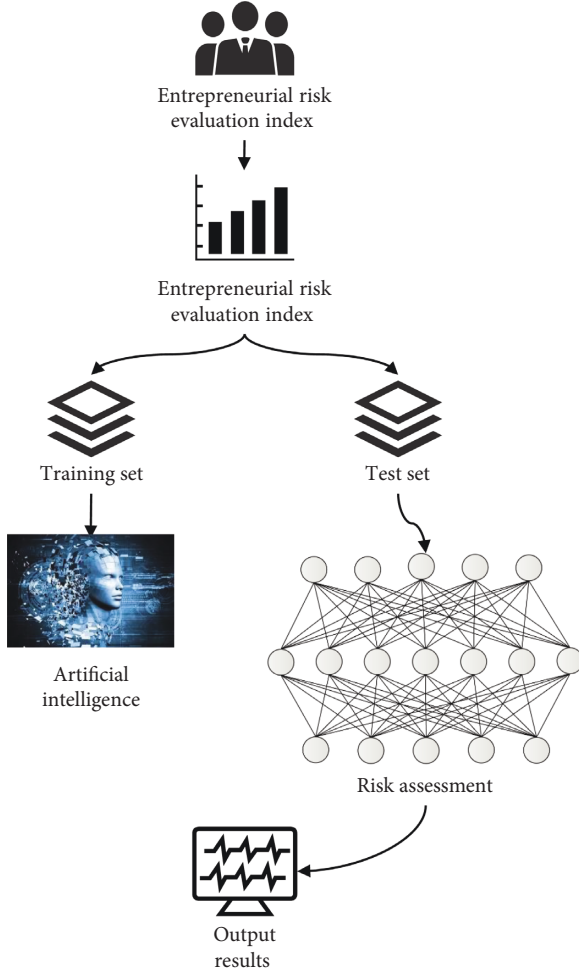


FIGURE 1: Risk assessment process for back home to start undertaking.

level for back home to start undertaking can be described as follows:

$$y = f(x_1, x_2, \dots, x_m). \quad (1)$$

In the formula,  $y = f(\cdot)$  is the risk assessment function of back home to start undertaking.

We collect the corresponding risk assessment indicators for back home to start undertaking and then calculate the eigenvector and maximum eigenvalue  $\lambda_{\max}$  of the risk assessment index for back home to start undertaking, and then perform a consistency check as follows:

$$CI = \frac{\lambda_{\max} - n}{n - 1}. \quad (2)$$

In the formula,  $n$  represents the order of the risk assessment matrix for back home to start undertaking. If the random one-time ratio CR satisfies (3), then it means that the user is satisfied with the risk assessment matrix for back home to start undertaking, which is acceptable, otherwise it is unacceptable:

$$CR = \frac{CI}{RI} < 0.1, \quad (3)$$

where RI is the average random consistency index.

As the returning entrepreneurs have been working abroad for many years, they do not know much about their hometown's entrepreneurship support policies, how to handle relevant documents, and what information they need to provide. Therefore, grass-roots service entities such as county and township government departments should set up entrepreneurial service centers for rural laborer's back home to provide all-round services for rural laborer's back home to start undertaking, and timely track and grasp the entrepreneurial situation of rural laborer's back home. Rural laborer's entrepreneurship and precision poverty alleviation have a common effect link in the implementation. Rural laborers whose back home to start undertaking have more extensive contact with the outside world and have a deeper understanding of social development and progress. Rural laborer's entrepreneurship in their hometowns has a diffusion effect, which can stimulate more rural laborer's to back home to start undertaking and employment, and create a good atmosphere for employment and entrepreneurship in rural areas. While distributing economic benefits, however, villages confront several challenges due to the relative backwardness of rural economic growth.

