

How to Make Youth Participate In Farming? A Literature Review

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Abstract – Agriculture, worldwide, is facing a dilemma in the last decade. Modernization, which contributes to agricultural productivity, is blamed for being one of the causes of the decrease of agricultural, human resource, particularly the young intention and their participation in agriculture-related activities. Many young farmers leaving the village abandon their farming activities for changing life orientation in urban. This paper will employ the literature review method to explore factors by collecting and analyzing international and national journals/ scientific sources, published in the range ten years, from 2010 to 2019. The reviewing process results in factors contributing to the young's participation in agriculture-related activities, such as personal factors, information supporting factors, learning process factors, and environmental influence, including government policy.

Keywords – Youth, Participation, Farming.

I. INTRODUCTION

Attracting youth into agriculture always be a challenging project in every country, especially in a developing country. This project was started to become a global intention after the year 2000. It is showed by the increasing amount of research about youths and their participation and interest in agriculture/ farming after that year. Even government and non-government organizations still make that theme a common issue for some events/discussions. The crucial of this issue is because it is related to the agricultural sustainability of a country. For example, in Africa, 70% of the youth resides in rural areas, where they work primarily in agricultural-related activities, which accounts for 65% of the workforce (fanpan.org, 2013). It is essential to maintain the agricultural human resource both the capacity and the capability (skill). Agricultural related activity has a dynamic situation. Therefore, it needs human resources to overcome the challenges encountered in this sector to ensure the future of agriculture, formulated in a youth farmer regeneration strategy.

Youth, according to the United Nations (UN), are persons whose ages between 15 and 24. The term differs slightly from one country to another. In Indonesia, the Rule mentions the age of youth is from 18 to 30. Different from UN and Indonesia, Ghana and some African countries define youth as persons within the age bracket of 15 and 35 (Naamwintome dan Bagson 2013), while in European United (EU), young farmers are identified as less than 40 years of age (ENRD in Hamilton et al., 2015). According to those age range, youth is defined as a very vital asset in development. With the general characteristic of the Y and Z generation, they will signify and portray the belief, values, and idea in fulfilling the vision, future, and aspiration (Edginton et al., 2005). They also will have a significant role in changing conservative agriculture into modern agriculture that more economic benefits.

Therefore, without a youth farmer regeneration strategy, every country, especially an agricultural country, will face a difficult situation, like global food supply uncertainty. In the United Kingdom (UK), BBC was reporting (2016) that the average age of a

farmer is 59 years old. The same situation in Kenya and Japan around 60 and 67 years old, respectively. Even in Indonesia, as an agricultural country, Bureau of Statistic Centre (BPS) data in 2013 reveals that only 12.85 percent youth farmer. That aging farmer population problem will more impact on agricultural sustainability is when the old experienced farmers retire. However, the youth are increasingly preferring seeking work in urban than participating in an agricultural-related activity. This situation also happens mostly in some countries. In Indonesia, BPS data shows the decreasing number of farmer population. Data in 2003, the number of farmers in Indonesia is about 31.23 million farmers, but the number in 2013 becomes 26.14 million farmers. In about ten years, the Indonesian farmer population decreases 16.23 percent or around 5.09 million farmers. Apart from the land conversation and many other factors that contribute to some youth farmer migration, the number and the capacity of youth farmer is still very important. Therefore, some strategies should be applied to maintain or increase youth interest in agriculture because they will be the main actor in agriculture development. Based on that explanation, the purpose of this literature review research is to draw about the trend of "youth farmers and their participation and interest in agricultural-related activity" research, to explore youth farmer situation in some countries and how those countries deal with (strategy) the farmer regeneration.

II. METHODOLOGY

The method used for this research is a literature review from both international and national journals/scientific sources, such as Sage Publications, Science Direct, dissertation and thesis from some universities, and individual/ institution research publication for the international seminar. Those publications in the selected journals were chosen as the unit of analysis for conducting this study. The following Figure provides the percentage of research papers chosen for the total number of 50 publications. The publication is chosen randomly, according to the predetermined keywords, such as "youth," "farmer," "participation," and "interest," and it should be published between years 2010 and 2019.

