



**ANALYSIS OF THE STATUS OF PRODUCTION, BUSINESS, SERVICE SUPPLY,
AND RICE PRODUCTION LINKAGES OF COOPERATIVES
IN BAC LIEU PROVINCE**

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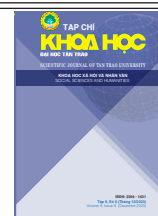
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Keywords

*services, linkages,
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Abstract

This research was conducted from October 2022 to December 2022. Data was collected from 103 cooperatives operating in production and business activities, supply services, and linked rice production in Bac Lieu province. The research method uses qualitative and quantitative descriptive statistics. The results showed that cooperatives were mainly concentrated in districts of the province, such as Hong Dan, Phuoc Long, Hoa Binh, Vinh Loi, and Gia Rai. Cooperatives mainly provided from 3 to 5 services. Cooperatives providing services and linked rice production were still limited; the business and production linkage and product consumption between companies, businesses, and cooperatives were unstable and discontinuous. Most rice production cooperatives had low levels of trained management staff, small-scale production, low charter capital, limited business and service efficiency, and revenue and profits distributed to membership are still very low, not contributing significantly to the increase of members' income. The results also show that the level of management staff; Factors of capital and product quality have an impact on the quality of service provision and production links of rice production cooperatives.



PHÂN TÍCH THỰC TRẠNG HOẠT ĐỘNG SẢN XUẤT KINH DOANH CUNG ỨNG DỊCH VỤ VÀ LIÊN KẾT SẢN XUẤT LÚA GẠO CỦA CÁC HỢP TÁC XÃ Ở TỈNH BẠC LIÊU

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Từ khóa

Dịch vụ, liên kết, hợp tác xã, sản xuất, tỉnh Bạc Liêu

Tóm tắt

Nghiên cứu này được thực hiện từ 10/2022 đến 12/2022, số liệu được thu thập từ 103 HTX hoạt động sản xuất kinh doanh (SXKD) cung ứng dịch vụ và liên kết sản xuất lúa gạo ở Bạc Liêu. Phương pháp nghiên cứu sử dụng thống kê mô tả định tính và định lượng. Kết quả nghiên cứu cho thấy, các HTX tập trung chủ yếu ở một số địa phương trong tỉnh như huyện: Hồng Dân, Phước Long, Hoà Bình, Vĩnh Lợi và thị xã Giá Rai; các HTX cung ứng chủ yếu từ 3 đến 5 dịch vụ; các HTX có cung ứng dịch vụ và liên kết sản xuất lúa gạo vẫn còn hạn chế, mối liên kết SXKD, tiêu thụ sản phẩm giữa các công ty, doanh nghiệp với HTX còn thiếu tính ổn định và không liên tục; đa phần HTX sản xuất lúa gạo có trình độ cán bộ quản lý qua đào tạo thấp, quy mô sản xuất nhỏ lẻ, vốn điều lệ góp thấp, hiệu quả SXKD và dịch vụ còn hạn chế, doanh thu và lợi nhuận phân phối cho thành viên còn rất thấp, chưa góp phần đáng kể nhằm nâng cao thu nhập cho thành viên. Kết quả cũng chỉ ra rằng, trình độ cán bộ quản lý; nhân tố về nguồn vốn và chất lượng sản phẩm có mức độ ảnh hưởng đến chất lượng cung ứng dịch vụ và liên kết sản xuất của các HTX sản xuất lúa gạo.

1. Introduction

In a market economy, collective economic development not only helps small business households increase their production scale but is also an opportunity to compete with other economic sectors. In particular, agricultural cooperatives play an important role in helping small farmers have the opportunity to increase their income, compete in the market, and develop agriculture and rural areas [1],[2].

In recent years, the collective economic movement, typically agricultural cooperatives in Bac Lieu province,

has had many positive changes in building new rural areas. Cooperatives have gradually been strengthened, innovated and improved the quality of operations, innovated management methods, and actively linked with companies and businesses inside and outside the province, especially agricultural cooperatives that produce rice [3]. By the end of 2022, the whole province will have 103 agricultural cooperatives producing rice, attracting 4,576 members, with a total production area of 8,958 hectares (a planted area of about 15,984 hectares). Agricultural cooperatives operate in fields

such as rice seeds, fertilisers, pesticides, and irrigation services and seek product output markets for members through production links with companies, businesses, and cooperatives inside and outside the province so that members can feel secure in rice production [3], [4].

