

THE ROLE OF FARMER-TO-FARMER EXTENSION AS A MOTIVATOR FOR THE AGRICULTURE YOUNG GENERATION

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ABSTRACT

Farmer-to-Farmer extension has a potential role in strengthening motivation of agriculture young generation to be the forerunner of agricultural actors regeneration process. Even there is no clear authority for Farmer-to-Farmer extension, but they have more access to deliver agricultural information and innovation. The purpose of this research is to analyze the motivation of the young generation as agricultural actors; the role of farmer-to-farmer extension to motivate the young generation as agricultural actors and the role and characteristic of agriculture extension agents and the motivation of young generation as agricultural actors towards the regeneration of agricultural actors. This study uses a survey design of 140 respondents representing the young generation who are interested in the agricultural sector. Data collection was conducted from April to May 2016. Data analysis using descriptive technique and Path Analysis. Based on the results of the research, the conclusion is that the desire to develop themselves becomes the only motivational component which encourages youth interest to the agricultural sector. Further, the prominent role of farmer-to-farmer extension in motivating the young generation is in spreading technology and information. The conclusion is that farmer-to-farmer extension role can slightly motivate the interest of young generation to agriculture sector, thus would become early process in the regeneration of agricultural actors.

Keywords: farmer-to-farmer extension, young generation, agriculture actor regeneration

INTRODUCTION

The implementation of agricultural extension can be conducted by the main actors and or other communities as government partners. The limited number of agriculture extension officer consist only 25,832 people and Agricultural Extension Workers 19,033 people (Pusluhtan-Kementan 2016). Thus they would not been able serve 74,093 villages and 8,412 kelurahan (Permendagri No. 39 of 2015). This limitation creates a barrier to conform the mandate of Law Number 19 Year

2013 that is one extension worker for each village. One reason is the low level of appointment of extension workers and even the next few years the number of agricultural extension workers. One of the solutions of these condition is empowering Farmer-to-farmer Extension (FtFE) in conducting extension activities. The total number of FtFE is 21,438 people (Ministry of Agriculture 2016).

On the other hand, regeneration of agricultural actors is very important because the data shows that the share of young farmers is much lower than the general public (BPS 2013). BPS reserve data (2003) with BPS (2013) shows that in the last 10 (ten) years, there has been steep decline in agricultural households number. Cipayung Village, Megamendung Sub-district, Bogor Regency, has two self-employed agricultural extension workers and one extension officer with contract status. Farmers of food crops, farmers and planters are hereinafter referred to as perpetrators of partanian In Cipayung Village. The age of perpetrators is mostly relatively young (15-46 years old).

The high composition of young age agricultural actors shows that the regeneration of agricultural actors within this area running well. One of the reasons is the role of FtFE to encourage young farmer. The success of FtFE's agribusiness activity could motivate young farmer. Indraningsih et al (2013) states that FtFE plays a role in improving the motivation of the younger generation of agricultural actors. Arnstein (1969), Pretty (1995) and Yuliani et al. (2012) said the local public figure's characteristic (in this case played by FTFE) are more capable to generate interactive participation within community. These conditions can be the answer of the challenge of young farmers regeneration (Hamilton et al 2015 and Zagata et al 2015). This research is aimed to (1) analyze the motivation of young generation of agriculture actors (2) Analyze the role of FtFE in motivating the young generation of agricultural actors, and (3) the influence of the role, the characteristics of FtFE and the motivation of the younger generation of agricultural actors on the regeneration of agricultural actors.

METHODOLOGY

The research was conducted in Cipayung Village, Megamendung Sub District, Bogor Regency, West Java Province from March to May 2016. This research is a quantitative research with survey approach. Based on its purpose, this research is an explanatory research. The population in this study is younger generation of agricultural actors of totally 456 people. The sample in this study determined using the Slovin formula (Sevilla 1993) with percentage of 10% allowance to obtain the sample number 140 people.

The instrument of this study is a questionnaire that contains a list of statements. Variables (X1) the role of FtFE, developed into 4 (four) subvariables include the role of technical assistant

(X11), business model (X12), trainer (X13), and technology and information transfer (X14) reflected in 18 (eighteen) statement items. Variables (X2) the independent characteristic, are described into 3 (three) subvariables including the ability to influence (X21), community recognition (X22), and the success of business / farming (X21) with 14 (fourteen) statement points. Variable (Y1) The youth motivation, was developed into 3 (three) subvariables: learning keingginan (Y11), farming desire (Y12) and self-development (Y11) with 14 (fourteen) statement points. Variables (Y2) the regeneration of agricultural actors are detailed in 2 (two) subvariables, namely the interest of the youth in agriculture (Y21) and the action of youth in agriculture (Y22) with 10 (ten) points of statement. The research instrument has passed the validity and reliability test with the alpha cronbach value range 0.817 to 0.930. Data processing techniques used in this study is descriptive statistical analysis techniques and path analysis. For the purposes of data analysis, the primary data that is ordinal data is transformed into interval data through the MSI (Method of Successive Intervals) method.

