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Business Strategy to Improve Business Incubation Services for Science Techno Park

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ABSTRACT: Science Techno Park is a facility in the form of an area specially prepared to initiate and flow knowledge and technology between R&D institutions, universities and industry. STP facilitates the growth and development of innovative start-ups through incubation activities and spin off processes. The main objective of STP is to encourage economic growth through the development of innovation potential. Science Techno Park was initiated in 2014 under PT Bogor Life Science and Technology (BLST) as a holding company owned by Bogor Agricultural University (IPB).

This study aims to identify and improve the Science Techno Park business incubation services for inwall tenants and startup companies that are fostered based on the problems that occur and are expected to increase other income from the Science Techno Park business. The method used in this study uses primary data derived from quantitative and qualitative methods obtained from questionnaires and interviews with inwall tenants and startup companies that are undergoing the Science Techno Park business incubation program. Secondary data analysis uses company reports and literature from various sources.

The conceptual framework used in this study begins with an analysis of customers of Science Techno Park business incubation service. Then analyze the external environment using general environmental analysis, industry analysis, and competitor analysis. For internal environmental analysis using resources, capabilities, and core competencies. All the results of the analysis are summarized in a SWOT analysis. From the results of the analysis, the researcher provides solutions and business strategies to solve problems experienced by Science Techno Park in fostering inwall tenants and startup companies and provide business alternatives to earn other income besides business incubation services.

The strategy proposed based on research results is a strategy of business diversification and cost leadership. In addition, a functional strategy is provided to improve company performance in the area of marketing, finance, and internal management. The researcher provide implementation plans by mapping the potential users of business incubation services and the roadmap for the development of Science Techno Park to improve business incubation services and develop other business services.

KEYWORDS: Business incubation, Cost leadership, Diversification, Functional strategy, SWOT analysis, Science Techno Park.

1. INTRODUCTION

The ratio of the number of entrepreneurs in Indonesia is still small when compared to a number of other countries in Southeast Asia. Based on data from BPS-Indonesia Statistics, the ratio of the number of entrepreneurs in Indonesia is still at 3.47 percent or only about 9 million people from the total population. Even though it was up from 2016 which was 3.1 percent, the number of entrepreneurs is still far less than neighboring countries such as Singapore, Malaysia, and Thailand. Meanwhile, the number of Indonesia's workforce reached 144.01 million people in February 2022. This number reached 69.06% of the total working age population of 208.54 million people. According to the BPS-Indonesia Statistics definition, "working age population" is the population aged 15 years and over. While the "labor force" is the population of working age who is working, or has a job but is temporarily unemployed and unemployed.

This is a concern and requires the participation of many parties, not only the government but also private sector including business incubator to contribute to creating and increasing the number of entrepreneurs in Indonesia. The more the number of entrepreneurs in Indonesia, the more jobs are created and can increase national economic growth. A program or organization that offers support to a startup or firm with the goal of accelerating its growth and success is known as a business incubator. Through linkages to angel investors, governments, economic development coalitions, and other investors, this initiative will assist new start-ups in the early stages of their growth and ensure that the enterprises that are created have the funding to grow. In reality, it's feasible that the incubator itself will give a company a capital loan. This initiative helps new firms get off the ground by offering monetary

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assistance as well as support in the form of workspace, training, mentoring, and other services. Simply defined, an incubator will guide the formation of a small business with effective organizational and financial management. It is hoped that the company would operate, grow, and produce the desired profit in a sustainable manner. Over the past ten years, programs and initiatives for business incubation have been launched to varied degrees of success (Manan & Yunos, 2011).

Science Techno Park (STP) is a facility in the form of an area specially prepared for initiating and transferring knowledge and technology among Research and Development institutions, universities and industry. STP facilitates the growth and development of innovative startups through incubation and spin-off process. The main objective of STP is to promote economic growth through development innovation potential. Science Techno Park Bogor Agricultural University (STP IPB) was initiated in 2014 is under PT Bogor Life Science and Technology (BLST) as a holding company owned by Bogor Agricultural University. In January 2019, the leadership of IPB has completed the organizational change of the STP which combining STP under PT BLST (holding company) with the Business Incubator Center and Entrepreneurship Development (incuBie) under LPPM-IPB became a Directorate, namely the Directorate of Science Technology Area and Business Incubator (DKSTIB) under the coordination of the Vice Chancellor of the Field Innovation, Business and Entrepreneurship. The organizational structure of DKSTIB or Science Techno Park consists of a director and two managers, namely the Regional Manager Science Technology and Business Incubator managers and several Divisions under each manager according to its function. Science Techno Park manages an area of 3.46 hectares in Taman Kencana Bogor, Indonesia.

