

How does rural village in China achieve industry integration to reduce labour force surplus through farmers' co-operatives?

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Abstract: Facing the difficulties in developing industries in rural regions in china, farmer's co-operative is proposed as a valid solution to transform the excess labour force from agriculture to manufacture and service industries. The co-operative has two main advantages: centralised production and service provision that drive up the profitability and competitiveness of the production. However, the growth of co-operatives is obstructed by numerous barriers, namely, lack of funds and lack of collaboration. Targeting these two defects, this paper proposes two policy recommendations: first, direct government service provision and financial aid to expand co-operative service range and basic equipment; second, promote a shareholder based co-operative model to enhance the interest linkage between farmer members, thus reducing the transaction costs of production.

Keywords: Farmer's co-operative; Rural development; Industry integration; Economic policy

1. Introduction

As china's urban regions enter rapid industrial development, the rural agricultural regions remain underdeveloped and pose various challenges to community well-being. The labour force surplus is one of the most concerned issues. Industry integration can successfully absorb the excess workforce and develop the economy of the region. However, the rural region often lacks resources to establish the competitiveness of the industry. Around this topic, there has been much academic discussion and researches on introducing 'farmer's co-operative' as an effective tool to promote the industry integration, however, seldomly do they mention the underlying disadvantages of this solution. This paper discusses the specific characteristics that makes farmer's co-operative successful, and then by borrowing data and facts, the paper outlines two common barriers obstructing the growth of co-operatives. Finally, specifically targeting these deficits, two policy recommendations are proposed in order to support co-operative expansion and reduce production costs. With the sufficient aid from the government and a reformed structure, the farmer's co-operative can then stimulate industry integration.

2. The reality of the labour surplus issue in rural China

China's rural villages are experiencing extremely high labour surplus and are dragging down the nation's pace of economic development.

Farmers compose 60% of China's population, and yet the GDP contribution of their works in the agriculture sector is less than 15% [1]. This fact suggests a surplus of the workforce in rural regions, in fact, over 200 million according to research [1]. The surplus has posed huge consequences for the farmers in two ways: firstly, the low-efficiency of agriculture and over-production of crops has kept farmers' income at a relatively low level (16021 yuan/year) [2], resulting in poverty; secondly, farmers are locked out of the welfare system and are struggling to access good quality medical care and education (241 yuan/year spent on services). The economic loss that China experiences are huge: rural villages, which make up 60% of the population, only consume 36% of all goods [2], suggesting a low consumption power, which harms economic growth. Besides, China's urban regions, on the one hand, are experiencing rapid modernization, while the rural areas, on the other hand, still count on the primary industry for employment opportunities, suggesting an even more severe challenge in resolving social inequality and reforming economic structure. Thus, addressing labour surplus in the rural village has become a priority for the government.

The surplus is caused by a lack of industrial development in rural regions. Usually, the integration of

industries can absorb surplus farmers in two ways: it provides important motivations and opportunities for farmers, who want to improve their living standards, to enter into the higher value-added industry and receive better payments; also, the prosper of industries incentivize the local government to direct more labours into infrastructure construction to create a supportive business environment [3]. Without these two effects, farmers are unable to enter into non-agricultural sectors.

2. Promote farmers' co-operative to encourage the growth of industries to increase employment in the secondary and tertiary industry

In light of this situation, this paper offers the solution: to promote farmers' co-operatives to achieve industrial development and integration:

Formed by rural households to increase profit margins, farmers' co-operatives can increase the profitability of agricultural and industrial production. The increasing profit margin leads private investors to tap into the secondary and tertiary industry to extract more values and thus employing more labours [3].

Farmers' co-operatives increase profitability in two ways:

First, farmers' co-operatives employ centralized management strategy. The co-operative is in charge of overseeing the production process to ensure all products meet a set standard [4]. This allows the co-operative to be in a better position to organise the production according to the general capacity of the region, improving the agricultural planning and thus the efficiency of production. In addition, the co-operative as a collective have a stronger bargaining power to seek lower ingredient price (reduction by 8-9%) [4]. The co-operative achieves economies of scale, which means every unit of production cost is reduced.

Second, farmers' co-operatives provide various services. Pre-production services include provision for ingredients and equipment, guidance for utilising machines, and fertilizers. Post-production services include establishing infrastructure facilities such as processing factories—to build and enrich the secondary industry [5]. In addition, marketing services in the tertiary industry include utilising tools such as e-commerce to explore and brand the products. Service provisions extend the production chain and allow farmers to add surplus values to their production by selling more profitable products.

However, the setbacks occur in the implementation of the policy. China introduced its Farmers' Co-operative Laws (FPCL) in 2007 [6]. The number of co-operatives has grown over 60 times [7]. The functions of co-operatives have evolved from, services to share agriculture information to services to maintain infrastructure and induce manufacturing (42% of all co-operatives). Despite the limited success, the overall coverage of farmers' co-operatives is still limited (only 21.8% of all households join) [8]; and the development of co-operatives are incapable of providing post-production services such as processing and marketing. Lack of funding and lack of collaborations have undermined the growth of co-operatives across China [9].

