

THE EFFECT OF FARMERS' CHARACTERISTIC, STAKEHOLDERS' SUPPORT AND FARMING CHARACTERISTIC TO BROILER FARMERS EMPOWERMENT LEVEL IN MALANG REGENCY, EAST JAVA, INDONESIA

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***Abstract:** Since 1980, broiler agribusiness in Indonesia has been applying partnership system between feed industry and small farmers. In the economic development paradigm, this system gained successful story since it could raise broiler population significantly. This research aimed to find out factors that affect broiler farmers' empowerment level. Research respondents were 114 broiler farmers.*

The results showed that both farmers' characteristic and stakeholders' support had significant impact to farming characteristic. Farming characteristic and stakeholders' support also had significant effect to Farmers' empowerment level. Thus, to increase farmers' empowerment level, bigger scale of farming and stakeholders' support are recommended.

JEL Classification Codes. Primary Q1; Secondary Q120 Q130 P32

Keywords and phrases: empowerment, farming scale, partnership system, stakeholders

1. INTRODUCTION

Since 1980's, broiler agribusiness in Indonesia has adopted partnership system between feed industry and farmers. Along these years, many broiler partnership policies alterations were made to make the system run its objectives properly. Past research noted that the partnership system met failures in increasing broiler population and empowering farmers concurrently (Yusmichad, Ilham, and Sayuti 2004 and Hadiyanto 2007). Although partnership system had positively gained broiler population growth but small farmers still had to struggle in surviving their business. Therefore, there must be some efforts to empower farmers in order to give justness milieu in the partnership system. Partnership system in Indonesian broiler agribusiness applied

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today is categorized in The Intermediary Model. This system used Poultry Shop (or Nucleus) as an intermediate party between feed industry and small farmers (or Plasma) (Abwino and Rieks 2006). It implied on how Poultry Shop selected and treated their partners. This fact brought about the need of finding factors that able to make farmers as active subjects in the partnership, not just as objects for Nucleus.

Empowerment is a process of transition from a state of powerlessness to a state of relative control over one's life, destiny, and environment. This transition can manifest itself in an improvement in the perceived ability to control, as well as in an improvement in the actual ability to control (Sadan 2004).

This research focused on three exogenous variables that assumed affect broiler farmers' empowerment level. The first variable was Farmers' characteristics. Farmers' characteristics such as age, formal education level, and farming experience had positive impact on farmers' empowerment level. These factors could lead to strong competence, skill and knowledge. Leeuwis (2009) stated that culture, technical, economical and relational aspirations, and preferences affected styles of farming or farmers' behavior in doing their business. Additionally, managerial competence, skill, age and formal education, which were called prior condition, had positive impacts on long-term objectives in farming activities (Lionberger dan Gwin 1982).

Second variable was stakeholders' support. Stakeholders in the broiler partnership system were similar to other agribusiness products except for Nucleus as private party. Important stakeholders in the broiler partnership were Nucleus as an intermediate party between feed industry and farmers, government, agricultural extension department, NGO, farmers' group and other broiler farmers. Abdou (2005) said that external parties' support for farmers such as finance, extension program, and cooperative could affect farmers' behavior since it closely related to effective cultivating pattern, proper production pattern knowledge, farming practices, production types and requirements proportions, marketing channel, price condition and competition. It also affected farmers' consolidation.

Farming characteristic consisted of scale of farming and farming contribution to household earning. These factors were important since Nucleus tend to give better service to big farmers as potential consumers. Leeuwis (2009) pointed out scale of farm and farm intensity could classify farmers into several groups. The groups' differentiation based on their farming system, technology application, labor organizing, market dependency, and income.

The research was conducted in Malang Regency, East Java. The rationales of this area selection were: (1) Malang Regency had 18 Nucleus, which was the greatest number between other regencies in East Java; (2) Malang Regency was a broiler agribusiness potential area in Java Island; and (3) many varieties of local challenges in Malang Regency, it lead to different Nucleus and Plasma contract relationships.

This research aimed to find out whether: (1) Farmers' characteristic has significant effect to farmers' empowerment level; (2) Farmers' characteristic has significant effect

to farming characteristic; (3) Stakeholders' support has significant effect to farmers' empowerment level; (4) Stakeholders' support has significant effect to farming characteristic; and (5) Farming characteristic has significant effect to farmers' empowerment level.

2. MATERIALS AND METHODS

The research was conducted in Malang Regency, East Java. Research population was broiler farmers in Malang Regency who joined partnership with Nucleus/firm and in the same time used Charoen Pokphand feed as the most common feed brand in East Java. The research used survey method to collect data about broiler farmers' characteristics, farming characteristic and farmers' empowerment level. Probability sampling with simple random sampling used to determine research sample and found 114 farmers as respondents.

The technique employed for data collection was structured/guided interview by using questionnaire. Data analysis was using PLS-SEM (Partial Least Square for Structural Equation Modeling).

