

# 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.

Table 1. Current policy classification criteria of entrepreneurship for poverty alleviation

Poverty alleviation model	Development			Incubation		
Constraint	Will	Resource	Capacity	Will	Resource	Capacity
Performance	Entrepreneurial atmosphere	Venture loan Market development Talents support	Management Training Technical capability	Entrepreneurial awareness Entrepreneurial atmosphere	Entrepreneurial loan Entrepreneurial talent Entrepreneurship platform	Management Training Innovation ability
Poverty alleviation model	Relief			Immigration		
Constraint	Will	Resource	Capacity	Will	Resource	Capacity
Performance	Entrepreneurial tendency Entrepreneurial desire	Financial resources Market resources Labor resources	Technical capability	Entrepreneurial atmosphere	Natural resources	Entrepreneurial training

#### 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	Organization	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	Implementation	104	50	Occupation	81
17	Resource	139	34	Increase ment	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.

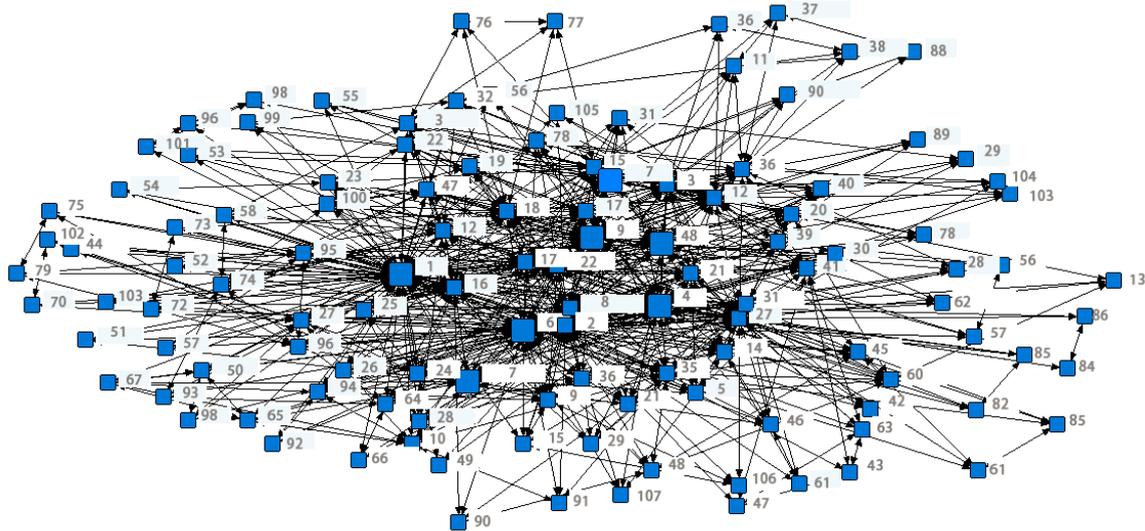


Figure 1. Co-word network chart of policy of targeted entrepreneurship for poverty alleviation

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.

**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	0.422
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.

## 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

it should establish a resource integration mechanism, and formulate a more systematic and scientific poverty alleviation policy for poor households.

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