Development strategy of young agricultural entrepreneurs

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Abstract. The agricultural sector is currently experiencing various problems such as the decreasing number of farm workers, the lack of interest of the young generation in the agricultural sector, and fewer agricultural jobs. Therefore, concrete efforts and policies are needed to overcome it. One of the efforts and policies undertaken by the government is to provide entrepreneurship education to the younger generation through the “Penumbuhan Wirausahawan Muda Pertanian (PWMP)” [Growth of Young Agricultural Entrepreneurs] Program. Entrepreneur development requires a strategy to facilitate success. The purpose of this research is to formulate a development strategy for young agricultural entrepreneurs. Data sources are PWMP participants in the provinces of Aceh, North Sumatra, West Sumatra, Jambi, South Sumatra, and Bengkulu. The data analysis method used is the SWOT analysis. The results of the research resulted in the formulation of strategies in the development of young agricultural entrepreneurs, namely by implementing aggressive strategies; 1) increasing the ease of access to capital assistance and financial stimuli by involving the banking sector; 2) creating several agro-tourism areas; 3) increasing the ease of access to information on business opportunities and business promotion; and 4) improving facilities for promotional events and awarding entrepreneurial achievements.

1. Introduction
Indonesia is one of the countries known as the "Agrarian State", because most of Indonesia is an area that operates in the agricultural sector and is rich in agricultural products. BPS - Statistics Indonesia in 2019 stated that the agricultural sector was the sector with the highest percentage of employment, with 29.68%, 28.79%, and 27.33% of the total employment in 2017, 2018 and 2019 [1]. However, it has several problems namely: 1) the decreasing number of farm workers; 2) the lack of interest of the young generation in the agricultural sector; and 3) fewer agricultural jobs. Therefore, the development of the agricultural sector at present and in the future requires various efforts and policies to develop an agricultural system capable of increasing new human resources as a regeneration of advanced and modern farmers. One policy that is deemed very appropriate is to provide entrepreneurship education to young people who have a background in agricultural science education so that they are willing and interested in becoming young agricultural entrepreneurs. Young agricultural entrepreneurs are expected to be able to become the successor of farmer regeneration as the spearhead of community food availability, be able to develop more creative and innovative agricultural science, be able to keep up with technological developments and global challenges, and be able to maintain the stability of the nation's economy and reduce unemployment by creating jobs.

One of the government's policies and breakthroughs, in this case the Ministry of Agriculture, provides entrepreneurship education to the young generation of agriculture through the “Penumbuhan
Wirausahaan Wirausaha Muda Pertanian (PWMP)” [Growth of Young Agricultural Entrepreneurs] Program. PWMP is an effort to raise awareness, grow, develop, and be independent of the young generation in the field of agricultural entrepreneurship which is manifested in the form of business in the agricultural sector.

Entrepreneurship in agribusiness is one of the efforts made to change the agricultural sector towards a higher dynamic. Entrepreneurs are individuals who are able to predict opportunities, gather needed resources such as time, energy and money, and take the necessary actions to ensure entrepreneurial success [2]. An entrepreneur is an innovator or developer, able to take and transform opportunities into ideas that can be applied or marketed, able to add value to a product through time, effort, skill and money, and able to assume competitive market risks to implement new ideas [3].

The success of entrepreneurship and the development of young agricultural entrepreneurs cannot be separated from the factors that influence it. Several factors can influence entrepreneurial success, namely: interests and talents, motivation, and knowledge [4]. Psychological characteristics as predictors of entrepreneurial success, namely: need for achievement, control center, self-efficacy, ability to understand situations, ability to take risks, ability to innovate, independence, and optimism [5]. Customers, markets and financial resources play an important role in ensuring business success. Products, quality, cost, excellence, and innovative services are key strategic dimensions of business success. Social networks, government support, and legality, are major strategic dimensions in the external environment to business success [6]. In addition, there are several barriers to the development of young agricultural entrepreneurs, namely: high production costs, market ambiguity, natural factors, and government policy factors [7].

Strategic management is a continuous process and the process of considering a series of actions, the parts of the process are interrelated with each other. Meanwhile, strategy is the means and tools used to achieve the final goal. Strategy selection means choosing the direction of the strategy based on the results of an analysis of the internal and external environment of a business, which is called internal and external factors. Internal factors are the primary factors that determine the success of a business, because they come from within or from the body of the business being carried out. Meanwhile, external factors are secondary factors that influence the success of a business that support strong internal factors. Internal factors contain strengths and weaknesses, while external factors contain opportunities and threats. The combination and combination of strengths, weaknesses, opportunities and threats will be able to formulate a strategy. After obtaining the strategies and selecting the strategies that must be implemented, then it can issue and develop policies, budgets, long-term, medium-term and short-term programs [8].

2. Materials and methods

2.1. Location determination method
The method of determining the location is done by using the purposive method. This research was conducted on young agricultural entrepreneurs who received the PWMP program for the “Politeknik Pembangunan Pertanian (Polbangtan) Medan” [Agricultural Development Polytechnic Medan] coordination area, which is located in Aceh Province, North Sumatra Province, West Sumatra Province, Jambi Province, South Sumatra Province, and Bengkulu Province.