RESULTS AND DISCUSSION

Motivation of Young Generation of Farmers

The young generation of agricultural actors in Cipayung Village tend to have a strong attention for every change especially in terms of technology utilization. It is captured from the utilization of the internet (social) media to communicate with people, both inside or outside their community. This is in line with statement of Tapscott (2009) that current generation is Internet or the digital generation that is growing in the increasingly sophisticated climate of information and communications technology. The young generation is identical to C generation, that is connected, convergence, collaboration, creative and contextual.

The success of several young people in Cipayung Village, encourage the interest of other young generation to have business in the agricultural sector. They got this information from face-to-face interaction and information from the internet media. The interest of the young generation is due to the attention to develop themselves in order to have a better future. The results showed that the attention of the young generation to develop themselves in the agricultural sector is in high category; while the attention to learn and the desire to do agribusiness only in the moderate category.

The young generation perceive that working in agricultural sector does not provide sufficient income and low social status. Thus, the younger generation in Cipayung Village prefer to work in other sectors that are considered have higher social status. This is in accordance with the theory of Maslow (2003) which states that the needs that are not fulfilled will cause the emergence of great powers over what is done by an individual. Physiological needs are the most

imperative needs, but psychologically the need for self-realization is essential for each individual.

The young generation is the main actor in most of economic and social change process. For example, urbanization events (population spatial movements) and sectoral shifts in employment are dominated by young people in Cipayung Village. The young generation where mostly farmers' children prefer to move to urban areas to get a better life and leaving the village with an increasingly lethargic farming world.

The social movement is a form of reality occur everywhere not only in the Cipayung Village. It is possible that there is an influence of the development of science and technology as well as the global culture that forms a new view of how the ideal young generation. Previously being a farmer is a natural thing, but now a farmer is a less appropriate choice because it does not provide bright career development in the future. The shift in values that occur in the young generation at this time, actually has a major impact on agricultural development in this agrarian country. The decline in the number of young workers, as well as the low interest of youth generation in agriculture becomes one of the fundamental challenges for the sustainability of agricultural development in the future. This situation is a huge challenge, because the new human resources become a big capital in the development of the agricultural sector.

Based on the increasing demand for food and the potential productive age population in Indonesia that will increase in the next few years, the regeneration of young farm workers in Indonesia is very important and possible to achieve. This is with the need for efforts to increase the interest of young people to participate in managing the agricultural world. Young farmers who are young laborers who are in the planting sector to the agricultural management sector, including experts who are involved in it. It takes the cooperation of government, private and public to form efforts of regeneration of young farm workers in Indonesia. Here are the alternative offers for the regeneration efforts in question:

- 1) Establish a platforms or organizations that accommodate young farm workers. This is intended to provide a clear and targeted form for the young generation who have and will plunge into the agricultural sector. The jointly formed platform is expected to provide assistance to young farmers in villages as well as young people interested in engaging in the agricultural sector in order to achieve clear objectives of creating the welfare of young farmers and maintaining food security in the future.
- 2) Village young farmer breeding program is an alternative to regeneration efforts with young farmer breeding from farming families in rural areas. Breeding is conducted from the assistance of education and the development of interest in the agricultural sector. This effort

is more effective with the involvement of government and private sector in it. Educational assistance is intended to form young peoples who are knowledgeable and able to adapt to the development of science and technology.

Role of FtFE to Motivate Young Farmer Generation

Agricultural extension workers have several roles in this research that is as technical assistant, business model, trainer, and technology and information transfer. The results showed that the three roles of FtFE outside the technology and information transfer were in the medium category. The high role of FtFE farmers in disseminating technology and information due to the high ability of FtFE to communicate to farmers and the young generation in explaining information. FtFE obtained the information from extension officers and institutions that provide various information about farming or business activities.

This is result different from the results of Indraningsih et al. (2013) which reveals that the high determination role of FTFE is in the technical assistant; and Lukuyu et al. (2012) on their role as coach. This difference is due to the limited activities implemented by FTFE in Cipayung Village especially in providing training, compared to other FtFE elsewhere who already have form their own organization for farmers practice. The process of formation in Cipayung Village is still in preparation so that the role of training has not been much enjoyed by other farmers. While for technical assistants and business models, interviews with some respondents are recognized, however, that FtFE provide technical examples and facilitators but are not perceived directly by farmers so that their assessment is at the level of recognition of individual FtFE.