However, with the potential and advantages of agricultural production, cooperatives in the field of rice production in the province have not developed strongly, the production scale is small, and the supply of input materials does not meet the requirements. of members, the connection and cooperation with companies, businesses, and cooperatives in the field of input and output services is not tight, unsustainable, and cannot link the production model according to the value chain [5].

From the above issues, the study “**Analysis of the current status of production, business, service supply, and rice production linkages of cooperatives in Bac Lieu province**” is necessary to contribute to the socio-economic development of cooperatives in Bac Lieu province for the locality.

2. Research objectives and methods

2.1. Objectives of the study

The study is aimed to investigate the current status and evaluate the situation of production, business, service supply, and rice production linkages; analyze factors affecting service supply and rice production linkages in Bac Lieu province. Furthermore, the study proposes a number of solutions to improve the quality

of supply services and rice production linkages in Bac Lieu province.

2.2. Research Methods

- Directly interview the cooperatives using questionnaires including: Director Board, members of the cooperatives providing services, and those associated with local rice production.

- Directly interview experts: through discussion and seminars.

- Data analysis and processing methods: using Excel and SPSS software to analyse and process data.

- The research method uses qualitative and quantitative descriptive statistics.

3. Results and discussion

3.1. Current status of cooperatives in Bac Lieu province

As of December 31, 2022, the whole province has 198 cooperatives operating in various fields. Of these, there are 103 cooperatives operating in the field of rice production, accounting for 52%; there are 63 other agricultural cooperatives, accounting for 31.8%; there are 26 non-agricultural cooperatives, accounting for 13.1%; and there are 8 private credit funds, accounting for 3.1%. Rice production cooperatives are operating 87 cooperatives, accounting for 84.4% [6]. This shows that, currently, the scale of rice production cooperatives is high, but the level of activity of cooperatives is mainly seasonal.

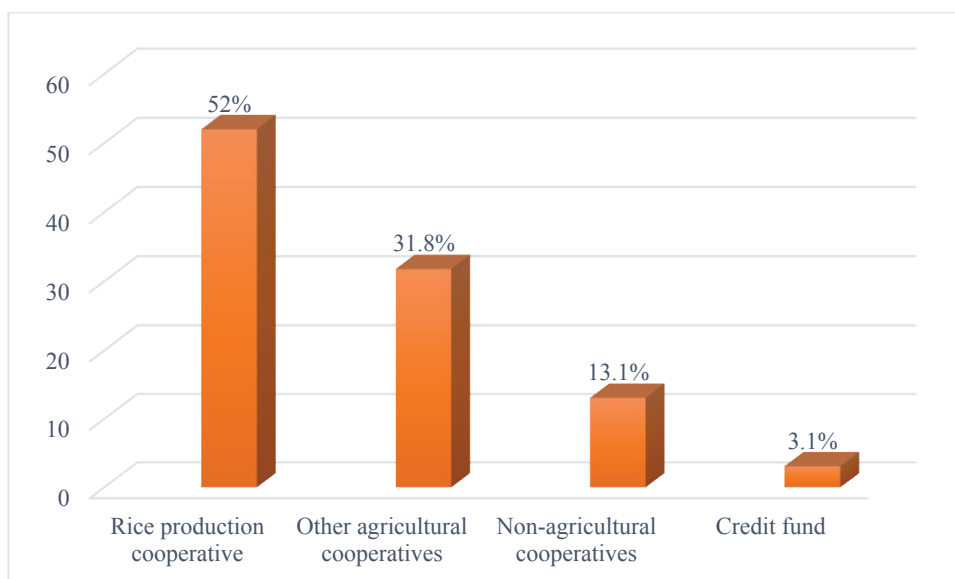


Figure 1. Survey data statistics of cooperatives in different sectors.

