

A study of human capital on institutional system of horticultural agribusiness

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Abstract. Agricultural institutions are one of the supporting factors in the development of horticultural agribusiness. Various previous scientific studies explain that good human capital will have implications for strengthening agribusiness institutions. The primary objective of this study is to examine the characteristics of human capital in the horticultural agribusiness institutional system. In this study, there were 5 (five) parameters of human capital were measured: individual capability, individual motivation, leadership, the organizational climate, and workgroup effectiveness. The five parameters reflect the characteristics of human capital, which are related to the institutional system. This research was conducted in Bantaeng Regency with 120 sample respondents, which were selected at simple randomness. Then, the collected data were processed and analyzed using a Likert scale and descriptive statistics. Each parameter that is measured is assigned a value and category of assessment. The scores and categories used were with a score range of 3.67-5.00 (good), 2.34-3.66 (fairly good), and 1.00-2.33 (poor). The results of the study indicated that, in general, the characteristics and quality of the human capital of farmers who manage horticultural agribusiness institutions were in “fairly good” category. This is indicated by the average score of the parameters measured, namely for the individual capability at 3.60, the individual motivation at 3.14, the leadership at 3.38, the organizational climate at 3.63, and the workgroup effectiveness at 3.30. Based on these research results, it can be concluded that the farmers, as the main actors in the cultivation and development of horticultural crops in the research location, had good skills in managing the institutional system as part of the supporting factors for the development of horticultural agribusiness.

1 Introduction

Horticultural agribusiness development is one of the strategic measures to expand economic growth in highland areas, which are geographically very fortunate for horticulture development. In this regard, the development of farmer institutions as an integral part of the development of the agribusiness system must receive engagement. Human capital plays an

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essential role in efforts to grow agribusiness institutions because it is the primary key to building other resources and strengths [1].

In general, human capital is a set of knowledge, skills, competencies, health and abilities embodied in individuals and organizations acquired over time through training, education, work experience, and migration [2-4]. This human capital tool positively affects productivity and is a determinant of economic growth [5]. Based on this description, human capital is essential in current development and even becomes a fundamental element in sustainable development [6]. The importance of human capital can be seen from its ability to turn something into innovation and organize valuable production processes in terms of limited material and financial resources. In addition, to adapt to economic conditions, a high quality of human resources is needed [7]. Furthermore, what needs to be done as an effort to strengthen institutions in the development of horticultural agribusiness is to invest in human resources in general, which includes training, education, knowledge and skills that will increase the effectiveness of human resources.

So far, the government has focused more on developing economic infrastructure, providing farmer-based institutional assistance and increasing production. However, the government still needs to pay more attention to the human capital factor as one of the supporting factors for economic development. This follows what Syafrizal [8] said that the government must be able to intervene in increasing human resources as one of the indicators of equitable development and avoiding inequality. Therefore, the main objective of this study is to examine the characteristics of human capital in the horticultural agribusiness institutional system in Bantaeng Regency, South Sulawesi Province.

2 Methods

The primary data used in this study was collected through direct interviews with 120 sample respondent farmers, which were selected at simple random. This research was conducted in Uluere District, Bantaeng Regency, in early 2022. This district was chosen as the research location because it is one of the districts for developing horticultural agribusiness in South Sulawesi. In this study, there were 5 (five) parameters of human capital were measured: individual capability, individual motivation, leadership, the organizational climate, and workgroup effectiveness. The five parameters reflect the characteristics of human capital, which are related to the institutional system. Then, the collected data were processed and analyzed using the Descriptive Statistics method and the Likert Scale (Table 1). Each parameter that is measured is assigned a value and category of assessment. The scores and categories used range from 3.67 to 5.00 (good), 2.34-3.66 (fairly good), and 1.00-2.33 (poor).

Table 1. Categories of answers based on the likert scale and category values of the state of human capital.

Answer category	Score	Score Range	Category Value
Strongly agree	5	3,67 – 5,00	Good
Agree	4		
Neutral	3	2,34 – 3,66	fairly good
Don't agree	2		
Strongly disagree	1	1,00 – 2,33	poor

3 Results and discussion

In this section, a description of the characteristics of the human capital of farmers as the main actors of horticultural agribusiness institutions will be described in Bantaeng Regency, which is the location of this research. This description is divided into 5 (five) sessions based on the

parameters measured in this study: individual capability, individual motivation, leadership, the organizational climate, and workgroup effectiveness.

3.1 Individual capability

In general, farmers' perceptions of the individual capabilities of farmers of members of various farmer groups as actors of horticultural agribusiness institutions were categorized as "fairly good" and "good" (Table 2).