2. METHODOLOGY

A. Data Collection Method

1) Questionnaire

The questionnaire used in this study is a closed questionnaire because respondents only need to mark one answer that is considered correct. Respondents just need to check the box next to the answer they believe to be right, making the questionnaire employed in this study a closed questionnaire. A questionnaire, which is a list of written statements intended to elicit responses from respondents, was employed as the primary tool for gathering data for this study. Closed-ended questions with multiple choice answers, commonly referred to as restricted questions, are especially assessed using quantitative methods. In Science Techno Park IPB University, it is divided into two Sub-Directorates, namely the Science Area Sub-Directorate Technology (STP) and Business Incubator Sub-Directorate (incuBie). Because this research only focuses on their business incubator, so this sample was obtained from Business Incubator Sub-Directorate (incuBie). In the questionnaire provided to respondents, the Likert scale measuring method is utilized to examine attitudes, views, and perceptions of inside tenants regarding their satisfaction with and interests in the Science Techno Park incubation service. Following is the weighted value (score) assigned to each of the four possible replies from the list:

Table 2. 1 Likert Scale Measurement Score

Criteria	Score
Very Satisfied/Very Important	5
Satisfied/Important	4
Quite Satisfied/Quite Important	3
Not Satisfied/Not Important	2
Very Not Satisfied/Very Not Important	1

2) Interview

The interview will be conducted in a structured manner by communicating directly with one key respondents as representative from incuBie Science Techno Park. Interview was conducted to obtain facts, beliefs, feelings, desires and so on that are needed to fulfill the purpose of the study expected by researcher. Interview inquiries will be created along the incubation service subject of Science Techno Park. The questions are designed to get opinions and perceptions of inwall tenants about their satisfaction and interests towards Science Techno Park business incubation service and also explanation regarding features and suggestions for Science Techno Park as business incubator expected in the future.

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3) Supporting Data

Research data that has already been gathered and is available to researchers is referred to as supporting or secondary data. In order to increase the sample size in research projects, supporting data is often used because doing so is more efficient and quicker than creating a new resource. This final project's supporting information will be gathered from a variety of sources, including:

- Government regulation
- Books and articles
- Published journal (National and International)
- Offline and online paper
- News and media, and
- Published reports as a literature review

B. Data Analysis Method

1) Customer Analysis

To formulate a business strategy for Science Techno Park in developing its inwall tenants, we have to know inwall tenant's needs and hopes to carry out their business and remain sustainable in the future. There are 15 respondents from inwall tenants under guidance Science Techno Park were gathered to answer 15 questions aimed to know what is expected from business incubator. After questionnaire collected, then we need to analyze demography of respondents and determine what kind of incubation program and service that will satisfy needs of inwall tenants and needs to be improved by Science Techno Park in the future.

2) External Environment Analysis

The opportunities and threats that exist in the macro environment, industry, and competition are identified through external analysis. It is possible to identify factors that connect to opportunities and risks after doing an external study. An external analysis will clarify external factors from Science Techno Park's perspective as a company incubator and how they affect how the park operates. Utilizing three analyses, external influences will be analyzed using general environment, industry, and competitor analysis.

3) Internal Environment Analysis

Internal analysis is the process of examining numerous internal firm elements, both tangible and intangible, such as resources, assets, and so forth. It assists decision-makers or management in identifying growth areas and creating a business plan and workable business strategy. The goal of the internal factor analysis is to comprehend how a company's internal factors can affect its business operations. In order to maximize the company's strengths and reduce its weaknesses, internal factor analysis will be utilized to design a strategy from the identification of the company's resources and skills. Resources, capabilities, and core competencies are the foundation of competitive advantage.

Resources are bundled to create organizational capabilities. In turn, capabilities are the source of a firm's core competencies, which are the basis of establishing competitive advantages.

