

Doi: 10.21059/buletinpeternak.v%vi%i.93675

## Effect of Farmers' Behavior on Business Success Toward the Implementation of Partnership Patterns in Broiler Farming in Jawa Tengah

Altaf Zhafirah\*, Any Suryantini, and Masyhuri

Department of Socio-Economic of Agriculture, Faculty of Agriculture, Universitas Gadjah Mada, Yogyakarta, 55281, Indonesia

### ABSTRACT

Overcome this challenge is by participating in partnerships. However, the implementation of the partnership pattern faces challenges, particularly indiscipline in complying with the agreed-upon rules between the farmer and the nucleus company. This lack of discipline can significantly affect the success of the broiler farming business. The success of a broiler farming business is determined by various factors related to the behavior of farmers, including their knowledge, attitudes, skills, motivation, and socio-economic conditions. To understand the effect of farmer behavior on the success of broiler farming, it is essential to study the implementation of partnership patterns. This research was conducted in Central Java Province, with a focus on Banyumas Regency and Klaten Regency. Respondents were selected using the snowball sampling technique, resulting in a sample size of 90 respondents. Data were analyzed both descriptively and quantitatively, and models were constructed using the Structural Equation Modeling (SEM-PLS) method. The findings revealed that (1) the implementation of the broiler farming business partnership pattern was categorized as very good; (2) the success level of the broiler farming business was categorized as very successful; and (3) attitudes, skills, motivation, and socio-economic conditions of farmers affect the success of broiler farming toward the implementation of partnership patterns. Farmers are advised to proactively propose to partner companies to focus on improving attitudes, skills, motivation, and socioeconomic conditions that have a positive effect on business success, involving training activities, technical development, and motivational support.

#### Article history

Submitted: 29 January 2024

Accepted: 22 July 2024

\* Corresponding author:

E-mail: [altafzhafirah@mail.ugm.ac.id](mailto:altafzhafirah@mail.ugm.ac.id)

Keywords: Business success, Broiler partnership, Implementation of partnerships

### Introduction

Broiler farming represents a comprehensive livestock business encompassing both upstream and downstream sectors. In Indonesia, the production of broiler meat accounted for 70.67% of the total meat production across all livestock types in 2021. According to Livestock and Animal Health Statistics data from 2021-2022, broiler meat production witnessed a significant increase of 64% in 2022 compared to the production levels recorded in 2021. This observation underscores the ongoing market potential for broiler chickens in Indonesia, particularly when considering the comparatively low meat production from other types of livestock.

Observing the expanding broiler business, many individuals express interest in venturing into broiler farming. However, various challenges emerge, including issues related to capital, technical expertise, and marketing. Among the hurdles frequently encountered by farmers in broiler farming is a shortage of capital, particularly when acquiring day-old chick, feed, and necessary equipment for their operations. Successful

management of broiler farming necessitates specialized skills and knowledge in proper broiler chicken care. Insufficient skills and knowledge among farmers can lead to harvest failure or even a high mortality rate among broilers.

Confronted with these challenges, the involvement of broiler farmers in the partnership pattern can serve as an alternative solution, enhancing the likelihood of success in the broiler farming business (Supriadi *et al.*, 2023). This is attributed to the fact that partnership companies typically offer the necessary capital and facilities to initiate a broiler farming business. In such partnerships, the nucleus company plays a pivotal role by providing training and technical guidance, enabling farmers to effectively raise broilers. Additionally, the nucleus company boasts an extensive market network, aiding farmers in discovering better and more stable markets for their products.

Partnership broiler farming in Central Java is one of the most important livestock sectors for the regional economy of Central Java. However, the implementation of the partnership pattern has

not met the expectations of both parties. This is because both parties lack the discipline to comply with the agreed rules. Currently, the nucleus company tends to play a greater role in determining the work contract, so that under certain circumstances, farmers are forced to accept the demands of the nucleus company, even though this cooperation benefits the nucleus more than the farmers. Incompatibility in the nucleus-plasma relationship often occurs in partnership practices. The plasma feels disadvantaged because the nucleus takes unilateral steps to determine the selling price of the product so that broiler farmers get a relatively small profit margin while the nucleus gets a larger profit. On the other hand, the nucleus often considers the plasma to be less professional in managing livestock and commits fraudulent acts.