### 3.3. Coupling Interaction and Risk Resolution between Back Home to Start Undertaking and Rural Revitalization.

Venture identification refers to the signs that entrepreneurs show in the process of starting a business according to their entrepreneurial activities. It is a process of systematically and continuously discovering risks by using various methods to identify and distinguish risks before all kinds of risk events occur. In the process of starting a business, we should not only identify the risks of the external business environment and market but also the risks of technology, management, finance, and personnel within the enterprise. The fruitful results of rural revitalization strategy will also stimulate more rural laborer's back home to start undertaking. The virtuous circle that follows is that the implementation of rural revitalization strategy and rural laborer's back home to start undertaking complement each other and promote each other. The interaction between rural laborer's entrepreneurship and rural revitalization is shown in Figure 2.

From the point of view of maximizing the benefits of entrepreneurs, the best situation should be that the barriers to entry are high and the barriers to exit are low. In this case, new entrants will be resisted, while unsuccessful enterprises in this industry will easily leave this industry. On the contrary, low barriers to entry and high barriers to exit are regarded as the most unfavorable situation. Because under this situation, many businesses may readily enter this industry to share earnings when there is a positive outlook for the market; however, when there is a recession, many businesses face difficulty in closing their doors. Let the risk assessment data of back home to start undertaking be  $x_i(k)$ , and all data forms are a sequence as follows:

$$X_i = (x_i(1), x_i(2), \dots, x_i(n)), i = 1, 2, \dots, m. \quad (4)$$

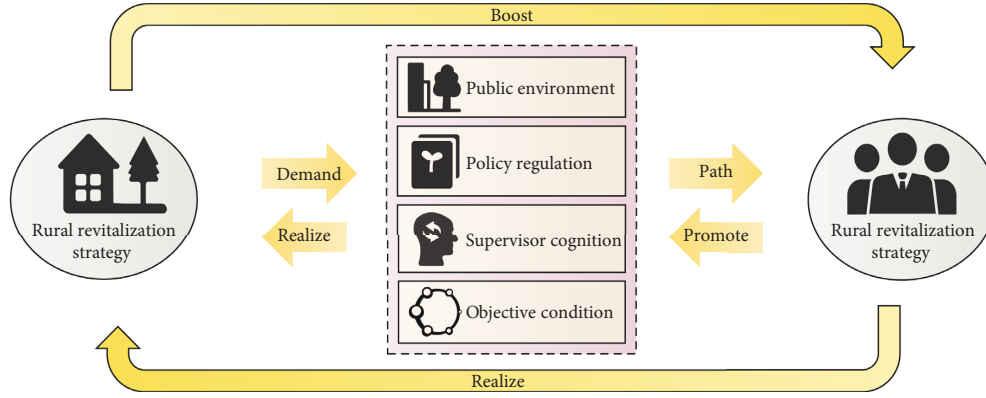


FIGURE 2: The interaction between rural laborer's back home to start undertaking and rural revitalization.

We perform a dimensionless operation on  $X_i$  to get  $X'_i$  and select a part to form a reference sequence for risk assessment of back home to start undertaking as follows:

$$X'_i = (x'_i(1), x'_i(2), \dots, x'_i(n)), i = 1, 2, \dots, m. \quad (5)$$

We calculate the difference between all return-home entrepreneurial risk assessment reference sequences as follows:

$$\Delta_i(k) = |x_i(k) - x'_i(k)|. \quad (6)$$

Then, we find the maximum and minimum differences of the sequence as follows:

$$\begin{aligned} M &= \max_i \max_k \Delta_i(k), \\ m &= \min_i \min_k \Delta_i(k). \end{aligned} \quad (7)$$

We calculate the grey correlation coefficient of the risk assessment index for back home to start undertaking as follows:

$$r_i(k) = \frac{m + \zeta M}{\Delta_i(k) + \zeta M}, \quad (8)$$

where  $\zeta$  is the resolution coefficient. We find the grey comprehensive correlation degree as follows:

$$r_i = \sum_{k=1}^n \omega_k r_i(k), \quad (9)$$

where  $\omega_k$  is the weight. According to the value of the grey comprehensive correlation degree, the influence degree of the risk assessment index of back hometown entrepreneurship and the risk assessment result of back hometown entrepreneurship can be obtained, so as to realize the screening of the risk assessment index of back hometown entrepreneurship.

