

Research Paper

How Can Local Government Sustain a Terminated National Development Project? An Exit Strategy for the Techno Park Project in Tasikmalaya Regency, West Java, Indonesia

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Abstract

The sixth of nine Indonesian national development agendas under the President Joko Widodo administration is to increase productivity and competitiveness, one of which is by the establishment of Techno Parks. The projects will be terminated in 2019; however, exit strategies that contribute to sustainable development have been rarely considered throughout the history of development studies and practice. This paper examines the concept of exit strategies within the context of a case study of the Indonesian Institute of Sciences (LIPI)-assisted project of the Tasikmalaya Techno Park (TP) from 2015-2019. It addresses two questions: (1) How has LIPI executed the TP project in Tasikmalaya throughout the period? (2) What is the recommended exit strategy for regional policymakers after project termination? To overview the implementation of TP activities, an internal- external analysis was conducted, and to formulate exit strategies, SWOT and QSPM were employed. Data were collected from July-September 2018, consisting of primary data collected from competent respondents by semi-structured and in-depth interviews selected by the purposive sampling method as well as secondary data compiled from relevant institutions. The conclusion is that the Tasikmalaya TP has five core businesses and its mission is to become a center for dissemination, technology transfer, and agribusiness incubator. The TP was present in quadrant I, meaning that aggressive strategies were recommended. There were four future management options and independent management was considered as the most appropriate. Its role should be more supported by middle- to long-term strategies and a well prepared legal system. Policy implications are discussed.

Keywords: Exit Strategy, Regional Development, SWOT Analysis, Tasikmalaya District, Techno Park

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1. Introduction

The sixth of the 2014-2019 Indonesian national development agendas - called Nawacita (Sanskrit term, meaning nine goals) - under the President Joko Widodo administration is to increase productivity and competitiveness, one of which is by the establishment of Techno Parks (TPs) (Kusharsanto & Pradita, 2016). TPs are incubators to encourage regional innovation and competitiveness in increasing the contributions of science and technology to economic development. TPs can also be media for creating a conducive environment for technopreneurship in local communities. The development of the Techno Parks supports the achievement of the Sustainable Development Goals (SDGs). The eighth goal of the SDGs is to promote sustained, inclusive, and sustainable economic growth, full and productive employment, and decent work for all.

As stated in the National Middle-Term Development Plan (Rencana Pembangunan Jangka Menengah Nasional/RPJMN) in 2015, the government had targeted to develop 100 TPs (Kusharsanto & Praadita, 2016). However, over the period from 2015-2019, the National Government had only developed 22 Techno Parks across the country. The low number of TPs is due to limitations on many aspects such as funding, time, infrastructure, and urgent needs at each ministry or non-ministry government institution. The 22 TPs were established by three Ministries and four National Institutions. They are the Ministry of Industry/Kemenperin (5), Ministry of Research, Technology, and Higher Education/Kemenristek Dikti (4), Ministry of Agriculture/Kementan (1), National Nuclear Energy Agency/BATAN (4), Agency for Assessment and Application of Technology/BPPT (6), and Indonesian Institute of Sciences/LIPI (2). The projects had been developed at three levels: Science Techno Parks (STPs) at the national level, Science Parks (SPs) at the provincial level, and Techno Park (TPs) at the city or regency level (Asmara et al., 2018).

The Tasikmalaya TP is one of the TPs that had been developed by the Indonesian Institute of Sciences (LIPI) in 2015, as LIPI had been conducting many studies in the region for years, especially in the field of animal husbandry and dairy products. The project will be terminated in 2019 and the Techno Park will be acquired by the Local Government.

However, the exit strategy that contributes to sustainable development has been rarely considered throughout the history of development studies and practice. An exit strategy is important and critical as it is a specific plan describing how a program is intended to be withdrawn from a region while assuring that the achievement of development goals is not jeopardized and that further progress toward these goals is made. The goal is to assure sustainability of impacts and activities after the project has been withdrawn.

This paper examines the concept of exit strategies within the context of a case study of the LIPI-assisted Tasikmalaya TP project from 2015-2019. It address two questions: (1) how the TP project in Tasikmalaya has been executed by LIPI throughout the period, and (2) what is the recommended exit strategy for regional policy makers after project termination. Moreover, it offers decisive perspectives on factors responsible for sustaining the project.

2. Methodology

To overview the implementation of Tasikmalaya TP activities, an internal-external analysis was conducted. In portraying the internal condition, Value chain analysis was utilized to explore the internal activities of a business in an effort to understand costs, to locate the activities that add the most value, and to differentiate from the competition (Porter, 2001). The VRIO method was also employed to identify and evaluate resources in the institution (Cardeal & Antonio, 2012). In scrutinizing external circumstances, PEST analysis was utilized to identify significant changes in the Political, Economic, Social, and Technological landscapes (Gupta, A, 2013). Porter's five forces analysis was also utilized to identify and analyze the five competitive forces that shape a business and to determine its weaknesses and strengths (Porter, 2008).