In this pattern, there are two parties involved, namely the broiler farmers and the nucleus company. Although it seems that in this partnership pattern, farmers are very dependent on the core company, still the success of the business will be determined by the behavior and ability of the farmer to apply the partnership business pattern to achieve the success of the broiler business partnership pattern. This research aims to elucidate the relationship between research factors related to the implementation of partnership patterns and the business success of broiler farming.

### **Materials and Methods**

The research was conducted from June to September 2023 in Central Java, focusing on Banyumas Regency and Klaten Regency. The variables examined in the research include knowledge, attitudes, skills, motivation, and socioeconomic conditions of farmers as exogenous variables, the success of broiler farming as an endogenous variable, and the implementation of partnership patterns as a mediating variable.

#### **Research methods**

The population of respondents in this study comprised active farmers who participated in the partnership pattern in broiler farming in Banyumas Regency and Klaten Regency. The sampling technique employed was snowball sampling, as the exact size of the population was not known. The

determination of the sample size for Structural Equation Modeling (SEM) is typically 10 times the number of latent variables used. With seven latent variables in this study, the minimum sample size required is 70. This study used a sample of 90 farmers.

The data utilized in this study encompassed both primary and secondary sources. Primary data were obtained directly from farmers in Banyumas Regency and Klaten Regency. Secondary data were drawn from various literary sources, including books, journals, the internet, and the UGM library. These sources were employed to reinforce arguments, complement research findings, and gather additional information. Additionally, data from the Central Bureau of Statistics were utilized to acquire information on demographics, economics, and social research locations.

The data to be processed and analyzed in this research comprise both qualitative and quantitative data. Qualitative data pertains to the general description of the profile of partnership actors, including the calculation of scores obtained from the collected questionnaire data. This qualitative data will be analyzed using a simple frequency description table. Quantitative data, which involves determining the extent of influence between exogenous variables and endogenous variables, will be analyzed using the path analysis SEM-PLS method. The analysis technique in this study uses the PLS technique, which is carried out in two stages: 1) The first stage is to test the measurement model, specifically testing the construct validity and reliability of each indicator, 2) The second stage is to test the structural model, which aims to determine whether there is an influence between variables or a correlation between the constructs measured using the t-test from PLS.

### **Results and Discussion**

#### **General description of farmers**

The characteristics of farmers studied include farmer grouping based on age, gender, the last education level of the farmer, periods of partnership, years of broiler farming experience, and type of house (Table 1).

Table 1. Characteristics of broiler farmers in Central Java

Characteristics	Farmer	Percentage (%)
Age		
18-30 years	14	15,56
31-63 years	73	81,11
≥ 64 years	3	3,33
Gender		
Male	77	85,56
Female	13	14,44
Last education level of the farmer		
Elementary (primary school-junior high school)	15	16,67
Intermediate (high school)	33	36,67
High (college)	42	46,67
Length of partnership		
≤ 12 periods	68	75,56
> 12 periods	22	24,44
Length of broiler farming experience		
1-5 years	44	48,89
> 5 years	46	51,11
Type of house		
Open house system	16	17,78
Closed house system	74	82,22

The composition of the Indonesian population by age group in this study consists of 18-30 years old, 31-63 years old, and ≥64 years old. Among the surveyed farmers, a total of 87 individuals (96.67%) fell within the productive age group. The youngest age of the farmer is 18 years old, and the oldest age of the farmer is 68 years old, with the average age of the farmer being 42 years old, including productive age. This aligns with the findings of Wuryanto *et al.* (2015), indicating that the productive age for farmers is generally above 30 years. During the productive age, farmers tend to have relatively better physical abilities compared to those in the unproductive age group.

The characteristics of farmers based on gender showed that 77 (85.56%) of broiler farmers were male, while 13 (14.44%) were female. As is common in Indonesia, men typically serve as the backbone of the family. This situation indicates that broiler farming is increasingly being considered a primary source of livelihood by the family's primary providers.