The studi of Indraningsih et al. (2013) in three provinces obtained information that the capacity of FtFE is relatively diverse, but the mastery of the technical aspects is adequate. Some of them get their capability from the government training or learn independently from decades of experience in the fields. This condition is almost the same with FtFE in Cipayung. they have slightly higher technically farming ability compared to other farmers due to frequent training held by the government. However, FtFE has not been able to spread it to other farmers and other young farmer in Cipayung Village so that role as technical assistant still not optimal. This is also triggered by the unclear division roles between FtFE and extension officers. Generally the role of FtFE is still limited within the farmer group and the furthest in the village farmers. However, some FtFE have been providing extension services outside their sub-district.

Based on these conditions FtFE should be authorized so that they can conduct their roles also motivate young people to love the agricultural sector. Syahyuti (2014) expressed the strength of FtFE compared to extension officer that is more able to create a participatory education. This is because FtFE live among the farmers, directly experience the feelings and problems of the

farmers, become part of the spirit of the peasants, and participate in participatory farming activities in the community. He is an "insider" who no longer needs to study farmer psychology and sociology of rural communities.

The Influence of Role and Characteristics of FtFE Against Young Generation and Farmer Regeneration

The advantage FTFE compare to other farmers is that they has higher knowledge and technological skills. FTFE lives daily in his community thus they able to create participatory education, able to organize the community (community-organizing role), capable of becoming a more powerful change agent, and have higher value of social capital (Syahyuti 2014). Permentan Number 61/2008 explain that FTFE is the main actor who succeeds in his business, willing and able to become counselor based on his own consciousness.

FTFE assist the extension officer in conducting extension activities, either individually or in an integrated cooperation in agriculture extension program. The real facts show that the FTFE can act as potential business agent because their background as successful business actor. Therefore FTFE has complete characteristics that should be able to give an example to show to young generation that the agricultural sector is not as grotesque as it is assumed.

The analisis of role and characteristic of FTFE on the motivation of the younger generation shows on table 1. The analisis conducted using SPSS to get the value of R2 (R square) and ρ (Standardized Coefficients / path coefficients).

Table 1: Result of Statistical Analysis Influence of Role and Characteristic FtFE to Motivation of the younger agricultural generation

Description	Parameter	Value	. α	Decision
Correlate X ₁ dengan X ₂	$r_{X_2X_1}$	0,208	0,077	Correlated
Correlate X ₂ dengan Y ₁	$r_{Y_1X_2}$	0,291	0,013	Correlated
Correlate X ₁ dengan Y ₁	$r_{Y_1X_1}$	0,265	0,024	Correlated
R square	R^2	0,128	0,008	
P X ₁ Y ₁	$\rho_{Y_1X_1}$ $(\rho_{Y_1X_1})^2$	0,213	0,066	
P X ₂ Y ₁	$\rho_{Y_1X_2}$ $(\rho_{Y_1X_2})^2$	0,246	0,034	

Information: X₁ : Role of FtFE, X₂ : Chracteristic FtFE, Y₁ : Motivation of the younger agricultural generation

Table 1 shows that the role and characteristics of FtFE significantly influence motivation of the young agricultural generation. It means that direct role of FtFE and indirectly from the characteristics of FtFE to young agricultural generation can lead to a willingness to involve in agricultural sector. The interviews results to some respondents also indicate that if FtFE are given greater authority than existing extension workers, especially in organizing the process of delivering technological innovations to youth farmers, it is believed that adoption rates will be faster.

In addition, the young generation's interest in agriculture is also triggered by the role of FtFE who is considered more modern in delivering innovation and manage their farming compare to other farmers. Coincidentally FtFE in Cipayung Village has a relatively more successful farming to give a positive value motivating the youth to work in the agricultural sector. It means they play role as model in farming and transfer information technology to motivate younger generation interest. This conditions has push the process of agricultural actors regeneration to run well.

As a process and activity, regeneration is not merely important, but it is an inevitable historical demand. Regeneration is an indicator criterion of sustainability and becomes one of the characteristics of a dynamic system named self-generating system. It means that all system components are generated by processes that take place within the system network (Capra 2004). Because of this natural process, the regeneration of agricultural actors can not be imposed by anything except the individual awareness of the young peasants who can actually be encouraged by the FtFE as the initial trigger of the youth's interest in the agricultural sector. Furthermore, the influence of the role and characteristics of FtFE to motivate of the younger agricultural generation are presented in Table 2.