4) Business Market Segmentation Analysis

Some of the same characteristics used in consumer market segmentation can be used to separate business markets. Segmentation is the practice of grouping potential customers with similar demands and behaviours into a company's target market. However, business marketers can also make use of a number of additional factors. With segmenting the industrial market variables (Bonoma & Saphiro, 1983), we proposed segmenting the business market for Science Techno Park with variables shown in Table 2.2 below.

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Table 2. 2 Segmenting Industrial Market of Science Techno Park

Major Segmentation Variables for Business Markets Science Techno Park	
Demographic	
Industry	All Industries, especially in the fields of Tropical Agriculture, Food, Bioscience, and Maritime sectors
Company size	Start-up and Small-Medium Enterprises
Location	All Region in Indonesia
Operating Variables	
Technology	All Technologies, especially in the fields of Tropical Agriculture, Food, Bioscience, and Maritime sectors
User or nonuser status	Light-Medium users
Customer capabilities	Customer with many services
Purchasing Approaches	
Purchasing-function organization	Centralized purchasing organizations
Power structure	Company with engineering dominated
Nature of existing relationships	Start-up company with high desire
General purchase policies	Serve with service contracts
Purchasing criteria	Companies that seeking high quality and service
Situational Factors	
Urgency	Companies that develop gradually
Specific application	Focus on certain applications of product
Size of order	Small-Medium orders
Personal Characteristics	
Buyer-seller similarity	Company with similar value
Attitudes toward risk	Risk-avoiding customers/clients
Loyalty	Companies with high loyalty and commitment

5) Importance Performance Analysis, Customer Satisfaction Index, and GAP Analysis

To measure the relationship between business incubation service performance and inwall tenants/startup company expectations in Science Techno Park analyzed using Importance Performance Analysis (IPA). The level of satisfaction of inwall/startups tenants with business incubation services of Science Techno Park is analyzed using Customer Satisfaction Index (CSI) analysis to determine the level of satisfaction of service users as a whole. Then using GAP Analysis, we can find out the distance or difference between the performance of business incubation services and the level of satisfaction of inwall tenants/startups in Science Techno Park with these services.

Table 2. 3 Results of IPA, CSI, and GAP Analysis

Respondent	MIS	MSS	GAP	WF	WS
Rep-1	5,00	4,47	-0,53	7,55	33,74
Rep-2	4,33	4,53	0,20	6,55	29,24
Rep-3	3,93	3,40	-0,53	5,94	26,54
Rep-4	4,07	3,87	-0,20	6,14	27,44
Rep-5	4,07	4,40	0,33	6,14	27,44
Rep-6	5,00	4,27	-0,73	7,55	33,74
Rep-7	4,93	4,73	-0,20	7,45	33,29
Rep-8	4,00	4,00	0,00	6,04	26,99
Rep-9	4,80	4,20	-0,60	7,25	32,39

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Rep-10	4,00	4,00	0,00	6,04	26,99
Rep-11	4,80	4,73	-0,07	7,25	32,39
Rep-12	4,60	4,60	0,00	6,95	31,04
Rep-13	4,07	4,00	-0,07	6,14	27,44
Rep-14	3,60	3,67	0,07	5,44	24,29
Rep-15	5,00	4,67	-0,33	7,55	33,74
Total	**66,20**	**63,53**		**WT**	**446,67**
Mean	**8,28**	**7,94**		**CSI**	**89,33**

Based on the table above, it can be seen that there are attributes that have negative GAP values, which means that there is still a gap or difference in the performance of business incubation services with expectations that have not been fulfilled by inwall tenants/startups. From these data, further analysis is needed to determine the priority scale in the improvement effort of each existing attribute, while the way to determine the priority scale with existing improvements is to use the Importance Performance Analysis (IPA) method.

Calculation results of the Customer Satisfaction Index (CSI), it is known that the value of CSI resulting from this research is 89.33%. Based on the CSI criteria table, this value is categorized as "Very Satisfied" because the index value is 80% -100%. This shows that the satisfaction of users of business incubation services as a whole can be said to be very satisfied, which means that the service quality performance of business incubation services meets the expectations of inwall tenants/startup companies. The MIS (Mean Importance Score) score is 66.20 and the MSS (Mean Satisfaction Score) is 63. 53 with an average value of MIS (Mean Importance Score) and MSS (Mean Satisfaction Score) of 8.28 and 7.94 respectively. While the Total Weight (WT) value is 446.67.

