



Agriculture Entrepreneurship on Youth: A Systematic Literature Review

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Received 30 January 2022 Accepted 1 August 2022 (*Corresponding Author)

Abstract Past studies have found that boosting agriculture entrepreneurship education for the youth is one of the critical solutions to the aging agricultural population. Agriculture stakeholders need to provide entrepreneurship training to youth early to develop more agribusiness opportunities and strengthen their entrepreneurial competencies. This paper aims to provide an overview of the development of agriculture entrepreneurship research in the context of youth can become a basis for researchers to conduct future studies on the related topic. This paper reveals the general trend of the subject studied, objectives, methodologies, and research finding through an extensive systematic literature review of past studies on this topic conducted between 2000 to 2021. Out of the total of 1,492 papers found using a combination of the words "Agriculture," "Entrepreneurship," and "Youth," 62 articles passed the screening criteria and were analyzed for this research. This study found that 27% of the reviewed studies focus on university and college students. More than 32% of the studies' objective was to identify the factors influencing youth inclination and intention towards agripreneurship. Subjective norms (external factors) were the determining factors that affect the intention in agripreneurship. Around 39% of the studies used Likert scale questionnaires to obtain data, and more than 55% analyzed the data using qualitative descriptive analysis, 24% used multiple linear regression, and 15% used Theory of Planned Behavior. This paper highlights the need for agripreneurship studies on young farmers using more variative analysis methods to obtain a broader understanding.

Keywords agripreneurship, youth, agribusiness, systematic literature review (SLR), youth inclination

INTRODUCTION

Developing entrepreneurship, especially in the agriculture sector, is vital to overcome the aging agriculture system and increasing youth unemployment. Entrepreneurship is acknowledged as one of the main drivers of economic development by encouraging growth, innovation, technology adoption, and poverty reduction (United Nations, 2013). These are also the same factors important to achieve sustainable agriculture. Entrepreneurship contributes to economic development (Baumol,

1968) and is among the four factors of production in addition to land, labor, and capital. Agriculture entrepreneurship involves creating a product or providing services of value related to agriculture to bring returns on investment and improve livelihoods. Developing agricultural entrepreneurship is necessary to drive human resource productivity in agriculture.

Agripreneurship is not limited to making a farm enterprise profitable but may involve a wide range of agricultural related initiatives with a positive and transformative impact on communities (Mukembo, 2017). The agripreneurship vision emphasizes not on young people return to the farming methods of their parents and grandparents; instead, on the development of value chains, entrepreneurship, and farming as a business. The term agripreneurship fully recognizes the innovation, creativity, resilience, and market orientation implicit in the concept of entrepreneurship (Afande et al., 2015). To create and develop more agribusiness opportunities and strengthen entrepreneurship competencies, entrepreneurship education and training should be applied to the productive age group commonly known as the youth.

There is no universally agreed definition of the youth. According to the United Nations, youth are between 15 and 24 years of age. However, the term differs from one country to another according to the context. In the context of farmers, Indonesia considers farmers aged 19-39 are young farmers, while in European United (EU), young farmers are identified as less than 40 years of age (ENRD in Hamilton et al., 2015).

Unfortunately, it is unclear which youth group (category) should become the focus of agripreneurship studies. Moreover, what did past studies find on this topic? These questions are essential to understand how to increase youth participation in agripreneurship and help determine what suitable interventions are needed for each specific youth group to obtain higher intention towards agripreneurship. To attain the answers, this research deployed the Systematic Literature Review (SLR) methodology and composed the following research questions:

- RQ1: Who are the different subjects of research on agripreneurship?
- RQ2: What objectives and methods are used to analyze agripreneurship in youth?
- RQ3: What factors influence youth inclination, intention, and participation in agriculture?

METHODOLOGY

To answer the research questions, a thorough review of past literature is needed. A Systematic Literature Review (SLR) was selected as the most suitable method which helps map and assesses the existing knowledge and gap on specific issues towards further developing the knowledge base. This review was prepared following guidelines from Petticrew and Roberts (2008). The approach comprises five steps: 1) identifying the research question; 2) identifying relevant studies; 3) study selection; 4) extracting and charting the data; and 5) collating, summarizing, and reporting the results.

This SLR utilized the combination of the words "Agriculture," "Entrepreneurship," and "Youth" for the search in three electronic database sources, namely Google Scholar, Scopus Database, and Science Direct. The authors conducted a review in which only English-written journal articles and conference papers published from 2000 to 2021 were included.