2.2. Population and sample
The population in this research were all PWMP participants in the “Polbangtan Medan” coordination area for the 2017 to 2019 program period, totaling 542 people spread across 6 provinces in Sumatra. The number of samples in this study was determined by the Slovin method as many as 230 respondents. The sampling method was done by accidental (accidental sampling).
2.3. Method of collecting data
Methods of data collection are done by direct interviews with respondents, field observations, and online interviews using google form and by phone or email.

2.4. Data analysis method
The data analysis method used was SWOT analysis. SWOT stands for Strengths (S), Weaknesses (W), Opportunities (O), and Threats (T). SWOT analysis compares the internal factors of strengths and weaknesses with external factors, opportunities and threats.

3. Results and discussion
Figure 1 shows the research framework carried out.

![Research framework](image)

**Figure 1.** Research framework.

The steps for the SWOT analysis are:
1) Identification of internal factors and external factors that influence entrepreneurial success.

| Internal Factors | External Factors |
|------------------|------------------|
| - Interest and talents | - Market ambiguity |
| - Motivation       | - Government policy |
| - Self efficacy    | - Business environment |
|                   | - Natural Factors |

2) Determination of the factors S, W, O and T.
Factors S, W, O and T obtained after obtaining the average value of each variable from the questionnaire results. Internal factors will produce strengths (S) and weaknesses (W). The variable is included in "strength" if the average value is more than the mean value of the calculation scale, while the variable is classified as "weakness" if the average value is less than the mean value of the calculation scale. External factors will generate opportunities (O) and threats (T). Variable is included in "opportunity" if the average value is more than the mean value of the calculation scale, while the variable is included in "threat" if the average value is less than the mean value of the calculation scale.

Details of determining the factors S, W, O and T can be seen in table 2 and table 3.

### Table 2. Determination of the factors S and W.

| Internal Factors        | Strengths (S) | Weaknesses (W) |
|-------------------------|---------------|----------------|
| - Interest and talents  | ✓             |                |
| - Motivation            | ✓             |                |
| - Self efficacy         |               | ✓              |

*Source: Data processed, 2020*

From table 2, it can be seen that all the internal factors studied were strengths (S), while the weakness (W) was none. This is because all respondents are young entrepreneurs who have a background in agricultural science education and are familiar with the world of agriculture so that all these internal factors have a fairly high overall value.

### Table 3. Determination of the factors O and T.

| External Factors     | Peluang (O) | Ancaman (T) |
|----------------------|-------------|-------------|
| - Market ambiguity   | ✓           |             |
| - Government policy  |             | ✓           |
| - Business environment|             |             |
| - Natural Factors    | ✓           |             |

*Source: Data processed, 2020*

From table 3, it can be seen that the opportunities (O) are; government policy and business environment, while the threats (T) are; market ambiguity and natural factors.

3) Creating an IFAS (Internal Factors Analysis Strategic) matrix.
The IFAS matrix is used to get the ordinate point in the position matrix between strengths and weaknesses, namely the difference in the weighted score between strengths and weaknesses. The IFAS matrix can be seen in table 4.

### Table 4. IFAS matrix for the development strategy of young agricultural entrepreneurs.

| Internal Strategic Factors | Rate | Score | Weighted Score (Rate x Score) |
|----------------------------|------|-------|--------------------------------|
| **Strengths**              |      |       |                                |
| - Interest and talents     | 0.34 | 4.35  | 1.48                           |
| - Motivation               | 0.33 | 4.30  | 1.42                           |
| - Self efficacy            | 0.33 | 4.23  | 1.40                           |
| **Total strengths score**  | 1.00 | 4.30  |                                |
| **Weaknesses**             |      |       |                                |
|                           |      |       |                                |
| **Total weaknesses score** | 0.00 | 0.00  | 0.00                           |
| **Difference (strengths - weaknesses)** | 1.00 | 4.30 |

*Source: Data processed, 2020*
The ‘rate’ value is obtained from the importance level of each variable where the total ‘rate’ value for all internal factors is 1 (one). While the ‘score’ value is obtained from the average value of the questionnaire summary results for each variable. From table 4, it is found that the difference in the weighted score between strengths and weaknesses is 4.30; means that the ordinate point in the matrix of strength and weakness positions is 4.30.

4) Creating an EFAS (External Factors Analysis Strategic) matrix.

The EFAS matrix is used to get the ordinate point in the matrix of positions between opportunities and threats, namely the difference in the weighted score between opportunities and threats. The EFAS matrix can be seen in table 5.

| External Strategic Factors | Rate | Score | Weighted Score (Rate x Score) |
|---------------------------|------|-------|------------------------------|
| **Opportunities**         |      |       |                              |
| - Government policy       | 0.25 | 3.74  | 0.93                         |
| - Business environment    | 0.25 | 3.85  | 0.96                         |
| **Total Opportunities score** | **0.50** | **1.89** |                              |
| **Threats**               |      |       |                              |
| - Market ambiguity        | 0.30 | 2.60  | 0.78                         |
| - Natural Factors         | 0.20 | 1.79  | 0.36                         |
| **Total threats score**   | **0.50** | **1.14** |                              |
| **Difference (opportunities - threats)** | **1.00** | **0.75** |                              |

*Source: Data processed, 2020*

The ‘rate’ value is obtained from the importance level of each variable where the total ‘rate’ value for all external factors is 1 (one). While the ‘score’ value is obtained from the average value of the questionnaire summary results for each variable. From table 5, it is found that the difference in the weighted score between opportunity and threat is 0.75; means that the ordinate point in the opportunity and threat position matrix is 0.75.

