# The Dimensions of Attitude and Their Attributes with Regard to Youths' Attitudes Towards Agriculture as a Profession

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## Abstract

This study aimed to identify the dimensions of attitude attributing to the young generation's attitude towards agriculture as a profession. This study adopted an exploratory approach using a case study survey method to collect data that were subsequently analyzed using a content analysis technique. The sample encompassed fifty-two undergraduate students, who were descendants of farmers, and who were enrolled in the Bachelor of Arts in Agricultural Resources Administration program at Chulalongkorn University, Thailand. The results revealed four dimensions of attitude towards agriculture as a profession: 1) professional recognition, 2) financial benefit, 3) professional practice, and 4) quality of life. The results demonstrated that when a response contained only one dimension, the professional recognition dimension was always presented as a favorable attitude. Furthermore, when two or more dimensions were referred to in a response, the response that included the professional recognition dimension made the statement of unfavorable or negative attitudes towards agriculture as a profession softened or toned down. In terms of policy implications, organizations in charge of supporting the young generation in pursuing a career in agriculture should focus on strengthening public recognition of agriculture as one of the most respectable professions, since the professional recognition dimension is arguably attributing to positive attitudes.

## Keywords

Agriculture profession; descendants of farmers; dimensions of attitude; professional recognition; young generation

# Introduction

## The importance of the young farmers′ role in the future of agriculture in Thailand

Thailand is one of the world's leading producers and exporters of agricultural and food products. The agriculture sector accounted for 8.1% of Thailand's GDP in 2018 (World Bank, 2021), during which approximately 37.5% of the population engaged in the agriculture industry (Office of Agricultural Economics, 2017). However, participation in the agriculture sector has shown signs of decline. During the 1980s-1990s, the share of the population in the agriculture sector was about 60%, then in the late 1990s, the number was below 40%, and it keeps declining (Department of Agricultural Extension, 2016a). Moreover, the age of the agricultural population has risen. The statistics showed that 58% of the heads of the Thai agrarian household were more than 51 years of age, while only 14% were below 31 years of age (Department of Agricultural Extension, 2016b). This age dilemma effectively raises the challenge of maintaining and enhancing the competitiveness of the agriculture sector in Thailand.

The Thai government has attempted to alleviate the current workforce shortage in the agriculture sector by promoting programs supporting the 'new and young' smart farmers. The programs were implemented by two offices – the Agriculture Land Reform Office (ALRO) and the Department of Agricultural Extension – under the Ministry of Agriculture and Cooperatives. The New Farmer Program of ALRO was introduced to Thai citizens from 20 to 45 years old interested in agriculture and becoming farmers. The program involves a six-month training program and, upon completion, offers farmland of a maximum of five rai [approximately two acres] to the participants to start their careers as new farmers. After another six months, their businesses will be evaluated. If successful, the ALRO will assign farmland to the new farmers according to the Agriculture Land Reform Act. In short, the program provides new farmers with knowledge and skills in agriculture and also gives them access to farmland to establish their agricultural careers.

The Young Smart Farmer Program, mainly targeting young people, was introduced to address the concern of aging farmers and to enhance the capacity of young farmers in terms of leadership and new technology. The program was introduced in 2014 under the Department of Agricultural Extension and has been held annually. Each cohort comprises new participants and a few outstanding participants from the previous years to encourage networks among young farmers. In short, the program's key objectives are to equip new young farmers with technical skills and create a network platform among young farmers to share knowledge and experiences and develop their businesses (Department of Agricultural Extension, 2017).

Another initiative to develop the next generation agricultural workforce is through offering agricultural education degree programs in colleges and universities. As for higher education, Kasetsart University, established in 1943, was Thailand's first agrarian university. Kasetsart University has nurtured the country's generations of new scientists and technologists in food and agriculture for nearly eight decades. At present, there are more than 70 universities in the Kingdom of Thailand that offer degree programs in agriculture science. Chulalongkorn University, one of the nation's most prestigious universities, established its School of Agricultural Resources (SAR) in 2010. Unlike traditional bachelor degree programs in

agriculture science, the SAR degree program focuses on integrated knowledge from farm production to marketing while promoting the agriculture community and local agribusinesses, with the ultimate goal of creating a 'new breed of agricultural entrepreneurs' (Visetnoi & Sirisoponsilp, 2019). In addition to its main campus in central Bangkok, the School of Agricultural Resources has a learning center in Nan province, the north of Thailand, to provide its students with interactive learning practices within local communities.