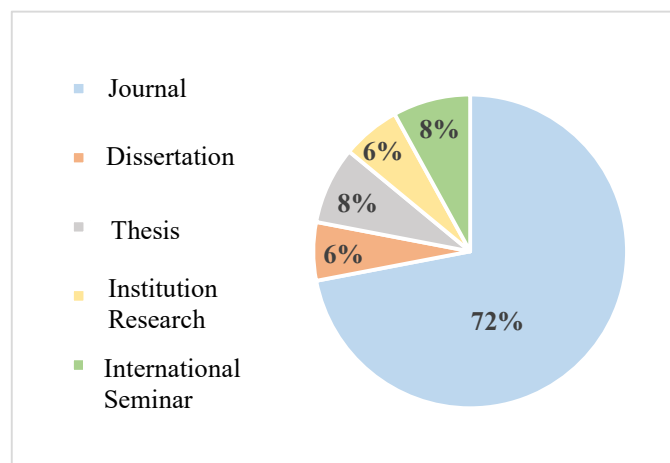


Figure 1: Source of Literatures

After the process of literature selection, kinds of literature will be tabulated for further analysis. The analysis used in this research is content analysis. Content analysis is a flexible research method for analyzing texts or sets of texts and describing and interpreting society's written artifacts (White et al., 2006). Hsieh et al. (2005) also add that the content of text data is interpreted by coding and identifying themes or patterns, with the fundamental approaches ranging from impressionistic, intuitive, and interpretive analyses to systematic quantitative textual analyses. After researchers quantify and analyze the presence, meanings, and relationships of such words and concepts, they make inferences about the messages within the texts, the writer, the audience, and even the culture and time they are apart.

III. FINDINGS

Before the literature pieces are analyzed based on the research question keywords (categorization), those will be analyzed quantitatively, in terms of publication time, publication origin, research method, central theme, respondent, theory and concept, and scientific field. The objective is to see the trend of "youth farmers and their participation and interest in agricultural-related activity" research.

IV. PUBLICATION TIME

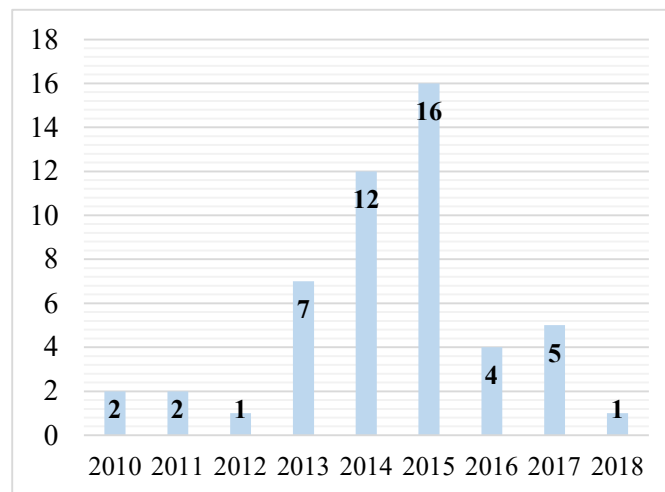


Figure 2: Publication Time

Based on Figure 2, it appears that research about "youth farmers and their participation and interest in agricultural-related activity" was mostly written between 2013 and 2017, with a peak in 2014 and 2015. The reason might be because in 2014, many youth farmer events held in some countries, such as New Zealand Young Farmers Contest (www.fmgyoungfarmercontest.co.nz), Cereal 2014, which aims to inspire youth to enter farming (www.fwi.co.uk), Youth Leadership Conference Education for the Alabama Farmers Federation (www.m.alfafarmers.org), Australian Young Farmer Competition (www.ruralyouth.com.au), and many more events and youth farmer community campaigns in social media.