3.2. Current status of member size and area of rice production cooperatives

Table 1. Number of cooperatives, members, and area of rice production cooperatives

| No. | Locality | Number of rice production cooperatives | | Members | | Acreage | |
|--------------|---------------------|--|------------|--------------|------------|--------------|------------|
| | | Quantity | Ratio (%) | Quantity | Ratio (%) | Quantity | Ratio (%) |
| 1 | Hoa Binh district | 15 | 14,6 | 879 | 19,2 | 1.805 | 20,2 |
| 2 | Vinh Loi district | 17 | 16,5 | 952 | 20,8 | 1.597 | 17,8 |
| 3 | Hong Dan District | 27 | 26,2 | 1.214 | 26,5 | 2.474 | 27,6 |
| 4 | Phuoc Long district | 23 | 22,3 | 845 | 18,5 | 1.888 | 21,1 |
| 5 | Gia Rai town | 21 | 20,4 | 686 | 15,0 | 1.194 | 13,3 |
| Total | | 103 | 100 | 4.576 | 100 | 8.958 | 100 |

Source: Survey data statistics, 2022

The results of Table 1 show that rice production cooperatives are concentrated quite evenly in districts and towns with concentrated rice production areas in the province. Among them, Phuoc Long district and Hong Dan district are two localities with a higher number of rice production cooperatives than the remaining localities (Hong Dan district has 27 cooperatives, accounting for 26.2%, Phuoc Long district has 23 cooperatives, accounting for 22.3%, Gia Rai town has 21%cooperatives, accounting for 20.4%, Vinh Loi district has 17 cooperatives, accounting for 16.5%, and the lowest is Hoa Binh district with 15 cooperatives, accounting for 14.6%).

Regarding membership structure: The total number of members of the cooperative is 4,576, of which the highest is Hong Dan district with 1,214 members accounting for 26.5% and the lowest is Gia Rai town has 686 members, accounting for 15% of the number of members of other cooperative units.

Regarding production land area: The total rice production area of the members is 8,958 hectares, of

which the highest district is Hong Dan district with 2,474 hectares, accounting for 27.6%; the lowest is Gia Rai town has 1,194 hectares, accounting for 13.3%. This shows that the scale of rice production by cooperatives in different regions is different, consistent with the ecological conditions of each production area.

3.3. Current status of qualifications of cooperative management staff of rice production

Management officers are those who run the work of cooperatives, elected by members through the Members’ Congress. Cooperative managers must be qualified, competent, and have ethical qualities to effectively run cooperative activities. Through actual surveys, it has been shown that the qualifications of managers have a great influence on the performance of cooperatives, especially in the fierce competition of market mechanisms. The qualifications of managers are one of the leading factors affecting the production, business, and service activities of cooperatives.

Table 2. Qualifications of managers of rice production cooperatives

| No. | Degree training | Administrative Council | | Board of manager | | Control Board | |
|-----|------------------------|------------------------|------------|------------------|------------|---------------|------------|
| | | Frequency | Ratio (%) | Frequency | Ratio (%) | Frequency | Ratio (%) |
| I | Training | 103 | 100 | 70 | 100 | 73 | 100 |
| 1 | Untrained | 62 | 60,1 | 37 | 52,9 | 54 | 74 |
| 2 | Primary career | 17 | 16,5 | 12 | 17,1 | 7 | 9,6 |
| 3 | Intermediate level | 8 | 7,8 | 7 | 10,0 | 3 | 4,1 |
| 4 | Higher education | 15 | 15,6 | 14 | 20,0 | 9 | 12,3 |
| II | Training for positions | 57 | 55,3 | 14 | 20,0 | 33 | 45,2 |

Source: Survey data statistics, 2022

According to survey results on the qualifications of cooperative management staff in the districts of Vinh Loi, Hoa Binh, Phuoc Long, Hong Dan, and Gia Rai Town, the majority of cooperative management staff are mainly untrained. or primary vocational; the number of cooperative managers with intermediate, college, and university degrees is low. Specifically:

For the Board of Directors: untrained members of the Board of Directors account for 60.1% of the total number of cooperative management staff; members of the Board of Directors with primary vocational training account for 16.5%; members of the Board of Directors with intermediate degrees account for 7.8%; and members of the Board of Directors with college or university degrees account for 15.6%.

For the Board of Directors (Director and Deputy Director): The model of cooperatives in general and rice production cooperatives in particular in Bac Lieu province is mainly an apparatus for both management and administration, in which the Chairman of the Board of Directors is the Director of the Cooperative and a number of members of the Board of Directors are the Deputy Director of the Cooperative. Since then, the qualifications of the Board of Directors of the cooperative are similar to those of the Board of Directors. Research results show that untrained members of the Board of Directors account for 52.9%, members of the Board of Directors with primary vocational training account for 17.1%, and members of the Board of Directors with intermediate qualifications level accounts for 10.0%, and members of the Board of Directors with college or university degrees account for 20.0% of the total number of cooperative managers surveyed.