Furthermore, in formulating exit strategies, SWOT analysis was utilized (Pickton & Wright, 1998) within the Quantitative Strategic Planning Matrix (QSPM), which is employed for comparing feasible alternative actions (David, 2017). SWOT analysis provides the basic frame within which is performed analyses of decision situations (Kangas et al., 2003). It should lead to a balanced view of the technique and yield ideas for necessary theory building. (Helms & Nixon, 2010). This analysis is the highest ranked set of tools or techniques of analysis used by firms in UK. (Glaister & Falshaw, 1999).

2.1 Data Description

The data as described in Table 1 were collected from July to September 2018, consisting of primary data collected from competent stakeholders and the regency government staff by semi-structured and deep interviews using the purposive sampling method. Secondary data were collected from relevant institutions, which are LIPI, the Regency Government Secretariat (Sekretariat Daerah), the Regional Development Planning Agency (Bappeda), the Department of Agriculture, Department of Industry and Trade, and the Department of Cooperatives and SMEs.

Table 1 Data Description

Data	Type	Character	Technique
PRELIMINARY DATA			
Vision, mission, and general condition of the Tasikmalaya TP	Secondary	Qualitative	Literature study
INTERNAL ACTIVITIES			
Material procurement & technology provision	Primary	Qualitative	In-depth interview
Product & product processing	Primary	Qualitative	In-depth interview
Marketing process	Primary	Qualitative	In-depth interview
Customer service	Primary	Qualitative	In-depth interview
Human resources & administrative service	Primary	Qualitative	In-depth interview
RESOURCE OR CAPABILITY			
Value	Primary	Qualitative	Semi-structured question
Rareness	Primary	Qualitative	Semi-structured question
Inimitability	Primary	Qualitative	Semi-structured question
Organization	Primary	Qualitative	Semi-structured question
ENVIRONMENTAL SHAPE			
Political landscape	Primary & Secondary	Qualitative	Interview & Literature study
Economic landscape	Primary & Secondary	Qualitative	Interview & Literature study
Social landscape	Primary & Secondary	Qualitative	Interview & Literature study
Technological landscape	Primary & Secondary	Qualitative	Interview & Literature study
COMPETITIVE SOURCE			
Competitive rivalry	Primary & Secondary	Qualitative	Interview & Literature study
Threat of new entrants	Primary & Secondary	Qualitative	Interview & Literature study
Supply power	Primary & Secondary	Qualitative	Interview & Literature study
Buyer power	Primary & Secondary	Qualitative	Interview & Literature study
Threat of substitution	Primary & Secondary	Qualitative	Interview & Literature study

Source: Worksheet Preparation

2.2 Designs

The logical framework in this paper is depicted in Figure 1, showing the research flowchart with the methods and instruments used at each stage. The first step was the identification of the vision, mission, and policies of the Tasikmalaya TP as the research background and problem statement, which were obtained by a series of literature studies, observations, and interviews. The second step was internal assessment by using the Supply Value Chain method to identify the main activities of the Tasikmalaya TP based on the product and service processing stages. This step was carried out by in-depth interviews with the Tasikmalaya TP employees and LIPI liaison officers. Furthermore, with the questionnaire instrument that had been tested for validity and reliability, semi-structured interviews were conducted to identify internal strengths and weaknesses in running the business cycle by the weighting aspects of Value, Rareness, Imitability, and Organization (the VRIO method).

The next step was external assessment by conducting PEST analysis to capture the political, economic, social, and technological outlooks that shape the business climate. By performing similar data collection to the internal assessment process, the next phase was Porter’s five forces analysis to determine external opportunities and threats. The quadrant position of Tasikmalaya TP was defined by the intersection of the calculated Total Weighted Internal Factors Evaluation (IFE) and Total Weighted External Factors Evaluation (EFE). The results were discussed in a Focus Group Discussion (FGD) to conduct SWOT analysis in order to design alternatives of exit strategies.

The last step was calculating the Total Attractive Scores (TAS) to obtain a Quantitative Strategic Planning Matrix (QSPM) for evaluating Tasikmalaya TP exit strategy options for LIPI post-management assistance.