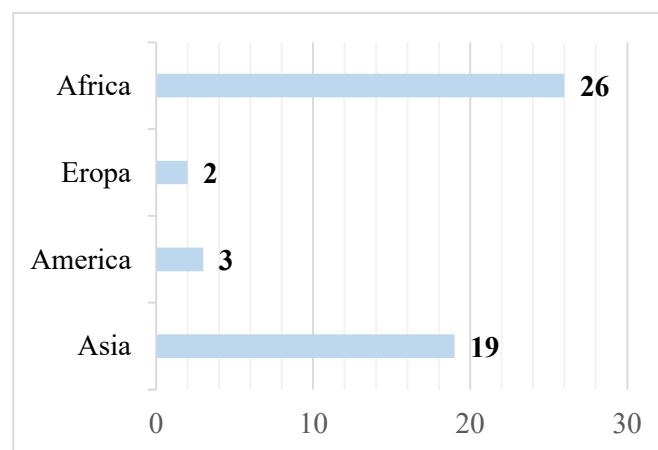


Figure 3: Publication Origin

V. PUBLICATION ORIGIN

Figure 3 shows that more research about farmer regeneration was conducted in the Asian and African continents. It is because Asian and African countries, mostly, are agricultural countries. Agriculture becomes a source of income for many people in those countries; therefore, many research focuses on developing the agricultural sector, including this kind of research "youth farmers and their participation and interest in the agricultural-related activity."

VI. RESEARCH METHOD

Most research about "youth farmers and their participation and interest in agricultural-related activity" employs a quantitative method (Figure 4). It might be because the research's central theme is mostly to analyze factors that contribute to participation and interest. Besides, research about youth farmers usually recommends the government in the forms of strategy so that quantitative research is taken to formulate a more general policy.

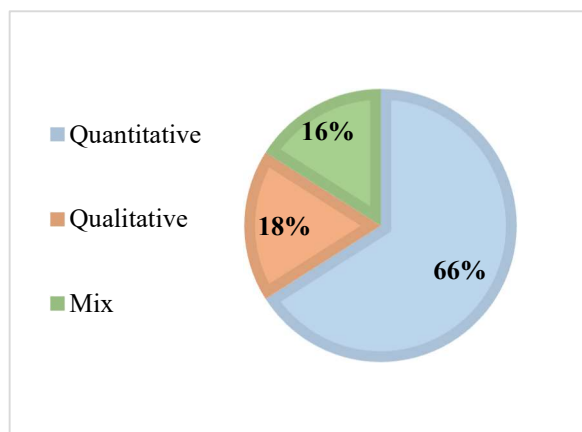


Figure 4: Research Method

VII. MAIN THEME

Based on Figure 5, three main themes contribute to youth involvement, participation in an agricultural-related activity and agriculture perception. The most theme of the research is the quantitative theme so that even though some of the research using a mixed-method, the quantitative is still more dominant.

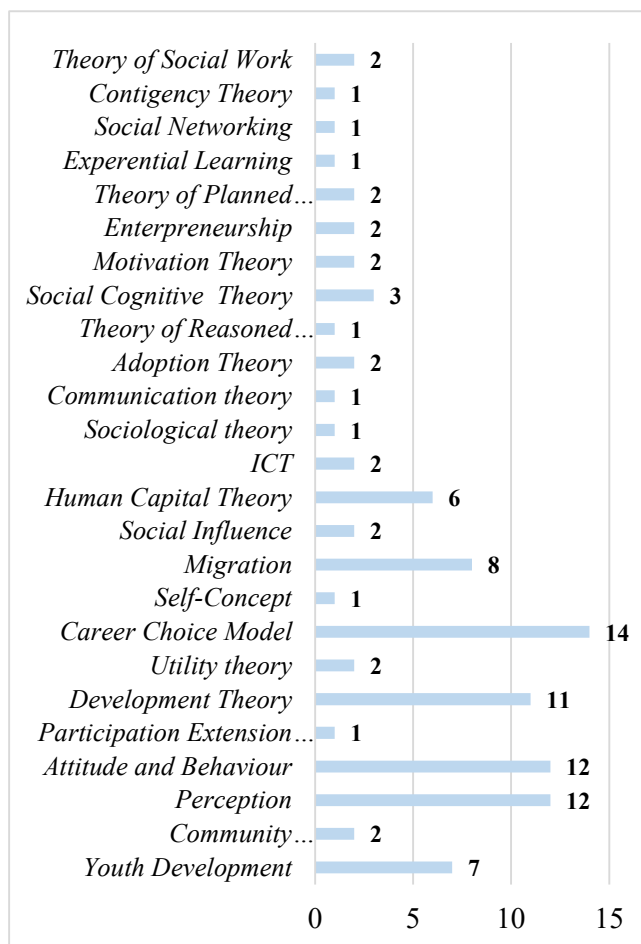


Figure 5: Main Theme

Respondent/ Interviewees

Figure 6 shows that rural youth becomes the primary information source. Nonetheless, there is some variation in terms of respondent/ interviewees. It is revealed from the Figure that even though some young farmer might be leaving agriculture, there is some youth are doing in versa. Those are youth with no agricultural background (junior/ senior high school student, youth in general, member of the youth community) interesting in agriculture.

