The empirical research of the entrepreneurial behavior and influencing factors of rural youth using “Internet+” ——Evidence from the rural areas of Shenyang City

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Abstract: During the process of urbanization, it is of great significance for rural youth to use "Internet +" entrepreneurship to achieve the transfer and increase of rural labor force. At present, the use of "Internet +" entrepreneurship by rural youth is affected by many factors. In this paper, the binary logistic model is used to analyze the influencing factors of “Internet+” entrepreneurship in rural youth, such as gender, age, education level, and family members’ occupations. It is found that the level of education, entrepreneurial attitude, and understanding of “Internet+” are positive significant for entrepreneurship, while the occupation of family members has a significant negative effect. Finally, according to the results of empirical analysis, relevant policy recommendations are proposed.

1 Introduction

With the advancement of China's current urbanization process, many farmers have begun to shift from the agricultural sector to the non-agricultural sector. Among them, some farmers are unemployed during the transfer process. In this era of “Internet+”, “Internet+” continues to spread throughout our lives. This has brought new opportunities to the unemployed rural youth. Some rural youths have begun to choose to use "Internet +" entrepreneurship. Young people in rural areas are the main force of our country’s peasants and play a major role in urbanization and rural construction in the new era. The use of “Internet+” entrepreneurship by rural youth not only can attract rural credit funds but also encourage the entrepreneurial enthusiasm of others around them. Therefore, the use of “Internet+” entrepreneurship by rural youth in solving the employment problem of some villagers also plays a significant role in the development of the rural economy to some extent.

2 "Internet +" Business Status Survey

(a)Data sources and sample characteristics

Data used in this study from a random survey of villagers in rural areas around Shenyang in May to August 2017. 160 questionnaires were distributed in this survey, and 140 actually valid questionnaires. The effective recovery rate of the questionnaire was 87.5%. The basic characteristics of the sample were: male respondents were 73, accounting for 52.14% of the total sample, female respondents were
67, accounting for 47.86%; rural youth interviewer aged 15-34 were divided into three stages: 15-21 years old, 22-27 years old, and 28-34 years old, the proportion of rural youth aged 28-34 is relatively large, about 42.90%; in terms of education level, about 71.42% of high school graduates and below, and 28.58% of high school graduates or above.

Basic characteristics of the sample are shown in Table 1:

Table 1 Basic characteristics of the sample

| Variable Name                      | Frequency (person) | Percentage (%) |
|------------------------------------|--------------------|----------------|
| Gender                             |                    |                |
| Male                               | 73                 | 52.14%         |
| Female                             | 67                 | 47.86%         |
| Age                                |                    |                |
| 15—21                              | 42                 | 30.00%         |
| 22—27                              | 38                 | 27.10%         |
| 28—34                              | 60                 | 42.90%         |
| Educational level                  |                    |                |
| Primary and lower                  | 15                 | 10.71%         |
| Junior High school                 | 50                 | 35.71%         |
| High School                        | 35                 | 25%            |
| College degree or above            | 40                 | 28.58%         |
| Whether the village official       |                    |                |
| Yes                                | 9                  | 6.43%          |
| No                                 | 131                | 93.57%         |
| Whether the legal representative   |                    |                |
| of the new type business entity    |                    |                |
| Yes                                | 20                 | 14.29%         |
| No                                 | 120                | 85.71%         |

(b) Status of "Internet +" entrepreneurship

b1. The level of understanding of the "Internet +" among rural youth

For the question of rural youth's understanding of "Internet +", rural young people's choices are as follows: less understanding (50%); general understanding (22.86%); very poor understanding (20%); more understanding (6.43%); very well understood (0.71%). It can be seen that rural youth only knows "Internet +," but does not have a deep understanding of "Internet +." The rural youth's understanding of "Internet +" can be seen in the Table 2.

Table 2 Rural Youth's Understanding of "Internet +"

| Understanding degree | Frequency (person) | Percentage (%) |
|----------------------|--------------------|----------------|
| Very well understood | 1                  | 0.71           |
| More understanding   | 9                  | 6.43           |
| General understanding| 32                 | 22.86          |
| Less understanding   | 70                 | 50.00          |
| Very poor understanding| 28             | 20.00          |
| Total                | 140                | 100            |

b2. Rural youth entrepreneurial attitude

The options for rural youths' attitudes toward entrepreneurship are "strongly agree", "more favorable", "general", "against", and "not interested". Among them, 70 people chose "strongly agree", accounting for 50%; 39 people chose "more favorable", accounting for 27.86%; 28 chose "general", accounting for 20%; 3 chose "no interested", accounting for 2.14%; and no people choose to oppose this option. From this we can see that rural youth’s attitude towards entrepreneurship is mainly in
favour of it. The phenomenon that most young people in rural areas are in favor of entrepreneurship shows that rural youth entrepreneurship has tremendous potential and needs the government to propose corresponding policies to encourage rural youth to start businesses.

b1. Rural youth entrepreneurial motivation

For rural young people's entrepreneurial motives, when rural young people who are starting their own business are responding to the question: "What do you want to start your own entrepreneurship?", the answers of rural youth are: increase income (50%), and interested in projects (40.71%), follow trend (8.57%) and others (0.07%). It can be seen that the main purpose of rural youths who want to start a business is to increase household income, but there are some blindness.

b4. The utilization degree of "Internet Plus" by rural youth entrepreneurship

In the survey results, when rural youth responded “whether you use “Internet +” for supporting entrepreneurship”, only 62 people selected “Yes” and accounted for 44.29% of the samples that were being started; the remaining 78 people chose “No”, accounting for 55.71%. This phenomenon shows that only a small proportion of rural youth use the “Internet +” in their entrepreneurial process. As shown in Table 3.