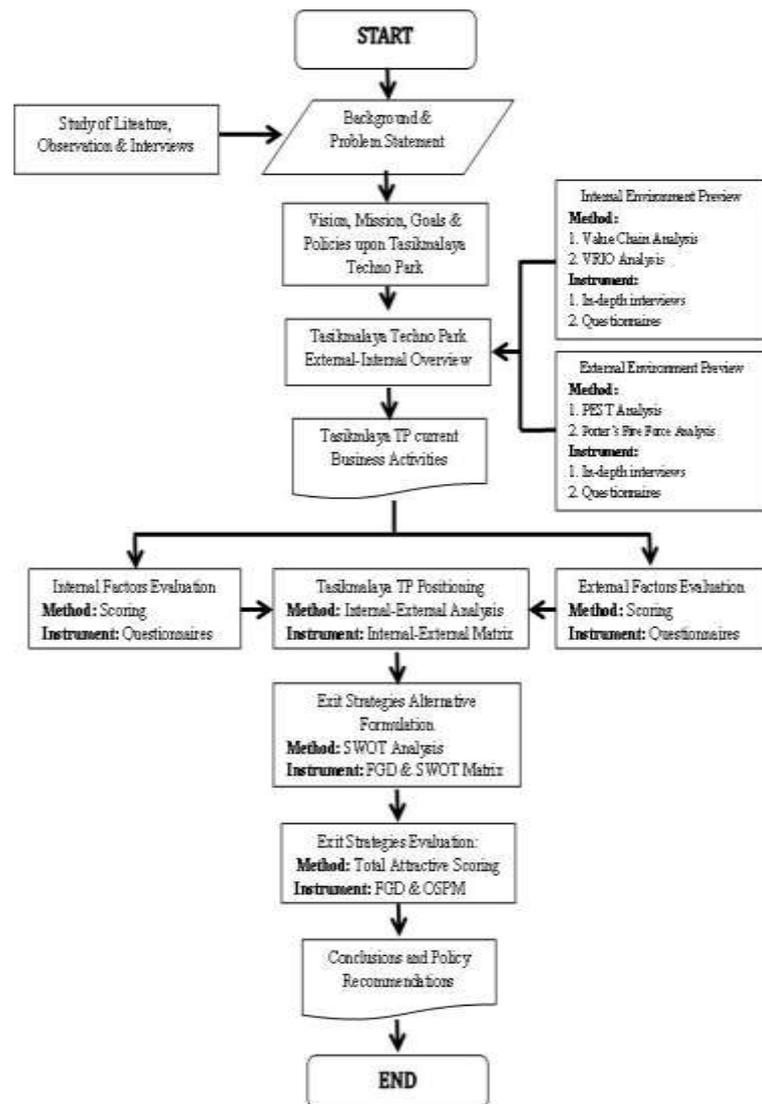


Figure 1. Design and Logical Framework Source: Research Design

2.3 Procedures

In this study, primary data were collected by interviews while secondary data were obtained by literature studies. Preliminary data were used for the background of the study and the following analysis. Data of internal activities for the supply value chain analysis and Resource or Capability data for the VRIO analysis were integrated into a matrix, as represented in Table 2, by yes/no questions in order to define the competitive implication of each resource or capability. Further, economic performance and SWOT categories were pulled out into the Internal Overview Matrix.

Resources or Capability	V	R	I	O	Competitive Implications	Economic Performance	SWOT Category
Material Procurement & Technology Provision	Yes	No	-	-	Competitive Parity	Normal	Strength or weakness
Convinent technology used	Yes	No	-	-	Competitive Parity	Normal	Strength or weakness
Complete production equipment	Yes	No	-	-	Competitive Parity	Normal	Strength or weakness
Handily raw materials	Yes	No	-	-	Competitive Parity	Normal	Strength or weakness
Easy equipment maintenance	Yes	No	-	-	Competitive Parity	Normal	Strength or weakness

Resources or Capability	V	R	I	O	Competitive Implications	Economic Performance	SWOT Category
Adequate Production Place	Yes	Yes	Yes	Yes	Sustained Competitive Advantage	Above normal	Strength & long-term competence
Product & Product Processing Good quality products*	Yes	Yes	No	-	Temporary Competitive Advantage	Above Normal	Strength and Special Competence
Un-copyright brands	No	No	No	No	Competitive disadvantage	Below Normal	Weakness
Good packaging	Yes	No	-	-	Competitive Parity	Normal	Strength or weaknes
Un-certified** products	No	No	No	No	Competitive disadvantage	Below Normal	Weakness
Local raw materials	Yes	No	-	Yes/No	Competitive Parity	Normal	Strength or weaknes
Marketing Domestic & local market	Yes	No	-	-	Competitive Parity	Normal	Strength or weaknes
Generic customer, no segmentation	Yes	Yes	No	-	Temporary Competitive Advantage	Above Normal	Strength and Special Competence
intermittent customer care	No	No	No	No	Competitive disadvantage	Below Normal	Weakness
Competitive selling price	Yes	Yes	Yes	Yes	Sustained Competitive Advantage	Above normal	Strength & long-term competence
Costumer Service as agrobusiness Incubator	Yes	Yes	Yes	Yes	Sustained Competitive Advantage	Above normal	Strength & long-term competence
Insufficient infrastructure	No	No	No	No	Competitive disadvantage	Below Normal	Weakness
Limited tenant	No	No	No	No	Competitive disadvantage	Below Normal	Weakness
Little local government support	No	No	No	No	Competitive disadvantage	Below Normal	Weakness
Human Resources & Administration service Experienced researchers	Yes	Yes	Yes	Yes	Sustained Competitive Advantage	Above normal	Strength & long-term competence
Non-permanent field officer	Yes	No	-	-	Competitive Parity	Normal	Strength or weaknes