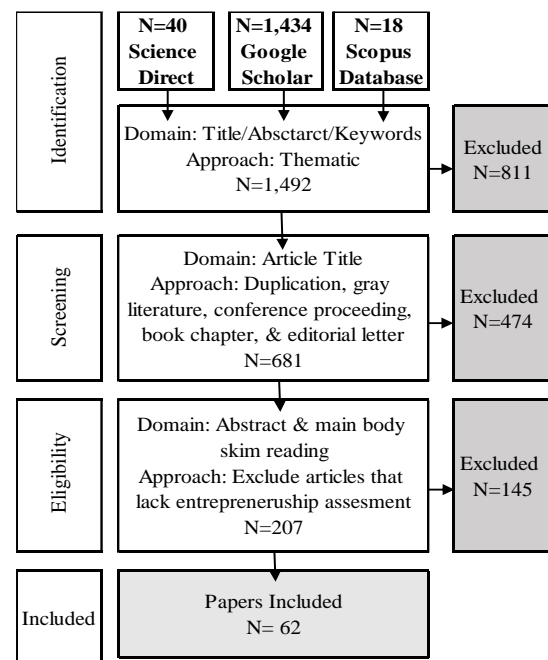


Fig. 1 Screening process of selected literature

This period is selected due to the very limited number of studies found in prior years. Gray literature, conference proceedings, book chapters and editorial letters were excluded.

Articles are then filtered based on abstract reviews match and non-duplication. Then the selected articles were synthesized according to the research question. Figure 1 shows the screening process of the literatures utilized.

SLR RESULTS AND DISCUSSION

General Information of Respondents of the Selected Studies

The majority of researches conducted on agripreneurship in youth was concentrated in Asia, consisting of 64% of the 62 papers, particularly in Malaysia, Indonesia, and India. Africa accounted for 25%, mainly from Nigeria and Kenya. As much as 31.1% of the studies were conducted in 2020, followed by 2019 and 2018 with 14.8%. The subject of the studies was mostly university or college students with 27%, followed by youth in general (people aged 18-39 in the target area of the reviewed study), young farmers, participants of extension programs or training, and vocational school or high school students. Only ten studies targeted young agripreneurs. Table 1 collates the number of selected studies based on their objectives and the subjects targeted. Papers using secondary data (5 papers) were not included in Table 1.

Table 1 Common objective of research and the subjects targeted (n = 62)

Objective \ Subject	University/ college students	Vocational/ high school students	Youth in general	Young farmers	Program participants	%
Inclination and intention factors towards agripreneurship	8	4	4	1	3	32
Factors influence youth to become agripreneurs	4	0	3	1	0	13
Influence of training towards entrepreneurial intention	1	0	0	0	0	2
Characteristics of agripreneurs	1	0	1	3	0	8
Perception and attitude towards agripreneurship	3	2	5	2	0	19
Affect or evaluation of training	0	0	2	3	6	18
Percentage (%)	27	10	24	16	15	

Note: Multiple answers. Papers using secondary data were not included.

The General Objectives and Methodologies Applied by the Selected Studies

As shown in Table 1, 32% of the reviewed studies' objectives are to identify the factors that influence youth inclination and intention towards agriculture and agripreneurship, followed by the perception and attitude towards agripreneurship. It is frequently stated that young people do not consider agriculture as an attractive source of income. Youth interest in the agricultural sector is decreasing year by year (Ridha et al., 2017).

A study in India (Gangwarand and Kameswari, 2016) interviewed 115 youth from four different villages and confirmed that 85% of its respondents had a neutral attitude towards agriculture as a means of livelihood, while 13% had a negative attitude. Only 0.9% of respondents

had a positive attitude towards agriculture as the primary source of income. This condition, which is common in many other parts of the world, is one of the very reasons why the majority of these studies focus on finding an elaborated explanation to factors influencing inclination and intention towards agripreneurship. Research regarding intention formation is an initial effort towards a broader understanding of entrepreneurship (Liu et al., 2020). Characteristics of successful agripreneurs were also observed to help develop better agripreneurs of the future.

