

## Research Article

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# Mediating role of leadership and group capital between human capital component and sustainability of horticultural agribusiness institutions in Indonesia

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**Abstract:** Farmers' institutions are currently more cultural and primarily oriented only to getting government facilities. Farmers' institutions have not been directed at utilizing access to various technological information, capital, and markets needed to develop horticultural agribusiness. Nevertheless, almost all farmers' institutions exist in rural areas, but not all existing institutions can survive and carry out their functions sustainably. The research objective was to examine the impact of human capital through leadership and group capital on the sustainability of horticultural agribusiness institutions. The study was carried out at Uluere District, Bantaeng Regency, which is designated as a horticulture agribusiness development zone in South Sulawesi, Indonesia. The sample selection was conducted using a simple randomized method, where 10% of the overall population was chosen. This method resulted in a sample size of 233 respondents for this study. The data gathering was done during September and November of 2022. Moreover, to acquire findings about the effect of human capital on the long-term viability of institutional agribusiness horticulture, we conducted an analysis using

the Structural Equation Modeling (SEM) method. The findings indicated that individual capability, individual motivation, organizational climate, and workgroup effectiveness were key factors of human capital that directly impact institutional strengthening. These factors were found to have positive and statistically significant connections. In addition, leadership and group capital connected the many aspects of human capital to the sustainability of horticultural agribusiness. The results of this study will significantly enhance ongoing efforts to formulate a plan aimed at mitigating rural development challenges, especially in Indonesia.

**Keywords:** horticultural agribusiness, human capital, institutional sustainability, leadership, group capital

## 1 Introduction

Indonesia is a predominantly agrarian nation, with most of its inhabitants relying on agriculture as their primary source of livelihood. Agricultural expansion has always been crucial in promoting economic development that benefits the impoverished [1]. The agricultural sector serves as the primary provider of people's necessities. The institutional approach plays a crucial role in advancing the agriculture industry. Agricultural institutions play a crucial role in fostering the growth of horticultural agribusiness [2], supporting the sustainability of the agricultural sector and driving agribusiness systems in rural areas [3,4]. Institutions can create opportunities and incentives that lead to income generation [5] for sustainable rural community livelihood particularly and rural development in general.

Currently, farmers' institutions in Indonesia are more cultural and mainly oriented only toward getting government facilities. Farmer institutions have not been directed at utilizing access to various technological information, capital, and markets needed to develop horticultural agribusiness [6]. Nevertheless, almost all farmer institutions

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exist in rural areas, but not all existing institutions can survive and carry out their functions sustainably. The primary challenges in achieving institutional sustainability are as follows: (1) farmers' limited understanding and expertise in institutional management, (2) farmers' limited engagement in institutional activities due to their primary focus on on-farm production, and (3) the suboptimal performance of farmer institutions in fulfilling their role as platforms for learning, collaboration, and production [7]. These challenges represent the primary obstacles to the advancement of rural areas in emerging nations, and Indonesia is no exception.

In overcoming the rural development problems above, efforts need to be made to develop empowerment and sustainability of farmer institutions from various aspects. The sustainability of farmers' institutions plays a role in maintaining the existence of institutions in assisting farmers' activities to improve their bargaining position in running their businesses. Therefore, farmer institutional sustainability is needed to increase farmers' access to financial and non-financial institutions [8]. Farmer institutional sustainability is also one of the strategies for revitalizing agricultural development [9]. The final statement supports Pretty's assertion that a sustainable agricultural system takes into account ideas of persistence and resilience and addresses a wide range of broader social, economic, and environmental consequences [10].

Salman said that one of the essential things to consider in the sustainability of farmer institutions is to increase adequate resources [11], including the capacity of farmer human resources [12], who can act as planners, organizers, and supervisors [13]. Human resource development is a fundamental management process and must be sustainable [14]. The importance of human capital in development efforts is one of the main concerns in Becker's academic endeavor. According to Repo, Becker *et al.* argued in their published paper in 1990 that human capital plays a pivotal role in bringing economies out of the underdevelopment trap towards development and economic growth [15]. For farmers to get a competitive edge, they must possess the expertise, information, ingenuity, and inventiveness necessary to enhance customer satisfaction and establish a superior position within their industry [16,17]. In impoverished and vulnerable neighborhoods, appropriate human capital development is one socioeconomic strategy that can lessen economic losses [18]. So far, research on human capital has been primarily conducted in the corporate environment, economic growth, and agribusiness supply chains [19–22]. Nevertheless, few researchers still conduct research on human capital in agribusiness institutional development. Human capital is indeed a crucial form of capital in contemporary economies. Human capital is the

investment made in individuals that can enhance their productivity and contribute to higher economic returns inside organizations [23]. Human capital is the experience, skills, knowledge, intuition, and attitudes developed throughout life [24].