Let the input  $x$  and the output  $y$  be an unknown joint distribution probability  $F_{X,Y}(x, y)$ , for  $N$  samples  $\{(x_i, y_i)\}_{i=1}^N$  that are independent and identically distributed. The problem of machine learning is to construct a set of input-output mapping functions as follows:

$$y = f(x, w). \quad (10)$$

Among them,  $y$  is the actual output of the mapping function,  $w$  is the weight value, and the difference between the actual output and the expected value input by  $f(x, w)$  is expressed by the formula  $L(y, f(x, w))$ , thereby defining the risk functional as follows:

$$R(w) = \int L(y, f(x, w)) dF_{X,Y}(x, y). \quad (11)$$

From the definition, it can be seen that the smaller the risk functional  $R(w)$  is, the closer the model will be to the actual output, and the purpose of machine learning is to minimize the risk functional. However, in general, the joint distribution probability  $F_{X,Y}(x, y)$  of the input and output cannot be known, so the minimum risk functional cannot be obtained. The traditional statistical method is to use empirical risk instead of risk functional. The empirical risk is as follows:

$$R_{\text{emp}}(w) = \frac{1}{N} \sum_{i=1}^N L(y_i, f(x_i, w)). \quad (12)$$

Thus, the functional problem of minimizing risk is transformed into the problem of minimizing empirical risk.

Usually, it refers to the process of venture capital, in which high returns are usually accompanied by high risks, while low-risk venture capital projects generally only bring low returns to entrepreneurs. Because high-risk venture capital projects will create high-risk obstacles for other investors who want to enter the industry, they will not dare to enter them easily to carry out venture capital activities, which will enable venture investors who successfully enter the industry to obtain higher risk returns in a certain period of time. If the risk of a venture capital project is relatively low and the income is high, it will inevitably lead to a large influx of venture capital investors, which will eventually lead to intensified competition and lower income, so that only lower risk income can be obtained.

## 4. Result Analysis and Discussion

*4.1. Risk Assessment Simulation of Back Home Entrepreneurship.* If the number of attributes with null values comprises a significant fraction of the total number of samples, this attribute and the samples with an excessive

number of null attribute values can be eliminated. For discrete variables, count the occurrence times of each discrete factor and draw the overall histogram, and count the percentage of the factors in the overall sample number. For discrete variables, outliers may be some factors with relatively small occurrence times or particularly large occurrence times, which need to be judged according to specific businesses. The possible outliers can be qualitatively analyzed through the direct view diagram and verified by combining with specific businesses. The estimated value of the whole training set is obtained by averaging the accuracy of the classified data, and the obtained results are shown in Table 1.

For the accuracy of the training model, the size of the sample may also have some influence. When the ratio of the quantity of two categories is 1:1, training models with different sample numbers are used for testing. The specific results are shown in Table 2.

It can be found that when the quantity of samples reaches a certain level, the classification accuracy will be improved, while when the quantity of samples is too small, the classification accuracy will be greatly reduced. At the same time, with the increase of the quantity of samples, the training time is also improved. According to the above-mentioned test, this paper will use a total of 160 training sets, including 80 entrepreneurs with normal finance and 80 entrepreneurs with abnormal finance. A total of 80 samples were tested, including 40 entrepreneurs with normal finance and 40 entrepreneurs with abnormal finance. Figure 3 shows the comparison of the accuracy of different algorithms when different sparsity is selected.

It can be seen that after many iterations, the accuracy of the algorithm is gradually improved and tends to be stable. The purpose of precision poverty alleviation is to help farmers get rid of poverty, while rural revitalization is intended to realize agricultural and rural modernization, and they are mutual mechanisms. At the same time, rural laborer's mobility between urban and rural areas makes them have dual identities and becomes an important link between urban and rural development, which is conducive to helping poverty alleviation and reshaping the new urban-rural relationship. The average absolute error results of different algorithms are shown in Figure 4. The recall results of different algorithms are shown in Figure 5.