For the Control Board (including controllers), this is the department with the function of inspection and supervision in the organisational activities of the cooperative. The members of the control board chosen by the cooperatives are mostly members of the cooperative. older, experienced staff. However, this

also leads to untrained Supervisory Board members accounting for 74.0%, Supervisory Board members with primary vocational training accounting for 9.6%, qualified Supervisory Board members at intermediate level accounting for 4.1%, and members of the Supervisory Board with college or university degrees accounting for 12.3%. Therefore, in the coming time, local authorities need to focus on training and fostering this population to improve professional control skills.

Regarding professional training for management positions in cooperatives: Currently, the rate of implementation of training for the positions of Board of Directors, Directors, and Controllers is also not satisfactory. Members of the Board of Directors go through training classes. Professional skills accounted for 55.3%, members of the Board of Directors who passed professional training classes accounted for 20%, and members of the Supervisory Board who passed professional training classes accounted for 45.2%. This issue raises the need to regularly open professional training classes for cooperative management positions to improve the capacity to manage and organise the production and business activities of cooperatives.

From the results recorded on the management level of rice production cooperatives mentioned above, it is explained that members of rice production cooperatives are mainly rice farmers, coming from the farming class, and their education level is still limited. Therefore, the problem is to organise short- and medium-term vocational training classes for the current cooperative management staff. In addition, carry out intermediate, college, and university training for children and younger siblings of cooperative members to create a source of cadres. At the same time, it is associated with attracting members who are children of qualified farmers to participate in the cooperative model to support the management and operation of the cooperative in the future [5,7,8].

3.4 Current status of providing input services for rice production

Table 3. Demand and status of service use by members of rice production cooperatives

| No. | Type of service | Demand | | Reality | |
|-----|--|-----------|-----------|-----------|-----------|
| | | Frequency | Ratio (%) | Frequency | Ratio (%) |
| 1 | Soil preparation services (ploughing, digging, shafting, etc.) | 73 | .81,1 | 18 | 20,0 |
| 2 | Sowing service | 56 | 62,2 | 0 | 0,0 |
| 3 | Transplanting service (instead of sowing) | 22 | 24,4 | 6 | 6,7 |
| 4 | Rice seed supply service | 90 | 100,0 | 79 | 87,8 |
| 5 | Fertiliser supply service | 90 | 100,0 | 42 | 46,7 |

| No. | Type of service | Demand | | Reality | |
|-----|---|-----------|-----------|-----------|-----------|
| | | Frequency | Ratio (%) | Frequency | Ratio (%) |
| 6 | Plant protection and drug supply service | 78 | 86,7 | 31 | 34,4 |
| 7 | Plant protection spraying service | 64 | 71,1 | 12 | 13,3 |
| 8 | Rice retransplanting service | 46 | 51,1 | 0 | 0,0 |
| 9 | Irrigation services (pumping, irrigation) | 74 | 82,2 | 46 | 51,1 |
| 10 | Rice harvester service | 82 | 92,2 | 62 | 68,9 |
| 11 | Rice consumption service | 90 | 100,0 | 72 | 80,0 |

Source: Survey data statistics, 2022

Table 3 shows that members’ demand for products and services serving rice production mainly focuses on 11 services. For instance:

For land preparation services (ploughing, digging, shafting, etc.), there are 73 members who need to use the service, accounting for 81.1%. Meanwhile, the number of members using this service is 18, accounting for 20.0%.

Regarding sowing service, there are 56 members surveyed who need to use this service, accounting for 62.2%. However, no member can use this service. This is partly because the cooperative does not have an affiliated organisation to provide sowing services.

For implantation service: There are 22 members surveyed who need to use the service, accounting for 24.4%, of which the number of members using this service is 6 members, accounting for 27.2%, with It can be seen that the demand for using transplanting services among members is low, and the cooperative’s organisation of providing this service is also limited. The reason is that most members currently apply the sowing method in rice cultivation, so there is no There is a lot of demand for this service.