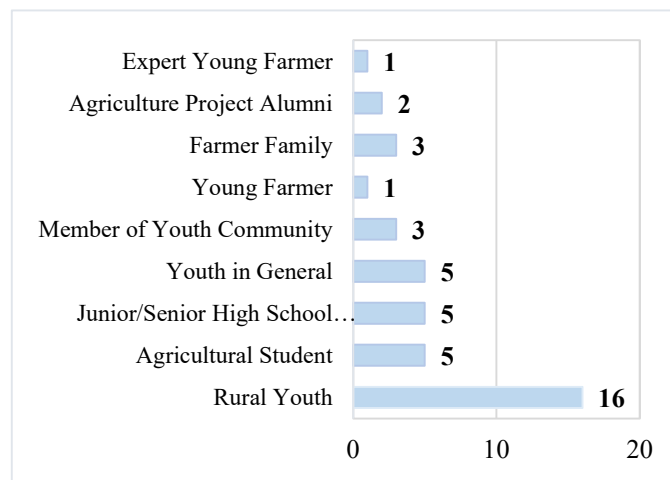


Figure 6: Respondent/ Interviewees

Theory and Concept

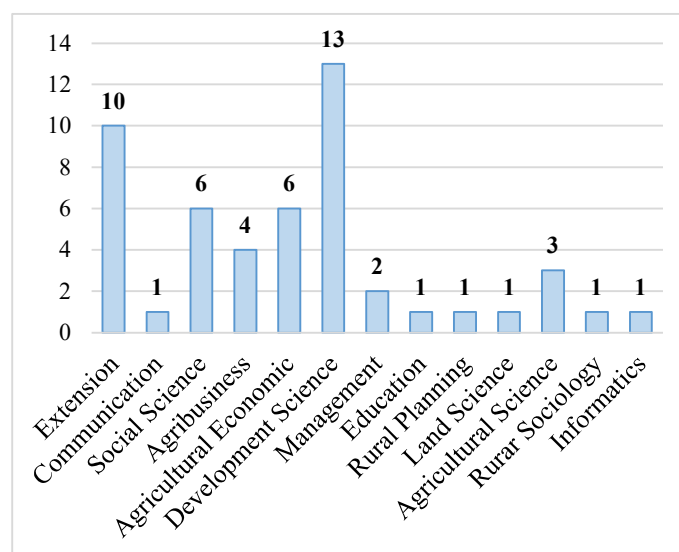


Figure 7: Theory and Concept

Seven theories and concepts that used in many researches are the career choice model, attitude and behavior, perception, development theory (including rural and agriculture development), migration (pull and push factors), youth development, and human capital theory (Figure 8). Various theories and concepts in the research show that farmer regeneration is very complex and can be explained from many perspectives.

Scientific Field

In terms of the scientific field, research about "youth farmers and their participation and interest in agricultural-related activity" is mostly from development studies and agricultural extension. Nonetheless, Figure 8 appears that this kind of research has a broad aspect so that it opens an opportunity to have cross-field discussion.