Farmers involved in the study had various levels of education. The most recent education levels were at the secondary (high school) and tertiary (college) levels, accounting for 36.67% and 46.67%, respectively. This indicates that the education level of farmers is sufficient to enter into partnership agreements, as evidenced by the prevalence of education reaching at least the secondary (high school). Additionally, there is a significant number of farmers with education levels beyond the secondary (high school), such as a college education, which is expected to foster a broader and more open mindset, thereby increasing positive attitudes towards partnership agreements. This aligns with the findings of Fitriza *et al.* (2012), which suggest that a higher level of education among farmers can contribute to a more positive perception of the partnership pattern agreement contract.

The period of the farmer's partnership is determined by how long the farmer has collaborated with the nucleus company. In one year, farmers experience 6 production periods. Based on the duration of the partnership, 68

farmers (75.56%) established a partnership with the nucleus company for less than 12 periods. The earliest partnership was initiated by farmers for one period, and the longest partnership spanned 60 periods. The length of the partnership is contingent upon the compatibility of the farmer with the selected nucleus company, considering factors such as production facilities, services provided by the nucleus company, and the production results obtained by the farmer.

Farmers possess varying levels of experience. Regarding the farmer's experience in broiler farming, 44 farmers (48.89%) have been involved in broiler farming for less than five years, while 46 farmers (51.11%) have been engaged in broiler farming for more than five years. This is considered very good, as farmers have accumulated knowledge of farming coupled with valuable experience. According to Kurnia *et al.* (2019), the longer a person breeds, the more experience and knowledge they will have, enabling them to make better decisions and develop a more informed mindset.

There are two types of housing commonly used by farmers: open and closed-house systems. An open house system is characterized by an open structure, utilizing natural ventilation, while a closed house system has a closed structure that allows for precise environmental control. The latter involves the use of advanced technology for ventilation, artificial lighting, and enhanced security. The type of house with the highest number of farmers is the closed house system, with 74 farmers (82.22%) conducting cultivation activities using this type of house. Closed house systems are often recommended by core companies due to their benefits of controlling the house environment, providing a higher level of safety, and improving energy efficiency, which can enhance the quality of chicken meat, making it healthier and of higher quality. Although cost can be a consideration, the long-term benefits are generally considered to outweigh the initial investment. According to Azizah and Utami (2013), in this broiler partnership pattern, many have opted for the closed house system as a substitute for open-house system. The

benefits obtained from the closed house system are significant, even though the costs required for constructing such houses are quite substantial.

Based on the farmers participating in the partnership, they were categorized into several partner companies in Banyumas and Klaten Districts. PT. A and PT. B are two nucleus companies that are well-known in the agricultural

industry, particularly in broiler partnerships in Banyumas and Klaten districts (Table 2). In addition to PT. A and PT. B, PT. C, and PT. D are partner companies that have established networks in Banyumas district, while PT. E, PT. F, PT. G, and PT. H formed partnerships in Klaten district.

Table 2. Distribution of farmers based on nucleus partnership companies

Nucleus Company	Regency		Farmer	Percentage (%)
	Banyumas	Klaten		
PT. A	11	7	18	20,00
PT. B	18	13	31	34,44
PT. C	8	0	8	8,89
PT. D	8	0	8	8,89
PT. E	0	3	3	3,33
PT. F	0	8	8	8,89
PT. G	0	8	8	8,89
PT. H	0	6	6	6,67

PT. A is attractive to farmers in broiler partnerships as it is an integrator company that controls the livestock industry from upstream to downstream, providing livestock production facilities (DOC, feed, and vaccines), farm cultivation, slaughtering, and processing. PT. B also draws many farmers into broiler partnerships due to the confidence it instills in the quality and results obtained in broiler farming. Agricultural field instructors (PPL) at PT. B provides excellent

service to farmers by regularly visiting, checking, and ensuring the health condition of livestock.

**Descriptive analysis**

The results revealed that the score for the level of implementation of the partnership pattern reflected a farmer's perception, averaging 4.22 and falling into the "very good" category (Table 3). The assessment of the broiler business partnership pattern's implementation level is based on six latent variable indicators, specifically the cooperation

Table 3. Distribution of perceptions of farmers' answers

Latent variable	Average value	%	Category
Implementation of partnership patterns (Y1)	4,22	84	Very good
Business success (Y2)	4,29	86	Very successful
Knowledge (X1)	3,98	80	High
Attitude (X2)	4,04	81	Positive
Skills (X3)	4,13	83	Skilled
Motivation (X4)	4,11	82	Strong
Socioeconomic conditions (X5)	4,13	83	Good

agreement contract, input services, extension services, purchase of production products, payment of results, and farmers' compliance. The obtained value reached 84%, signifying that the majority of these indicators have received positive evaluations in assessing the level of implementation of the broiler farming business partnership pattern.