It is a complex and dynamic process for rural laborer's back home to start undertaking. Whether they can succeed in starting a business in the end is not only due to individual conditions but their entrepreneurial behavior is deeply embedded in their social relations and structures and is influenced by multiple factors. In the process of rural laborer's back home to start undertaking, all kinds of resources and policies, such as policy regulation and public environment in this paper, will restrict or promote their entrepreneurial activities to some extent. In the process of interaction between entrepreneurial behavior and external structure, due to the differences of entrepreneurs' individual conditions, resources and policies, some returning rural laborer's can successfully start a business, while some returning rural laborers can only achieve a part of their

TABLE 1: Parameter optimization accuracy.

Error penalty function	Gauss parameter	Accuracy (%)
0.1	0.1	68.95
0.1	1	54.85
0.1	10	55.67
0.2	0.1	54.28
0.2	1	56.27
0.2	10	71.28
0.4	0.1	63.95
0.4	1	58.43
0.4	10	57.64
0.8	0.1	61.29
0.8	1	60.18
0.8	10	58.99

TABLE 2: Effect of sample size on model accuracy.

Total sample number	Number of samples per type	Accuracy (%)	Training time (S)
40	20	65.29	0.0318
60	30	71.88	0.0315
80	40	71.87	0.0345
100	50	76.99	0.0411
120	60	79.01	0.0425
140	70	80.24	0.0456
160	80	78.89	0.0467

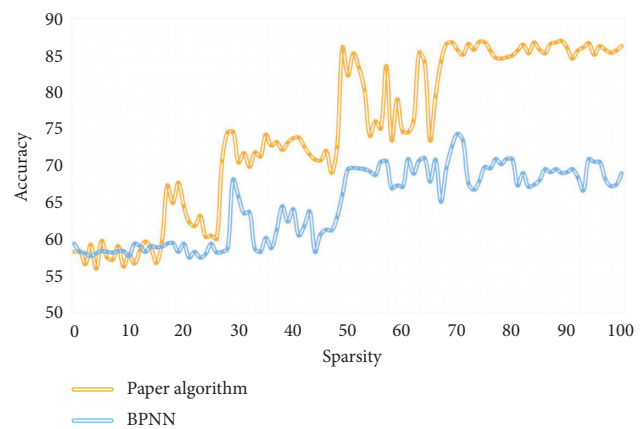


FIGURE 3: Comparison of algorithm accuracy when different sparsity is selected.

entrepreneurial goals or fail to start a business, resulting in different entrepreneurial results. The risk assessment results of homecoming entrepreneurship based on big data analysis are shown in Figure 6.

From the analysis of the experimental results in Figure 6, it can be seen that the return venture risk assessment value of the algorithm in this paper is very close to the actual return venture risk value, and there is almost no deviation, thus obtaining a high-precision return venture risk assessment result. The experimental results show that this algorithm is an excellent risk assessment tool for homecoming entrepreneurs.

There are many situations that affect rural laborers starting their own businesses when they return to their

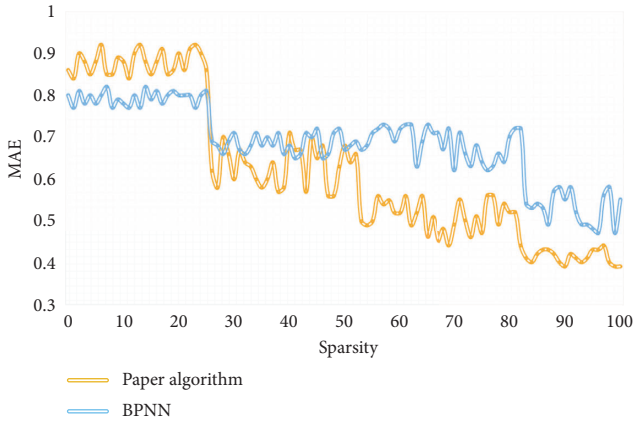


FIGURE 4: Comparison of the error between the algorithm in this paper and BPNN.