3. RESULTS AND DISCUSSION

Data processing with Structural Equation Modeling (SEM) generated research model shown in Figure 1.

Hypothesis 1. Figure 1 showed that farmers' characteristic did not have significant impact on farmers' empowerment level. The *t* value was 0.40, less than *t* table, which was 1.67 with a level of significance of 5%. Path coefficient from farmers' characteristic to farmers' empowerment level was 0.02, which meant the effect of farmers' characteristic to farmers' empowerment level was 1.9%.

This result was consistent with Musara, Zivenge, Chagwiza, Chimvurahwe and Dube (2011); Ike and Ugwumba (2011), and Mahjoor (2013). Musara et.al (2011) stated that younger farmers did not have difficulties in doing business with firm because partnership system was familiar for them. Younger farmers also technically were more efficient than older farmers were. It might be caused by their adoptability in production methods and their education levels were better than their seniors (Mahjoor 2013). Formal education, as one of indicators for farmers' empowerment level, did not give significant effect to farmers' competence. Farmers' competence significantly increased by on farm training Ike and Ugwumba (2011). For broiler farmers in Malang Regency, age and formal education did not tend to give positive impression to Nucleus. Nucleus mostly focused on scale of farming. Bigger scale of farming demanded bigger attention because in involved more money.

Hypothesis 2. Farmers' characteristic had significant impact on farming characteristics. The *t* value was 2.33, greater than *t* table. Path coefficient from farmers' characteristic to farmers' empowerment level was 0.14, which meant the effect of farmers' characteristic to farmers' empowerment level was 14%.

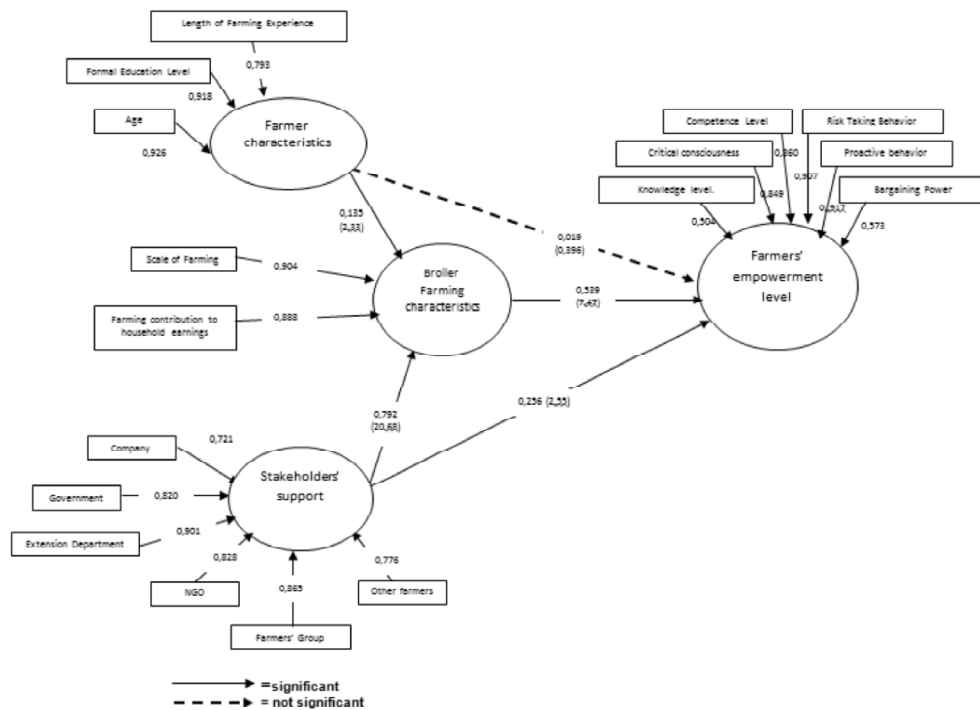


Figure 1: Construction for path diagram by using Measurement Model

This result showed that older broiler farmers and farmers with longer time of farming experience tended to be more focus on his farming activities. Older farmers usually chose to have one secure source of income and more experience farmers were motivated to continue their recent farming commodity. Whereas, farmers with higher level of education were usually had better self-confidence and capacity in running their business. This fact led farmers to have bigger scale of farming and higher contribution to family income. This result then supported Epeju (2010) who did a research to sweet potatoes farmers in Uganda. Based on his research, age, education level, gender and the length of farming experience evidently affect their farming ability and productivity.

Hypothesis 3. Based on the research result, stakeholders' support had significant impact on farming characteristic. The t value was 20.7, which was greater than t table. Path coefficient from farmers' characteristic to farming characteristic was 0.79, which meant the effect of farmers' characteristic to farming characteristic was 79%.