For the rice seed supply service, there are 90 members surveyed who need to use the service, accounting for 100%. The number of members using this service is 79, accounting for 87.8% of the demand for this service. Regarding the need to supply rice seeds, most cooperatives have cooperative implementation; this is also often a binding condition for companies, enterprises, and cooperatives when collaborating to produce and consume rice in Bac Lieu province.

For fertiliser supply service, there are 90 members surveyed who need to use this service, accounting for 100%. The results showed that 42 members used this service, accounting for 46.7%. Although the members’

need for fertiliser supply from the cooperative is very high, the organisation of the cooperative’s fertiliser supply still has certain limitations and does not fully meet the needs of the members, the reason being that fertiliser products and prices provided by the cooperative are not competitive with other businesses in the area. On the other hand, members do not trust the cooperative’s long-term stable supply, so members still have to maintain relationships with local businesses.

For the pesticide supply service, there are 78 members who need to use this service, accounting for 86.7%. Meanwhile, only 31 members used this service, accounting for 34.4% of the total number of members surveyed. The cooperative’s organisation of pesticide supply is still limited and does not meet all needs, partly because pesticide products are currently very diverse in types, designs, and prices. Supply cooperatives cannot compete with business establishments in the area.

For the spraying service, there are 64 members wishing to use this service, accounting for 71.1%; however, only 12 members use this service, accounting for 13.3% of the total number of members investigated. The organisation providing plant protection spraying services has not met the needs of members because the cooperative does not have enough capacity to invest in equipment to perform this service.

Regarding the rice retransplanting service, there are 46 members surveyed who need to use the service, accounting for 51.1%. However, during the survey, no members used this service. The reason is that the cooperative does not have an affiliated organisation to provide rice-growing services.

For irrigation services (pumping, irrigation): There are 74 members who need to use the service, accounting for 82.2%. The results showed that only 46 members used the service, accounting for 51.1%. For irrigation services, only cooperatives that are supported

by the state to invest in construction and hand over the management and operation of electric pumping station systems attached to closed dikes have the conditions to organise implementation of this service.

For the rice harvesting service, there are 82 members who need to use this service, accounting for 92.2%, while there are 62 members using the service, accounting for 68.9% of the total number of members investigated. The organisation of providing rice harvesting services is mainly done by cooperatives proactively linking with machine owners to provide services to members. Cooperatives do not have enough capacity to invest in equipment to perform the service.

Regarding rice consumption services, there are 90 members who need to use the service, accounting for 100%; the recorded results show that only 72 members use the service, accounting for 80% of the demand. Cooperatives are interested in organising the provision of rice consumption services and actively linking with companies, enterprises, and cooperatives to provide services to members. This is considered an important and necessary service and plays a role in connecting members to other services. However, in the process of linking implementation, there are still many inadequacies. There is no consensus on the linking method, so the organisation providing this service has not met the needs of members [5,6].

3.5. Current status of service supply of rice production cooperatives

The results of the status of the service supply and organisation of rice production cooperatives in Bac Lieu province are shown in Table 4 as follows:

Table 4. Current status of service supply organisation of rice production cooperatives

| No. | Content | Frequency | Percentage (%) |
|--------------|--|-----------|----------------|
| 1 | The cooperative provides 2 services | 21 | 20,4 |
| 2 | The cooperative provide from 3 to 5 services | 60 | 58,3 |
| 3 | The cooperative provides from 6 to 10 services | 17 | 16,5 |
| 4 | The cooperative provides over 10 services | 5 | 4,8 |
| Total | | 103 | 100 |

Source: Survey data statistics, 2022

Among the 103 rice production cooperatives surveyed in Bac Lieu province, the highest number of cooperatives providing from 3 to 5 services is 60, accounting for 58.3%; the lowest number of cooperatives providing more than 10 services is 5. Cooperatives account for 4.8%; in turn, there are 21 cooperatives providing 2 services, accounting for 20.4%; and there are 17 cooperatives providing 6 to 10 services, accounting for 16.5%. Based on the survey results, it can be identified that rice production cooperatives mainly focus on organising 3 to 5 services to serve rice production for members, focusing on the following services: seed supply services, fertiliser supply services, plant protection drug supply services, irrigation services (pumping, watering), rice consumption services, etc.. Research results show that due to management, low professional expertise, lack of capital, and some tax policies, the work of expanding production scale to provide service activities for members is limited or has Opening services are also on a small scale or seasonal to promptly meet some members' needs. Therefore, there have not been many activities affecting the production and business efficiency of the cooperative in recent times [6],[10].