The level of business success, as perceived by farmers, has an average score of 4.29, falling into the "very successful" category (Table 3). The success of broiler farming is assessed based on three indicators: production performance, business income, and overall business performance. Efficient chicken production, high business income, and strong business performance collectively signify the success of broiler farming in Central Java.

Farmer knowledge has an average score of 3.98, categorizing it as "high" (Table 3). High category farmers' knowledge is gained from a combination of education, experience and continuous learning. According to Susanti *et al.* (2019), this is attributed to farmers possessing a robust knowledge of the proper and efficient

management of chicken rearing. Farmer knowledge encompasses a comprehensive understanding of various aspects of broiler management, including nutrition, health, environment, and general management in chicken farming.

Farmer attitudes have an average score of 4.04, falling into the "positive" category (Table 3). Farmers with positive attitudes are more open to new ideas, technologies, or changes in their business practices. They are more likely to accept innovations and try to implement them. In addition, farmers with positive attitudes towards innovations or business programs are more likely to be able to maintain the sustainability of their businesses. According to Swastika *et al.* (2018), positive farmer attitudes are evidenced by the enthusiasm shown by farmers when receiving input and suggestions from extension officers or fellow farmers regarding broiler farming management. The results of research by Okkyla *et al.* (2013) state that the attitude of farmers will also affect the success of an innovation; the more positive the attitude of farmers towards livestock business programs, the higher the business success will be.

Farmer skills have an average score of 4.13, categorizing them as "skilled" (Table 3). Based on field observations, farmers exhibit high proficiency in raising chickens, contributing to improved production performance to meet broiler meat consumption. Farmers are able to create a comfortable atmosphere in the house so that chickens are not stressed. According to Prasetyo (2018), cages are very important because their comfort will affect the productivity of the poultry.

Farmer motivation has an average score of 4.11, falling into the "strong" category (Table 3). This aligns with the research conducted by Susanti *et al.* (2019), indicating that the primary motivation for farmers is to attain a sense of security toward the guaranteed prices they receive from the nucleus company. Farmers are very skillful in raising chickens to be able to improve production performance in meeting broiler meat consumption. According to Hidayati (2015), motivation affects labor productivity in broiler farming because it is related to the enthusiasm and sustainability of workers in carrying out their work.

The socio-economic condition of farmers has an average score of 4.13, placing it in the "good" category (Table 3). These study findings align with the conclusion drawn by Daniele *et al.* (2022), who suggested that livestock production will increase when supported by adequate socio-economic conditions to respond to the development of livestock technology.

**Evaluation of the measurement model (outer model)**

The path scheme is processed using the calculating tool with the PLS algorithm (Figure 1). The accuracy criteria for indicators and variables are analyzed using the SmartPLS version 4.0 program to determine the outer model value, which consists of convergent validity testing and reliability testing.

The results of the convergent validity evaluation indicate the validity of each indicator item, as reflected by values exceeding 0.70 in the outer loading (Table 4). The AVE value for each variable surpasses 0.5, confirming the validity of the test results using AVE (Table 4).

The reliability test results obtained toward the calculation of Cronbach's Alpha and Composite Reliability in this study demonstrate values exceeding 0.60. This suggests that each latent variable possesses high accuracy and can be utilized as a construct in research (Table 4).