Although the achievements of the above programs must be carefully monitored and evaluated, it is equally important to understand the young generation's attitude towards agriculture as a profession. Previous studies indicated the significance of the young generation's attitude as one of the key factors shaping the decisions whether or not to carry on as family successors of a farming business (Ayanda et al., 2012; Bello et al., 2015; Krajangchom et al., 2016; May et al., 2019; Rayasawath, 2018). In many developing countries, the lukewarm and negative attitudes of youth towards agriculture as a profession are a concern and challenge for the future of the agriculture sector (Shireesha et al., 2016).

## Attitude towards agriculture as a profession

Social psychologists indicated that the characteristic positive or negative attribute of an attitude is its evaluative judgment. According to Ajzen (2005), an attitude is a deposition of a person to respond favorably or unfavorably to an object, institution, or event. Typically, an attitude is modeled with three main components: cognitive, affective, and behavioral (Triandis, 1971). These three components are interpreted as the belief or knowledge, the feeling of, and the predisposed acting of a person to respond to an object, institution, or event. As a result, attitudes can be a valuable tool for predicting the behavior of individuals towards an object, institution, or event. For instance, individuals with a positive attitude towards a subject or situation tend to evaluate the issue positively (Greenwald, 1989).

Previous studies on the factors that influence the young generation's decisions to pursue a career in agriculture indicated that attitudes and beliefs towards the agricultural profession are one of the most influential factors in whether or not to continue family succession or to enter as new entrants (Ayanda et al., 2012; Bello et al., 2015; Krajangchom et al., 2016; May et al., 2019; Rayasawath, 2018; Shenaifi, 2013; Shireesha et al., 2016). Still, most studies presumed the dimensions of attitude of the young generation, and integrated these dimensions into questionnaires that indicate the agreement or disagreement of the young generation with the stated dimensions. Although effective for quantitative evaluation of the dimensions of attitude, this method might comprise limited dimensions not included in the statements.

In addition, most existing studies do not specifically consider the group of young students enrolled in agriculture-related programs in their samples. A few studies suggested that there are differences in attitude towards the field of agriculture between those young people enrolled and those not enrolled in agriculture programs (Shenaifi, 2013). More evidence on the attitude of young students in agriculture-related programs would be required to demonstrate the potential impact of educational programs on students' attitudes towards agriculture as a profession.

This research attempts to provide further insight into the dimensions of attitude and their attributes with regard to the young generation's attitude towards agriculture as a profession. It adopts an exploratory research strategy, using an open-ended query to uncover any possible dimensions attributing to attitudes that previous studies might not have seen. This

study will help formulate policies and redesign programs to support the young generation's attitude and beliefs about the agricultural profession.

# Materials and methods

## Overall strategy

This study adopted an exploratory research strategy. It used a case study survey method – posing a single query about the personal view and attitude towards agriculture as a profession of the participants (Chmiliar, 2010). The participants were undergraduate students enrolled in the Bachelor of Arts in Agricultural Resources Administration program at the School of Agricultural Resources (SAR), Chulalongkorn University, Thailand.

This research was conducted under international standards for the protection of human subjects, and the research protocols were reviewed and approved by the Institutional Review Board (IRB) of the Office of the Research Ethics Review Committee for Research Involving Human Subjects, Chulalongkorn University. The proposal of this research was reviewed by the Research Ethics Review Committee for Research Involving Human Subjects: The Second Allied Academic Group in Social Sciences, Humanities and Fine and Applied Arts under an exemption review category. It was approved on 18 May 2020 with the project reference code number 075/63.

The survey was carried out as a part of a one-day learning workshop for third-year students at the SAR learning center in Nan province. The strategy to carry out data collection during this workshop was to ensure a maximum return of responses of the sample, as the workshop was compulsory. The workshop was stimulating, and the students were active in expressing their ideas in most of the activities and assignments.

A questionnaire was used as a research tool for this study. It was developed and guided by the aim of the study to identify dimensions of attitude and their attributes with regard to the young generation's attitude towards agriculture as a profession. More specifically, the single question asked, "What are your views or attitudes towards agriculture as a profession?" was an open-ended question, so each student was free to write any thoughts from their perspective. Students were allotted fifteen minutes to write a response to the question. All fifty-two written responses were collected once the session was finished.