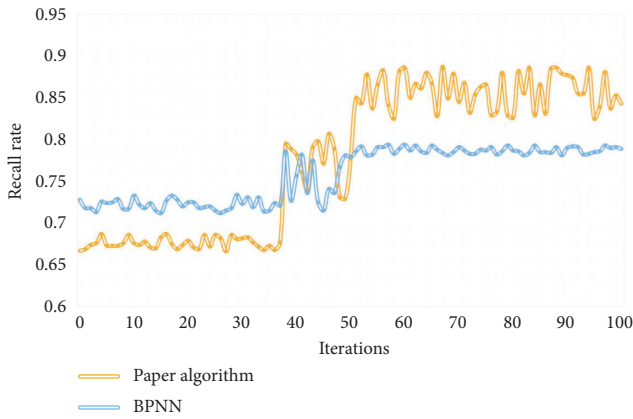


FIGURE 5: Comparison of the recall rate between the algorithm in this paper and BPNN.

hometowns. They are not alone, so we cannot blindly choose variables in econometric analysis. Volume values can only reflect most variables. For variables that cannot be specifically reflected, some processing should be done to ensure that the variables can be digitized. This algorithm is compared to the present traditional BPNN in order to make the risk assessment result of returning home to begin a project more persuasive. The change curve of BPNN’s risk assessment results of back home to start undertaking is shown in Figure 7.

As can be seen from Figure 7, although BPNN has obtained a high-precision risk assessment result of back home to start undertaking, the assessment accuracy is lower than that of this algorithm. In this paper, the accuracy rate of venture risk assessment for back home is 93.95%, and the error is 10.24% lower than that of BPNN. At the same time, in the test process, it is found that the result time of back home venture risk assessment of this algorithm is shorter than that of BPNN, which improves the efficiency of back home venture risk assessment.

*4.2. The Development Path of Rural Laborer’s Entrepreneurship and Targeted Poverty Alleviation.* It is necessary to cooperate with a series of institutional measures to ensure

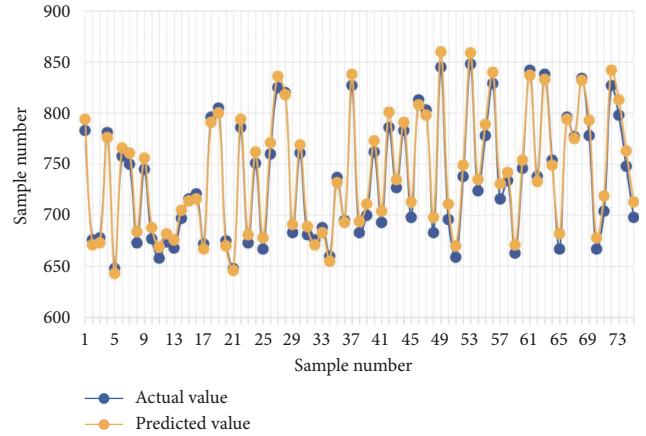


FIGURE 6: The results of the risk assessment of returning to the hometown of the algorithm in this paper.