**Evaluation of the structural model (inner model)**

The results of the structural model evaluation for the implementation of partnership patterns (Y1) yield an Adjusted R-square value of 0.796, indicating that 79.60% of the variation in the variable "implementation of partnership patterns" can be influenced by knowledge, attitudes, skills,

Table 4. Evaluation of the measurement model (outer model)

Variable	Indicator	Outer Loading	AVE	Cronbach's Alpha	Composite Reliability
Knowledge (X1)	Knowing the partnership business pattern	0,866	0,752	0,670	0,670
	Knowing farming management	0,868			
Attitude (X2)	Implementing the partnership pattern	0,910	0,812	0,769	0,772
	Implementing farming management	0,892			
Skills (X3)	Executing the implementation of the partnership patterns	0,890	0,770	0,703	0,708
	Executing farming management	0,863			
Motivation (X4)	Needs	0,821	0,715	0,801	0,805
	Encouragement	0,867			
	Hope	0,847			
Socioeconomic conditions (X5)	Education	0,814	0,741	0,824	0,828
	Farming experience	0,901			
	Size of house	0,865			
Implementation of partnership patterns (Y1)	Support services	0,791	0,667	0,900	0,902
	Joint contract agreements	0,813			
	Assistance of extension officers	0,834			
	Purchase of production output	0,854			
	Payment of yield	0,816			
	Plasma adherence	0,791			
Business success (Y2)	Production performance	0,929	0,809	0,882	0,894
	Business income	0,903			
	Business performance	0,866			

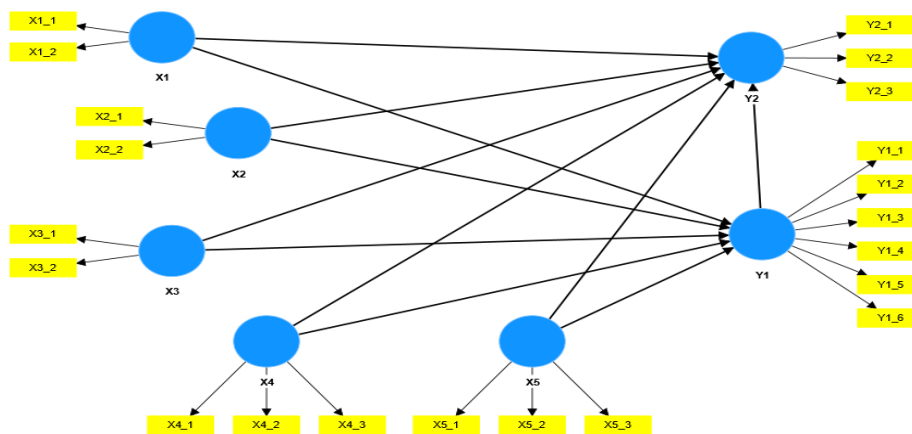


Figure 1. Structural model of PLS bootstrapping results.

motivation, and socio-economic conditions. This suggests that the influence of these five variables on the implementation of partnerships falls into the strong category. The remaining 20.40% is influenced by other factors not considered in the study. Additionally, the business success variable has an Adjusted R-square value of 0.785, or

78.50%, indicating that knowledge, attitudes, skills, motivation, and socio-economic conditions collectively influence business success in the strong category. The remaining 21.50% is influenced by other factors outside the research model (Table 5).

Table 5. Structural model suitability evaluation results

Endogenous variables	Adj. R-square
Implementation of partnership patterns	0,796
Business success	0,785

**Hypothesis testing results**

Hypothesis testing is conducted using the bootstrap method simulation on the utilized sample. The results of the path coefficient validity test for each path are examined to assess the proximity of the indirect effect between exogenous variables and endogenous variables (Table 6).

The evaluation results reveal that the variables of attitude, skills, motivation, and socio-economic conditions have an indirect effect on the success of the broiler chicken business. This suggests that these variables indirectly influence success toward the implementation of broiler business partnership patterns. The farmer attitude

variable demonstrates the highest indirect relationship value, with a value of 0.229.

**The effect of knowledge on business success toward the implementation of partnership patterns**

The path model of farmer knowledge on success toward the implementation of partnership patterns has an original sample value of 0.029, a T-statistic of 0.655, which is smaller than 1.65, and p-values of 0.512, exceeding 0.10 ( $\alpha = 10\%$ ). These values indicate that there is no significant effect between knowledge and business success toward the implementation of partnership patterns. The results of this study do not align with the findings of

Table 6. Effect of factors affecting business success

Path Model	Original sample (O)	Standard deviation (STDEV)	T statistik ((O/STDEV))	p-values	Sig-level
Knowledge -> Implementation of partnership patterns -> Business success	0,029	0,045	<b>0,655</b>	<b>0,512</b>	ns
Attitude -> Implementation of partnership patterns -> Business success	0,229	0,070	3,253	0,001	***
Skills -> Implementation of partnership patterns -> Business success	0,121	0,051	2,365	0,018	**
Motivation -> Implementation of partnership patterns -> Business success	0,148	0,072	2,052	0,040	**
Socioeconomic conditions -> Implementation of partnership patterns -> Business success	0,086	0,053	1,651	0,100	*

