Policy Oriented Research on Targeted Poverty Alleviation and Entrepreneurship Measures Based on Co-Word Network Analysis

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Abstract. With continuous work in taking targeted measures in poverty alleviation, China will soon achieve comprehensive poverty reduction in the rural poor by 2020. After a large number of poverty alleviation practices, entrepreneurship for poverty alleviation becomes an important way to achieve the self-worth of poverty alleviation objects and to promote regional economic development. This article reviews the 173 taking targeted measures in poverty alleviation and entrepreneurship poverty reduction policies issued by various national ministries and provinces since March 2013 in order to explore how the current policy guides and supports entrepreneurship and poverty alleviation. It extracts high-frequency keywords; applies the Ucinet tool conducts a co-word analysis of the core keywords of the poverty alleviation policy; and obtains its internal connection and centrality. Thereby it determines the basic orientation of the current policy tools and provides an optimized path for the policy supply to prevent poverty from returning to poverty.

Keywords: policy, poverty alleviation, co-word network, entrepreneurship

1. Introduction

The report of the 19th National Congress of the Communist Party of China clearly stated that "we must mobilize the entire party and the whole society to adhere to take targeted measures in poverty alleviation and targeted poverty reduction in order to ensure that the rural poor can achieve poverty reduction under China's current standards by 2020." It is urgent to increase the driving force for the development of internal production in order to successfully fight against the poverty alleviation. Entrepreneurship for poverty alleviation is an important way to achieve the self-worth of poverty alleviation objects and promote regional economic development.

The development of employment, entrepreneurship, and poverty alleviation policies have improved the self-development capabilities of poor households since 2013, but there are still problems that the poverty reduction effect is not significant due to the lack of precision in policies. In a large number of entrepreneurial poverty alleviation practices, it has been found that the limitations of the poor households are mainly concentrated in their will, resources, and capabilities. Therefore, it can fundamentally solve the problem of poverty and avoid returning to poverty by improving the efficiency of entrepreneurship for poverty alleviation, the accuracy of its policies, and breaking through constraints such as willingness, resources, and capabilities. Therefore, it is necessary to launch policy-oriented research on cracking willingness, resources, and capacity constraints in the context of precision entrepreneurship and poverty alleviation in order to break through the limitations of the institutional framework.

2. Literature Review

The following problems still need to be solved in order to achieve targeted goals in the current entrepreneurship for poverty alleviation: low entrepreneurial willingness leads to insufficient entrepreneurial opportunity identification and development, and entrepreneurial vitality that does not match poverty alleviation efforts; lack of entrepreneurial resources leads to a slow improvement in the level of entrepreneurship while entrepreneurship projects lack sustainable operating capital, and it is difficult to implement the poverty alleviation model of entrepreneurship; weak entrepreneurial capabilities lead to low productivity of enterprises, poor entrepreneurial
performance, and high barriers to participate in entrepreneurship for poverty alleviation (Alvarez SA, 2014).

Existing research shows that the entrepreneurial poverty alleviation policy helps to resolve the impact of willingness, resources, capacity constraints on taking targeted measures in poverty alleviation, guides the society's entrepreneurial awareness (Usman, Tasmin, 2015), enhances innovation ability (Thiem, 2015), and optimizes allocation Venture Resources (Wang Jiayi et al., 2016). The policy itself is motivating and guiding, and there is a correlation between policies. If the introduction of the poverty alleviation policy ignores this relationship, it will make it difficult for the established entrepreneurship for poverty alleviation implementation model and policies to effectively promote economic growth, achieve poverty alleviation goals, and even produce negative effect (Yanya M, 2013; Wang Lina, 2017). Therefore, it is necessary to develop analysis and comparison of potential policy needs and policies issued by the national and local governments over the years to explore their policy orientation, and to propose directions for optimizing entrepreneurship for poverty reduction policies.