Table 2 Methodology of each reviewed paper

	Methodology applied	Reference of publication	%
Data gathering method	Likert scale questionnaire	Abdullah and Samah, 2014; Afande et al., 2015; Ambad et al., 2021; Baliyan et al., 2020; Das, 2017; Dollisso, 2010; G. Shivacharan et al., 2017; Man, 2012; Mukembo et al., 2020; Nade & Mattee, 2019; Nurlaela et al., 2020; Nor et al., 2015; Nyabam et al., 2018; Ofodile and Ndelekwute, 2015; Olutegbe and Ayodele, 2020; Prihatna et al., 2017; Reyes, 2020; Roma et al., 2020; Sa'adiyah et al., 2019; Sazila et al., 2018; Sher et al., 2017; Yu and Wang., 2019; Zain et al., 2020; Zidana et al., 2020	39
	Questionnaire & interview	Abdullah et al., 2013; Afande et al., 2015; Ajekwe and Ibiameke, 2020; Ambad et al., 2021; Aman et al., 2017; Amadi and Nnodim, 2018; Baliyan et al., 2020; Bednarikova et al., 2020; Dollisso, 2010; Gangwar and Kameswari., 2016; Hilmi, 2021; Kyalo and Teresia, 2013; Man, 2012; Mat Taib et al., 2019; Muiruri et al., 2020; Nade and Mattee, 2019; Nyabam et al., 2018; Saptu et al., 2020; Sazila et al., 2018; Singh and Misra., 2021; Olah and Flora, 2015; Withanage and Damayanthi, 2019; Zain et al., 2020	37
	Focused group discussion	Musa et al., 2021; Nade and Mattee, 2019	3
Data analysis method	Qualitative descriptive analysis	Abdullah et al., 2013; Adeyanju et al., 2020; Afande et al., 2015; Alabi et al., 2019; Amadi and Nnodim, 2018; Aman et al., 2017; Ambad et al., 2021; Ayu and Naully., 2020; Baliyan et al., 2020; Barau et al., 2016; Damayanthi, 2019; Das, 2017; Dash and Kumar, 2017; Dollisso, 2010; Hilmi, 2021; Kyalo, 2013; Muiruri et al., 2020; Nade, 2019; Nor et al., 2015; Novanda et al., 2020; Nyabam et al., 2018; Ommani, 2011; Prihatna et al., 2017; Qureshi et al., 2016; Roma et al., 2020; Samah et al., 2012; Sher et al., 2017; Suzani et al., 2010; Sa'adiyah et al., 2019; Withanage and Ofodile et al., 2015; Yamaguchi et al., 2020; Yunandar et al., 2019; Zidana et al., 2020; Zain et al., 2020	55
	Theory of planned behavior	Abdullah and Samah, 2014; Mukembo et al., 2020; Musa et al., 2021; Novanda et al., 2020; Olutegbe and Ayodele, 2020; Reyes, 2020; Ridha et al., 2017; Suprehatin et al., 2020; Saptu et al., 2020	15
	Push and pull theory	Prihatna et al., 2017; Zidana et al., 2020	3
	Regression & multiple linear regression	Adeyanju et al., 2020; Ayu and Naully., 2020; Bednarikova et al., 2020; Das, 2017; M. Kan et al. 2019; Nurlaela et al., 2020; Nor et al., 2015; Ommani, 2011; Prihatna et al., 2017; Samah et al., 2012; Sher et al., 2017; Suzani et al., 2010; Yamaguchi et al., 2020; Yu and Wang, 2019; Zidana et al., 2020;	24
	Partial least square (PLS) & structural equation modelling	Ambad et al., 2021; Chen and Liang, 2020; Mat Taib et al., 2019; Novanda et al., 2020; Saptu et al., 2020; Suprehatin et al., 2020; Reyes, 2020; Ridha et al., 2017	13
	Factor analysis	Chen and Liang, 2020; Kan et al., 2018; M. Kan et al., 2019; Nade, 2019; Nor et al., 2015; Yu and Wang, 2019	10
	Thematic analysis	Hilmi, 2021; Musa et al., 2021	3
	SWOT analysis	Regmi and Naharki, 2020	2
	Entrepreneurial event model	Olutegbe and Ayodele, 2020	2

Note: Multiple answers. Papers using secondary data were not included.

Research methodology is an essential component of any study that provides the framework based on the whole process. With regard to the study design, almost all the studies reviewed used both qualitative and quantitative methods. Agripreneurship has been studied in several

methodological perspectives based on research type, analytical method, and data collection method. The methodology used to analyze the subjects in each paper is listed in Table 2. There were 24 papers that adopted Likert scale questionnaire to obtain data, sharing 38.7%. The Likert scale that was applied varied from 3-point, 4-point, and 5-point Likert scales. Regression, Partial Least Square (PLS) and Structural Equation Modelling (SEM), and Factor Analysis were common methods utilized to analyze the Likert scale type questionnaires with 24%, 13%, and 10%, respectively.