\*: significant ( $\alpha < 0,10$ ); \*\*: significant ( $\alpha < 0,05$ ); \*\*\*: significant ( $\alpha < 0,01$ ); Ns: nonsignificant.

previous research by Susanti *et al.* (2019). Contrary to these results, Firmansyah *et al.* (2022) research indicates that the lack of success in partnership systems is attributed to farmers' low

knowledge about partnerships. This means that the success of a business is not necessarily based on the farmer's knowledge of partnership patterns and broiler rearing management but there are other

factors that can influence business success. Therefore, business success is not entirely based on farmer knowledge alone.

#### **The effect of attitude on business success toward the implementation of partnership patterns**

The path model of farmer attitudes toward business success toward the implementation of partnership patterns has a T-statistic value of 3.253, exceeding 1.65, and p-values of 0.001, which is less than 0.01 ( $\alpha = 1\%$ ). This value indicates a significant influence of attitude on the business success of implementing the partnership pattern. The original sample value of 0.229 implies that if the attitude increases by one unit, the business success toward the implementation of the partnership pattern increases by 0.229 units. This finding is consistent with research conducted by Listiana (2010), which suggests that the influence of farmer attitudes, indirectly toward supporting elements of the partnership, makes an effective contribution to the success of the partnership. The higher the attitude of farmers toward partnership activities, the greater their participation in partnerships. This is also in line with the results of the research Irfandy *et al.* (2021) that the success of the partnership business is greatly influenced by the existence of a good attitude between the partner actors (farmers) and the nucleus. Farmers who are directly involved in the partnership must have an attitude principle that the farmer understands and adheres to as a starting point in running a partnership business. If the partner farmers are not based on a good attitude, it will have an impact on the partnership that is not going well.

#### **The effect of skills on business success toward the implementation of partnership patterns**

The path model of farmer skills on business success toward the implementation of partnership patterns has a T-statistic value of 2.365, exceeding 1.96, and p-values of 0.018, which is less than 0.05 ( $\alpha = 5\%$ ). This value indicates a significant influence of skills on business success toward the implementation of partnership patterns. The original sample value is 0.121, implying that if the skill increases by one unit, the success of the business toward the implementation of the partnership pattern can increase indirectly by 0.121 units. This finding aligns with the research conducted by Susanti *et al.* (2019), which suggests that the skill variable indirectly influences the success of the broiler business toward the implementation of partnership patterns.

According to the results of this study, 51% of farmers have breeding experience for more than 5 years (Table 1). Breeding experience can be considered one of the factors influencing the success of broiler farming because it enhances the skills of farmers in implementing partnership patterns and farming management. This finding is consistent with the opinion presented in the research of Ukke *et al.* (2022), suggesting that

farmers with substantial breeding experience demonstrate improved abilities, serving as an indication of their skills in broiler livestock farming management.

#### **The effect of motivation on business success toward the implementation of partnership patterns**

The path model of farmer motivation on business success toward the implementation of partnership patterns has a T-statistic value of 2.052, exceeding 1.65, and p-values of 0.040, which is less than 0.05 ( $\alpha = 5\%$ ). This value indicates a significant influence between motivation and business success toward the implementation of partnership patterns. The original sample value is 0.148, implying that if motivation increases by one unit, business success can increase indirectly toward the implementation of partnership patterns by 0.148 units. This finding is consistent with the research conducted by Susanti *et al.* (2019), which suggests that farmer motivation indirectly affects the success of the broiler business toward the implementation of partnership patterns.

Motivation can be a key factor in promoting successful partnership practices and contributing positively to the success of broiler farming businesses (Abidin *et al.*, 2018). When farmer motivation is directed correctly, it will have a positive effect on the implementation of partnership patterns. The right partnership pattern can serve as an alternative strategy to enhance business success, particularly in terms of DOC distribution, feed supply, and broiler product marketing. Farmer motivation acts as a channel or tool in encouraging the implementation of partnership patterns.