Furthermore, Mayo discovered that human capital may be categorized into other elements, such as individual aptitude, individual drive, leadership, the organizational atmosphere, and workgroup efficiency [25]. Another thing that needs to be considered in the institutional sustainability of horticultural agribusiness is leadership and group capital. Hong and Sun said that capital owners tend to have the power to control agricultural development processes and means of production [26]. Hence, it is imperative for firms to prioritize the recruitment of workers who possess the requisite human capital to demonstrate the desired behaviors expected by the organization and to retain such employees [27]. Adequate human capital will impact the institution's profitability and productivity.

This study investigated the impact of human capital on horticulture agribusiness institutions. The research model incorporated the idea of farmer leadership, drawing from Orey's research, which highlighted the significant significance of leadership within organizations [28]. Anantanyu stated that a critical factor in determining institutional durability is the presence of leadership roles and responsibilities inside institutions and the establishment of clear patterns of authority and work allocation [29]. Furthermore, the model incorporates the concept of group capital, as proposed by Shivakoti and Thapa, who discovered that group capital is essential for improving the efficiency and long-term sustainability of development initiatives in institutional activities [30]. Based on these theoretical and hypothetical models, the study's specific objective was to investigate the impact of human capital via farmer leadership and group capital variables on the sustainability of horticulture agribusiness institutions.

## 2 Materials and method

Primary data were acquired via a structured direct interview with farmers operating as institutional actors in the horticulture agribusiness sector in Bantaeng Regency. Secondary data were gathered from relevant documents owned by the local government and affiliated agencies, specifically BPS South Sulawesi Province and Bantaeng Regency, pertained to the concerns addressed in this research. The site of the research was in Uluere District, Bantaeng Regency, one of the horticultural agribusiness development areas in South Sulawesi, Indonesia. A straightforward randomization procedure

was employed to select the sample, which comprised no less than 10% of the entire population. This condition follows Silalahi's assertion that the minimum sample size is 10% of the total population; therefore, 233 respondents were selected as samples [31]. The data collection was conducted from September to November 2022.

Following Akbar and Salam the study utilized a response scale of strongly disagree, disagree, agree/neutral, agree, and strongly agree [27]. The questionnaire employed the Likert Scale, as Akbar and Salam did in their study, to assess the variables of individual capability ( $X_1$ ), individual motivation ( $X_2$ ), organizational climate ( $X_3$ ), workgroup effectiveness ( $X_4$ ), institutional sustainability ( $Y_1$ ), group capital ( $Y_2$ ), and leadership ( $Y_3$ ) [27]. The score weighting is displayed in the following manner [27]:

- a. strongly agree (SA) carries a 5-point weight,
- b. agree (A) carries a 4-point weight,
- c. neutral (N) carries a 3-point weight,
- d. disagree (D) carries a 2-point weight, and
- e. strongly disagree (SD) carries a 1-point weight.

Moreover, to acquire outcomes about the impact of human capital on the long-term viability of horticulture agribusiness institutions, we employed Structural Equation Modeling (SEM) to analyze the primary data collected. SEM is a statistical method that merges factor analysis and regression principles [32]. The study used the Smart PLS 4 software to analyze structural equation modeling (SEM). Hair et al. outlined the procedure of constructing and evaluating structural equations into four discrete stages [33]:

1. Write a specification for the path model.

Structural equation models are based on causal relationships, where it is believed that modifications to one variable may affect changes to others.

2. Write a specification for the measuring model.
  - a. Establish causal links using diagrams of path and design structural equations. The process of constructing the path diagram will be elucidated by illustrating the causal connections between the components that exert direct and indirect influences. Figure 1 illustrates that the institutional sustainability of horticultural agribusiness is influenced indirectly by individual capability, individual motivation, organizational climate, and workgroup effectiveness. The study focuses on the structural equations and research framework that examine the various aspects influencing institutional sustainability. Figure 1 depicts the structural equation's model, represented by equations (1–3).

$$\eta_1 = \beta_{21}\eta_2 + \beta_{22}\eta_3 + \gamma_{11}\xi_1 + \gamma_{12}\xi_1 + \gamma_{13}\xi_1 + \gamma_{14}\xi_1 + \zeta_1, \quad (1)$$

$$\eta_2 = \gamma_{21}\xi_2 + \gamma_{22}\xi_2 + \gamma_{23}\xi_2 + \gamma_{24}\xi_2 + \zeta_2, \quad (2)$$

$$\eta_3 = \gamma_{31}\xi_3 + \gamma_{32}\xi_3 + \gamma_{33}\xi_3 + \gamma_{34}\xi_3 + \zeta_3. \quad (3)$$

- b. Measurement model and structural model analysis

Measurement and structural models are analyzed to determine variable correlation and indicator association. Testing evaluates test validity and reliability.  $R$ -Square ( $R^2$ ) was used to test the structural model. The  $R^2$  test is conducted to ascertain the impact of exogenous variables on the endogenous variables. A higher  $R^2$  number indicates a stronger level of resolve. Chin and Newsted have determined that the  $R^2$  value is greater than 0.67, indicating a strong relationship. Additionally, a value greater than 0.33 suggests a moderate relationship, while a value greater than 0.19 indicates a poor relationship [34].