The data analyses began once all answers were read and sorted by the author and one other researcher. The responses were sorted into three groups: 1) positive attitude, 2) negative attitude, and 3) a combination of positive and negative attitudes. The sorting was intended to be a preliminary analysis of the data, and then content analysis was subsequently employed.

## The case study

The participants in this study were undergraduate students enrolled in the 2019 academic year Bachelor of Arts in Agricultural Resources Administration program with the School of Agricultural Resources (SAR), Chulalongkorn University, Thailand. The selection of this case was a strategic choice because most of the existing studies provided inconclusive results on

potential influences of attending agriculture-related programs regarding the young generation's attitude towards a career in agriculture.

An emphasis of the agricultural resources administration program is integrating traditional knowledge with new research in agriculture and providing innovative agricultural concepts, techniques, and practices that resolve development problems in community areas (Chulalongkorn University, 2021). One important admission criteria of students to SAR is that they must be a part of the young generation with a background in agriculture or related areas who have descended from farming families. This means that all admitted students had experience in agriculture before beginning their studies.

The selection of third-year undergraduate students as the study sample was a strategic choice. This selection ensured that the students possessed a sufficient understanding of the agricultural practice as a profession.

The first- and second-year students were not considered because they had not yet learned core subjects in agriculture, only basic and advanced science and mathematics courses. Likewise, the fourth-year students were not considered because the author lectured the fourth-year students during the data collection. More specifically, the omission of the fourth-year students was to prevent any potential ethical issues or conflicts of interest, or bias of the target population in feeling any undue influence or manipulation to respond to the author's (lecturer's) questionnaire.

Hence, the inclusion criteria of the participants were: 1) Thai students enrolled in the agricultural resources administration program at SAR, 2) in their third year of the program, and 3) willing to participate in the research. For the exclusion criteria, participants were excluded according to the following criteria; 1) non-Thai students, 2) Thai students in their first, second, and fourth year of the program, or 3) Thai students in the third year of the program but not willing to participate in the research.

The sample size consisted of fifty-two third-year undergraduate students enrolled in the 2019 academic year of the Agricultural Resources Administration program at SAR, Chulalongkorn University, Thailand. Table 1 summarizes the main socio-economic characteristics of the participants.

**Table 1:** Socio-Economic Characteristics of the Participants

| **Socio-Economic Characteristics** | | **Frequency** | **Percent** |
|---|---|---|---|
| Sex | Male | 12 | 23 |
| | Female | 40 | 77 |
| | **Total** | **52** | **100** |
| Age in Years | 21 | 17 | 33 |
| | 22 | 34 | 65 |
| | 23 | - | - |
| | 24 | 1 | 2 |
| | **Total** | **52** | **100** |
| Region of Origin in Thailand | Northern | 12 | 23 |
| | Southern | 3 | 6 |
| | Eastern | 7 | 13 |
| | Western | 5 | 10 |

| Socio-Economic Characteristics | Frequency | Percent |
|---|---|---|
| Central | 7 | 13 |
| Northeastern | 16 | 31 |
| Bangkok | 2 | 4 |
| **Total** | **52** | **100** |

## Data analyses

This study adopted a content analysis technique as the instrument for data analyses. The analyses began with a careful read of the participants' responses by the author and one other researcher. The collected responses were subsequently sorted into three groups: 1) positive attitude, 2) negative attitude, and 3) a combination of positive and negative attitudes. A positive response implied the participant's interest and intention to pursue a career in agriculture, whereas a negative response indicated their reluctance or neglect towards agriculture as a profession.

Then, the coding process began by reviewing existing studies on youths' attitudes towards a career in agriculture. This review was to find key statements within the studies asking the young generation about their attitude towards 1) continuing or leaving agriculture work, or 2) agriculture as a profession. This review guided an exploratory step of finding dimensions of attitude in this research. Table 2 summarizes key statements from selected studies asking youth's attitudes.