Note: * Dairy Product (Yoghurt), Mushroom & Organic Fertilizer

** Indonesian National Standard (SNI) & Halal Certification

Source: Data Analysis

By using the questionnaire that had been tested for validity and reliability, the environmental shape data for PEST analysis were assessed to define the degree of importance. Likewise, the competitive force data for Porter’s five forces analysis were rated by their degree of power. The two analyses were then summarized into the External Overview Matrix. The next step was Internal and External Factor Evaluation to conduct SWOT analysis in a Focus Group Discussion (FGD). In the FGD, there were debates on exit strategy formulation. In the end, the exit strategy options were rated by their total attractive scores and each future management option was compared by the aspects of legal bases, expenditure, revenue, debts, and investment.

3. Results and Discussion

The Tasikmalaya TP was developed by LIPI through the Biology Research Center in 2015. Built on 3.5 hectares of land provided by the regency government, it runs five core businesses: 1) an agribusiness training center, 2) organic farming research and development (specifically pilot organic vegetable and mushroom cultivation, and organic fertilizer production and laboratory), 3) a pilot dairy product center, 4) an agroforestry development center, and 5) a pilot post-harvest center (including product branding and packaging).

Organized by a coordinator, eight researchers, and three administrative staff, and supported financially by 9.5 billion IDR from the regency government budget, the Tasikmalaya TP operates a green house, a post-harvest building, a mushroom production plant, a fertilizer laboratory, a cowshed, a milk

processing plant, a training center, and a fully furnished office. Its mission is to become a center for dissemination, technology transfer, and agribusiness incubator.

3.1 Internal Overview

In running its business, based on value chain analysis, the identified main activities of Tasikmalaya TP are material procurement & technology provision, product processing, marketing, and customer or client services. With the subsequent VRIO method, the six elements of strengths and weaknesses were determined in Table 3.

Table 3 implies that as a leading institution in science and technology, LIPI can develop the Tasikmalaya TP as an agribusiness incubator equipped with exhaustive and applicable technology. Supported by abundant local resources for provision of raw materials, the TP can produce good quality products at competitive selling prices.

Table 3: Overview of Internal Strengths and Weakness

No	Strengths	No	Weaknesses
1	Agribusiness Incubator	1	Insufficient infrastructure
2	Complete and easy maintenance of equipment	2	Little local government support
3	Usage of convenient technology	3	Non-permanent field officers
4	Local raw materials	4	Intermittent customer care
5	Good-quality products	5	Non-certified products
6	Competitive selling prices	6	Limited tenants

Source: Data Analysis

Despite those strong points, there were still weak points, encompassing stagnant infrastructure provision and little government support that lead to insufficient infrastructure, non-certified products (Indonesian National Standard/SNI & halal certification), and limited tenants. In the human resource aspect, Tasikmalaya TP still employs non-permanent officers that leads to suboptimal marketing and poor customer care. Those strengths and weaknesses were then evaluated by a scoring method to result in an Internal Factors Evaluation (IFE) Matrix as presented in Table 4. It was discovered that the usage of convenient technology applied was the greatest strength, while infrastructure condition was the greatest weakness.

Table 4: Internal Factors Evaluation (IFE) Matrix

No	Internal Factors	Weight	Rating	Score
STRENGTHS				
1	Usage of convenient technology	0.098	3.634	0.358
2	Complete and easy maintenance of equipment	0.091	3.634	0.330
3	Local raw materials	0.088	2.884	0.255
4	Good-quality products	0.092	3.634	0.335
5	Agribusiness incubator	0.093	2.884	0.270
6	Competitive selling prices	0.082	3.000	0.246
WEAKNESSES				
1	Insufficient infrastructure	0.080	2.884	0.229
2	Little local government support	0.080	2.289	0.195
3	Limited tenants	0.074	2.621	0.195
4	Non-certified products	0.073	2.080	0.152
5	Non-permanent field officers	0.069	2.000	0.139
6	Intermittent customer care	0.078	1.587	0.124

Source: Data Analysis

3.2 External Overview

The need to address societal issues within market activities pressures organizations to incorporate the social environment as an operational variable (Krzyżanowska & Tkaczyk, 2015). The external shape of Tasikmalaya TP encompasses political, economic, social, and technological environments. As described in Table 4, both the national and local governments have political will in TP development, which is shown by the signing of a Memorandum of Understanding (MoU) between LIPI and the Tasikmalaya Regency Government for Tasikmalaya TP management. However, political uncertainties at the national, regional, and local levels lead to a discontinuous development policy.