Table 2. Assessment of the individual capability of horticultural agribusiness institutional actors.

Indicator	Score	Category
Professionalism	3,49	fairly good
Organizational Experience	3,58	fairly good
Network and Connections	3,55	fairly good
Friendly attitude	3,79	good

Table 2 shows farmers' perceptions of the professionalism of farmer group administrators (chairman, secretary, and treasurer), who are actors in horticultural agribusiness institutions in the "fairly good" category. The professionalism of farmer group administrators is measured by asking about their involvement in each farmer group activity, discipline in attending management meetings, and participation in activities carried out by Field Agricultural Extension Officers (PPL) and the local Agriculture Service. The results showed that most of the farmers said that the administrators of the farmer groups were already professional in managing the farmer groups. However, there are still farmers who think that the manager of the farmer group is very unprofessional in managing the farmer group. The unprofessionalism of the management of the farmer groups is due to some of the administrators who only use this agribusiness institution to get help for themselves.

On the indicator of organizational experience, the results of this study indicate that the professionalism of farmer group administrators from the aspect of the organizational experience is also in the "good" category (Table 2). Thus, the management of the farmer groups is considered to be quite experienced in managing their farmer groups. Then, on the network and connection indicators, it was also found to be in the "fairly good" category (Table 2). This category means that the management of the farmer group is considered to have sufficient connections and networks with PPL, the government, members of the farmer group, and other village communities. The study results indicate that the administrators of farmer groups are pretty successful in establishing communication and connections with stakeholders involved in the institutional development of farmer groups. In the attitude indicator, farmers considered that their attitude toward the farmer group management was in the "good" category in managing horticultural agribusiness institutions (Table 2). This good attitude is reflected in the friendliness of the farmer group management towards members of the farmer group and their maturity in responding to any existing farmer group problems.

3.2 Individual motivation

The study's results found that all the motivation indicators measured were in the "fairly good" category (Table 3). Thus, individual motivation still needs to be improved to improve farmers' performance and knowledge. This is in line with what is described by Hosen et al., [9], that individual motivation is a core factor that can be used to encourage knowledge sharing and performance improvement.

Table 3. Assessment of individual motivations of horticultural agribusiness institutional actors.

Indicator	Score	Category
Economic motivation	3,32	fairly good
Have a clear goal	3,14	fairly good
Self-actualization	3,07	fairly good
Social motivation	3,02	fairly good

Table 3 shows that farmer group administrators' economic motivation indicators are in the "fairly good" category. This illustrates that economic motives are one of the factors that encourage farmers to join horticultural farmer groups. As expressed by respondent farmers, the economic motives are an effort to increase income from the horticultural farming they manage and the ease of obtaining farm capital assistance. Then on the indicator "has a common goal", the results of this study illustrate that farmers who join a farming group have specific goals to be achieved. This indicator is also in the "fairly good" category (Table 3). These results indicate that a common goal drives the motivation of farmers who join as administrators of a farmer group. The similarity of objectives referred to in this study is the goal of developing technical farming skills and gaining organizational experience.

Furthermore, the "self-actualization" indicator is also in the "fairly good" category (Table 3). These results indicate, in general, farmers who become administrators in an agribusiness organization, apart from being driven by economic motivation and shared goals, are also driven by self-actualization motivation. The form of self-actualization in question is actualization in developing its leadership potential. Farmers who become administrators of a farmer group assume that their presence in the group is part of their efforts to socialize and cooperate with other farmers in developing the horticultural agribusiness they manage. Then, the "social motivation" indicator is in the "fairly good" category (Table 3). This "fairly good" category means that farmers who join the management of farmer groups are also driven by social motivation. They join a farmer group to introduce themselves as a form of social motivation. The involvement of farmers in agribusiness institutions because they want to be known and get recognition from the community.

3.3 Leadership

In this study, leadership parameters are measured by indicators of being fair, loyalty, responsibility and leadership orientation. The results showed that all indicators used in assessing the leadership of farmer group administrators as actors of horticultural agribusiness institutions were categorized as "fairly good" (Table 4).

Table 4. Assessment of the leadership of horticultural agribusiness institutional actors.