**Table 2:** Key Statements from Selected Studies About Youth's Attitudes

| No. | Key existing studies | Statements about youth's attitudes towards continuing or leaving agricultural work, or agriculture as a profession |
|---|---|---|
| 1. | Ayanda et al. (2012)<br><br>Perception of Kwara state university agricultural students on farming as means of future livelihood | 1) My best choice's agricultural science<br>2) A brighter future in Nigeria<br>3) A lucrative field<br>4) High employment opportunity<br>5) High potential for self-employment<br>6) Self-sustainable<br>7) A prestigious field<br>8) The focus of various tiers of Government<br>9) My last opportunity to pursue a University degree<br>10) Own interest in agriculture<br>11) Parents 'lure into reading agriculture as a last chance to have a university degree<br>12) A lot of fortunes from agriculture made by Nigerians |
| 2. | Bello et al. (2015)<br><br>Attitudes of rural youth towards agriculture as an occupation: A case study from Sudan | 1) High production cost<br>2) Nomads and farmer conflicts<br>3) Insecurity situation<br>4) High rate of Productions taxes<br>5) Low crop productivity<br>6) Low products prices<br>7) Rain fluctuation/climate change<br>8) Lack of agricultural land |
| 3. | Krajangchom et al. (2016) | 1) Importance of farmers for community and country<br>2) Consistent with context and environment of community<br>3) Food for household consumption |

| No. | Key existing studies | Statements about youth's attitudes towards continuing or leaving agricultural work, or agriculture as a profession |
|---|---|---|
| | Factors Related to Motivation of Farmer's Descendants on Agricultural Inheritance in Sanpatong District Chiang Mai Province | 4) Farmer's descendants to continue doing farms<br>5) Interest to find further information for a future career in agriculture<br>6) Laborious, cumbersome, and hardship nature of the occupation<br>7) Low product prices and market fluctuation<br>8) Being exploited or taken advantage<br>9) Insecure conditions under natural disasters<br>10) Uncertainty of product oversupply |
| 4. | Shireesha et al. (2016)<br><br>Attitude of Youth towards Farming –A Critical Analysis | 1) Proud to be as part of profession feeding the nation<br>2) Willing to seek further knowledge and skills in farming<br>3) Advanced technologies encourage to flourish in farming<br>4) Overcoming any type of hardships in farming<br>5) Farming leading to an increase in standard of living<br>6) Being an elite person in society through farming<br>7) Working hard and smart to make farming worthy<br>8) Ready to invite innovations in farming<br>9) Enjoying the relationship with nature through farming<br>10) Profitable of farming than any other occupation<br>11) Preferring to be a farmer than as an employee<br>12) Hopeful of present environment for farming<br>13) Less scope of farming for higher education accessibility to children<br>14) I don't want to continue in farming further<br>15) The view of farming as a respectable profession in the society<br>16) The stressful nature of farming<br>17) Less opportunity for career development in farming<br>18) The cumbersome nature compared to other occupation<br>19) Forced to do farming because of no other means of income<br>20) Poor access to inputs and marketing in farming<br>21) Ready to face the adverse effects of farming<br>22) Shortage of resources limiting factor in farming<br>23) Unwise to do farming for highly educated youth<br>24) No encouragement for children to be in farming |
| 5 | Sumberg et al. (2017)<br><br>Young people's perspectives on farming in Ghana: a Q study | 1) Young people want modern jobs<br>2) Young people don't like hard work<br>3) Young people have more education than their parents<br>4) Rural areas lack schools, clinics & entertainment<br>5) Young people want the "bright lights" of the city<br>6) There are many other work options<br>7) Farmers are their own boss<br>8) Young people cannot get land<br>9) Farmers always have food to eat<br>10) Parents encourage children to leave farming<br>11) Young people are not taken seriously in villages<br>12) Leaving the village is part of growing up<br>13) Young people have unrealistic dreams<br>14) Farmers are not respected<br>15) Farmers are poor<br>16) Farmers work hard for little reward |
| 6. | May et al. (2019)<br><br>Preventing young farmers from leaving the | 1) The future of the farming sector is very uncertain<br>2) Low profit levels would prevent me from staying in the farming industry |

| No. | Key existing studies | Statements about youth's attitudes towards continuing or leaving agricultural work, or agriculture as a profession |
|---|---|---|
| | farm :Investigating the effectiveness of the young farmer payment using a behavioral approach | |
| 7. | Ruiz Salvago et al. (2019)<br><br>Young people's willingness to farm under present and improved conditions in Thailand | 1) High-risk activity<br>2) High needs for investment capital<br>3) Low profitability<br>4) Limited opportunities to increase farm incomes in the future<br>5) Difficulty in accessing land<br>6) Low social status<br>7) Hard work |

***Note:*** *Compiled from author's review of selected studies*

From the statements reviewed as a guide for exploratory content analyses, the dimensions of attitude towards agriculture as a profession gradually emerged and developed as the readings of responses proceeded. All responses were read until no further dimensions emerged from the responses.