In the perspective of economics, Tasikmalaya Regency provides supporting natural resources for the TP business, but on the other hand, competition for high-quality raw materials and strict selling prices takes place. The data shows that annual market share increased gradually due to the large population, but the customer characteristic tends to be of a low product loyalty. The characteristic of the local community is that there is native entrepreneurship that on one hand can endorse the TP business, but on the other hand can create competition for product innovation and marketing.

Geographically, the Tasikmalaya TP has a strategic position as it is near to an agricultural zone (natural resources), having the advantage of bordering the City of Tasikmalaya as a market and East Parahyangan as a center of trading and economic activities. The geographic position can also be a disadvantage as it leads to easy availability of substitute products from competitors. Other identified opportunities and threats were availability of advanced technologies as a supporting factor and land degradation or conversion as a threat to business sustainability.

Table 5: Overview of External Opportunities and Threats

No	Opportunities	No	Threats
1	MoU between LIPI and Tasikmalaya Government for Tasikmalaya Techno Park Management	1	Discontinuous development policy due to political uncertainty
2	Natural resources supporting agribusiness	2	Competition for high-quality raw materials and strict selling prices
3	Annual increase of market share	3	Low customer loyalty
4	Local community entrepreneurship	4	Competition for product innovation and marketing
5	Strategic location	5	Easy availability of substitute products
6	Technology and innovation availability	6	Land degradation and land conversion

Source: Data Analysis

By using a scoring method to evaluate external opportunities and threats, the result was the External Factors Evaluation (EFE) Matrix as in Table 6. It was determined that the highest scores were for political aspects for both opportunities and threats, while the lowest were for economic aspects.

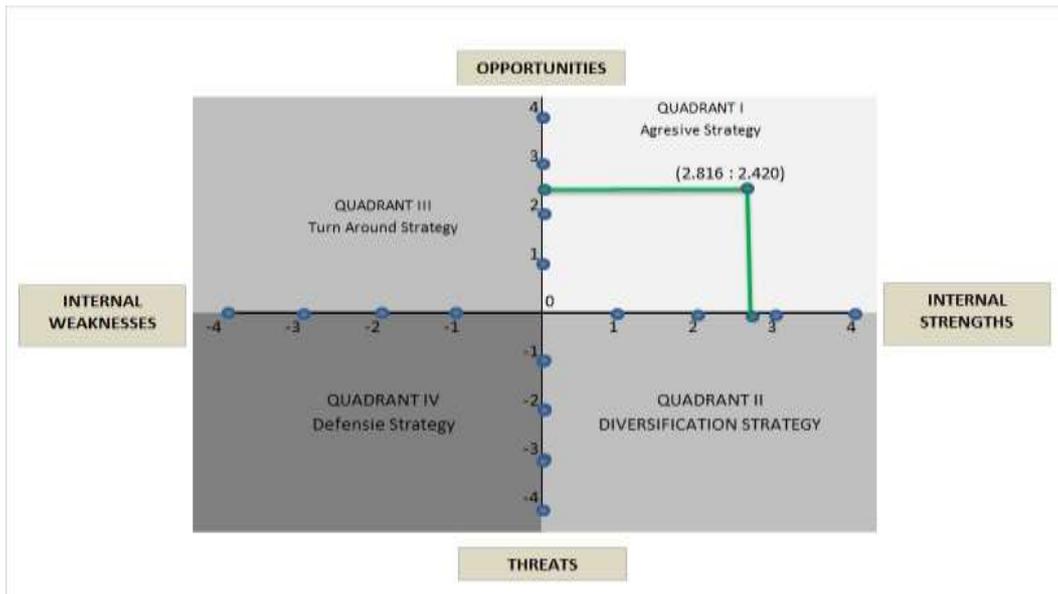
Table 6: External Factors Evaluation (EFE) Matrix