Indicator	Score	Category
Being fair	3,61	fairly good
Leadership loyalty	3,28	fairly good
Responsibility	3,30	fairly good
Leadership orientation	3,36	fairly good

In Table 4, it can be seen that farmers' perceptions of fairness shown by farmer group administrators are in the "fairly good" category. Based on the study's results, it can be explained that the management of farmer groups involves members in every activity. The farmer group members' involvement in every activity reflects the board's fair attitude in managing the organization. As expressed and felt by some group members, this proper attitude is manifested in the involvement of all farmer group members in decision-making, planning and implementation and evaluation of farmer group activities. Then, on the indicator

of leadership loyalty, it was also found that this indicator was in the "fairly good" category (Table 4). Loyalty to the farmer group management's leadership is shown by being obedient to the organizational rules that have been mutually agreed upon.

Regarding the indicator of responsibility, the study's results show that the responsibilities of the management are also in the "fairly good" category (Table 4). Thus, farmer groups' management is entirely responsible for carrying out their duties to promote and develop the organization. Furthermore, the leadership orientation indicator is also in the "fairly good" category (Table 4). This illustrates that the existence of group administrators in the organization is oriented as a form of their service to members of farmer groups. Good service reflects good service from farmer group administrators to their members, other farmers and the general public. This is in line with Rezaul Islam et al. [10] opinion that leadership quality significantly correlates with community development.

3.4 The organizational climate

The results showed that farmers' perceptions of the organizational climate of horticultural agribusiness in the research location were categorized as "fairly good" and "good" (Table 5).

Table 5. Assessment of the organizational climate of horticultural agribusiness institutions.

Indicator	Score	Category
Work atmosphere	3,23	fairly good
Management openness	3,26	fairly good
Knowledge transfer	4,61	good
Freedom to innovate	3,45	fairly good

Table 5 shows that the working atmosphere of the horticultural agribusiness farmer group is in the "fairly good" category. The working atmosphere in this study was measured by the clear division of roles and responsibilities in supporting a conducive working atmosphere. This study also shows that the management of farmer groups has a clear division of roles and responsibilities within the group. Then, the indicator of management openness, which is also one of the indicators of the organizational climate, is categorized as "fairly good" (Table 5). This disclosure includes information on the organization's activities and finances. However, from the field notes, information was obtained that the accountability report needed to be appropriately prepared when submitted at the management meeting. The openness of the management of farmer groups is seen from their openness to information on the existence of capital assistance from the government and the development of horticultural commodity prices. Then, the findings in the study indicate that the knowledge transfer indicator is in the "good" category (Table 5). This means that efforts to share knowledge about horticultural farming among members of farmer groups are going well. Furthermore, the indicator of freedom to innovate is also in the "fairly good" category. This means that farmers, whether members or administrators of farmer groups are free to express opinions and innovate in the context of organizational development.

3.5 Workgroup effectiveness

In general, farmers' perceptions of the parameters of the effectiveness of the work team in horticultural agribusiness institutions are categorized as "fairly good". The "good" category is only found in the indicators of mutual respect (Table 6).

Table 6. Assessment of workgroup effectiveness of the horticultural agribusiness institutional work team.

Indicator	Score	Category
Involvement in solving problems	3,10	fairly good
Member support	3,51	fairly good
Clear division of tasks	2,94	fairly good
Mutual respect	3,68	good

Table 6 shows that farmers' perceptions of the parameters of the effectiveness of the work team in horticultural agribusiness institutions are in the "fairly good" category. This can also be seen in the indicators of involvement in discussing and solving problems. The results showed that the management of the farmer group knew that every issue that occurred in the farmer group must involve the management and members in solving it. The study's results show that the indicator of support in the group is in the "fairly good" category (Table 6). In everyday reality, mutual support for each other can be seen in the mutual trust between the administrators in developing the group and for the advancement of members.

On the indicator of the division of labour, the study results show that this indicator is in the "fairly good" category (Table 6). This means that the division of tasks in farmer groups is divided evenly. In addition, the division of tasks assigned to the management and members of the farmer groups was carried out correctly. However, not all members are involved in carrying out this task. Furthermore, the indicators of mutual respect are in the "good" category. This means that farmers have high mutual respect in carrying out farmer group activities, regardless of status differences. This is a reflection of the life of the village community that upholds the value of mutual respect in society.

4 Conclusions

The results showed that the human capital characteristics of farmer group administrators, as actors of horticultural agribusiness institutions in Bantaeng Regency, were generally in the "fairly good" category with an average score of individual capability parameters (3.60), individual motivation (3.14), leadership (3.38), the organizational climate (3.63), and workgroup effectiveness (3.30). Thus, the human capital characteristics of farmer group administrators are considered to have quite good skills in managing horticultural agribusiness institutions. This also means that human capital owned by farmer group organizations still requires quality improvement efforts to support the development of horticultural agribusiness.

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