The expectations of users of this business incubation service can be formed by past experiences, comments from colleagues, as well as services and information from Science Techno Park as the party providing business incubation services. High service user satisfaction indicates satisfaction, which is positively correlated with the potential to increase the number of new inwall tenants/startup companies to use business incubation services from Science Techno Park in the future. as well as services and information from Science Techno Park as the party providing business incubation services. High service user satisfaction indicates satisfaction, which is positively correlated with the potential for an increasing number of new inwall tenants/startup companies to use business incubation services from Science Techno Park in the future. as well as services and information from Science Techno Park as the party providing business incubation services. High service user satisfaction indicates satisfaction, which is positively correlated with the potential for an increasing number of new inwall tenants/startup companies to use business incubation services from Science Techno Park in the future.

6) SWOT Analysis

SWOT analysis is a framework that enables the synthesis of information from internal assessments of a company's strengths and weaknesses as well as assessments of external opportunities and threats (Rothaermel, 2019). The company must take into account the skills and resources needed to take advantage of outside opportunities and threat reduction. Based on this framework, Science Techno Park must do a SWOT analysis in order to understand where they presently are and how to deal with any risks in the future that could prevent them from achieving their goals. Key respondents from Science Techno Park are observed and interviewed as part of the SWOT analysis.

A. Strengths

- Management Team
  Science Techno Park has management team consist of academician and researcher which have an excellent qualifications and abilities in their field of performance.
- Reputation
  Bogor Agricultural University as stakeholder of Science Techno Park has excellent reputation as one of the best universities in Indonesia in creating new innovations and entrepreneurs.
- Alumni

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Bogor Agricultural University alumni has good reputation in industrial sectors because of their working performance and work ethic.

- Facilities and Infrastructure
  Science Techno Park has adequate facilities and infrastructure in providing the best business incubation services.
- Track Record
  Science Techno Park is the pioneer and known as one of the best university business incubators in Indonesia which has created many innovations in the field of science and technology and created many new entrepreneurs.

B. Weaknesses

- Finance
  Science Techno Park is still not financially independent due to the difficulty of collaborating with the industrial sectors and also lack of funding or grant from stakeholders.

C. Opportunities

- Start-up Growth
  Indonesia is seeing an increase in the number of start-ups, and the government is supporting this trend via regulations and programs.

D. Threats

- Another business incubators
  There are already several universities establishing their own business incubator such as Universitas Indonesia, Bina Nusantara University, etc. There are also private incubators has business incubation service in Indonesia such as GEPI, Skystar Ventures, Glints, etc.

Table 2. 4 SWOT Analysis of Science Techno Park

STRENGTH	**WEAKNESSES**
Excellent researchers and staff **Strategic location in the center of Bogor City** **Adequate and potential regional infrastructure** **Collaboration with innovators and investors** **Government support in facilities and infrastructure**	Lack of funding from institutions Lack of industrial cooperation mechanism There isn't collaboration with the local government
OPPORTUNITIES	**THREATS**
Industrial base in tropical agriculture, bioscience, and marine sectors **Government programs in the growth of SMEs and startups** **Have potential tenants**	Legal and regulatory framework for STP management The number of industries or STP with similar services STP organizational change The Rapid change of technology

3. RESULT AND DISCUSSION

In accordance with business problems of Science Techno Park business incubation services obtained from data, External Analysis (general environment analysis, industry analysis, competitor analysis), Internal Analysis (resources, capabilities, value chain analysis), from the results of the SWOT Analysis conducted. Then Importance Performance, Customer Satisfaction, and GAP Analysis to determine the level of interest and satisfaction of inwall tenants towards Science Techno Park business incubation services. Then the author obtain business solution consists of corporate-level strategy, business-level strategy, and functional strategy. Furthermore, the author conducted implementation plan and justification to improve business incubation services in develop inwall tenants and start-up companies for Science Techno Park.