No	External Factors	Weight	Rating	Score
OPPORTUNITIES				
1	MoU between LIPI and Tasikmalaya Government for Tasikmalaya Techno Park Management	0.096	3.302	0.317
2	Natural resources supporting agribusiness	0.090	2.884	0.259
3	Strategic location	0.093	3.000	0.280
4	Technology and innovation availability	0.110	3.634	0.399
5	Annual increase of market share	0.086	2.621	0.225
6	Local community entrepreneurship	0.092	2.621	0.242
THREATS				
1	Discontinuous development policy due to political uncertainty	0.087	1.587	0.138
2	Land degradation and land conversion	0.062	1.817	0.112
3	Competition for product innovation and marketing	0.086	1.817	0.156
4	Competition for raw materials and strict selling prices	0.087	2.000	0.157
5	Easy availability of substitute products	0.058	1.260	0.073
6	Low customer loyalty	0.62	1.000	0.062

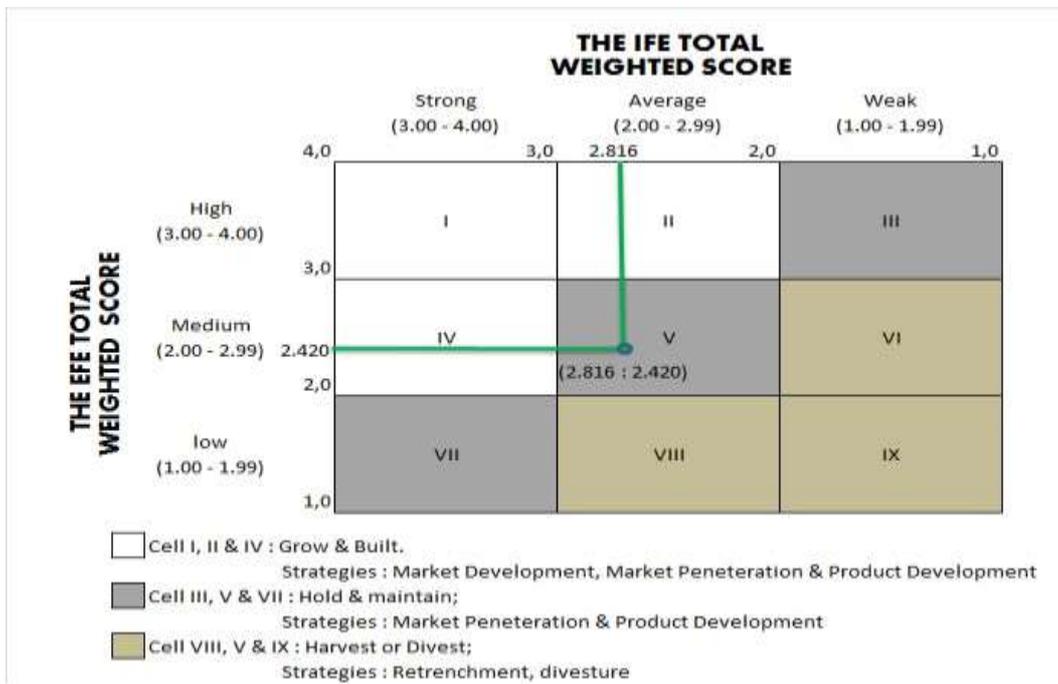
Source: Data Analysis

3.3 Tasikmalaya TP Positioning

The IFE Matrix (Table 4) and EFE Matrix (Table 6) were combined to define the positioning of the Tasikmalaya TP. It was found that the TP is present in quadrant I with an internal strength score of 2.816 and opportunity score of 2.420, implying that S-O or aggressive strategies are the most appropriate, as shown in Figure 2.



The IFE total weight score (2.816) signifies that Tasikmalaya TP has an average internal strength; likewise, the EFE total weight score (2.420) is a sign that there are medium external opportunities that shape the TP environment. The intersection of those scores places Tasikmalaya TP in cell V, pointing to hold-and-maintain strategies as the most appropriate for future development. Figure 3 shows the further positioning of the Tasikmalaya TP, delineating specific proper strategies such as market penetration and product development. The subsequent definition of the proper strategy for future TP development, exit strategy formulation, and evaluation for future Tasikmalaya TP operators are elaborated in the following subsection.



3.4 Exit Strategy Formulation

In formulating a suitable exit strategy, a long list of strategy options were discussed by competent stakeholders in a Focus Group Discussion. The SWOT analysis matrix as displayed in Table 7 combines Table 4 and Table 6 in order to address S-O, W-O, S-T, and W-T strategies.