The next step of the coding process was to assign all fifty-two responses to their emerged dimensions. This involved two researchers to ensure coding reliability. The author was the first reader and coder, and another researcher in the social science discipline at Kasetsart University served as the second reader and coder. The second reader was informed about the study, and both the concept and methodology adopted in this study were explained. In the process, the second reader read all the answers but did not necessarily read in the same order as the first coder. The use of the second coder was to verify the coding results of the first coder. The matching of the coding results indicated a 97% reliability. The remaining 3% was subsequently discussed between the first and second coders until an agreement was reached.

# Results

Following careful readings of the content of all fifty-two responses, four dimensions of attitude inductively emerged from the analysis. They were 1**)** professional recognition, 2**)** financial benefit, 3**)** professional practice, and 4**)** quality of life. The main characteristics of the four dimensions can be described as follows**:**

(1) Professional recognition **–** the significance of the agricultural profession in feeding people in communities, countries, and the world
(2) Financial benefit **–** the potential financial rewards of the agricultural profession, mostly expressing concerns over uncertain conditions. Yet, the profession is a good source of income for families**.**
(3) Professional practice **–** the strengths and limitations of the current agricultural professional practice, but also pointing to emerging advancement in technology and practices as a future of agriculture.
(4) Quality of Life **–** the manner of the agricultural profession involves working outdoors in fields and long hours exhaustedly working**.** Yet, this is sometimes with happiness**.**

Importantly, individual dimensions could be expressed either positively or negatively, and a returned answer could contain one, two, three, or all four dimensions.

For instance, one participant replied, "Nowadays, the agricultural profession may be overlooked by many because of other job opportunities. Still, I believe in agriculture because humans cannot survive without farmers who are feeding our world." Another said, "Farmers are the foundation of sustainable life and country. I always believe in the agricultural profession as my family belongs to this profession. I will cherish this profession as coming from the root of my family no matter others see it!" Both of these answers were coded accordingly as having only the (1) professional recognition dimension.

One participant replied, "Agricultural profession is tough – working mainly outdoors, consuming lots of energy but with poor financial rewards. However, the agricultural profession is important as the source of food for human beings, so I would like to see an improvement in farmers' quality of life." This answer was hence coded as having a combination of (1) professional recognition, (2) financial benefit, and (4) quality of life.

The results of the analysis shown in Table 3 below are from analyzing the four dimensions of attitude (professional recognition, financial benefit, professional practice, and quality of life) via the three evaluative judgments (positive attitude, negative attitude, and a combination of positive and negative attitudes). The data sorted during the preliminary analysis demonstrated potential attributes of the four dimensions towards evaluative judgments of attitudes.

**Table 3:** The Four Dimensions of Attitude and Their Attributes Regarding the Evaluative Judgment of Attitude Towards Agriculture as a Profession

| Number(s) of Dimensions | Dimensions of attitude | Frequency of answers | | Potential attributes of dimensions to evaluative judgments | Example of expressive answers |
|---|---|---|---|---|---|
| | | No. | % | | |
| One Dimension | Professional recognition | 12 | 23 | Positive | Agriculture is a very important profession. I feel proud to be part of a profession feeding the community, the country, and the world. |
| | Financial benefit | 1 | 2 | Negative | Most farmers are economically insecure with debt and low income. |
| | Professional practice | 9 | 17 | Negative | Most current farmers believe in their own traditional practice, which is outdated and inefficient. They lack new knowledge and skills to perform the new agricultural practice. |
| | Quality of life | 2 | 4 | Negative | Cumbersome with quietness and slow-living style. |
| | Sub-total | 24 | 46 | | |