3. Policy Content Sorting

This article collected a total of 173 texts on taking targeted measures in poverty alleviation and entrepreneurship for poverty reduction policies in the past five years, of which 52 were issued by 30 ministries and commissions including the General Office of the State Council of PRC, the Ministry of Science and Technology of PRC, and the State Council’s Poverty Relief Office of PRC. There are 121 issued by 22 provinces, cities and autonomous regions, such as Guizhou, Hubei, and Ningxia. According to the constraints and specific performances of the four typical models in the practice of entrepreneurship for poverty alleviation, it is coded in the manner of “Issuing Units-Policy Documents-Policy Terms” and sorted out. The classification criteria are shown in Table 1.

| Poverty alleviation model | Development | Incubation |
|---------------------------|-------------|------------|
| Constraint                | Will        | Resource   | Will |
| Performance               | Entreprenurial atmosphere | Venture loan | Entrepreneurial loan |
|                           |             | Market development | Entrepreneurial atmosphere |
|                           |             | Talents support | Entrepreneurial platform |
|                           |             | Management training | Entrepreneurial talent |
| Performance               | Technical capability | Entrepreneurial atmosphere | Entrepreneurial training |
| Performance               | Entrepreneurial tendency | Financial resources | Natural resources |
| Performance               | Entrepreneurial desire | Market resources | Entrepreneurial training |
|                          |              | Labor resources |                |
|                          |              | Technical capability |                |
|                          |              | Entrepreneurial atmosphere |                |
|                          |              | Natural resources |                |
|                          |              | Entrepreneurial training |                |

Table 1. Current policy classification criteria of entrepreneurship for poverty alleviation
4. Co-Word Analysis

Based on the text classification and sorting, this article uses the 173 items of taking targeted measures in poverty alleviation and entrepreneurship for poverty alleviation policies as data sources with Ucinet software to extract policy keywords and word frequencies.

Firstly, it applies NVivo 11 software to extract the core policy text of targeted entrepreneurship for poverty alleviation, and then it uses this software to perform word frequency statistics to extract high-frequency keywords. The statistical results are shown in Table 2.

Table 2. Statistical table of high-frequency keywords for the core policy of targeted entrepreneurship for poverty alleviation

| No. | Keyword | Word frequency | No. | Keyword | Word frequency | No. | Keyword | Word frequency |
|-----|---------|----------------|-----|---------|----------------|-----|---------|----------------|
| 1   | Entrepreneurship | 660          | 18  | Loan   | 132          | 35  | Talent | 101          |
| 2   | Poverty | 498          | 19  | Technology | 129      | 36  | Innovation | 99          |
| 3   | Poverty alleviation | 419      | 20  | Work   | 122          | 37  | Organizational | 98          |
| 4   | Training | 414         | 21  | Society | 122          | 38  | Establishment | 95          |
| 5   | Employment | 383       | 22  | Leader | 121          | 39  | Relief | 94          |
| 6   | Service | 289          | 23  | Poverty reduction | 121    | 40  | Enhancement | 92          |
| 7   | Support | 247          | 24  | Personnel | 120      | 41  | Family | 87          |
| 8   | Region | 217          | 25  | Encouragement | 120    | 42  | Institution | 87          |
| 9   | Sci Technal | 201       | 26  | Capability | 118     | 43  | Poor village | 87          |
| 10  | Countryside | 194        | 27  | Skill | 116          | 44  | Farmer | 85          |
| 11  | Development | 192        | 28  | Agriculture | 115    | 45  | Supply | 85          |
| 12  | Industry | 164          | 29  | Getting rich | 114    | 46  | Condition | 83          |
| 13  | Reconstruction | 156      | 30  | Project | 113      | 47  | Fund | 82          |
| 14  | Develop/ launch | 155      | 31  | Labor | 112          | 48  | Finance | 82          |
| 15  | Enterprise | 151         | 32  | Poor household | 106    | 49  | Improvement | 81          |
| 16  | Policy | 140          | 33  | Implementaion | 104    | 50  | Occupation | 81          |
| 17  | Resource | 139         | 34  | Increase | 102    |      |         |              |