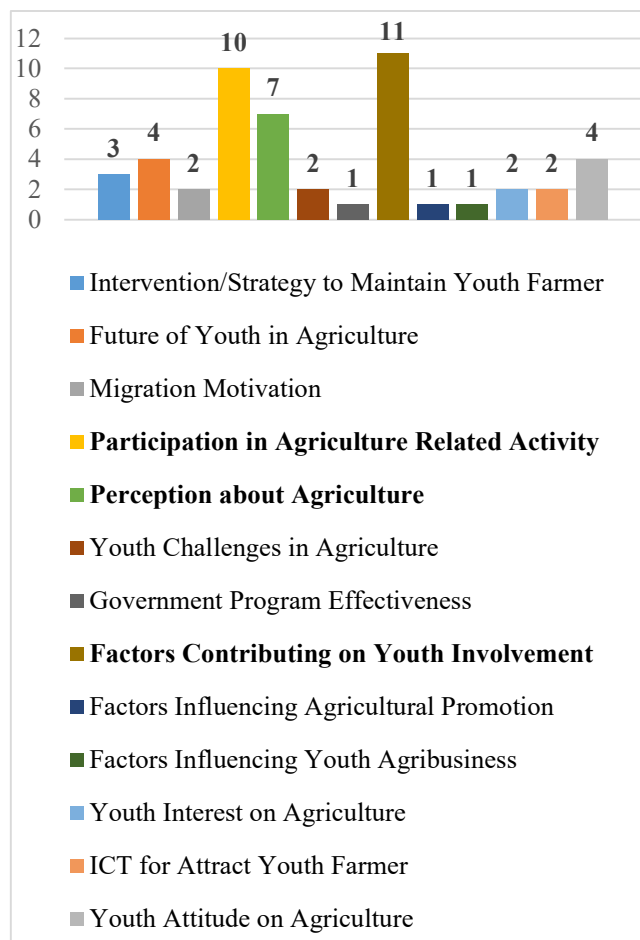


Figure 8: Scientific Field

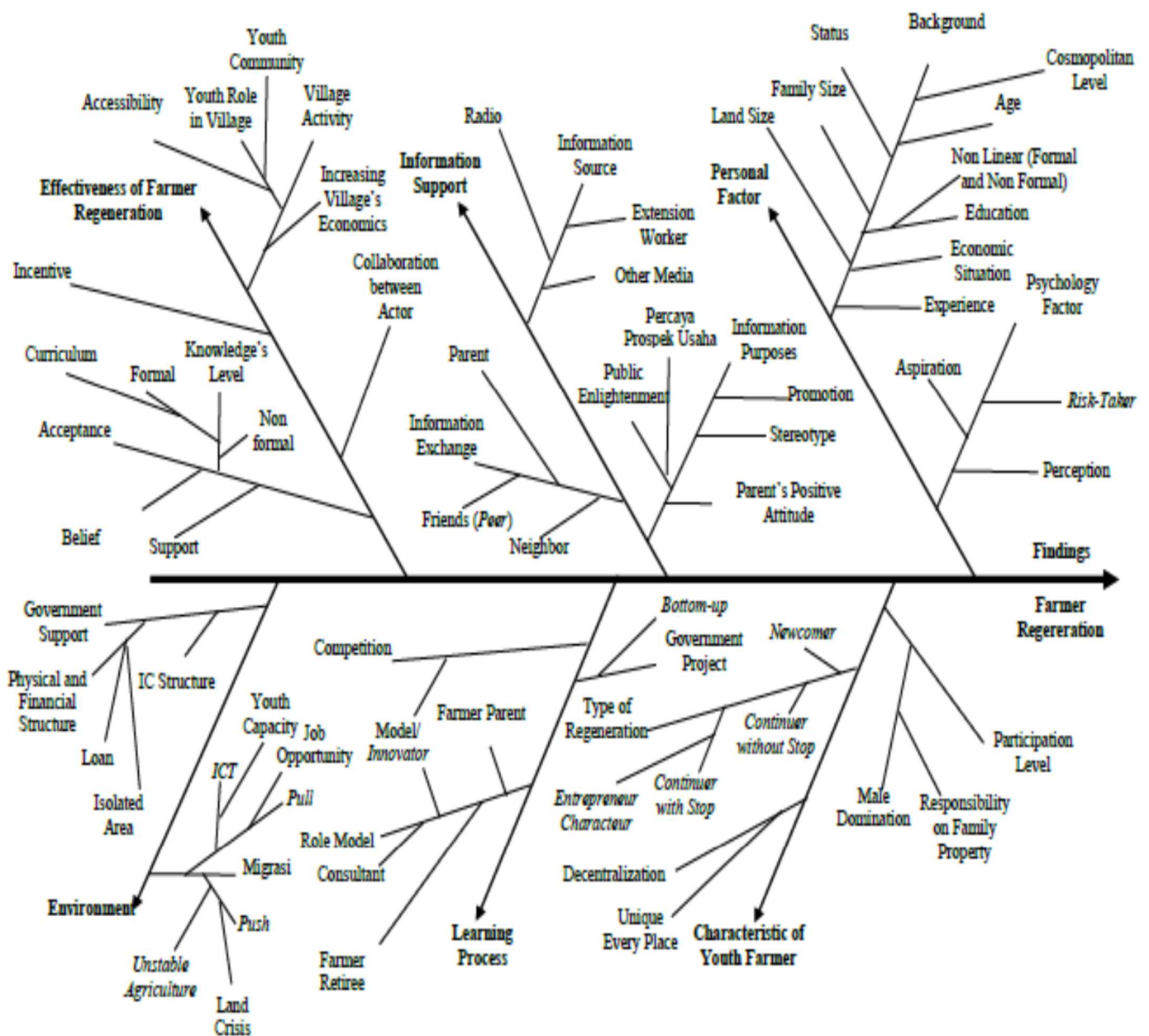


Figure 9: Categorization of Literature Content

Categorization of Literature Content

Coding process results in six categories that are frequently found in the literature content, including: (1) youth farmer characteristic; (2) personal factor; (3) Environment; (4) learning process; (5) Information Support; and (6) Effectiveness of farmer (Figure 9).

Youth Farmer Characteristic

From the research, youth farmer is divided into three types: (a) youth farmer who already becomes a farmer and does some agricultural related activity; (b) youth farmer who was a farmer, and quit for temporarily, and now back to be a farmer; (c) youth farmer who never engages into agriculture, but now he/she has been motivated to be a farmer (White, 2015). Furthermore, it is revealed that in many countries, a man usually engages more in agricultural-related activity than a woman. It is because man has tightened the family responsibility to maintain and keep the family's property (Naamwintome et al., 2013).

An interesting point of the research (Hari, 2014; Akpan et al., 2015) is that youth farmer characteristic in every country (including the region in the same country) could be different; that is why policy or intervention given to one youth farmer community could also differ one to another.

Factors Contribute to Youth Engagement and Participation in Agriculture

Personal Factor