#### **The effect of socioeconomic conditions on business success toward the implementation of partnership patterns**

The path model of socioeconomic conditions on business success toward the implementation of partnership patterns has a T-statistic value of 1.651, exceeding 1.65, and p-values of 0.100, which is equal to 0.10 ( $\alpha = 10\%$ ). These values indicate that socioeconomic conditions affect the success of business ventures toward the implementation of partnership patterns. The original sample value is 0.086, implying that if socioeconomic conditions increase by one unit, business success can increase indirectly toward the implementation of the partnership by 0.086 units. This finding aligns with research conducted by Listiana (2010), suggesting an indirect socioeconomic influence toward supporting elements of the partnership on the success of the partnership. Additionally, it is consistent with research conducted by Mustofa *et al.* (2022), indicating that the socio-economic factors of farmers have a positive and tangible effect on the success of livestock businesses toward partnership programs in the development of the livestock sector. The highest contributing socio-economic factor is the experience indicator, which accounts for 90.1%. This phenomenon has been proven in many

previous similar studies. Experience in farming is an important factor determining the success of a partnership broiler farming business.

### Conclusion

The implementation level of the broiler farming business partnership pattern is categorized as very good, while the success level of the broiler farming business is categorized as very successful. Attitude, skills, motivation, and socio-economic conditions of farmers affect business success toward the implementation of broiler farming business partnership patterns, while knowledge does not affect business success toward the implementation of broiler farming business partnerships.

Suggestions for the broiler farmers are focusing on improving attitudes, skills, motivation, and socio-economic conditions that have a significant effect on business success. Farmers have to attend training and mentoring activities to enhance professionalism and responsibility in running broiler farming. Regarding skills, farmers can seek relevant technical training to improve expertise in livestock management, animal health, and other aspects contributing to business success. Additionally, farmer motivation is a key factor, and the nucleus-partner companies may encourage and support farmers' morale toward incentives, rewards, or other motivational programs. Improving farmers' socio-economic conditions is achieved by providing access to economic resources, extension education, or support in business development.

Future research can further explore the factors that contribute to the lack of significant impact of farmer knowledge on the success of livestock businesses through partnerships, including operational management, partnership quality, market access, and technological support.

### Conflict of interest

The authors do not have any conflicts of interest to disclose. All authors have reviewed the manuscript and concur with its contents.

### Funding statement

This research is the result of a Grant Project fully funded by the Collaboration Grant Program managed by the Master of Agribusiness Management at Gadjah Mada University in 2023.

### Acknowledgment

The authors express our gratitude to the Collaborative Research entitled "BROILER CHICKEN BUSINESS SUPPLY CHAIN MANAGEMENT IN CENTRAL JAVA" funded by the Magister of Agribusiness Management Program, Faculty of Agriculture, UGM. This academic paper is one of the collaborative research outputs.

### Author's contribution

The authors confirm contribution to the paper as follows: study conception and design: AZ, AS, and M; data collection: AZ; analysis and interpretation of results: AZ, supervised by AS, and M; draft manuscript preparation: AZ and AS. All authors reviewed the results and approved the final version of the manuscript.

### Ethics approval

The information data collected and presented in this research is confidential and will be used solely for research purposes. The confidentiality of the personal data of farmers and core companies involved in this research will be safeguarded and guaranteed by the researcher. This research has received approval from the Head of the Master's Program in Agribusiness Management, Gadjah Mada University.