- c. Hypothesis test

This study examined how human capital affects agribusiness sustainability. This test uses the Critical Ratio, similar to the regression  $t$ -test. In rejecting the null hypothesis and accepting the alternative hypothesis, the regression coefficient must have a Critical Ratio Value of 1.96 or higher. The study employed the SEM framework, incorporating 4 (four) exogenous latent variables, 3 (three) endogenous variables, and 28 (twenty-eight) observable indicators. Path diagrams provide connections between variables, measurements, and structural models. SEM employs Confirmatory Factor Analysis (CFA), a statistical technique that utilizes observable data to measure latent variables.

## 3 Results

### 3.1 Assessment of the reliability and validity

We employed the Partial Least Squares (PLS) to handle study data with Smart PLS-4 Software. The structural model and measurement model specifications were assessed. According to Sarstedt & Cheah, the structural model shows how variables are related, whereas the measurement model shows how variables relate to their indicators [35]. In ensuring the accuracy of variable representation, the initial step is to evaluate the outer model by examining its validity and reliability. The results of the validity test are presented in Figure 2.

Figure 2 shows that the loading factor value for three indicators (economic incentive, social motivation, and knowledge transfer) is less than 0.7. This condition calls for re-analysis by removing incorrect variables, as illustrated in Figure 3.

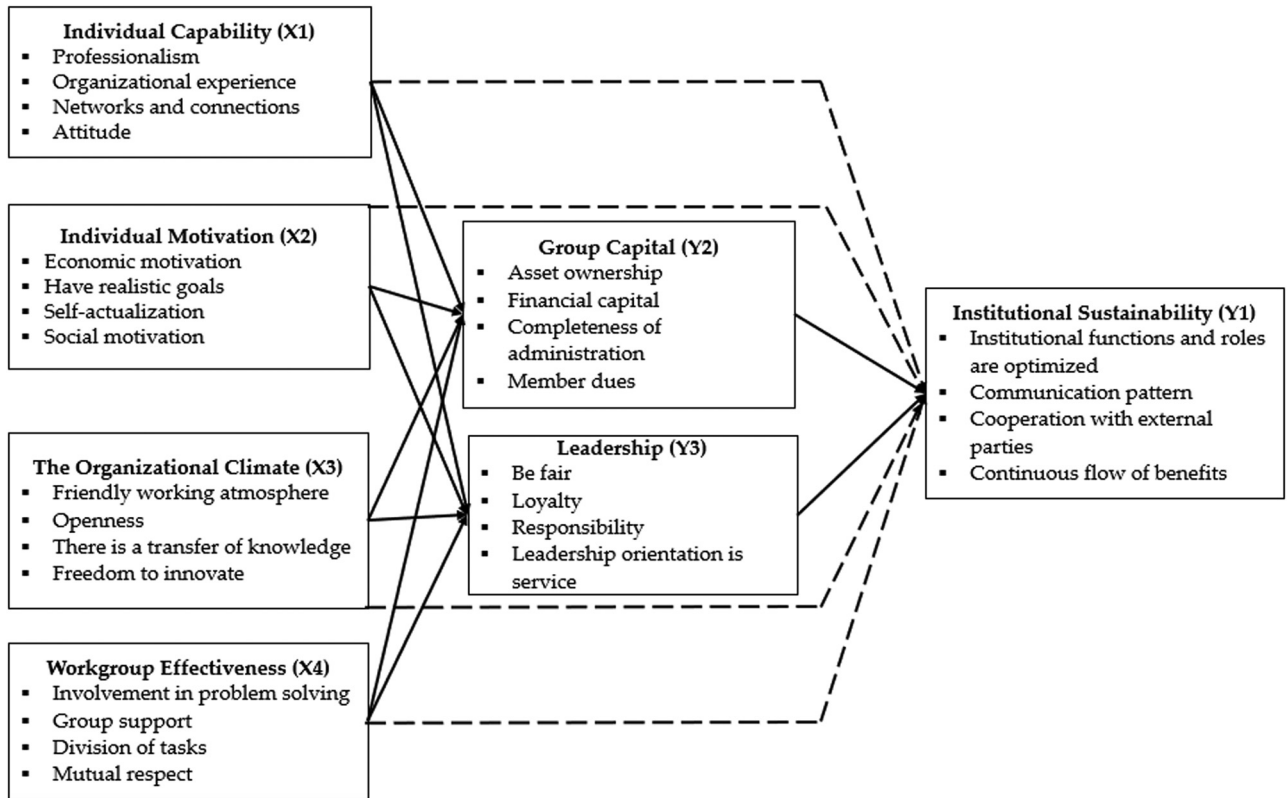


Figure 1: The research framework.