Personal factor is divided into two: given or attained (attribute, capability/skill and talent/ aptitude; and personal factor about feeling and personal traits. The former could include age, sex, education, and experience, while the latter likes aspiration, perception (Noorani, 2015; Douglas, 2017; Kimaro, 2015; Swarts and Aliber, 2013; Webster and Ganpat, 2014; Tolamo, 2012), risk-taking characteristic. Some of those variables mentioned in previous research do not always have a positive and significant relation to farmer regeneration. That so much depends on the village condition and characteristics, applicable public policy (Susilowati, 2014; Webster and Ganpat, 2014; Ohene, 2013; Shireesha et al., 2016; Baah, 2014; Cheteni, 2017; Ibitoye, 2011; Ahaibwe et al., 2013), and, of course, tradition and culture/ethics existed in the village.

External Factor/ Environment

Other findings are about the environmental condition, like pull and push factors (Pratiwi and Aida in Buletin APBN, 2017; Akpan et al., 2015; Ahaibwe et al., 2013; Liu, 2015; Bednarikova et al., 2016; Giuliani et al., 2017; Tolamo, 2012; Bezu and Holden, 2014 and Nag et al., 2018) and government policy. Previous research reveals that ICT could be formulated into agricultural development strategy to attract the young into agricultural activity (either participation or only interests). It is because ICT can help agribusiness more exciting and modern since farmer will get more accessibility to market, market price information, loan/ credit source, and any other information needed (Bosompem, 2017; Shireesha et al., 2016; Shireesha et al., 2016; Ahaibwe et al., 2013; Tolamo, 2012; Noorani, 2015).