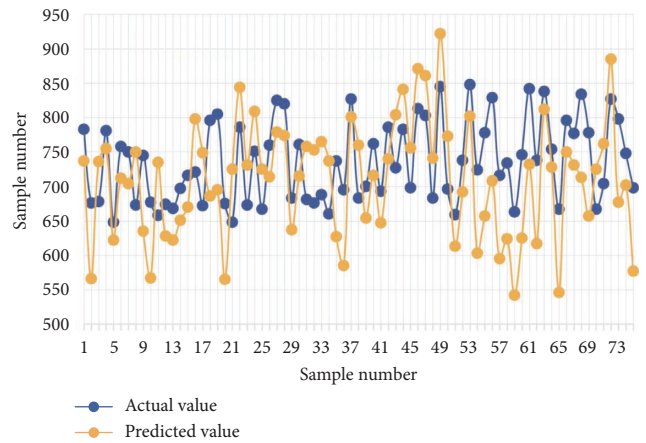


FIGURE 7: The risk assessment results of returning to hometown entrepreneurship by BPNN.

that rural laborer’s can rely on each other to start their own businesses and help the poor accurately and form a linkage development trend of mutual promotion and common progress. Through the role of rural laborer’s back home to start undertaking in stimulating the urban-rural infrastructure connectivity and promoting the equalization of urban-rural public services, we can improve the appearance of rural villages and create a corresponding social environment atmosphere for enterprises, so as to realize the integration of urban and rural areas, cooperative development and poverty alleviation. The docking of rural laborer’s entrepreneurship and precision poverty alleviation needs the concerted efforts of the government and the market. As the main body of the media, rural laborer’s entrepreneurship in their hometowns has a good communication advantage between the government and the market. At the same time, rural laborer’s entrepreneurship in their hometowns can help ease the bonding effect between the government and the market in poverty alleviation and improve the efficiency and effectiveness of poverty alleviation. It is particularly important to carry out technical training for rural laborers and poor farmers to enhance their entrepreneurial ability and poor farmers’ employability, which is the key to ensure the

effective connection between rural laborer's entrepreneurial ability and their skills requirements for employed poor farmers. It is necessary to establish an interest link system to realize the effective connection between accurate poverty alleviation and back home to start undertaking and promote poverty alleviation. Through the poor farmers' shareholding in agricultural land, subletting, and other forms, the interest link between rural laborer's and farmers who return home to engage in agricultural production and management can be established, so as to realize the co-construction, sharing, and win-win between precision poverty alleviation and back home to start undertaking.

## 5. Conclusion

The proposal of rural revitalization strategy provides good development conditions for rural laborer's back home to start undertaking. With the continuous expansion of the number and scale of entrepreneurs, it is more important to improve the quality of rural laborer's back home to start undertaking. Due of their lack of managerial skills, experience, and capital, returning rural laborers generally handle their challenges by seeking out partners with similar objectives and launching a business with friends and family. Therefore, the stability of the management of this entrepreneurial enterprise is very important. The results of venture risk assessment can provide guidance for university entrepreneurship. Aiming at the shortcomings of the current venture risk assessment algorithm for back home, this paper proposes a venture risk assessment algorithm for back home based on big data analysis combined with the characteristics of venture risk assessment for back home. The experimental results show that the algorithm in this paper improves the accuracy and speed of risk assessment of homecoming entrepreneurship and solves the problems existing in the current process of homecoming entrepreneurship risk assessment, which has a high practical application value. It is necessary to strengthen the vocational training of local rural surplus labor force, transport qualified, and skilled labor force for enterprises founded by returning rural laborer's guide and cooperate with returning rural laborer's entrepreneurs to carry out pre-job and induction training for employees according to the actual needs of enterprises and solve the brain drain phenomenon of returning rural laborers to start enterprises. [1].

## Data Availability

The data used to support the findings of this study are included within the article.

## Conflicts of Interest

The authors declare that they have no conflicts of interest.

## Acknowledgments

This work was funded by the Guizhou Philosophy and Social Science Project (21GZQN13): Study on the Coupling Mechanism and Boosting Path of Entrepreneurship and

Rural Revitalization of Returnee Migrant Workers in Guizhou, and the Key Project of Humanities and Social Sciences Research of Guizhou Department of Education (No. 2022ZD008): Efficiency Measurement and Coupling Machine Research on the Effect of Returning Migrant Workers' Entrepreneurship on Rural Revitalization in Guizhou.

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