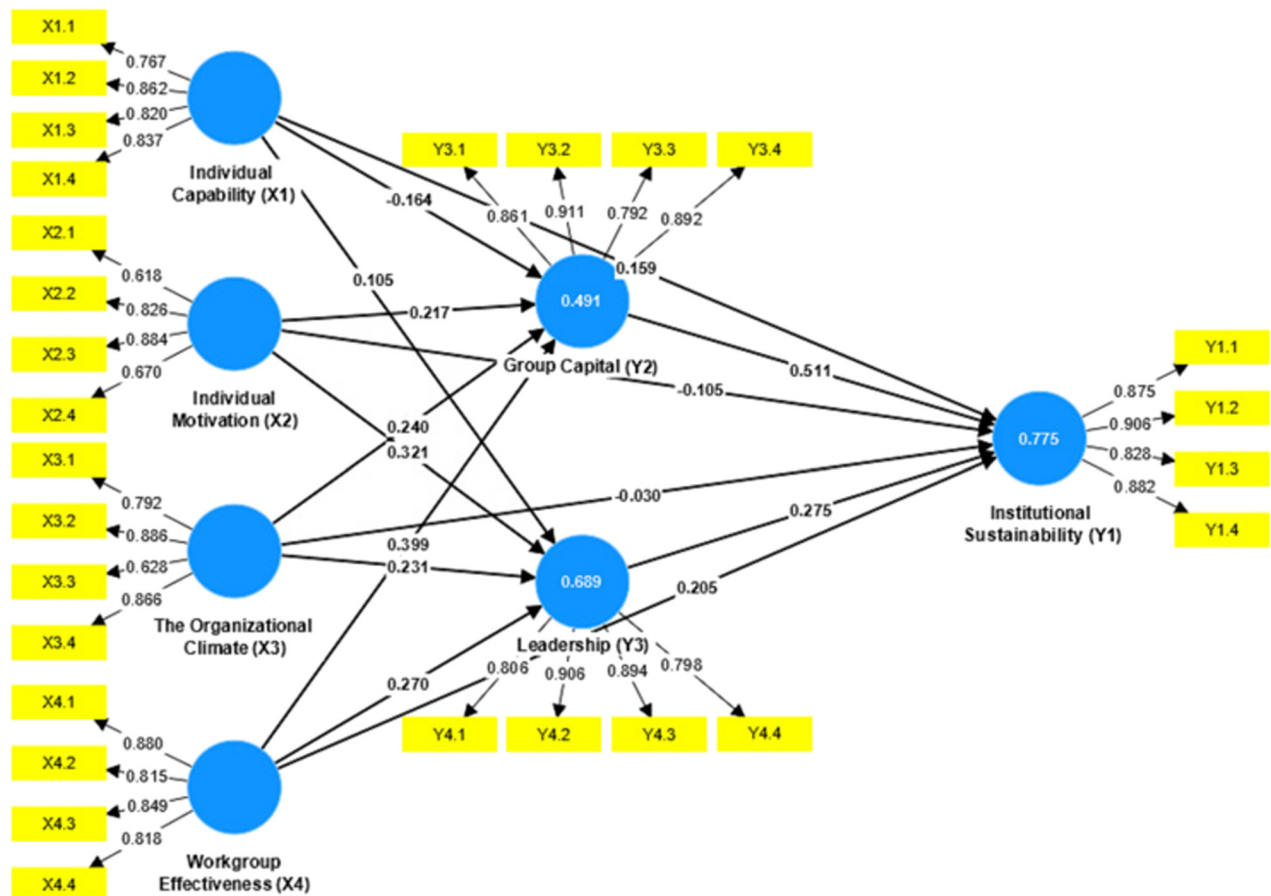


Figure 2: Results of outer loading analysis.