### References

- Abidin, J., La Malesi, and H. A Hadini. 2018. Motivasi peternak dalam pengembangan usaha sapi Bali di Kabupaten Muna Barat. *Jurnal Ilmu dan Teknologi Peternakan Tropis* 5: 17-23.
- Azizah, N. and H. D. Utami. 2013. Analisis pola kemitraan usaha peternakan ayam broiler (pedaging) pola closed house di Plandaan Kabupaten Jombang. *Jurnal Ilmu-Ilmu Peternakan* 23: 1-5.
- Daniele, B. C., S. Barbara, B. Isabel, and G. Alberto. 2022. Analysis of perceived robustness, adaptability and transformability of Spanish extensive livestock farms under alternative challenging scenarios. *Journal Agricultural Systems* 202: 103-117.
- Firmansyah, F. B., Amam, S. Rusdiana, and A. Sholehul. 2022. Peranan sumber daya terhadap pengembangan usaha kemitraan domba. *Jurnal Manajemen Agribisnis* 10: 862-870.
- Fitriza, Y. T., F. T. Haryadi, and S. P. Syahlani. 2012. Analisis pendapatan dan persepsi peternak plasma terhadap kontrak perjanjian pola kemitraan ayam pedaging di Provinsi Lampung. *Buletin Peternakan* 36: 57-65.
- Hair, J. F., W. C. Black, B. J. Babin, R. E. Anderson, and R. L. Tatham. 2013. *Multivariate Data Analysis*. Seventh Edition. New Jersey: Pearson Prentice Hall.
- Hidayati, N. I. 2015. Faktor-faktor yang mempengaruhi produktivitas tenaga kerja pada usaha ternak ayam ras pedaging di Kabupaten Pasuruan. *Jurnal AGROMIX* 6: 60-71.
- Irfandy, C., Dedi Suryanto, and Nurul Humaidah. 2021. Prospektif usaha peternakan pedaging pola kemitraan. *Jurnal Dinamika Rekasatwa* 4: 26-34.



- Kurnia E., B. Riyanto, and N. D. Kristanti. 2019. Pengaruh umur, pendidikan, kepemilikan ternak dan lama beternak terhadap perilaku pembuatan MOL isi rumen sapi di Kut Lembu Sura. *Jurnal Penyuluhan Pembangunan* 1: 40-49.
- Listiana, I. 2010. Faktor-faktor yang berpengaruh terhadap keberhasilan kemitraan penggemukan sapi potong antara PT. Great Giant Livestock Company (GGLC) dan peternak sapi di Kabupaten Lampung Tengah. Tesis. Universitas Sebelas Maret.
- Mustofa, A. R., E. Dasipah, Karyana. 2022. Pengaruh faktor sosial ekonomi dan manajerial tatakelola peternakan terhadap keberhasilan usaha ternak sapi perah (Studi kasus pada peternak sapi perah di Kecamatan Cipanas, Kabupaten Cianjur, Jawa Barat). *Jurnal Pemikiran Masyarakat Ilmiah Berwawasan Agribisnis* 8: 766-777.
- Okkyla, S., Isbandi, and Samsudewa. 2013. Hubungan motivasi dengan perilaku dalam pemanfaatan teknologi IB pada peternak anggota kelompok tani ternak sapi perah. *Animal Agricultural Journal* 2: 1-7.
- Prasetyo, K. B. 2018. Kajian tatalaksana lingkungan perkandangan ayam di PT. Mustika Jaya Lestari di Desa Gadungan Kecamatan Juwana Kabupaten Pati, Jawa Tengah. Tugas Akhir. Program Studi Manajemen Usaha Peternakan Universitas Diponegoro. Semarang
- Supriadi, Elviriadi, and Edi Erwan. 2023. Analisis pendapatan peternak ayam pedaging dalam satu periode pada sistem kemitraan dengan PT. Ciomas Adisatwa di Kecamatan Tambusai Kabupaten Rokan Hulu. *Jurnal Sains Peternakan* 11: 45-53.
- Susanti D. P., I. N. Suparta, and B. R. T. Putri. 2019. Hubungan penerapan dengan keberhasilan usaha kemitraan ayam ras pedaging di Kabupaten Tabanan. *Majalah Ilmiah Peternakan* 22: 30-35.
- Swastika, I G. L., N. W. T. Inggriati, and I G. S. Adi Putra. 2018. Analisis keberhasilan inseminasi buatan pada sapi Bali di Kabupaten Karangasem. *Majalah Ilmiah Peternakan* 21: 24-28.
- Ukke, A. T., A. B. Abdullahi, and Khaeriyah Nur. 2022. Analisis kepuasan peternak ayam broiler terhadap pelaksanaan kemitraan di PT Jass Mandiri Sejahtera. *Jurnal Gallus Gallus* 1: 9-21.
- Wuryanto, D., Ichwani, and Kandarso. 2015. Analisis Produksi Usaha Peternakan Ayam Pedaging di Kabupaten Sleman. *Jurnal Agro* 17: 71-80.