

# Analysis Strategy for Agro Tourism Business Development in Temiang-Batam in the Era of Disruption

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**Abstract:** This research was conducted to determine factors from the internal and external environment that influence the development of the Sei Temiang-Batam agro-tourism business as well as alternative strategies that can be used in the development of this agro-tourism. This research uses mixed methods, qualitative analysis is carried out to obtain an overview of the company's internal and external factors, while quantitative analysis is to determine the right strategy for the company. Data collection was carried out by observation, documentation and questionnaires. The data analysis technique was performed using a SWOT analysis. From the results of this study, it can be concluded that: (1) The strength of agro-tourism is the relatively cheap entrance ticket price and has a Tour Guide. Meanwhile, it is an investment opportunity for investors to develop natural resources in the agro-tourism sector. (2) There are four types of alternative strategies with 10 programs to be used for agro-tourism development. The condition of the Covid-19 pandemic has an impact on the agro-tourism business, such as the temporary closure of educational tourism activities, while production activities and land leases are still being carried out. This agro-tourism can adopt virtual tourism technology in the face of the Covid-19 pandemic.

## 1 INTRODUCTION

In the age of increasingly rapid development of competitiveness, there is a higher and more difficult challenge than before. Disruption is an innovation that will replace the entire old system in a new way and potentially replace old players with new ones (Kasali, 2017). In disruption of old technology that is completely physical will be replaced with digital technology, produce something new and more efficient, also more useful. Savings in physical business costs and making things smart are what have happened in this era of disruption. The era of disruption is a phenomenon when people shift or replace physical activities that use technology.

In the agro-tourism business, it is also inseparable from the influence of the era of disruption, where agriculture and animal husbandry experience developments in their business. The application of the latest technology in agriculture has an important role in agricultural development (Andrianto, 2014). Agro-tourism is defined as a combination of tourism and agriculture, where visitors can visit fields, farms and animals to buy food, enjoy events and participate in

local events. Its aim is to broaden knowledge, recreational experience and business relations in agriculture. The location of Batam Island, which borders directly with Singapore and Malaysia, makes Batam one of the cities in the Riau Islands, which in 2019 was designated as the second-largest contributing city for foreign tourists after Bali. Batam has many tourism potentials such as nature tourism, religious tourism, shopping tourism, agro tourism, culinary tourism, sports tourism, and historical tourism.

The Batam Entrepreneurship Agency (BP), formerly known as the Batam Authority, is a central government institution / agency. One of the programs for the development of the area carried out by BP Batam in particular the Business Development Planning, Services and Pricing Bureau is to build the Sei Temiang Agro Tourism area so that it can become an icon and trade mark that Batam is not only in the form of industry, but there is a green tourism area to balance industrial activities and trading. Nowadays agro-tourism is increasingly being developed as a form of environmental preservation and agricultural land resources, in addition to plantations being an economic sector developed for the welfare of the

community, plantations are also able to become a tourist attraction for tourists, not only can see the expanse of plantations, but also can see the process of gardening that is done by local farmers. Not infrequently some agro-tourism involves tourists in the existing plantation process so that tourists can experience directly the activities being seen.

Based on interviews with Irwan, Head of Sub Directorate Utilization of Facilities, said that the initial formation of Sei Temiang agrotourism based on SK Batam BP Head No. 23 of 2015. Sei Temiang-Batam agro-tourism is not the only agro- tourism in Batam, the main attraction of this agro- tourism is a tour guide that will accompany visitors and not only one plant variance but many variants consisting of plantation zones, farm zones and fisheries zones. Sei Temiang Agro-tourism offers education-based tours for school children, where each year the number of visits increases, during 31

October 2019 the number of visits by 1,861 visitors increased by 371% from 2018 with only 395 visitors. Sei Temiang Agro Tourism also follows the changing trend, where the payment system already uses applications in its management, as well as digital marketing using social media in the form of Instagram (@agromarinabp) because the current market share is millennial generation who are very familiar with technology. While the results of the interview with Tumirah, Kasubbag. The Sei Temiang Batam Agro-tourism development plan has formulated a basic concept for the direction of development of this area, including cultivation and tourism functions, which are outlined in the initial concept with 3 main zones, namely the agricultural zone, the livestock zone, and the recreation zone. Apart from the zoning concept, there are also sub-zoning and illustrations, the concept of vegetation, facilities and utilities that have been planned in the preliminary design.