Stakeholders' support was able to increase farming characteristic in terms of farming scale and farming contribution to household income. Stakeholders' support such as partnership regulation, infrastructure, financial and farming management assistance could help farmers to do better farming. Small-scale broiler farmers in

Malang Regency mostly faced difficulty to start another period of farming because it they could not afford DOC and feed. In this case, Nucleus support was important for small farmers to lend farming input. However, it is important to have government backing to create fair contracts between Nucleus and farmers/plasma. It also needed to provide proper infrastructure like transportation and information for farmers. The explanation could be that those assistances could help farmers increasing their farming scale and their effort in doing the business, as been noted by Prowse (2012) that Nucleus-Plasma partnership model was suitable for small until medium scale of farming.

Hypothesis 4. Based on the research result, stakeholders' support had significant impact on farmers' empowerment level. The t value was 2.55, which was greater than t table. Path coefficient from farmers' characteristic to farmers' empowerment level was 0.26, which meant the effect of farmers' characteristic to farmers' empowerment level was 26%.

As an agribusiness system, broiler-farming activities needed a cooperative support from its stakeholders. Main stakeholders in broiler farming were Nucleus/feed industry, government, agricultural extension department, NGO, farmers' group and fellow farmers. All parties had specific and complementary roles. This research result showed that stakeholders' support was important to empower broiler farmers. Nucleus support like good business relationship that allows farmer participative involvement in establishing just contract is essential. Government plays its role from policy and regulations. It must cover strong commitment in farmers' human resources improvement since recent regulation only stresses on farming production. Whereas agricultural extension department, NGO, farmers' group and fellow farmers contribute mainly in financial issue, training and farming input assistance. All stakeholders' support able to increase farmers' empowerment level. By having a fair contract, update training, financial and input farming support, farmers will have a better empowerment level.

This result then supported Woodend (2003) who emphasized the importance of stakeholders' support in agribusiness. Farmers need collective action that involves extension officers, NGO and private sectors. This cooperation can produce training materials and distributed to all stakeholders. Government can take part in: (1) establishing favorable environment, giving better research service, extension program and infrastructure; (2) giving institutional innovative and progressive measurement to mitigate high early cost and transaction when doing business with smallholders; (3) establishing proper regulation but more importantly fixing contractual fulfillment behavior; (4) protecting smallholders from excessive institutional restriction and regulation; (5) increasing farmers' knowledge and bargaining power in the partnership.

The result for hypothesis 5 was farming characteristic had significant impact on farmers' empowerment level. The t value was 7.47, which was greater than t table. Path coefficient from farmers' characteristic to farming characteristic was 0.54, which meant the effect of farmers' characteristic to farming characteristic was 54%.

This result suitable with Jabbar, Rahman, Talukder and Raha (2007) research in Bangladesh that higher contribution of broiler farming to household income made farmers more willing to take risk. Farmers were also more active in partnership relationship to get more loans from their partner. In this research, when farmers' family income mostly depend on broiler farming they tended to have more bargaining power and more eagerness to increase their knowledge and competence. Higher scale of farming gave similar effect too. It could be because they invested a lot of money in broiler business. Farmer's critical consciousness toward their business will increase since they must save their investment.

Baumann (2000) highlighted the relationship between scale of farming and farmers' empowerment level. Firms usually opted to have partnership with bigger farmers since they can cut off transaction cost and allow more uniform product quality. Partnerships with small farmers required more money and more time in organizing them. In broiler farming partnership, big farmers could have better negotiation and facilities than the small ones. Nucleus considered big farmers as potential consumers because can produce higher profit.

To build an empowerment strategy for broiler farmers in Malang Regency, this research used the value of indirect, direct and total effect of research variables. The values are in Table 1.

Tabel 1
Direct, Indirect and Total Effect of Exogenous Variables to Endogenous Variable

| <i>Variable</i> | <i>Direct Effect Path Coefficient to Farmers' empowerment level</i> | <i>Variable Path Coefficient</i> | <i>Indirect Effect Path Coefficient</i> | <i>Total Effect Path Coefficient</i> |
|-------------------------|---|--|---|--------------------------------------|
| Farmers' characteristic | 0.02 | Farmers' characteristic → Farming characteristic = 0.14 | 0.14 x 0.54 = 0.08 | 0.02 + 0.7 = 0.72 |
| Stakeholders' support | 0.26 | Farming characteristic → Farmers' empowerment level = 0.54 Stakeholders' support → Farming characteristic = 0.8 | 0.8 x 0.54 = 0.43 | 0.3 + 1.33 = 1.63 |

Total effect of exogenous variables (Farmers' characteristic, Stakeholders' support and Farming characteristic) measured to find out which variable that had biggest effect to endogenous variable (Farmers' empowerment level). Stakeholders' support had proven to give bigger impact than farmers' characteristic. It is suggested to give special effort to make every stakeholders can do their roles in broiler agribusiness. Stakeholders' support must be aimed to increase farming characteristics: farming scale and farming contribution to household income.

CONCLUSIONS

There were two variables that had significant impact to broiler farmers' empowerment level in Malang Regency: Stakeholders' support and Farming characteristic. The farmers' characteristics did not affect farmers' empowerment level.

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