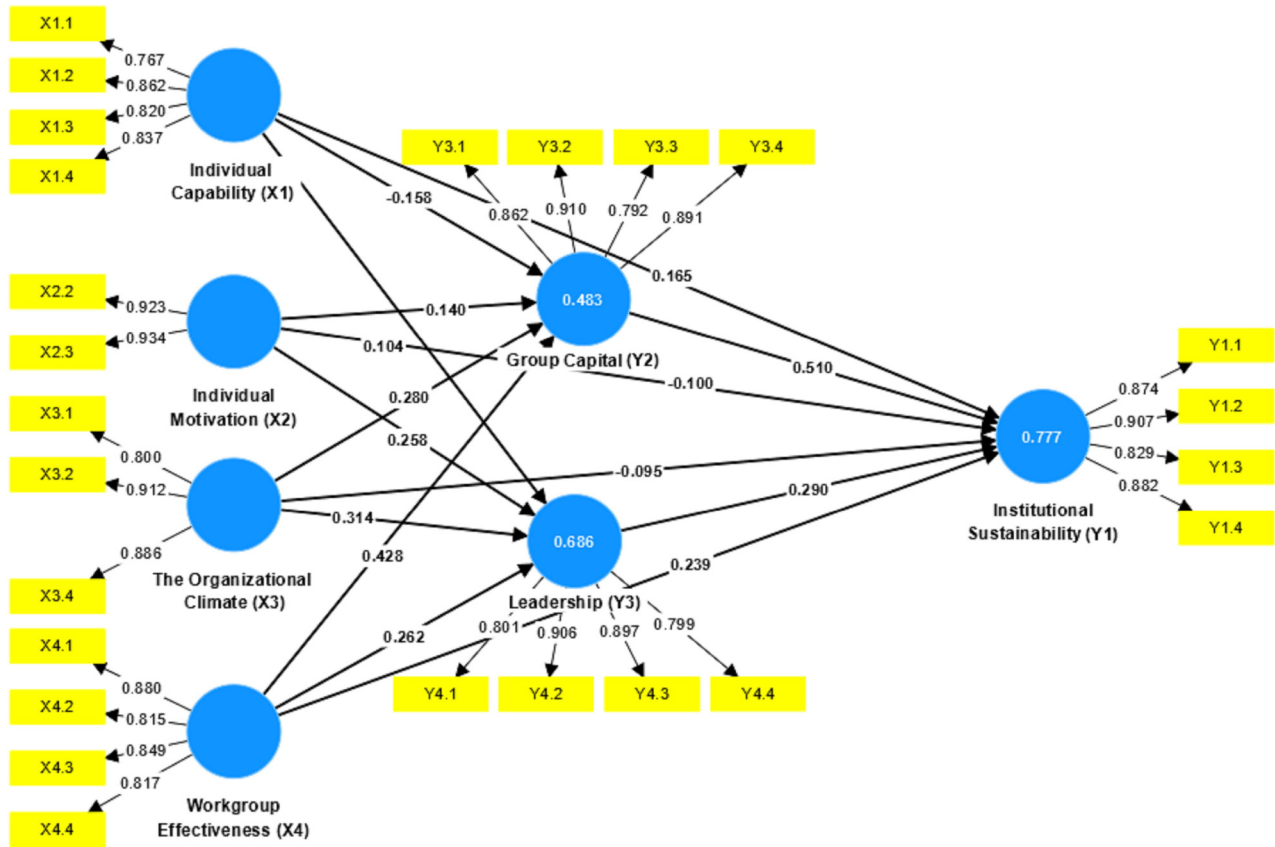


Figure 3: Outer loading analysis Results of following the removal of indicators  $X_{21}$ ,  $X_{24}$ , and  $X_{33}$ .

After conducting tests to assess the convergent validity of the indicators, namely by examining their outer loading and AVE (Average Variance Extracted), it was determined that 3 out of the 28 indicators had values below the threshold of 0.7. As a result, these indicators were eliminated from the analysis [36]. Table 1 displays the comprehensive test results.

Table 1 demonstrates that the model being examined effectively accounts for the variability of the indicators, as indicated by the average variance extracted (AVE) above 0.5 [37]. In addition, the reliability test evaluated latent structures by utilizing Cronbach's alpha (CA) and composite reliability values. The test findings indicate that the CA and Composite Reliability (CR) values are above the threshold level of 0.70 [38]. Conversely, a rho\_A value equal to or beyond 0.7 is considered acceptable for indicating the CR. The reliability values in this investigation are presented in Table 2.

### 3.2 Inner model evaluation ( $R^2$ )

Structural model evaluation entails analyzing the structural model to ascertain the direction and significance degree of the relationship between exogenous and endogenous variables. The  $R$ -square ( $R^2$ ) values are categorized as strong when 0.75, moderate when 0.50, and weak when 0.25 [33]. The  $R^2$  values for each construct are disclosed in the test results (Table 3). The construct representing group capital possesses a value of 0.491. This value signifies that the combined influence of the individual capability variable, individual motivation, leadership, organizational climate, and workgroup efficiency explains 49.1% of the variability observed in group capital. This value is classified to be low in magnitude. The agribusiness institutional sustainability variable has a value of 0.777, indicating that individual capability, individual motivation, leadership, organizational climate, and the effectiveness of teamwork

**Table 1:** The test outcomes for the validity of research indicators

Variables	Outer loading	AVE
<b>Individual capability (<math>X_1</math>)</b>		
Professionalism	0.767	0.676
Organizational experience	0.862	
Networks and connections	0.820	
Attitude	0.837	
<b>Individual motivation (<math>X_2</math>)</b>		
Have realistic goals	0.923	0.863
Self-actualization	0.934	
<b>The organizational climate (<math>X_3</math>)</b>		
Friendly working atmosphere	0.800	0.752
Openness	0.912	
Freedom to innovate	0.886	
<b>Workgroup effectiveness (<math>X_4</math>)</b>		
Problem-solving involvement	0.880	0.707
Group support	0.815	
Tasks division	0.849	
Mutual respect	0.817	
<b>Institutional sustainability (<math>Y_1</math>)</b>		
Institutional functions and roles are optimized	0.874	0.763
Communication pattern	0.907	
Cooperation with external parties	0.829	
A continuous flow of benefits	0.882	
<b>Group capital (<math>Y_2</math>)</b>		
Asset ownership	0.864	0.748
Financial capital	0.925	
Completeness of administration	0.820	
Member dues	0.911	
<b>Leadership (<math>Y_3</math>)</b>		
Be fair	0.801	0.726
Loyalty	0.906	
Responsibility	0.897	
Leadership orientation is a service	0.799	