Based on the previous explanation, there are still many potentials in the Sei Temiang agro- tourism area that can be developed as educational tourism destinations, so the authors are interested in taking the title "Analysis of Sei Temiang-Batam Agro-Tourism Business Development Strategy in the Era of Disruption".

### 1.1 Problem Formulation

Based on this background explanation, the problem that exists is how to identify strategies that can be used in the development of Sei Temiang Agro-tourism, then there are 2 (two) problem formulations, namely:

1. What factors of the internal and external environment influence the development of Sei Temiang Agro-tourism with SWOT analysis?
2. What alternative strategies can be used in developing Sei Temiang Agro-tourism with SWOT analysis?

### 1.2 Research Objectives

The purpose of this study is to develop the existence of Sei Temiang into one of the tourist attractions in the form of agro-tourism areas in Batam City. After an explanation of the background that underlies the formulation of the problem in this study, the objectives of this study are:

1. To identify internal and external environmental factors that influence the development of Temiang Agro Tourism with SWOT analysis.
2. To recommend an alternative strategy for developing Sei Temiang Agro-business in the era of disruption with SWOT analysis.

## 2 METHOD

This type of research uses quantitative methods and qualitative methods with a strategic management approach using SWOT analysis, presented in tables and descriptions where qualitative analysis is carried out to obtain an overview of the company's internal and external factors, while quantitative analysis is to find out the right strategy for the company. Based on Sugiyono (2018) in a book entitled "management research methods", it means that combination methods can be combined but used interchangeably, while data collection techniques can be combined.

### 2.1 Research Focus

To simplify and clarify the understanding of important factors used in this research, the Research Focus is proposed, namely analysis in developing business strategies based on internal factors, namely production and operations, finance, human resources and marketing, and external factors based on the threat of new entrants, level of competition, social and technology.

### 2.2 Research Subjects

The sample used for this study is expert respondents who are competent to provide an assessment of the business development strategy in Agro Tourism because they know the conditions that occur within

the company. Expert samples also provide internal and external analysis of Agrotourism. The number of respondents used was as many as 5 people, namely Operations and Maintenance Managers, Commercial Managers, Finance and General Managers, Kasubdit. Strategy and Risk Management Initiative and Head of Development and Business Cooperation. The sampling method used is nonprobability sampling, i.e. not all population elements can be selected using purposive sampling techniques where the definition of the sample is based on predetermined criteria.

### 2.3 Data Collection Techniques

#### 2.3.1 Observation

The observations in this study were written descriptively, which accurately observed and recorded phenomena that occurred, and also knew the relationship between aspects of this phenomenon in the form of geographical and demographic conditions, as well as tourism potential, taking into account environmental conditions or phenomena on the ground. Data and information can be presented in the form of quantitative or qualitative data tables, pictorial drawings or maps in the study area, and photo- visualization as material for analysis and explanation.

#### 2.3.2 Documentation

Documentation is a method for obtaining data and information in the form of reports or information that can help in conducting research in the form of books, archives, documents and photographs of the agritourism situation in Sei Temiang.

#### 2.1.3 Questionnaire

Questionnaire or questionnaire contains questions or statements that can be answered in the form of a questionnaire. The preparation of the questionnaire was carried out after analyzing the internal and external factors of agrotourism. This questionnaire was used to determine the weight and rating of the study.

### 2.4 Stages of Data Processing

The data processing technique that will be used is by using inductive techniques, namely from facts and events that are known concretely, then generated into a general conclusion based on empirical facts about the research location.

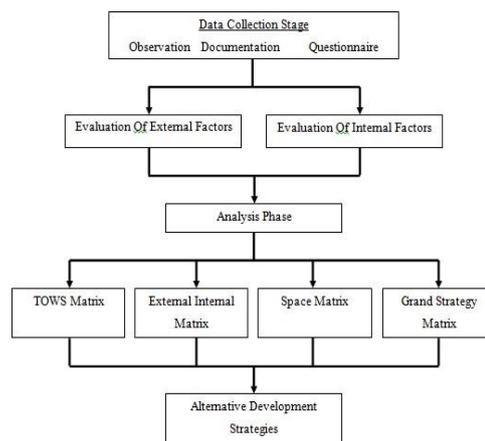


Figure 1: Processing Stages

Data processing steps can be carried out after the data has been collected through observation, documentation and questionnaires at the data collection stage. Furthermore, evaluation of external factors and evaluation of internal factors is carried out, then the analysis stage is carried out using the TOWS matrix, IE matrix, space matrix and GS matrix.