5) Determination of the position matrix in SWOT.

So, the position matrix in SWOT is as shown in figure 2.

![Figure 2. SWOT position matrix.](image-url)
From the IFAS and EFAS matrices, two ordinate points are obtained, namely:
- The first ordinate point: difference (strengths - weaknesses) = 4.30
- Second ordinate point: difference (opportunities - threats) = 0.75

From figure 2, it can be seen that the strategy position is in Quadrant 1 position; namely aggressive strategy. Aggressive strategy is a strategy in which entrepreneurs are in a very favorable situation, where young agricultural entrepreneurs have sufficient strength and opportunities, so that with their strengths they can take advantage of the opportunities that exist in order to achieve entrepreneurial success and the development of young agricultural entrepreneurs.

6) Formulation of strategies using the SWOT matrix

From all the SWOT analysis steps above, several strategies can be formulated using the SWOT matrix as shown in Figure 3.

| IFAS | Strengths (S) | Weaknesses (W) |
|------|---------------|----------------|
| OPPORTUNITIES (O) |   | |
| 1. Government policy | 1. Interests and talents | - |
| 2. Business environment | 2. Motivation | - |
| 3. Self efficacy | 3. | |
| THREATS (T) |   | |
| 1. Market Ambiguity | 1. Increase knowledge and use of market information access through technology-based education and training (S1,S2,S3,T1) | - |
| 2. Natural factors | 2. Minimizing and training skills as well as preparing various prevention options against unexpected and out of control natural factors (S1,S2,S3,T2) | - |

**Figure 3.** SWOT matrix.

From figure 3, several strategies for the development of young agricultural entrepreneurs can be described as follows:

1. **SO strategy**
   - Increase the ease of access to capital assistance and financial stimulus by involving the banking sector
   - Creating several agro-tourism areas
2. ST strategy
- Increase knowledge and use of market information access through technology-based education and training
- Minimizing and training skills as well as preparing various prevention options against unexpected and out of control natural factors

4. Conclusions
The formulation of strategies that can be carried out in the development of young agricultural entrepreneurs is by implementing an aggressive strategy, namely taking advantage of very favorable situations, where young agricultural entrepreneurs have sufficient strength and opportunities, with the strength they have can take advantage of existing opportunities to expand and develop businesses so that entrepreneurial development young agriculture can be achieved and farmer regeneration and agricultural sector problems can be resolved. The aggressive strategies used were: 1) increasing the ease of access to capital assistance and financial stimuli by involving the banking sector; 2) creating several agro-tourism areas; 3) increasing the ease of access to information on business opportunities and business promotion; and 4) improving facilities for promotion events and entrepreneurial achievement awards.

References
[1] Badan Pusat Statistik [Statistics Indonesia] 2019 Keadaan Ketenagakerjaan Indonesia Agustus 2019 [Indonesian Labor Situation August 2019] (Jakarta: Badan Pusat Statistik [Statistics Indonesia])
[2] Hussin M R M, Asaari M H A H, Karia N and Hamid A J A 2012 Small Farmers and Factors That Motivate Them Towards Agricultural Entrepreneurship Activities Journal of Agribusiness Marketing 5 pp 47-60
[3] Abdullah A A and Sulaiman N N 2013 Factors That Influence the Interest of Youths In Agricultural Entrepreneurship International Journal of Business and Social Science 4 3 pp 288-302
[4] Lestari FAP 2019 Faktor-faktor yang Mempengaruhi Keberhasilan Berwirausaha [Factors Affecting Entrepreneurial Success] Jurnal Riset Inspirasi Manajemen dan Kewirausahaan 3 pp 65-9
[5] Chatterjee N and Das N 2015 Key Psychological Factors as Predictors of Entrepreneurial Success: a Conceptual Framework Academy of Entrepreneurship Journal 21 1 pp 102-14
[6] Chittithaworn C, Islam M A, Keawchana T and Yusuf D H M 2011 Factors Affecting Business Success of Small & Medium Enterprises (SMEs) in Thailand Asian Journal of Social Science 7 5 pp 180-90
[7] Safai’ee M M, Saili A R, Saili J and Hamzah N M 2018 Barriers Associated With Smallholding Plantation Agropreneurship Development: a Qualitative Study Amongst Youth Agropreneurs In Sarawak Herald NAMSCA 1 pp 824-8
[8] Machmud S and Sidhardt A 2014 Business models for SMEs in Bandung: Swot analysis Jurnal Ekonomi, Bisnis & Entrepreneurship 8 1 pp 51-61

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