Among them, the keyword "entrepreneurship" appears the most frequently, with a total of 660 times. It is followed by poverty and poverty alleviation, which are keywords for targeted entrepreneurship for poverty alleviation policies, and these words are the main body of the policy content. The word frequency of training, science and technology, service, and loan appear at high level as well. It indicates that the targeted entrepreneurship for poverty alleviation in poverty-stricken counties often use training, development of science and technology, and supply of entrepreneurial loans and subsidies to help poor households to take targeted measures in poverty alleviation.

In this study, Ucinet software is used to convert it into a file of **## h**, and NetDraw is used to draw the co-word network chart of the core policy of targeted entrepreneurship for poverty alleviation in order to show the internal correlation between the key words of the core policy of targeted entrepreneurship for poverty alleviation and the links between the keywords are more intuitively displayed. The high-frequency keyword co-word network view is obtained, as shown in Figure 1.
According to the figure above, it can be seen that the high-frequency keywords of policy of targeted entrepreneurship for poverty alleviation form a close intertwined relationship with each other, and the keywords that can be related to each other are connected with each other in the chart with lines.

The size of the node indicates the centrality of the keyword, which the larger the node, the higher the centrality; the connection between the nodes indicates the frequency of the two groups of keywords, which the higher the frequency, the closer the relationship between the two groups of keywords.

In Figure 1, entrepreneurship, poverty, training, resource, science and technology, etc. are located in the visible center, forming the main structure of the policy of targeted entrepreneurship for poverty alleviation. Based on this, the research subjects of structural hotspots such as finance, loans, enterprises, leaders, and e-commerce, etc. have been formed and had close structural relationships. In addition, the links between poverty and entrepreneurship, entrepreneurship and training, entrepreneurship and resources, entrepreneurship and loans, and training and skills are the most intensive, which indicate that the frequency of collinearity is the highest and that they are most closely related to each other.

### 5. Centrality Analysis

Centrality is an important indicator of the position of an individual's structure. It evaluates the importance of the individual and measures its superiority or privilege in the social network. At present, the centrality that is commonly divided into three forms: degree centrality, closeness centrality, and betweenness centrality. The centrality analysis table for the co-word of the policy of targeted entrepreneurship for poverty alleviation is shown in Table 3.

1. **Dot centrality analysis**
   
   It can be seen that entrepreneurship, training of poverty alleviation, skill, and service have the highest dot centrality, and these three are the core nodes in the policy of targeted entrepreneurship for poverty alleviation. It explains that training, skill, service, and other aspects of the network are closely related to other nodes. Followed by technology, loans, resources, industries, enterprises, etc., the nodes where these keywords are located are also closely related to other keywords.

2. **Close-centrality analysis**
   
   The close centrality of the keywords in the policy of targeted entrepreneurship for poverty alleviation is not notable in difference, but the values are high. It indicates that the keywords are closely related, and are susceptible to the influence and control of other keyword nodes.
6. Summary

From the results of the above co-words analysis, we could know that the policy orientation of targeted entrepreneurship for poverty alleviation is manifested in the entrepreneurial willingness to support poor households in entrepreneurship, and vigorously promote policies to increase the awareness and atmosphere of poor households in entrepreneurship. In terms of entrepreneurship resources, the policy of targeted entrepreneurship for poverty alleviation focuses on financial resources, human resources and technical resources. In the constraint of entrepreneurial capabilities, policies can be subdivided into areas such as improving technical capabilities, management capabilities, and innovation capabilities.