Table 7: SWOT Analysis Matrix

INTERNAL FACTORS EXTERNAL FACTORS	STRENGTHS	WEAKNESSES
	S1. Convinient technology used S2. Complete and easy maintenance of equipment S3. Local raw materials S.4 Good quality products S.5 as agribusiness Incubator S.6 Competitive selling prices	W.1 Insufficient infrastructure W.2 Little local government support W.3 Limited tenant W.4 Un-certified products W.5 Non-permanent field officer W.6 intermittent customer care
OPPORTUNITIES	S-O STRATEGIES	W-O STRATEGIES
O.1 MOU between LIPI and Tasikmalaya Government upon Tasikmalaya Techno Park Management O.2 natural resources supporting agriculture O.3 strategic location O.4 Technology and innovation availability O.5 Annual increase of market share O.6 Local community entrepreneurship	Implementation of MOU as the government support (S1, O1) Good Agriculture Practise (GAP) Implementation from on-farm to off-farm (S1, O2) Agro-tourism & edu-tourism development (S4, O3) Agribusiness incubator revitalization (S5, O4) Intensive promotion (S4, O5) Agribusiness training centre revitalization (S6, O6)	Infrastructures provision and maintenance (W1, O1) Local government programs corresponding with TP activities (W2, O2) independent and professional management formation (W2, O1) Business partnership with private sector / business actors for investment and market development (W3, O3)
THREATS	S-T STRATEGIES	W – T STRATEGIES
T.1 Discontinuous development policy due to political uncertainty T.2 land degradation and land conversion T.3 Competition for product innovation and marketing T.4 Competition for raw materials and strict selling price competition T.5 Ease for substitute products T.6 Low costumer loyalty	Partnership with research institutions for applied technology invention and dissemination (S3, T1) Partnership with research institutions for applied technology invention and dissemination (S3, T2) Partnership with research institutions for applied technology invention and dissemination (S3, T3) Partnership with local communities (S3,T4) Intensive Promotion (S4,T5) customer service improvement (S5,T6)	Intensive promotion (W6, T4) Sustainable, ecological and professional management (W5,T2) Providing roadmap and business plans (W3,T1) Segmenting and differentiating products (W6,T5) independent and professional management formation (W2,T1)

Source: FGD 2018

Next, the long list of strategies in Table 7 were then separated into Generic Strategy Tiers to shorten the list in order to formulate the appropriate exit strategy. Table 8 clusters the strategy formula defined in the SWOT analysis matrix into the three categories of corporation strategy, business strategy, and functional strategy.

Table 8: Exit Strategy Formulation

Generic Strategy Tiers	Strategy Formulation
Forward & Backward Integration	Good Agriculture Practise (GAP) Implementation from on-farm to off-farm (S1, O2)
Market Penetration	Intensive Promotion (S4,O5). (S4, T5), (W6, T4)
Market Development	Agro-tourism & edu-tourism development (S4, O3) Agrobusiness incubator revitalization (S5, O4)
Lead overall cost	Partnership with research institutions for applied technology invention and dissemination (S3, T3)
Producing and operating strategy	Segmenting and differentiating products (W6,T5) Partnership with local communities (S3,T4) Infasturucters provision and maintenance (W1, O1) Implementation of MoU as the government support (S1, O1) Providing roadmap and business plans (W3,T1) independent and professional management formation (W2, O1) independent and professional management formation (W2,T1) Sustainable, ecological and professional management (W5,T2)

Source: FGD 2018

Enright (2001) found that small enterprises usually utilized intuitive approaches in both market orientation and product development. Traditional concepts of sales management, account management, and customer service are being overtaken by initiatives such as customer business development, strategic

sales organization, and strategic customer management (Piercy & Lane, 2009) Greenly (1994) highlights the dichotomy between strategic planning as a determinant of performance and strategic planning as a process to improve the effectiveness of management. This study used scientific approaches in order to define a more proper strategy option.

3.5 Exit Strategy Evaluation

In the Focus Group Discussion, four options were obtained regarding the future of Tasikmalaya TP management, differentiated among aspects of legal bases, revenue, expenditure, debts, and investment. The first option is that the Tasikmalaya TP would be operated by a Local Government Institution (Organisasi Perangkat Daerah/OPD). The TP may be operated by the Department of Agriculture (Dinas Pertanian), or the Department of Industry and Trade (Dinas Perindustrian dan Perdagangan). Inclusion of TP activities as a part of an OPD functions requires local parliament legalization by a Regional Regulation as the legal basis. In this setting, the Tasikmalaya TP would be a part of public service. An OPD will never be locked out of capital as it utilizes the government budget for initial capital and business operations. However, this option would result in the least independent management, as expenditures would be limited by a strict and rigid government budget and investment for business development will never occur.

Another option would be to become a public service agency (Badan Layanan Umum/BLU). A BLU is an ad hoc government institution that is formed to provide public goods or services based on the principles of efficiency and productivity without being profit-oriented. A BLU is more professional than an OPD in terms of service delivery and management but still demands government budget for operations, and expenditures must adhere to government rules. A BLU can be established by a Regent Decree without approval from the Local Parliament. The hybrid management model is another alternative exit strategy for the Tasikmalaya TP similar to a BLU but is more business-oriented, as the expenditures are based on business calculations. However, some government employees are still required to be present in the board of directors.