## 3 RESULTS AND DISCUSSION

The results of identifying strengths and weaknesses as well as opportunities and threats can be used to compile the TOWS matrix, external internal matrix, space matrix, grand strategy matrix.

### 3.1 External Internal Matrix

The IFE ( *Internal Factor Evaluation* ) matrix and the EFE ( *External Factor Evaluation* ) matrix are determined based on the results of an environmental analysis, to determine the rating and weight of each internal and external factor.

Table 1: IFE Matrix

No	Power	Weight	Rating	Score
A	Beautiful scenery	0.083	3	0.248
B	Strategic tourist location	0.087	3	0.262
C	extensive tourist sites, consisting of various tourist objects	0.092	4	0.369
D	have a pretty good information system	0.092	4	0.369
E	the price of admission is relatively cheap (around Rp. 15,000 / person)	0.107	4	0.427
F	Have a Tour Guide	0.097	4	0.388
<b>Total Strength 0.558</b>				<b>2,063</b>
No	Weakness	Weight	Rating	Score
G.	Promotion that has not been intensive and intense	0.068	2	0.136
H	lack of facilities and infrastructure available (toilets, gazebos for education)	0.083	2	0.165
I	not yet available on the spot bookings	0.058	1	0.058
J	opened specifically for students	0.092	2	0.184
K	lack of human resources in the management of organizations	0.078	1	0.078
L.	This agrotourism is not yet known by the market, so it does not yet have a marketable brand	0.063	1	0.063
<b>Total Weaknesses 0.442</b>				<b>.684</b>
<b>Total Internal Factors</b>		<b>1</b>		<b>2,748</b>

Based on the results of the internal factor evaluation matrix (IFE), the main strength of Sei Temiang-Batam Agro Tourism is the price of tickets which are relatively cheap and have *tour guides* with the highest scores of 0.427 and 0.388. Both of these strategic factors have an internal impact on the company. The internal environment has a large impact and has become an important force for competition in tourism or agro-tourism.

According to IFE matrix analysis, it is known that the total strength score for Sei Temiang-Batam Agro Tourism is 2,063 and the total score for weakness is 0.684. This shows that respondents looked high enough on the strength factor and relatively small

response to weakness. The IFE total value of 2.748 shows that the internal conditions of the business environment that affect Sei Temiang-Batam Agro Tourism are in strong or above average conditions, because the higher strength scores compared to the weakness score indicate that in developing Sei Temiang-Batam Agro Tourism can use its strengths to overcome existing weaknesses

External strategic factors that are a major threat to Sei Temiang-Batam Agro Tourism are consumer factors that have the freedom to search for and visit other attractions and the relatively high intensity of competition in agro-tourism businesses or businesses with scores of 0.175 and 0.175, respectively.

Table 2 . EFE Matrix

No	Opportunity	Weight	Rating	Score
A	Investment opportunities for investors to develop natural resources in the field of agro-tourism.	0,092	4	0,368
B	The tourism sector is increasingly developing and in demand.	0,088	4	0,351
C	The number of tourists continues to grow.	0,083	3	0,250
D	Tendency of consumer desires to switch to nature tourism (agro-tourism) / travel back to nature.	0,088	4	0,351
E	The tendency of the community to hold a family gathering / gathering.	0,070	3	0,211
F	The development of internet technology can facilitate business transactions and promotions.	0,092	4	0,368
G.	Easy road access, because it is on a busy route through the community.	0,083	3	0,250
<b>Total Opportunities</b>		<b>0,596</b>		<b>2,149</b>
No	Threat	Weight	Rating	Score
H	Consumers have the freedom to search and visit other attractions.	0.088	2	0.175
I	The number of other agro-tourisms is emerging.	0.083	1	0.083
J	The development of other agro-tourism businesses is very rapid and has certain characteristics.	0.083	1	0.083
K	The intensity of competition in business or agro-tourism business is relatively high.	0.088	2	0.175
L	Covid-19 Pandemic	0,061	2	0,123
<b>Total Threats</b>		<b>0.404</b>		<b>0.640</b>
<b>Total External Factors</b>		<b>1</b>		<b>2,789</b>

Based on the EFE matrix analysis it is known that the total score of opportunities for Sei Temiang-Batam Agro Tourism is 2,149 and the total score for the weakness is 0.640 and the total EFE matrix score is 2,789. This shows that the external conditions of the business environment that affect Sei Temiang-Batam Agro Tourism are in good condition, because the business opportunities owned by Sei Temiang-Batam Agro Tourism can overcome the existing threats.