According to the analysis of word frequency and centrality, training word frequency and various centrality are very high. Core nodes, science and technology, loan, and industry also have a high degree of centrality in the network chart, and are represented as key nodes. Under the guidance of policies, we must pay attention to distinguish them from individual poverty alleviation policies when designing policies. The combination of policies has further stimulated the effectiveness of poverty alleviation. For example, first of all, we must clarify the appropriate local production conditions, launch different skills training programs for different types of poor households, pay attention to the role of this core node, vigorously develop e-commerce, guide entrepreneurial loans, develop entrepreneurial industries, and develop technological innovation. At the same time, it is also necessary to further promote policies and measures in the areas of ecotourism, discounted loans, leaders in getting rich, special representatives in science and technology, and e-commerce etc. Then

Table 3. The centrality analysis table for the co-word of the policy

| ID               | Degree | Closeness | Betweenness | ID               | Degree | Closeness | Betweenness |
|------------------|--------|-----------|-------------|------------------|--------|-----------|-------------|
| Entrepreneurship | 65.323 | 74.251    | 25.578      | E-commerce       | 14.516 | 52.542    | 0.46        |
| Poverty          | 62.903 | 72.941    | 22.074      | Education        | 12.903 | 52.101    | 0.429       |
| Training         | 41.129 | 62.944    | 8.705       | Poor households  | 8.871  | 47.148    | 0.222       |
| Skill            | 37.903 | 60.488    | 8.224       | Targeted         | 8.871  | 47.51     | 0.414       |
| Rural            | 13.71  | 51.883    | 6.485       | Society          | 15.323 | 53.219    | 0.359       |
| Service          | 36.29  | 61.084    | 5.286       | Production       | 8.871  | 50.407    | 0.35        |
| Enterprise       | 24.194 | 55.856    | 5.015       | Cadre            | 8.065  | 48.249    | 0.34        |
| Industry         | 25.806 | 56.364    | 3.933       | Network          | 12.097 | 49.799    | 0.298       |
| Policy           | 31.452 | 58.216    | 3.623       | Tourism          | 8.871  | 49.402    | 0.292       |
| Loan             | 27.419 | 56.881    | 3.576       | Village          | 7.258  | 49.012    | 0.248       |
| Sci Technol      | 31.452 | 58.216    | 3.148       | Relocate         | 10.484 | 51.452    | 0.232       |
| Poverty alleviation | 23.387 | 55.605    | 2.965       | Graduates        | 8.065  | 46.617    | 0.17        |
| Resource         | 26.613 | 57.674    | 2.594       | Development      | 5.645  | 40.924    | 0.165       |
| Talent           | 16.129 | 53.913    | 1.824       | Will             | 9.677  | 50.202    | 0.142       |
| Innovation       | 13.71  | 52.766    | 1.676       | Fund             | 11.29  | 50.612    | 0.141       |
| Leader           | 22.581 | 54.867    | 1.462       | Special representative | 8.871 | 50.407    | 0.133       |
| File a card      | 19.355 | 55.357    | 1.421       | Personnel        | 8.871  | 49.799    | 0.131       |
| Labor            | 18.548 | 54.148    | 1.242       | Incubation       | 8.871  | 49.402    | 0.124       |
| Finance          | 20.161 | 54.626    | 1.11        | Mentor           | 7.258  | 48.249    | 0.101       |
| Home return      | 12.903 | 51.24     | 0.621       | Credit loan      | 8.871  | 49.799    | 0.099       |
| Poverty reduction| 10.484 | 51.667    | 0.596       |                  |        |           |             |

(3) Intermediate centrality analysis

Except for entrepreneurship and poverty, the centrality of training and skill are highest. This shows that training and skill assume an important mediation in the policy of targeted entrepreneurship for poverty alleviation network, and other nodes must rely on this to achieve the goal of targeted entrepreneurship for poverty alleviation. This shows that in the policy of targeted entrepreneurship for poverty alleviation network, it is the top priority to achieve poverty alleviation, launch training activities, and enable poor households to learn targeted entrepreneurship skills.
it should establish a resource integration mechanism, and formulate a more systematic and scientific poverty alleviation policy for poor households.

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