| Number(s) of Dimensions | Dimensions of attitude | Frequency of answers | | Potential attributes of dimensions to evaluative judgments | Example of expressive answers |
|---|---|---|---|---|---|
| | | No. | % | | |
| Two Dimensions | Professional recognition AND Financial benefit | 7 | 13 | Combination of Positive and Negative | Agriculture is an important profession to a nation. Although not as lucrative as other professions and financial uncertainty, it provides family security in terms of incomes. |
| | Professional recognition AND Professional practice | 1 | 2 | Combination of Positive and Negative | Agriculture is an important profession, and I am proud of it. Still, current farmers lack knowledge in management to negotiate with buyers and suppliers. |
| | Professional recognition AND Quality of life | 4 | 8 | Combination of Positive and Negative | Agriculture is an important profession. I would like to do farming, but I'm unsure. This is because of the tiredness and laborious nature of work and living. |
| | Financial benefit AND Professional practice | 3 | 6 | Negative | Farmers lack knowledge in management and therefore plunge into old practices. This leads to being taken advantage of financially by buyers and suppliers. |
| | Financial benefit AND Quality of life | 5 | 10 | Negative | Agriculture is not a secure profession, with financial uncertainty. They must be patient with laborious work and endure quiet life. |
| | Professional practice AND Quality of life | 1 | 2 | Negative | Farmers endure a laborious job with existing management practice. |
| | Sub-total | 21 | 40 | | |
| Three Dimensions | Professional recognition AND Financial benefit AND Professional practice | 4 | 8 | Combination of Positive and Negative | Agriculture is an important profession because it provides security to the community and nation. Financially, farming is not as profitable as other professions. Still, with new management practice, the profession will get better. |
| | Professional recognition AND Financial benefit AND Quality of life | 0 | 0 | - | - |

| Number(s) of Dimensions | Dimensions of attitude | Frequency of answers | | Potential attributes of dimensions to evaluative judgments | Example of expressive answers |
|---|---|---|---|---|---|
| | | No. | % | | |
| | Professional recognition AND Professional practice AND Quality of Life | 0 | 0 | - | |
| | Financial benefit AND Professional practice AND Quality of life | 2 | 4 | Negative | Farming is laborious and cumbersome but with low financial benefits. Farmers have limited and outdated knowledge .This leads to inconsistent and unpredictable productions and incomes. |
| | Sub-total | 6 | 12 | | |
| Four Dimensions | Professional recognition AND Financial benefit AND Professional practice AND Quality of life | 1 | 2 | Positive | Agriculture is a good occupation. In the beginning, agriculture can be a very laborious and cumbersome job. With good management practice and government financial support, the profession is getting better afterward. |
| | Sub-total | 1 | 2 | | |
| Total | | 52 | 100 | | |

# Discussions

As shown in Table 3, nearly 90% of the students acknowledged one (46%) or two (40%) dimensions of attitude towards agriculture as a profession. So, the understanding of individuals and the combination of two dimensions of attitude is essential for suggesting policy implications on key factors influencing youth's decisions to take up a career in agriculture.

There are two key results from the analyses. Firstly, when a single dimension was mentioned, the professional recognition dimension was the only dimension continually presented in a positive evaluative judgment attitude towards agriculture as a profession. The other three dimensions (financial benefit, professional practice, and quality of life), when mentioned individually, were attributed to a negative evaluative judgment attitude towards agriculture as a profession.

Secondly, when dimensions of attitude were combined, those including one dimension of professional recognition made negative attitudes towards agriculture as a profession softened or toned down. In other words, this combination made the evaluative judgment a combination

of positive and negative attitudes. For instance, instead of fully bemoaning about financial difficulties or the laborious and cumbersome nature of life with the agricultural profession, the answers suggested positive possibilities about improvements in agricultural finances, professional practice, and quality of life.

In contrast, when the other three dimensions (financial benefit, professional practice, and quality of life) were combined in statements of attitudes, they are entirely negative. For instance, there was a complaint about the nature of financial uncertainties, a laborious and exhaustive life, and unpractically outdated practice of agriculture as a profession.

Even more, the authority of the professional recognition was shown in one response with all four dimensions presented. The response was, "Agriculture is a good occupation. In the beginning, agriculture can be a very laborious and cumbersome job. With good management practice and government financial support, the profession is getting better afterward." In other words, recognizing agriculture as a good or important profession is arguably attributing to a positive attitude towards agriculture as a profession, even with its hardships and difficulties in finance, practice, and quality of life.

This study provides further insight into the existing literature on the young generation's attitude towards agriculture as a profession. On the one hand, all participants with family background and education in agriculture, as used in this study, suggested that there were no differences in favorable attitudes of youth towards farming, similar to previous studies where the participants were farmers' descendants, with or without agriculture education background (Krajangchom et al., 2016; Shireesha et al., 2016). In these studies, the statements of "Proud to be as part of the profession feeding the nation" and "Importance of farmers for community and family" are the highest-ranking attributes toward positive attitudes about farming as a profession. Theoretically, these statements imply that the descendants of farmers, with favorable attitudes towards agriculture as a profession, would recognize the profession's importance.