Learning Process

The learning environment is essential to develop youth capability in agriculture activities. The learning source for a young farmer could be such an agricultural actor like extension worker/ consultant (Ibitoye, 2011), parents who also a farmer (Hari, 2014), farmer retiree (Sang-jin, 2014), or a role model like a prosperous farmer (Ibitoye, 2011). Role model could be someone who already became a farmer; either he/ she is very successful in agribusiness, or he/ she is winning an agricultural competition. Because of that, people (particularly young farmers) look at him/ her and his/ her agribusiness as a model/ example to start their agricultural activities.

The learning process can also be achieved by joining an agricultural program, including government or non-governmental organization projects, education and training, entrepreneurship, mentoring, and coaching. Previous research shows that involvement in those activities will increase young farmers' confidence in doing agricultural activities.

Information Support (Agriculture Campaign and Socialization)

Next is a finding of information support. It appears that peer, family, neighbor, and the young farmer community (a place for socialization and interaction) are imperative in giving an information support (Mukembo et al., 2014; Kusi et al., 2014; Noorani, 2015; Ridha et al., 2017; Auta et al., 2010). Some previous research shows compelling cases where a friend gives more influences than family, especially for the youth, in choosing a career in agriculture. However, there are also some vice versa cases in some regions.

For a young farmer who lives in the village, radio, and extension worker is very crucial. Therefore, a regeneration farmer will be more effective by optimizing its existence. For the youth in general, the youth in the current/ new era, the utilization of some

other media definitely will improve and strengthen agricultural image and stereotype (Irungu et al., 2015; Njoroge et al., 2014; Ohene, 2013; Baah, 2014; Akpan et al., 2015; Tolamo, 2012).

Effectiveness of Farmer Regeneration and How to Make Youth Participate on Farming

Another finding is about the effectiveness of farmer regeneration. The effectiveness could be determined by the personal and external factors mentioned in Figure 9. Therefore, to formulate a reasonable and appropriate strategy for one region, we should comprehensively research that region's condition.

There are some strategies mentioned in the previous research based on some country's experiences, such as a) increasing activities in the village area/regions which stimulate economic activity in that area/regions. Furthermore, the youth, immensely the young farmer role should be expanded, both in terms of accessibility to resources (information, loan, market, education, and training) and in terms of community organization participation (either the agricultural organization or community service) (Mousaei and Arayesh, 2011). b) increasing/ improving the youth's positive attitude on agriculture by introducing agriculture/ farmer life earlier. These strategies could be implemented by engaging agriculture in education curricula, non-formal education, and formal education (Ajani et al., 2015; Nor et al., 2015). c) in some cases, farmer regeneration could not be successful if only depending on formal/ non-formal education; it needs some stimulator like a suitable incentive to increase farmer motivation (Cheteni, 2017). This incentive could be in the form of financial capital or human capital. d) increasing inter-sectoral cooperation because farmer regeneration will be more effective than only one sector program (Tapanapunnitikull and Prasunpangsri, 2014).

VIII. FURTHER RESEARCH

Communication (media), like mentioned in much previous research, is very crucial in developing, directing, and strengthening a good concept of agriculture for the youth mindset, perception, and confidence in taking the opportunity in agricultural business. However, there is still no research that evaluates communication and farmer regeneration deeply. In contrast, some communication field themes include how the media/ communication work, how the communication pattern, what kind of youth media preference (the primary or favorable information source), and how information and knowledge sharing are very challenging. Therefore, further research about communication and farmer regeneration will be scientifically interesting in the development communication perspective. Furthermore, the qualitative research method will also explain how the media creates/ supports/develop a useful input (a mechanism) for a better understanding of the agricultural perspective of the youth.

IX. CONCLUSIONS

1. Previous research shows that research about farmer regeneration has very specific to one region (decentralization) so that one regulation applied in one country could not be suitable for another country. Therefore, to formulate a suitable farmer regeneration strategy for one region, consider case and place conditions.
2. Almost all farmer regeneration research generally highlights communication variables (media, interaction, and socialization with friends (peer), parent, neighbor, consultant, role farmer). However, there is the only one that examines further communication about ICT. The result of that research indicates a very positive influence of ICT on the interest, involvement, and participation of the youth in agricultural activity.
3. Besides communication, some factors have contributed to farmer regeneration, personal (farmer attribute and situation), and external factors (public policy, culture, and many more).

Formulating an adequate and appropriate strategy for one region should consider the condition of that region comprehensively.

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