The last choice is to become a Regionally-Owned Enterprise (Badan Usaha Milik Daerah/BUMD), which is the most independent institution compared to the others as it applies business calculations for the aspects of revenue, expenditures, debts, and investment. However, a BUMD needs a well-prepared business plan and local parliament approval for establishment. Table 9 elaborates the four alternative circumstances that were discussed in the FGD.

Table 9: Forthcoming Tasikmaya Management Comparison Matrix

Aspects	Local Government Institution (OPD)	Regional Government (BLU)	Public Service Agency (BLU)	Hybrid Management Model	Regional-State-Owned Enterprise (BUMD)
Legal bases	The Regional Regulation As the Regional Government Income Government budget as an investment (not a revenue) Government budget is mandatory	Regional Government (BLU) As business income Government budget as a revenue Government budget is demanded	The Regent's Decree Government budget as a revenue Government budget is demanded	The Regent's Decree As business income Government budget as a revenue Government budget could be an one an income sources	The Regional Regulation As business income Government budget as an equity capital Government budget is not conditional
Expenditure	Based on ceiling budget	May exceed the ceiling budget (conditional)	May be in a long-term dept on the Regent's endorsement	Based on business calculation	Based on business calculation
Debts	May not be in a debt	May perform a long-term investment on the Regent's endorsement	May perform a long-term investment on the Regent's endorsement	Based on business calculation	Based on business calculation
Investment	Prohibited from investing	May perform a long-term investment on the Regent's endorsement	May perform a long-term investment on the Regent's endorsement	Based on business calculation	Based on business calculation

Source: FGD 2018

Based on the organization characteristics in Table 9, it is implied that the management options closer to the right side of the table indicate a more independent and more professional organization.

In addition to the qualitative approach, the FGD also employed a quantitative method to measure the appropriateness of strategy options. The Total Attractive Score (TAS) of each strategy is provided in a Quantitative Strategic Planning Matrix (QSPM), which is shown in Table 10.

Table 10: Quantitative Strategic Planning Matrix

No	Strategy option	Total Attractive Score
1	independent and professional management formation (W2, O1) (W2,T1)	7.19
2	Sustainable, ecological and professional management (W5,T2)	7.17
3	Providing roadmap and business plans (W3,T1)	6.81
4	Intensive Promotion (S4,O5). (S4, T5), (W6, T4)	6.77
5	Implementation of MoU as the government support (S1, O1)	6.24
6	Infasturucters provision and maintenance (W1, O1)	6.12
7	Local government programs corresponding with TP activities (W2, O2)	5.98
8	Partnership with research institutions for applied technology invention and dissemination (S3, T1), (S3,T2), (S3, T3)	5.94
9	Partnership with local communities (S3,T4)	5.85
10	Business partnership with private sector / business actors for investment and market development (W3, O3)	5.80
11	Agribisniss training centre revitalization (S6, O6)	5.78
12	Good Agriculture Practise (GAP) Implementation from on-farm to off-farm (S1, O2)	5.55
13	Agro-tourism & edu-tourism development (S4, O3)	5.52
14	Agrobusiness incubator revitalization (S5, O4)	5.47
15	Segmenting and differentiating products (W6,T5)	5.45
16	customer service improvement (S5,T6)	4.15

Source: Data Processing

The most attractive score in the matrix is recommended for determining the business development of the Tasikmalaya TP as well as choosing a future TP management organization. The study is concluded with encouragement for the local government to establish an independent and professional institution with application of aggressive business strategies.

4. Conclusion

The current condition of the Tasikmalaya TP is that it has five core businesses and its mission is to become a center for dissemination, technology transfer, and agribusiness incubator. The TP is present in quadrant I by SWOT analysis, recommending the use of aggressive strategies such as market penetration and product development. Market penetration can be performed by intensive promotion, while product development can be implemented by agribusiness incubator revitalization or the development of agro- tourism and edu-tourism on the site.

There are four future management options and independent management is considered as the most appropriate and recommended exit strategy. It may become a Regionally-Owned Enterprise (BUMD) or have a hybrid management. One of the success stories in Techno Park hybrid management is that of the Samosir Techno Park. The role of the future management of the Tasikmalaya TP should be more supported by middle- to long-term strategies and a well prepared legal system.

As legal system preparation for a BUMD establishment takes a couple of years, it is recommended to apply a transitional management for Tasikmalaya TP in 2020 and 2021. When a Regional Regulation (Peraturan Daerah/Perda) for the establishment of the BUMD Tasikmalaya TP is proposed to be approved by the local parliament, the local budget for the most appropriate OPD for taking over the TP management would be needed in the transitional years. Moreover, revision of the Strategic Plan (Renstra SKPD) and annual work plan (RKPD) of the OPD is concomitantly required.

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