3. Policy recommendation to enhance the mechanism of farmers' co-operative

I will introduce two policy recommendations to address these two problems:

3.1 Government to provide direct assistance to co-operatives

First, to address the funding issue, the government should provide direct assistance to co-operatives. The majority of China's farmers' co-operatives are of relatively small size. And this creates immense difficulties for the small holder-farmers to gain access to capital: they are unable to apply for loans (no guarantees) and government grants (which are mostly distributed towards big-name co-operatives) [10]. Without enough funding, the co-operatives cannot provide services to build infrastructures for transportation and storage or to purchase equipment, fertilisers, pesticides, and other ingredients, significantly limiting its profitability and growth.

Thus it is recommended for the government to expand the coverage of the grants and provide essential services to co-operatives at their starting phase. The present policy states that for a sizeable co-operative, the government will subsidies 40-80 yuan per acre (varies according to region) and up to 50,000 dollars for purchasing equipment [11]. In order to address the most needed smaller co-operatives, the government should reform its distribution scheme and conduct a critical assessment on each co-operative

based on their member size, portfolios, and productions. This official assessment will urge local actors to consider distributing funds sensibly: instead of devoting most funds at one demonstration co-operative, the government can distribute at a relatively lower amount (20 yuan per acre), but to a wider range to reach poorer co-operatives (where the investment return is much higher). An objective criteria sheet is needed to eliminate any possibilities of the sympathy of interest between local actors and big co-operatives.

In addition, the government should be in charge of providing essential services to co-operatives. Because some projects, such as production and processing base, are way beyond co-operatives' capacity to manage, and yet they are vital for villages to diversify their industry for trading high-value-added products. The local government could unit the interests of multiple local co-operatives, which produce the same agricultural products and then set up a specialised processing base for those products. This strategy is utilised in the case of Hengxi bamboo co-operative in Anji in which the government built up several industrial parks, covering the entire processing chain of transforming bamboos to furniture. Driven by high revenue from selling furniture, Anji's secondary industry expanded and is now making up 48% of the region's GDP, and it effectively motivates local farmers to transfer to non-agriculture jobs [12].

Another further recommendation is that the government should be flexible in terms of the services provided and adjust according to the needs of the co-operatives. Once the co-operatives have grown to a size capable of financing their own expenditures, the government can focus on providing technical support and teaching management strategies. In this case, fostering co-operatives' abilities to study market patterns can be more beneficial for development.

3.2 Government to promote stronger relationship within co-operatives

Second, to address the lack of collaborations, the government should play a more active role in promoting a stronger working relationships among members and building trust. The traditional co-operative model is contract-based: individual households negotiate with the co-operative and form a stable demand and supply relationship [4]. However, this relationship is extremely vulnerable: there is no strong binding force that forbids farmers to trade in the markets instead of with the co-operative when the market price is higher. This situation is exacerbated by an ineffective distribution system within the co-operative. Block holders with more significant investment into the co-operative has a greater influence in decision making and surplus allocation [13]. As a result, the majority of farmers become periphery members without legitimate power to hold the co-operative accountable. These two factors weaken the stability of the co-operative and undermine the collaboration among entities. Thus, co-operative's transaction costs, from reaching decisions and enforcing contracts, are elevated, thus undermining the efficiency overall.

It is advisable that the government should aim to promote better co-operative models for the sake of better collaboration, where the connection of interest is much stronger. One such model is the member-investment co-operative, introduced by the local government in Anji county in 2007 [14]. Every household of the collective is a shareholder and receives its portion of revenue. According to the law, for the residual income of the co-operative, about 40% is kept as reserves and investment for value-added projects, and the remaining is credited to shareholders. To effectively promote this model, the government can introduce incentive policies, such as lowering the business tax for co-operatives adopting the model and the income tax for individual households investing in communal assets [15]. A closer bond is formed between the household and the co-operative since they share common interests. This help to increase farmers' motivation to participate more actively in the decision-making process and to provide constructive ideas in co-operatives' development. With a willingness to negotiate and work together, frictions will be reduced drastically, and market competitiveness can be established. A point of consideration for the government is that such a model should not take away any individuality or responsibility of households and should still be built upon the 'household membership' system to ensure the surplus is distributed according to the household's contribution to the production.

4. Conclusion

China's now facing severe challenges raised by the extra labour force in the agricultural sector. The consequences include low income and low welfare state to the farmers, and also significant economic losses to the economy and the exacerbation of social inequality. As a broadly discussed solution, the farmer's co-operative is likely to increase the competitiveness of firms and thus stimulates industry

integration, which attracts more labour force through employment in factories and infrastructure projects. The co-operative increases the profitability by achieving economies of scale by centralised management and by providing essential services during production for value adding. The policy recommendations address the major difficulties of co-operatives. Firstly, to encourage the local government to provide the essential start up fund and services to co-operatives. Then the strategic choice of provision could adapt flexibly as the co-operate grows. Secondly, aiming at the lack of collaboration among the co-operative members, the government can introduce a modified version of co-operatives to foster a cohesive working relationship. Overcoming the difficulties posed on the path of co-operatives, the core competitiveness could be established to facilitate the growth of industries.

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