On the other hand, Shenaifi (2013) suggested differences in students' attitudes towards the field of agriculture between those enrolled and those not enrolled in an agriculture program. However, the participants of that study were mixed; those with and those without a farming background. The results from this study may not provide more evidence to support or neglect the work of Shenaifi (2013). Still, the evidence can point to future studies where the focus should be on students enrolling in agriculture-related programs with no or limited background in farming. This will help disentangle the influence of education in agriculture from the family background on youth's attitude towards agriculture as a profession.

# Conclusions and policy implications

In sum, this study adopted an exploratory approach to comprehend the dimensions of attitude and their attributes regarding youth's attitudes towards agriculture as a profession. This study utilized undergraduate students enrolled in the Agricultural Resources Administration program at the School of Agricultural Resources, Chulalongkorn University. The results of this study designated four dimensions of attitude, that inductively emerged from the content analyses. The four dimensions were: (1) professional recognition, (2) financial benefit, (3) professional practice, and (4) quality of life. The results also showed that

professional recognition was the most authoritative dimension mentioned in every response, attributing to a favorable or positive attitude towards agriculture as a profession. The professional recognition dimension also softened any potential negative attitudes when mentioned along with any of the other three dimensions. In contrast, none of the other three combinations showed any sign of favorable or positive attitudes towards agriculture as a profession.

In terms of policy implications, those organizations in charge of supporting the young generation to pursue a career in agriculture should first attempt to strengthen and diffuse public recognition of agriculture as one of the most respectable professions as the professional recognition dimension significantly attributes to positive or favorable attitudes. Government and educational institutions should promote awareness of the general public, specifically the young generation, towards the significance of the agricultural profession. Then, the support to bettering the situations of the other three dimensions, including improving financial benefit, professional practice, and quality of life for those in the agricultural profession, would unquestionably be required to address and redress unfavorable or negative attitudes toward agriculture as a profession.

This change in focus has already been pointed out, and hence included, in the 11th National Economic and Social Development Plan's goals to support young farmers by promoting the profession of farming in a positive light and providing support in terms of funding and arable land for cultivation (National Economic and Social Development Board, 2011). Under this plan, the Thai government established and implemented two national programs to promote and support the agricultural profession, namely the Young Smart Farmers and New Farmers programs. Both programs aimed at providing support for youths interested in starting their farming career. Yet, the programs offered minimal support to the less than 7,000 program recipients, and in the amount and type of support to match the needs of young persons (Faysse et al., 2019; Phiboon et al., 2019). Moreover, most government programs in the past were arranged and implemented according to their responsibilities and objectives, not according to the wide range of goals and needs of young persons (Phiboon et al., 2019).

In summary, along with previous studies, the results of this research underscore the role of the government in supporting the young generation to pursue a career in agriculture. Still, the government must redesign its current support platform. Firstly, the Thai government must be more oriented towards providing a package of managed programs rather than numerous uncoordinated programs. Within the package, programs must cater to a wide range of personal career goals and be localized to match the requirements of diverse areas. Secondly, the duration of support must be sufficient until a young person can sustain a career in agriculture. In other words, step-wise support should be designed to help attract youth and then assist them in overcoming obstacles at the beginning of their careers, and finally, to sustain their careers in agriculture.

Lastly, educational institutions can play an important role in equipping the young generation with knowledge and skills in new and advanced technology, and agricultural management practices. This training is to change the view of the youth and the general public about the awkward, outdated, and unsustainable practice of the agricultural profession. The Agricultural Resources Administration curriculum at the School of Agriculture Resources, Chulalongkorn University is an example, supporting the development of a new generation of Thai farmers. The program curriculum is specifically designed to integrate traditional knowledge with new research and technology in agriculture and, therefore, to provide innovative agricultural concepts, techniques, and practices that resolve development

problems in community areas. Also, the curriculum focuses on integrated knowledge from farm production to marketing, while promoting the agriculture community and local agribusinesses with the ultimate goal of creating a 'new breed of agricultural entrepreneurs' (Visetnoi & Sirisoponsilp, 2019). In short, the program graduates are equipped with the knowledge and skills in advanced technology and entrepreneurship to envisage a future of a rewarding and perhaps exciting career in agriculture. Therefore, government and educational institutions can promote and support those who choose to take up and live their lives across new ventures in agriculture.

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