**Table 2:** The test outcomes of the reliability

Variables	CA	rho_A	CR
Individual capability	0.840	0.842	0.893
Individual motivation	0.841	0.844	0.926
The organizational climate	0.834	0.841	0.901
Workgroup effectiveness	0.863	0.876	0.906
Leadership	0.873	0.882	0.914
Group capital	0.887	0.895	0.922
Institutional sustainability	0.896	0.900	0.928

collectively contribute to 77.7% of the sustainability of agribusiness institutions, falling into the strong category. Furthermore, it is worth noting that the farmer leadership variable possesses a value of 0.686. This value suggests that when considering leadership, organizational climate, individual capability, motivation, and workgroup efficacy collectively account

**Table 3:** The  $R^2$  test results

Variables	$R^2$
Group capital	0.491
Institutional sustainability	0.777
Leadership	0.686

for 68.6% of the influence on the well-being of farmers, and the proportion falls within the moderate range.

### 3.3 Testing the significance value

Determining the significance value entails applying the bootstrapping process to the path coefficient values of the test outcomes, as depicted in Figure 4 and Table 4. The test outcomes demonstrate a clear correlation between institutional sustainability and human competence, as supported by a  $t$ -statistic value of 5.910 (greater than 1.96) and a significance value of 0.000 (less than 0.05). The  $t$ -statistic value of 2.379, which is greater than the critical value of 1.96, indicates that individual motivation variables significantly impact institutional sustainability. The significance value of 0.017, which is less than the threshold of 0.05, further supports this conclusion. The organizational climate variable directly impacts the sustainability of agricultural institutions, as evidenced by a statistically significant  $t$ -value of 2.275 (more than the critical value of 1.96) and a significance level of 0.023 (less than the threshold of 0.05). The variable measuring the workgroup effectiveness does not have a substantial direct influence on the sustainability of the institution. The  $t$ -statistic value of 5.251, which exceeds the critical value of 1.96, and the significance value of 0.000 below the criterion of 0.05 provide clear evidence of this.

Furthermore, individual capability indirectly affects institutional sustainability mediated by leadership, with a  $t$ -statistic value of 2.344 > from 1.96 and a significance value of 0.019 < from 0.05. Individual motivation indirectly affects institutional sustainability mediated by leadership with a  $t$ -statistic value of 3.288 > from 1.96 and a significance value of 0.001 < from 0.05. Organizational climate indirectly affects institutional sustainability mediated by leadership with a  $t$ -statistic value of 3.400 > from 1.96 and a significance value of 0.001 < from 0.05. The workgroup effectiveness indirectly affects institutional sustainability mediated by leadership with a  $t$ -statistic value of 3.055 > from 1.96 and a significance value of 0.002 < from 0.05.

Moreover, individual capability indirectly affects institutional sustainability mediated by group capital, with a statistical  $t$ -value of 1.964 > from 1.96 and a significance

value of  $0.050 \leq$  from 0.05. individual motivation indirectly affects institutional sustainability mediated by group capital with a statistical  $t$ -value of  $3.464 >$  from 1.96 and a significance value of  $0.001 <$  from 0.05. The organizational climate indirectly affects institutional sustainability mediated by group capital with a  $t$ -statistic value of  $3.817 >$  from 1.96 and a significance value of  $0.000 <$  from 0.05. Then, workgroup effectiveness indirectly affects institutional sustainability mediated by group capital with a  $t$ -statistic value of  $5.109 >$  from 1.96 and a significance value of  $0.000 <$  from 0.05.

## 4 Discussions

### 4.1 Direct impact of human capital on institutional sustainability of horticulture agribusinesses

Vidotto et al. said that knowledge is the main component of human capital, which is grouped into three dimensions: motivation, qualifications, and creativity, which will contribute to the institution [39]. The analytical results demonstrate that the

competency of individuals directly impacts the long-term viability of horticulture agribusiness organizations (Table 4). The long-term viability of agribusiness institutions depends on variables such as knowledge, the level of professionalism demonstrated by the board, and the organization’s management experience. These findings are consistent with the research conducted by Cahyanto et al. and Sun et al., which demonstrated that individual capability significantly influences performance and that having solid human capital allows people to participate in innovation [40,41].

One further discovery in this research is the direct impact of human motivation on the long-term viability of horticulture agribusiness. This finding aligns with Jain et al., who said that individual motivation is essential in any organization [42]. High individual motivation can positively impact the sustainability of horticultural agribusiness institutions. Individuals with solid motivation tend to be more proactive in seeking information and improving their performance. Such a situation can lead to a productive and innovative work environment where people work together to achieve common goals. In addition, high individual motivation can influence an individual capability to cooperate and communicate with fellow institutional administrators.