The IE matrix shows the strengths and successes of the company's strategy by looking at scores on cells in the IE matrix. Based on the total score on the IFE and EFE matrices, the scores were 2.748 and 2.789, respectively. The score is an input for the IE matrix analysis which will later be mapped to the IE matrix, so that the company's current position can be determined. Determining business position is important for companies in choosing alternative strategies to deal with competition and changes that occur in the business being run.

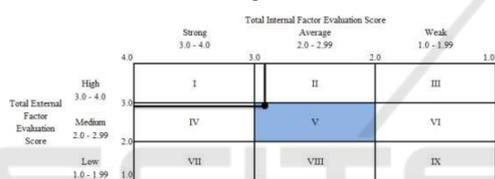


Figure 2: IE Matrix

The company's strategy in the expected position is market development and product development strategy. Market penetration strategies are strategies to increase markets for products or services through stronger marketing efforts.

Product development strategy is a strategy to increase sales by promoting existing products or services. Product development strategies can be achieved by developing new products that have special characteristics and are different from competitors. The strategies produced in the IE matrix only produce alternative strategies, without implementing more technical strategies at the company level. Therefore, the IE matrix is equipped with a SWOT matrix, so that the resulting strategy can be developed in the SWOT matrix analysis.

### 3.2 Swot Matrices

The SWOT matrix develops four alternative strategies based on strengths, weaknesses, opportunities, and threats for the company. The four alternative strategies are the SO (strength-opportunity) strategy, the ST (strength-treats) strategy, the WO (weaknesses-opportunity) strategy,

and the WT (weaknesses-threat) strategy. The purpose of the SWOT matrix is to collect as many strategies as possible for the company to use. The selection of the main strategies of the SWOT matrix is adjusted to the company's position and is complementary to the IE matrix analysis that has been made previously. Based on the results of the SWOT matrix analysis on Sei Temiang-Batam Agro Tourism, ten alternative strategies were obtained consisting of three alternative SO strategies, four alternative WO strategies, two alternative ST strategy and one alternative WT strategy.

<p style="text-align: center;"><b>IFAS</b></p>	<p style="text-align: center;"><b>STRENGTHS (S)</b></p> <p>S1 Beautiful scenery.                  S2 Strategic tourist location.                  S3 Extensive tourist sites, consisting of various tourist objects.                  S4 Have a fairly good information system.                  S5. The price of admission is relatively cheap (around Rp. 15,000 / org). S6. Have a Tour Guide.</p>	<p style="text-align: center;"><b>WEAKNESSES (W)</b></p> <p>W1. Promotion that has not been intensive and intense.                  W2 Lack of facilities and infrastructure available. (Toilets, Gazebo for education)                  W3. Not yet available on the spot bookings. W4 Specially opened for students.                  W5. Lack of human resources in managing the organization.                  W6. This agrotourism is not yet known by the market, so it does not yet have a</p>
<p style="text-align: center;"><b>EFAS</b></p> <p style="text-align: center;"><b>OPPORTUNITIES (O)</b></p> <p>O1. Investment opportunities for investors to develop natural resources in the field of agro-tourism.                  O2 The tourism sector is increasingly developing and in demand                  O3 The number of tourists continues to grow.                  O4 Tendency of consumer desires to switch to nature tourism (agro-tourism) / travel back to nature                  O5 The tendency of the community to hold a family gathering / gathering.                  O6 The development of internet technology can facilitate business transactions and promotions.                  O7 Easy road access, because it is on a busy route through the community.</p>	<p style="text-align: center;"><b>SO STRATEGY</b></p> <p>Maximizing strategic location and improving service quality, as well as attracting investment interest from various parties to be able to add agro-tourism facilities. (S2, O1, O2, O7)                  Providing affordable prices for increasing business activities, as well as adding conceptual attractions and discounted prices to attract visitors. (S1, S3, S5, S6, O4, O5)                  Coordinate with the Public Relations and Protocol Bureau for promotional assistance outside Batam City and even neighboring countries such as Singapore and Malaysia. (S4, O6)</p>	<p style="text-align: center;"><b>WO STRATEGY</b></p> <p>Promoting more actively and aggressively through electronic media (social media) and print media and making promotions with certain holiday packages to the public. (W1, W4, W6, O2, O3, O4, O5)                  Applying the development and use of technology in every tourist attraction and in the work system in order to optimize the maximum potential that exists. (O6)                  Developing adequate facilities and infrastructure will give consumers a sense of comfort. (W2, W3, O1, O7)                  Increasing the quality and number of human resources available at Sei Temiang-Batam Agro Tourism. (W5)</p>
<p style="text-align: center;"><b>TREATHS (T)</b></p> <p>T1. Consumers have the freedom to search and visit other attractions.                  T2. The number of other agro-tourisms is emerging.                  T3. The development of other agro-tourism businesses is very rapid and has certain characteristics.                  T4. The intensity of competition in business or agro-tourism business is relatively high.                  T5. Covid-19</p>	<p style="text-align: center;"><b>ST. STRATEGY</b></p> <p>Looking for cooperation partners who are experts in the field of agro-tourism management. (S1, S2, S3, S4, S5, S6, T1, T2, T3, T4)                  Increasing production and leasing services for land use, making improvements such as renovating and maintaining existing facilities and infrastructure, and implementing virtual tourism services. (T5)</p>	<p style="text-align: center;"><b>WT STRATEGY</b></p> <p>Collaborating with land tenants in the Sei Temiang agro area and other tourist attractions around Batam in order to be able to make different tour packages or joint tour packages. (W1, W2, W3, W4, W5, W6, T1, T2, T3, T4)</p>