3.6. Current status of contract implementation between members and rice production cooperatives

The issue of implementation in transactions to bring efficiency to work is very important; however, in recent times, cooperatives have not paid attention to this issue, and the recorded results are shown in Table 5 as follows:

Table 5. Current status of building service use contracts between members and rice production cooperatives

| No. | Type of service | Frequency | Percentage (%) |
|-----|--|-----------|----------------|
| 1 | Soil preparation services (ploughing, digging, shafting, etc.) | 0 | 0,0 |
| 2 | Sowing service | 0 | 0,0 |
| 3 | Transplanting service (instead of sowing) | 0 | 0,0 |
| 4 | Rice seed supply service | 23 | 25,6 |
| 5 | Fertiliser supply service | 22 | 24,4 |
| 6 | Plant protection and drug supply service | 27 | 30,0 |
| 7 | Plant protection spraying service | 0 | 0,0 |
| 8 | Rice Miles Service | 0 | 0,0 |

| No. | Type of service | Frequency | Percentage (%) |
|-----|---|-----------|----------------|
| 9 | Irrigation services (pumping, irrigation) | 33 | 36,6 |
| 10 | Rice harvester service | 17 | 18,9 |
| 11 | Rice consumption service | 53 | 58,9 |

Source: Survey data statistics, 2022

The establishment of contracts between cooperatives and members for providing services is still limited and has not been implemented by rice production cooperatives, typically for the following services: Land preparation services (ploughing, digging, axis, etc.), sowing services, transplanting services (instead of sowing), plant protection spraying services, and rice planting services are not contracted by rice production cooperatives with members. In providing services, the seed supply service has 23 members contracted by the cooperative, accounting for 25.6%, and the fertiliser supply service has 22 members contracted by the

cooperative, accounting for 24.4%. Plant protection drug supply service has 27 members contracted by the cooperative, accounting for 30%; irrigation services (pumping and watering) have 33 members contracted by the cooperative, accounting for 36.6%. Rice harvesting has 17 members contracted by the cooperative, accounting for 18.9%; rice consumption services have 53 members contracted by the cooperative, accounting for 58.9%. It can be seen that for services provided by products such as rice seeds, fertilisers, pesticides, or rice consumption, organised cooperatives establish service supply contracts between cooperatives and members to demonstrate the commitment and binding of the cooperative to the members and vice versa. However, the proportion of cooperatives organising this is still very low. For services provided without products, most cooperatives do not have contracts but mainly record them in books to monitor the service provision process for members [6,9].

3.7. Current status of the number of cooperatives participating in rice production and consumption linkages

Table 6. Statistical results of the number of cooperatives participating in rice production and consumption linkages

| No. | Locality | Number of rice production cooperatives with production linkages | | Linked production area of rice production cooperatives | | |
|-----|---------------------|---|--|--|--|---|
| | | Quantity (Cooperative) | Compared to the number of rice production cooperatives (%) | Quantity (ha) | Compared to the area of rice production cooperatives (%) | Compared to the local rice cultivation area (%) |
| 1 | Vinh Loi District | 10 | 62,5 | 1.000 | 64,1 | 5,9 |
| 2 | Hoa Binh District | 12 | 92,3 | 1.594 | 90,8 | 13,9 |
| 3 | Phuoc Long District | 14 | 60,9 | 1.417 | 75,1 | 5,2 |
| 4 | Hong Dan District | 13 | 50,0 | 1.638 | 69,3 | 4,8 |
| 5 | Gia Rai Town | 8 | 38,1 | 892 | 74,7 | 8,3 |

Source: Survey data statistics, 2022

Table 6 shows that the number of rice production cooperatives participating in rice production and consumption is not high compared to the total number of rice production cooperatives in each district and town. The area of rice production and consumption linked through rice production cooperatives accounts for a very low proportion compared to the rice cultivation area of each district and town. Specifically:

Vinh Loi district: there are 10 cooperatives participating in rice production and consumption,

accounting for 62.5% of the total number of rice production cooperatives in the entire district. about 1,000 hectares, accounting for 64.1% of the total cultivation area of members in rice cooperatives in the area and equal to 5.9% of the rice production area of the entire district.