Table 2: Statistical Analysis of Influence of Role (X₁), Characteristic FtFE (X₂) and Motivation of the younger agricultural generation (Y₁) on Farmer Regeneration (Y₂)

Description	Parameter	Value	a	Decision
Correlate X ₁ dengan X ₂	rX ₂ X ₁	0,208	0,077	Correlated
Correlate X ₂ dengan Y ₁	rY ₁ X ₂	0,291	0,013	Correlated
Correlate X ₁ dengan Y ₁	rY ₁ X ₁	0,265	0,024	Correlated
Correlate X ₁ dengan Y ₂	rY ₂ X ₁	0,517	0,000	Correlated
Correlate X ₂ dengan Y ₂	rY ₂ X ₂	0,106	0,374	Not Correlated
Correlate Y ₁ dengan Y ₂	rY ₂ Y ₁	0,294	0,012	
R square	R ²	0,265	0,000	
P X ₁ Y ₂	ρY ₂ X ₁	0,479	0,000	
P X ₂ Y ₂	ρY ₂ X ₂	0,047	0,664	
P Y ₁ Y ₂	ρY ₂ X ₃	0,181	0,100	

Table 2 shows that only the characteristics of FtFE do not have a direct influence on the regeneration process of agricultural actors, but to boost that process the characteristics of FtFE indirectly affect the motivation of young farmers. While for the role of FtFE is quite strong in giving influence to the motivation and regeneration process of agricultural actors directly. The direct and indirect influence of each variable on the farmer regeneration described in Figure 1.

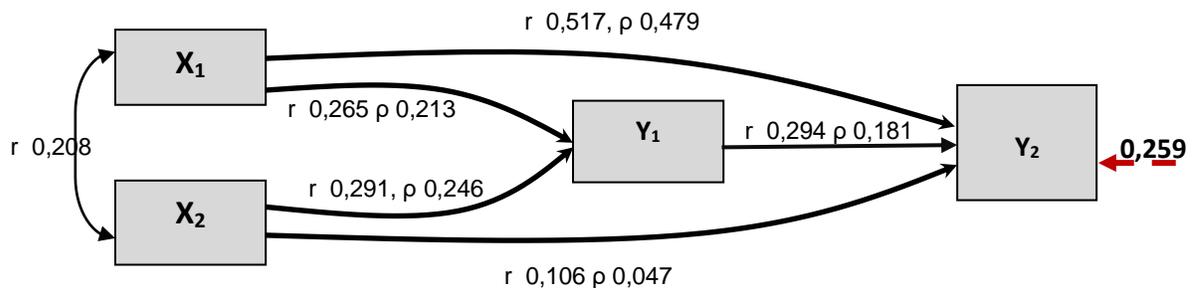


Fig 1: Diagram Path Analysis

The result of path analysis reveals that the characteristic of FtFE (X₂) has no direct effect on regeneration of agricultural actors (Y₂). While the other two variables affect each other and have a direct path in the regeneration process of agricultural actors. This is in line with the results of the first study which also reveals that the role of agricultural extension has power to encourage the willingness of younger generation to work in the agricultural sector. But these conditions can not be categorized that agricultural FtFE can determine the decisions to the younger generation to plunge in the agricultural sector. This is because there is still a perception in the community that working in the agricultural sector is still less promising, The youth who have higher education would not made the first choice to work in the agricultural sector.

This condition is in line with Setiawan et al. (2015) whose stated that the decision to work in the agriculture sector is raise automatically, some based on information, considerations (facts, experiences, institutions, logic and analysis) and uncertainty. The process and effectiveness of a decision are influenced by many factors, such as empowerment, problem nature, information, personal characteristics (rationality, motivation, knowledge, experience, cratification, innovation, expertise) and environment (physical, social, cultural, technological and institutional). The disinterest of the younger generation on this farm shows how the agricultural sector has no appeal that can outperform other sectors, especially industries. Young people claim to prefer to be industrial workers because their income is more certain. Therefore, optimizing the role of FtFE is appropriate ways to encourage and motivate the younger generation can be one of the solutions to the problem of the existing deadlock.

CONCLUSION

1. Motivation of young generation of agricultural actors in general is still in the medium category to be able to participate directly in agricultural activities in Cipayung Village, Ciawi Sub-district, Bogor Regency. The motivation includes three components, namely the willingness to learn, the willingness to work and the willingness of self-development. The highest motivation is on the willingness to develop themselves, especially in terms of experience in agriculture.
2. The role of FtFE in motivating the younger generation of agriculture is on the dissemination of technology and information. FTFE has ability to communicate well to farmers and young people in explaining information they get.
3. In general the role of FtFE can motivate the younger generation to be slightly interested in the agricultural sector so this is an early process of the regeneration.

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