Factors Affecting Youth Inclination, Intention, and Participation in Agriculture

Entrepreneurial intention is closely related to individual competencies that refer to a willingness to conduct a particular behavior. The intention is an acceptance of a representative relationship between cognitive and conative behavior of individuals to perform a certain act. In comparison, inclination is a habitual attraction to some activity or thing. Intention and inclination are semantically related.

As mentioned earlier, TPB is widely used as the basis to analyze entrepreneurial intentions. Suprehatin et al. (2020) found that in the case of agricultural students, they intend to be agripreneurs only as their secondary job or hobby. However, entrepreneurial activity among agricultural graduates' can be increased if the students are provided with business wisdom, inspiration, and motivation, either through mentorship by entrepreneurs and experts or by emphasizing the importance of business opportunities in the curriculum (Sher et al., 2017).

Suprehatin et al. (2020) found that attitude, subjective norm, perceived behavioral control, and personal characteristics positively influence students' intention to be agripreneurs. Abdullah et al. (2014), who studied agriculture university students' inclination towards agripreneurship in Malaysia, also noted a high score level of behavioral attitude and subjective norm, along with social valuation, in inclination toward agripreneurship. A similar study conducted in Indonesia by Arisandi (2016) cited in Ridha et al. (2016) also suggested that subjective norm factors influence agripreneurial intentions of agricultural university graduates. Ridha et al. (2016), in their study targeting on participants of the Agricultural Young Entrepreneurship Growing Program, also stated that subjective norm or external factor determines the intention in agripreneurship. Subjective norm or external factor refers to the social pressure felt by a person and is highly associated with the expectations of parents, family, teacher/lecturer, and friends. In order to increase the youth's intention towards agripreneurship, society's perception of agriculture itself must also be positively promoted.

In the case of youth in general (not primarily focusing on students), Saptu et al. (2020) acknowledged that attitude towards agripreneurship has the strongest relationship with and effect on agripreneurship intention. Subjective norms did not influence the youths' intention towards agripreneurship. Implying that youths have a personal stance regarding career choice.

This study found similarities among the findings of each research, underlining the importance of perception and external factors that influence the youths' decision to become agripreneurs. However, a broader understanding involving all the stakeholders in developing agripreneurship is needed. Future studies are suggested to incorporate not only qualitative but also quantitative analysis towards as many stakeholders as possible in the chain for agripreneurship development.

CONCLUSION

This study has clarified the three research questions by extracting 62 papers using the SLR method. It is known that agripreneurship, especially among youth, has become a popular topic in the past five years, particularly in Asia, followed by Africa. Past studies mainly focus on highly educated youth, like university and college students, while the youth who needs more attention is the young farmers. This study highlights the need for more research on agripreneurship targeting young farmers to understand what is really needed to help them manage their agribusiness effectively. The common objectives of the selected studies are to identify the factors that influence youth inclination

and intention towards agriculture and agripreneurship. Subjective norms (external factors), along with attitude, are determining factors that affect the intention in agripreneurship. In order for the youth to have a higher intention towards agripreneurship, the perception and attitude of agriculture of their environment; parents, family, teacher/lecturer, and friends, should also be positively promoted. By realizing this fact, the government, extension workers, schools, universities, and other related institutions can provide more appropriate ways to promote agripreneurship for each specific youth group.

It is known that 24 papers, sharing 38.7% of the studies extracted, incorporated Likert scale questionnaires and interviews to obtain data and analyzed it using qualitative descriptive analysis (55%), regression (24%), and TPB (15%). This study underlines the need for a more variative use of analytical methods to achieve a broader understanding of agripreneurship among youth. Past studies mainly focus on qualitative data, which is limited to describing perception but lacks in revealing the facts and reality faced by each stakeholder involved in the development of agripreneurship. Future studies need to utilize both quantitative and qualitative data to achieve a more detailed result. When a broad understanding is reached, it is more feasible to provide the proper intervention needed to increase youth participation in agriculture. The currently available training should also be evaluated to ensure its effectiveness. Securing more youth in agripreneurship will lead to more sustainable agriculture in the future.

ACKNOWLEDGEMENTS

The researchers would like to acknowledge the support from Japan Science and Technology (JST) SPRING, Grant Number JPMJSP2122, in addition to the tremendous support from the committee of the Tokyo University of Agriculture's "*Comprehensive Project for Fostering Advanced Human Resources.*"

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