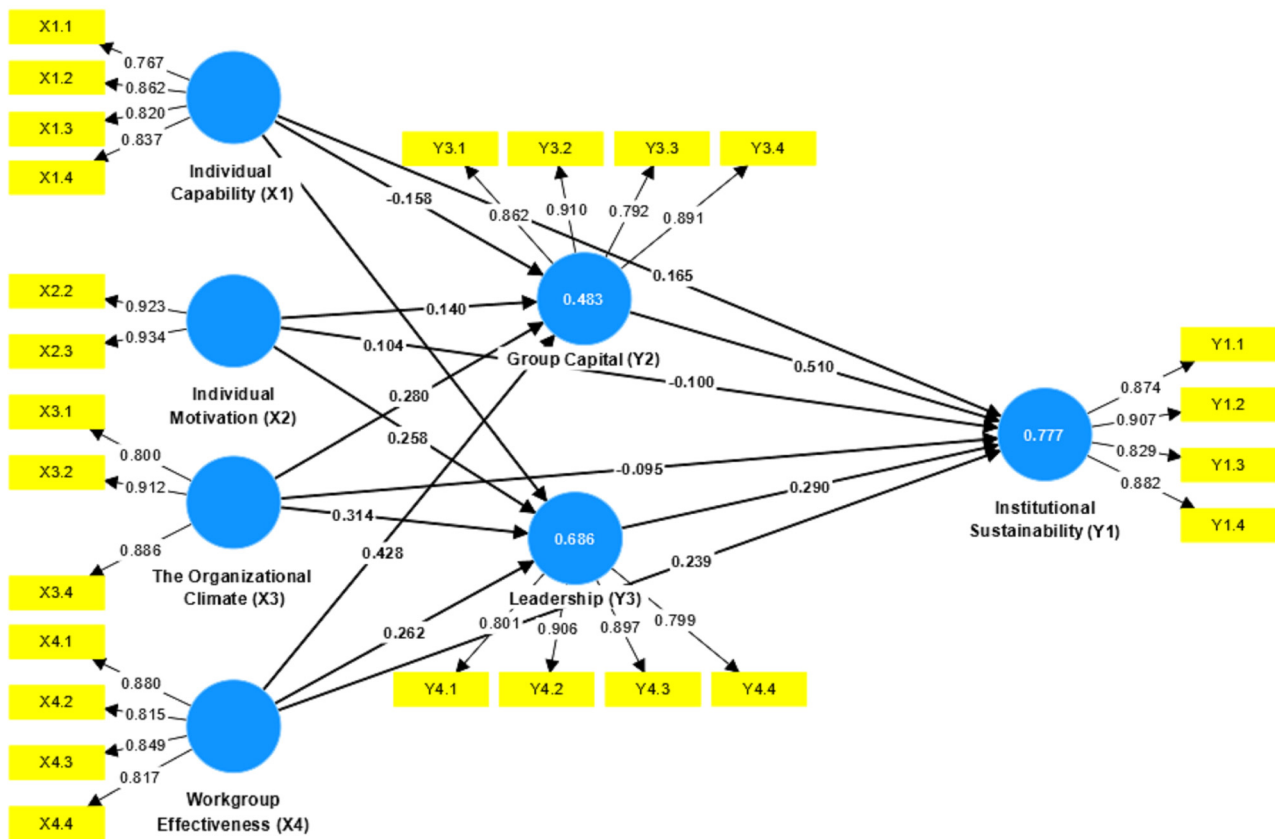


Figure 4: Results of bootstrapping analysis.

The motivation can help strengthen relationships and networks within horticultural agribusiness institutions, which, in turn, horticultural agribusiness institutions will continue to be sustainable.

In Table 4, the results also show that the organizational climate affects the sustainability of horticultural agribusiness institutions. These findings align with Berberoglu, who found that organizational climate can predict institutional performance [43]. The organizational climate refers to the psychological atmosphere that includes openness, freedom to innovate, knowledge transfer, and a friendly working atmosphere. Such a positive organizational climate creates a healthy, productive, and sustainable work environment. This finding corresponds to Banwo *et al.*, who found that the organization's distinctive nature affects institutional actors in decision-making, so a positive organizational climate should always be maintained [44].

In addition, there is also a significant influence between workgroup effectiveness and the sustainability of horticulture agribusiness institutions. This influence means that workgroup effectiveness carried out by administrators and members of farmer organizations will be able to predict institutional sustainability. The effectiveness of this teamwork includes collaboration and commitment to solve any problems that arise in the institution. In addition, mutual respect and support within the group are often shown in completing tasks that have been delegated.

## 4.2 The impact of human capital on institutional sustainability in horticultural agribusinesses: The mediating role of farmer leadership

Farmer leadership can significantly impact the sustainable operation of horticultural agribusiness institutions and the

mobilization of human resources. According to Yuniati *et al.* and Zakaria, agribusiness development is intricately linked to farmers' welfare and economic institutions' empowerment [8,45].

The analysis indicates that the role of farmer leadership is critical in determining the sustainability of horticultural agribusiness institutions. This indication means that the extent to which farmers take charge in the activities of these institutions greatly influences the effects of individual skills, motivation, organizational environment, and team performance. The results demonstrated dynamic leadership in agribusiness institutions. Institutional managers always promote fairness in advancing their institutions and serving nearby farmers.

The results showed that individual abilities influence institutional sustainability through leadership. The results found that the influence of individual capability on institutional sustainability through group capital is complementary. Good individual capability will have good leadership integrity in maintaining institutional existence. On the other hand, good leadership reflects the self-quality of institutional administrators in sustainably achieving institutional goals.