| Variable name | Frequency (person) | Percentage (%) |
|---------------|--------------------|----------------|
| Utilization degree | Used | 62 | 44.29 |
|                | Unused | 78 | 55.71 |
| Total         |        | 140 | 100 |

3 Empirical analysis

(a) Model establishment

According to the actual situation of the current data, this paper uses the nonlinear mathematics statistics method of biological mathematician Verhult. Use binary logistic regression to set the dependent variable to 0 or 1. On this basis, a logistic model can be established: Y=F(X1, X2, X3, ..., X8)

X1: Sex; X2: Age; X3: Educational level; X4: Family members’ occupation; X5: Whether the village official; X6: Whether the legal representative of the new type business entity; X7: Attitude to entrepreneurship; X8: Understanding degree of “Internet+”. (b) Empirical analysis

| Variable name                                      | Regression coefficients(B) | Standardized Regression Coefficient Exp (B) | Standard error (S.E.) | Wald (Wald) | coefficient saliency (Sig.) |
|---------------------------------------------------|-----------------------------|---------------------------------------------|------------------------|-------------|-----------------------------|
| Gender                                            | -.156                       | .855                                       | 1.088                  | .021        | .886                        |
| Age                                               | .022                        | 1.022                                      | .092                   | .057        | .812                        |
| Educational level***                              | 1.105**                     | 3.019**                                    | 1.550                  | 4.030       | .045                        |
| Family members' occupation***                     | -3.626***                   | .027***                                    | 1.121                  | 10.472      | .001                        |
| Whether the village official                      | -.425                       | .654                                       | 3.672                  | .013        | .908                        |
| Whether the legal representative of the new type business entity | -.250                       | .779                                       | 1.641                  | .023        | .879                        |
| Attitude to entrepreneurship ***                  | 3.049***                    | 21.096***                                  | 8.81                   | 11.977      | .001                        |
| Understanding degree of “Internet+”***            | 8.405***                    | 4468.072***                                | 1.875                  | 20.091      | .000                        |
| Constant***                                       | -32.491***                  | .000***                                    | 7.962                  | 16.652      | .000                        |

Note: *** means that the significance is 1%, ** means that the significance is 5%, * means that the significance is 10%.

Using SPSS 17.0 software, a quantitative analysis was made of the various influencing factors that
influence whether rural youth use Internet + entrepreneurship. The nine variables in the hypothesis are introduced into the regression model to test the significance of the regression coefficients. After the regression, the results of the regression are shown in the table 4. As a result of many factors, the final analysis results will have some errors.

4. Conclusions and Suggestions

(a) Conclusions

The following conclusions can be drawn from the empirical analysis results:

Conclusion 1: In the individual characteristics, rural youth’s “education level” and “family member occupation” have a significant impact on their use of “Internet+” entrepreneurial behavior. Among them, the “education level” has a significant effect at the statistical level of 5%. The positive regression coefficient of this indicator shows that the higher the level of education is, the easier it is to use the “Internet+” for entrepreneurship. “Family member occupation” has a significant negative effect at a statistical level of 1%. The regression coefficient of this factor is negative, indicating that rural young people whose family members are employed as non-farmers are more likely to choose to use “Internet+” entrepreneurship.

Conclusion 2: Whether or not the rural youth is the legal representative of the new type of business has no significant effect on the use of the “Internet+” business. This may be due to the fact that the number of new types of business entities that are still under development has resulted in insignificant results.

Conclusion 3: The rural youth's attitude towards entrepreneurship has a significant positive impact on whether they choose to use "Internet+" entrepreneurship at the statistical level of 1%. The more rural young people who are in favor of starting a business, the easier it is to choose "Internet+" entrepreneurship.

(b) Related Suggestions

b1. Strengthen the rural infrastructure

Strengthening the rural infrastructure and realizing the entire village network coverage in the village will help change young people's ideology of “Internet +”. During the field survey, some rural youth said that the village has not yet connected to the Internet. People are skeptical about what is unknown, and so are young farmers. Some rural youths will never use the “Internet Plus” for the reason that they have been never contacted it. If we strengthen the infrastructure in the village and achieve coverage in the village's entire network, we can allow the “Internet +” to naturally enter the lives of farmers more naturally so that they can accept and trust “Internet +”. As a result, their chances of using the “Internet Plus” may increase.

b2. Develop skills training and popularize relevant knowledge

According to empirical analysis, the degree of understanding of “Internet +” among rural youth has a significant impact on whether they use “Internet+” entrepreneurship. Therefore, it is very necessary to improve rural youth's understanding of the "Internet +". The local government can carry out skills training for rural youth to acquire more “Internet +” related knowledge and make them learn more about “Internet +”. At the same time, entrepreneurship training can be added to skills training to make more rural youth realize that entrepreneurship is not difficult but feasible. This will make more rural youth to start using "Internet +" entrepreneurship.

b3. The government actively encourages publicity and creates an entrepreneurial atmosphere

Many rural youths are hesitating to use the “Internet+” entrepreneurship. The government should actively encourage publicity and urge rural youth to use “Internet+” entrepreneurship, such as putting up posters in the village, using village radio propaganda and so on. If there are entrepreneurial successors in the village, village officials can choose him or her as the entrepreneurial leader in the village and invite him or her to make speech to the youth to create a strong entrepreneurial atmosphere in the village and increase rural youth's interest in entrepreneurship. In addition, the government can also set up a public service platform to facilitate timely guidance when rural youth entrepreneurship encounters difficulties.
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