Hoa Binh district: there are 12 cooperatives participating in joint production and consumption of rice, accounting for 92.3% of the total number of

rice production cooperatives in the district. The area participating in joint production and consumption of rice is about 1,594 hectares, accounting for 90.8% of the total cultivation area of members in rice cooperatives in the area and equal to 13.9% of the rice production area of the entire district.

Phuoc Long district: there are 14 cooperatives participating in joint production and consumption of rice, accounting for 60.9% of the total number of rice production cooperatives in the district. The area participating in joint production and consumption of rice is about 1,417 hectares, accounting for 75.1% of the total cultivated area of members in rice cooperatives in the area and 5.2% of the total rice production area of the entire district.

Hong Dan district: there are 13 cooperatives participating in rice production and consumption, accounting for 50.0% of the total number of rice production cooperatives in the district. The area participating in rice production and consumption is

about 1,638 hectares, accounting for 69.3% of the total cultivated area of members in rice cooperatives in the area and 4.8% of the total rice production area of the entire district.

Gia Rai town: there are 8 cooperatives participating in joint production and consumption of rice, accounting for 38.1% of the total number of rice production cooperatives in the town. The area participating in joint production and consumption of rice is about 892 hectares, accounting for 74.7% of the total cultivated area of members in rice cooperatives in the area and equal to 8.3% of the town's rice production area.

3.8. Assess the influence of factors on the quality of service supply and production linkage of rice production cooperatives.

The level of influence of factors on the quality of service provision and production links of rice production cooperatives surveyed with two subjects: managers and cooperative members, is shown in Table 7 as follows:

Table 7. Survey results on the influence of factors on the quality of service provision and production links of rice production cooperatives

| Factor | Votes | Smallest value | Greatest value | .Average value | Standard deviation |
|--|-------|----------------|----------------|----------------|--------------------|
| Capital source of the cooperative | 103 | 2.0 | 3.0 | 2.558 | .4987 |
| Equipment (computers, tools, etc.) | 103 | 1.0 | 3.0 | 2.292 | .6786 |
| Vehicles for transporting goods (cars, ships, etc.) | 103 | 1.0 | 3.0 | 2.333 | .7140 |
| Machinery for production | 103 | 1.0 | 3.0 | 2.500 | .6217 |
| Headquarters | 103 | 1.0 | 3.0 | 2.350 | .7955 |
| Storehouse | 103 | 1.0 | 3.0 | 2.625 | .6089 |
| Supplies store | 103 | 1.0 | 3.0 | 2.483 | .6734 |
| Irrigation system | 103 | 1.0 | 3.0 | 2.483 | .5939 |
| The electric pumping station is attached to a closed dike box. | 103 | 1.0 | 3.0 | 2.567 | .5759 |
| Kinds of product | 103 | 1.0 | 3.0 | 2.592 | .5869 |
| Product quality | 103 | 2.0 | 3.0 | 2.758 | .4299 |
| Product price | 103 | 1.0 | 3.0 | 2.642 | .5469 |
| Management staff qualifications | 103 | 1.0 | 3.0 | 2.442 | .6835 |
| Skill level, service staff (labour to provide services) | 103 | 1.0 | 3.0 | 2.300 | .7735 |
| Purchasing habits | 103 | 1.0 | 3.0 | 2.192 | .6520 |
| Fertiliser use habits | 103 | 1.0 | 3.0 | 1.942 | .8023 |
| habit of using pesticides | 103 | 1.0 | 3.0 | 2.050 | .7201 |
| Habits of organising household production | | | | 2.150 | .6817 |
| Relationships with agents and suppliers | 103 | 1.0 | 3.0 | 2.050 | .6718 |

| Factor | Votes | Smallest value | Greatest value | .Average value | Standard deviation |
|---|-------|----------------|----------------|----------------|--------------------|
| Economic capacity of the household | 103 | 1.0 | 3.0 | 2.267 | .7187 |
| Policy to support production links | 103 | 1.0 | 3.0 | 2.267 | .7069 |
| Policies to support scientific and technical progress | 103 | 1.0 | 3.0 | 2.292 | .6786 |
| Policy to support infrastructure investment | 103 | 1.0 | 3.0 | 2.492 | .5940 |
| Policies to support access to capital | 103 | 1.0 | 3.0 | 2.558 | .6324 |
| Policies to support human resource development | 103 | 1.0 | 3.0 | 2.292 | .7264 |