### 3.3 Space Matrix

The formula for finding the coordinates is as follows

$$\begin{aligned}
 &= \text{Internal Coordinate Analysis} : \text{External Coordinate Analysis} \\
 &= \frac{\text{Total Score S} - \text{Total Score W}}{2} : \frac{\text{Total Score O} - \text{Total Score T}}{2} \\
 &= \frac{2.063 - 0.684}{2} : \frac{2.149 - 0.640}{2} \\
 &= 0.689 : 0.754
 \end{aligned}$$

So, the coordinates are at ( 0.689; 0.754).

From the calculation of these factors, it can be described in the Space diagram, can be seen in the picture below

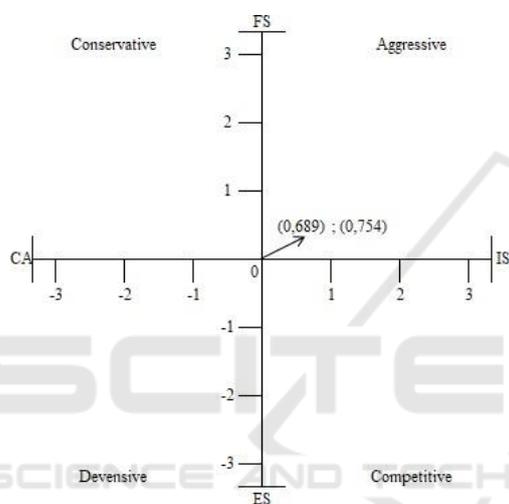


Figure 3. Space Matrix

From this graph it appears that the right strategy for Sei Temiang-Batam Agro-tourism is an aggressive strategy. The characteristics of this aggressive strategy are: market penetration strategy, market development, agro-tourism development, integration (forward, backward and horizontal integration), diversification.

### 3.4 Grand Strategy Matrix

The Grand Strategy Matrix is compiled based on the internal and external environmental conditions of Sei Temiang-Batam Agro Tourism combined from the IFE and EFE matrices. Based on the results of the analysis of internal factors using the IFE matrix obtained a weighted score of 2.748. While the results of the analysis of external factors using the EFE matrix obtained a weighted score of 2.789.

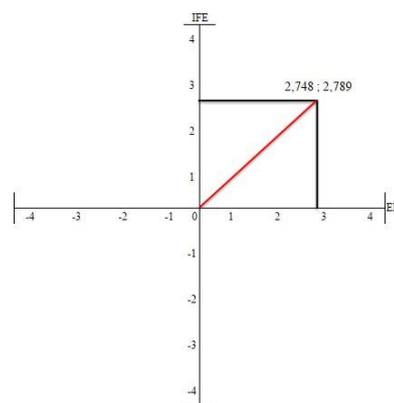


Figure 4. Grand Strategy Matrix

Sei Temiang-Batam Agro Tourism has a fast market growth and a strong competitive position as evidenced by the IFE Matrix Agro-tourism of 2,748 and EFE Matrix of 2,789. This causes the Grand Strategy matrix to be in quadrant I, there are several strategies that can be used in this quadrant are product development, market development, market penetration, backward penetration, Forward integration (forward penetration), related diversification (concentric diversification).