A. Corporate Level Strategy

A corporate-level strategy describes the measures a business takes to gain a competitive edge through the choice and management of numerous businesses that are involved in rivalry in diverse product marketplaces. The primary goal of a corporation's

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corporate-level diversification strategy is value enhancement. The degree of diversity and relationships between and within the businesses of diverse organizations vary.

Science Techno Park has to pursue Moderate to High Levels of Diversification in light of the amount and types of diversification discussed above because it generates more than 30% of its revenue from sources other than its dominating industry. Additionally, fewer than 70% of Science Techno Park's revenue originates from its leading industry, and other businesses have connections to one another in terms of technology, distribution, and products. When Science Techno Park employs a corporatelevel strategy to attain moderate to high levels of diversity, the key sources of value creation are economies of scope and market dominance. Through the sharing of resources or the transfer of skills between various businesses in the portfolio of the organization, the linked diversification corporate-level strategy aids Science Techno Park in creating value. Apart from business incubation services as its main business, Science Techno Park also need to develop several other services and become another source of income such as technology services, support services, technical services, and resources acquisition.

Table 3. 1 Addition of Service Type

Service Administration		Service Type
Business Incubation Services	1	Business Incubation Service
	2	Funding Access (Financing)
	3	Access and Network Development
Technology Services	4	Technology Design
	5	Prototyping
	6	Intellectual Property Management
	7	Legal Consultation
Support Services	8	Collaboration on the Utilization of Limited Scale Production/Pilot Plant
	9	Makloon Production
	10	Office room
	11	Tenant room
	12	Laboratory
	13	Laboratory Analysis Service
	14	Design and Packaging Studio Service
	15	Conference/Seminar/Exhibition Room
Technical Services	16	Business Training
	17	Certification Service
	18	Exhibition Gallery
	19	Business Consultation
	20	Information Provision
	21	Promotion and Marketing
	22	Partner Company Raising
Resources Acquisition	23	Funding for Supporting Institutions (Banking, Financial Institutions, Legal Firms, etc.)
	24	Fundraising for Research & Development Facilities or Institutions
	25	Recruitment of the Business Sector (SME, Startup, Industry) into STP
	26	Asset Management for Investment
	27	Third Party Cooperation

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B. Business-Level Strategy

A business-level strategy is a comprehensive and well-coordinated plan of commitments and activities used by a company to acquire a competitive edge in a particular product market by utilizing core competencies. To distinguish Science Techno Park's position from that of its rivals is the goal of a business-level strategy. Science Techno Park must choose if it wants to carry out tasks in a unique way or in a different way from its rivals if it wants to differentiate itself from its rivals. To create and protect their desired strategic position from rivals, Science Techno Park might pick between five business-level strategies. Every business-level strategy can aid Science Techno Park in creating and utilizing a specific competitive advantage within a certain competitive landscape. The ways in which Science Techno Park integrate the tasks they carry out inside each various business-level strategy show how they diverge from one another.

Due to its extensive market segmentation and low-cost base for customer value, Science Techno Park must develop a cost leadership strategy. The cost leadership strategy consists of a coordinated series of measures that are performed to create goods or services with qualities that are desired by customers at the lowest cost, as compared to that of rivals. Science Techno Park's use of the cost leadership approach enables it to provide the most common clients in the sector standardized products or services with competitive levels of differentiation. Due to its broad market and low-cost basis, Science Techno can implement several strategies in developing the business from the inwall tenants they foster, including:

1. Bridging cooperation and collaboration between inwall tenants and industries.
2. Holding business matching with private venture capital for funding/funding for fostered startups.
3. Conduct open recruitment of qualified professionals to join the top-level management structure.

C. Functional Strategy

Functional strategy includes strategies for every function within the organization which includes marketing, operations, human resources, finance, research & development, and logistics. All of these functional strategies must support each other and synergize to be able to implement business and corporate strategies. This strategy provides additions plans to organize activities in support of business strategy. Proposed functional strategy for Science Techno Park are obtained through analysis using TOWS Matrix.