In the individual motivation variable, it is found that leadership can be a good mediator in maintaining institutional sustainability in the long term. The analysis found an indirect effect between individual motivation and institutional sustainability mediated by leadership. Facts in the field found that farmer leadership can develop and motivate farmers who work in the horticultural sector. The existence of farmer institutions can provide training, education, and guidance to farmers to improve their knowledge and skills in managing horticultural agribusiness.

Another finding is the influence of leadership as a mediating variable between teamwork effectiveness and institutional sustainability. This result shows that the

**Table 4:** Human capital's direct and indirect impacts on the sustainability of horticulture agribusiness institutions – Descriptions

	Original sample (O)	t-Statistic	p-Values
Individual Capability -> Institutional Sustainability	0.165	5.910	0.000
Individual Motivation -> Institutional Sustainability	-0.100	2.379	0.017
The Organizational Climate -> Institutional Sustainability	-0.095	2.275	0.023
Workgroup Effectiveness -> Institutional Sustainability	0.239	5.251	0.000
Individual Capability -> Group Capital -> Institutional Sustainability	0.071	1.964	0.050
Individual Motivation -> Group Capital -> Institutional Sustainability	-0.081	3.464	0.001
The Organizational Climate -> Group Capital -> Institutional Sustainability	0.143	3.817	0.000
Workgroup Effectiveness -> Group Capital -> Institutional Sustainability	0.218	5.109	0.000
Individual Capability -> Leadership -> Institutional Sustainability	0.030	2.344	0.019
Individual Motivation -> Leadership -> Institutional Sustainability	0.075	3.288	0.001
The Organizational Climate -> Leadership -> Institutional Sustainability	0.091	3.400	0.001
Workgroup Effectiveness -> Leadership -> Institutional Sustainability	0.076	3.055	0.002



leadership style carried out at the institution runs optimally, and individual and institutional actors are the key to long-term institutional success and sustainability. The finding aligns with Daryanyo and Daryanto, who said that one of the personal skills that agribusiness leaders or managers must master in the future is the capability to work in teams [46].

### 4.3 The impact of human capital on institutional sustainability in horticultural agribusinesses: The mediating role of group capital

Human capital can influence the sustainability of agribusiness institutions through group capital because human capital owned by group members can improve their skills and knowledge in managing agricultural businesses. Having good skills and knowledge, group members can make better decisions in managing their agricultural businesses. The situation can increase productivity and efficiency in farming, increasing group income and profits. Thus, group capital can be increased, thereby improving the resilience and sustainability of agribusiness institutions. In social reality, capital owners will be very influential in controlling the process and means of production [26]. This reality also pertains to the institutional advancement of horticultural agribusiness. The greater the capital an institution possesses, the higher the potential for it to become a robust and autonomous entity.

The analysis demonstrates that the long-term viability of horticulture agribusiness organizations is indirectly impacted by human capital factors, particularly the combined capacities of individuals through group capital. The investigation reveals that substantial collective resources will function as a mediating factor with partial mediation status between individual capacity and institutional durability. Based on the result of this study, farmers were aware of the significance of collective capital in establishing agribusiness institutions. Group capital encompasses the financial, administrative, and assets the group controls. This finding corresponds to Sabatini et al. that a positive correlation exists between financial capital and quality of life and well-being, leading to increased organizational engagement [47].

In institutional sustainability, individual motivation drives group members to utilize group capital optimally, thereby promoting long-term growth and success in the institution. The research found that the influence of individual motivation on institutional sustainability through group capital is complementary. High individual motivation can influence the use

and utilization of group capital, while adequate group capital can strengthen individual motivation to sustainably achieve institutional goals.

Another finding in this study is the influence of workgroup effectiveness on agribusiness institutional sustainability mediated by group capital. The finding indicates that a robust group capital acts as a mediator with partial mediation status between the workgroup's efficacy and the institutional sustainability of horticulture agribusiness. In maximizing group capital, institutional actors are always active in paying membership fees, which will be used as group capital in managing group assets such as maintenance of land processing tools that administrators and all group members can utilize.

## 5 Conclusions

The study aimed to investigate the impact of human capital through leadership and group capital on the sustainability of horticultural agribusiness institutions. The study findings indicate that enhancing the quality of human resources and fostering effective collaboration among institutional stakeholders can effectively ensure the sustainable existence of horticultural agribusiness institutions. The findings of this study also indicate that the presence of institutions managed with effective leadership and possessing collective capital is crucial for sustaining the quality of skilled human resources. Hence, we suggest that for the long-term viability of agribusiness institutions, it is imperative to enhance the caliber of the integrated workforce by providing leadership training and ensuring the active participation of all administrators and members in the growth of horticulture agribusiness institutions. In supporting the role and function of institutional actors, leadership practices need to be maximized to encourage innovation and adaptation of horticultural agribusiness institutions. Group capital must be increased to support the sustainability of agribusiness institutions. The findings of this study will significantly improve current endeavors to build a strategy focused on addressing rural development obstacles, particularly in Indonesia.

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