Source: Survey data statistics, 2022

The survey results show that the majority of managers and members tend to identify factors that either affect or greatly affect the quality of service provision and production links in rice production cooperatives. rice (the average value index of factors ranges from 1,942 to 2,758). In particular, the cooperative’s capital source and product quality are identified as two factors that managers and members believe have the most impact on the quality of service provision and production links in cooperatives. rice production cooperative. For the remaining factors, such as equipment, means of transporting goods, machinery for production, headquarters, warehouses, material stores, irrigation systems, and electric pumping stations attached to dikes, self-contained, product types, product prices, management staff qualifications, qualifications and skills of service staff, purchasing habits, fertiliser use habits, pesticide use habits, termites relationships with agents/suppliers, economic capacity of households, policies to support investment in production links, policies to support the application of technical advances, policies to support investment in infrastructure construction infrastructure, policies to support access to capital, policies to support human resource development, etc., for each service, it may not affect or very affect the quality of service delivery. and production links of rice production cooperatives [5].

3.9. Solutions to improve the quality of service supply and linkages of rice production cooperatives in Bac Lieu province

Based on analysing the current status of production and business activities and analysing factors affecting the quality of service provision and rice production links of cooperatives in Bac Lieu province, we propose some solutions. Solutions to improve the quality of

service provision and rice production links among cooperatives in the coming time are as follows:

It is necessary to improve state management in propaganda, advocacy, encouragement, and support for rice production cooperatives in production to admit members, increase capital contributions, and increase the scale of investment service use. input and output products; encourage rice production cooperatives in the same area to merge or link production to increase scale and cohesion among members to improve resources and efficiency of production and business activities.

For cooperative members, it is important to raise awareness about the new cooperative model, operate according to the cooperative law, actively participate in capital contributions, use cooperative services, and share difficulties and limitations to together build and develop cooperatives and benefit together. In addition, cooperative members need to actively mobilise people in the area to participate in the cooperative to contribute to increasing the scale and competitiveness of the cooperative.

For cooperative managers (Board of Directors, Board of Supervisors): it is crucial to proactively search for markets, cooperate, and associate with reputable partners to improve the quality of service provision and linkages. Stable and sustainable production and consumption of rice, gradually strengthening and creating trust for cooperative members in the cooperative; increase participation in training and refresher courses to improve capacity in management and operation of cooperatives; build and implement specific production and business plans and plans to bring practical benefits to cooperative members; and contribute to increasing the profits of the cooperative.

For functional branches at the provincial or district level, it is important to prioritise focusing resources to implement policies to support rice production cooperatives in investing in equipment, machinery, and building headquarters and warehouses. combination of agricultural supplies etc.. to ensure conditions for operations and service provision, building a model linking rice production and consumption along the value chain.

4. Conclusion

Through the results of the investigation, assessment of the current situation, and analysis of factors affecting the situation of production and business activities, service provision, and rice production linkages in Bac Lieu province, some conclusions are as follows:

Rice production cooperatives were mainly concentrated in Vinh Loi, Hoa Binh, Phuoc Long, Hong Dan districts, and Gia Rai town. The number of rice production cooperatives were still low compared to the number of cooperatives in the entire Bac Lieu province.

Rice production cooperatives in Bac Lieu province mainly focused on providing 3–5 essential services in rice production, such as seed supply services, fertilizer supply services, plant protection drug supply services, irrigation services (pumping and watering), rice consumption services, etc. The establishment of contracts in service supply has not been fully implemented by cooperatives.

The number of rice production cooperatives participating in rice production and consumption was not high compared to the total number of rice production cooperatives in each district and town. The area of rice production and consumption linked through rice production cooperatives accounts for a low proportion compared to the rice cultivation area of each district and town. The rice production and consumption link between companies, enterprises, and cooperatives is unstable and intermittent.

Most rice production cooperatives had small scale, low charter capital (average actual contributed charter capital/cooperative is 329.8 million VND), management level is through training (intermediate school, college, university) accounts for a low rate, the operational efficiency of rice production cooperatives is limited, revenue and profits are modest, so the source of income to distribute to members is also very small (average profit divided by member/cooperative is 53.9 million VND), which has not really contributed significantly to increasing members' income.

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