Sei Temiang-Batam Agro Tourism is in a strong position and has a good branding in the community, so this agro-tourism should focus more on:

1. Adding more adequate infrastructure to cope with increasingly aggressive competitors. Support facilities & infrastructure that support agro-tourism activities that prioritize local and natural uniqueness but are able to provide convenience, comfort and safety for tourists. These facilities can be in the form of transportation & accommodation facilities, telecommunications, or other facilities developed according to the type of agro-tourism being developed.
2. Cooperating with investors who are financially sound and have international and domestic tourism networks. Although the source of funds for development is not a cause for concern because they come from the state, it would be better to be able to get funds from investors, so that the state budget can be allocated for the development of other assets.
3. The incessant promotion in all social media.

This agro-tourism can also create virtual tourism services, by taking virtual walks in various zones such as plantations, animal husbandry and fisheries found in this agro-tourism. VR applications in tourism include virtual reality travel experiences, VR

tourism content for social media or websites, and destination tours. In this virtual tour, the tour guides will tour around the tourist attraction and the trip will be broadcast live streaming via video conference. While on a virtual tour, the tour guides will provide an explanation of these tourist destinations.

## 4 CONCLUSION

The condition of the Covid-19 pandemic has an impact on the Sei Temiang-Batam agro-tourism business such as the temporary closure of educational tourism activities, while production and land leasing activities are still being carried out. This agro-tourism can adopt VR technology in tourism by collaborating technology and tourism, this is a form of effort to deal with the threat caused by the Covid-19 pandemic. Based on the results of the analysis and discussion of this research, there are internal and external factors that affect the Sei Temiang-Batam agro-tourism business as well as recommendations for various alternative strategies that can be used by this agro-tourism, the conclusions that can be drawn are as follows:

1. Based on the results of the IFE matrix analysis, the main strength of Sei Temiang-Batam Agro-tourism is the relatively cheap entrance ticket price and has a Tour Guide, while the main weakness of Agro-tourism Sei Temiang-Batam is the unavailability of bookings on the spot, due to the management of Agro tourism in Sei Temiang-Batam. not a department dedicated to general tourists, this makes Sei Temiang-Batam Agro-tourism can only be ordered on request. EFE matrix analysis shows that the external environment which is the main opportunity for Sei Temiang-Batam Agro-tourism is an investment opportunity for investors to develop natural resources in the agro-tourism sector, while the main threat of Sei Temiang-Batam Agro-tourism is that consumers have the flexibility to seek and visit other tourist objects, and the entry of the Covid-19 pandemic in Batam City is a new threat that must be faced by agro-tourism, where agro-tourism must still survive the pandemic.

The reason the authors suggest as above, is because Sei Temiang-Batam Agro Tourism is not yet well known to the public.

2. Based on the SWOT analysis recommendations for business development strategies in Sei

Temiang-Batam Agro-tourism, namely ten aggressive strategies, including maximizing strategic location and improving service quality, as well as attracting investment from various parties to be able to add agro-tourism facilities, providing affordable prices for increasing business activities, as well as adding conceptual variants of tourist objects and discounted prices to attract visitors, coordinating with the Public Relations and Protocol Bureau for promotional assistance outside Batam City and even neighboring countries such as Singapore and Malaysia, promoting more actively and aggressively through electronic media (social media) and print media and make promotions with certain holiday packages for the public, apply the development and use of technology in each tourist attraction and in the work system in order to optimize existing potential maximally, build adequate facilities and infrastructure a will give consumers a sense of comfort, improve the quality and number of human resources in Sei Temiang-Batam Agro-tourism, look for cooperation partners who are experts in the field of agro-tourism management, increase production and rental services for land use, make improvements such as renovation and maintenance of existing facilities and infrastructure, as well as implementing virtual tourism services and collaborating with land tenants in the Sei Temiang agro area and other tourist attractions around Batam so that they can make different tour packages or do joint tour packages. The condition of the Covid-19 pandemic has no significant effect on the Sei Temiang-Batam agro-tourism business, because the production process in plantations, livestock and fisheries is still running, it's just that educational tours are temporarily closed to reduce the spread of Covid-19, especially in Batam City. In this regard, this study helps agro-tourism to carry out the right strategy in dealing with existing threats.

## REFERENCES

- Andrianto, T. (2014). Pengantar Ilmu Pertanian: Agraris, Agrobisnis, Agroindustri, dan Agroteknologi. Yogyakarta: Global Pustaka Utama .
- Kasali, R. (2017). Disruption. Gramedia Pustaka Utama .