Table 3. 2 TOWS Matrix of Science Techno Park

TOWS	**Strengths** 1. Excellent researchers and employees 2. Strategic location in downtown Bogor 3. Adequate and potential infrastructure 4. Collaboration with innovators 5. Government support in facilities and infrastructure	**Weaknesses** 1. Lack of funding from institutions 2. Industrial cooperation mechanism 3. There isn't cooperation with the local government
Opportunities 1. Industrial base in tropical agriculture, bioscience, and marine sectors 2. Government programs in the growth of SMEs and startups 3. Have potential tenants	**Strength – Opportunity (SO)** 1) Cooperation and synergy program between Science Techno Park with industry and other business incubators. 2) Conduct socialization and open houses to inform Science Techno Park facilities and services to industrial sectors. 3) Increase the number of researchers in the fields of agriculture, food, biosciences, and marine sectors.	**Weakness – Opportunity (WO)** 1) Improve services and makloon production to increase revenue. 2) Conducting more intensive business forums by involving the community, Small - Medium Enterprises, surrounding industries, and local governments. 3) Create operational budget schemes to be submitted to stakeholders and regional government.

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Threats 1. Legal and regulatory framework for STP management 2. The number of industries or STP with similar services 3. STP organizational change 4. The Rapid change of technology	**Strength – Threat (ST)** 1) Increase capacity of experts and management in understanding regulations and formulating schemes related to Science Techno Park management. 2) Building networks and collaborating with stakeholders (regulators, auditors) related to technology commercialization. 3) Institutional arrangement of Science Techno Park. 4) Increase the capacity of Human Resources.	**Weakness – Threat (WT)** 1) Create an extensive network of cooperation between industrial sectors and stakeholders. 2) Mapping the focus and scope of services Science Techno Park. 3) Increase marketing and branding of Science Techno Park to wider community and general public.

1. Improve Marketing Strategy

A thorough and effective marketing strategy is required for the business to expand. The company will broaden its visibility and raise its profile via effective marketing tactics. After the company becomes well-known and makes a positive impact on the targeted market, it will then result in greater sales. The marketing for Science Techno Park can be strengthened using these strategies listed below:

- Conduct socialization and open houses to inform Science Techno Park facilities and services to industrial sectors.
- Increase marketing and branding of Science Techno Park to wider community and general public.
- Conducting more intensive business forums by involving the community, Small-Medium Enterprises, surrounding industries, and local governments.

2. Improve Internal Management (Operation, Human Resources, and Research and Development)

The internal management must be improved as a further plan. It is crucial because, even if the company has the financial capacity, Science Techno Park won't be able to handle it effectively, rendering it useless. The following strategies are put into practice to accomplish internal management:

- Cooperation and synergy program between Science Techno Park with industry and other business incubators.
- Increase the number of researchers in the fields of agriculture, food, biosciences, and marine sectors.
- Increase capacity of experts and management in understanding regulations and formulating schemes related to Science Techno Park management.
- Institutional arrangement of Science Techno Park.
- Increase the capacity of Human Resources.
- Mapping the focus and scope of services Science Techno Park.
- Create an extensive network of cooperation between industrial sectors and stakeholders.

3. Upgrading Financial Resource

Science Techno Park must take a risk by expanding its company in order to become more competitive. The following strategies are used to achieve it:

- Improve services and makloon production to increase revenue.
- Create operational budget schemes to be submitted to stakeholders and regional government.
- Building networks and collaborating with stakeholders (regulators, auditors) related to technology commercialization.

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D. Mapping Potential Users of Science Techno Park Business Incubation Services

Science Techno Park is an institution established by Bogor Agricultural University (IPB), one of which functions to support Bogor Agricultural University as one of the universities with the most productive innovation results in Indonesia. Science Techno Park with a focus on activities in the fields of tropical agriculture, food, biosciences, and maritime is carried out in two categories, namely business activities and non-business activities.

Business activity is the main activity which is expected to be the main source of Science Techno Park revenues will be used to finance all activities in the Science Technology area with the type of activities between the production of:

1. limited scale (pilot plant),
2. makloon production services,
3. laboratory analysis services,
4. commercial training,
5. meeting room or seminar services,
6. guest house, and
7. restaurants.

While non-business activities are supporting activities (brand image) for Science Techno Park by continuing to prioritize the scope of science & technology and research & development with the main activity being the development of a technology business incubation program.

The technology business incubation program is one of the main functions in Science Techno Park where in carrying out the main tasks and functions it is carried out to support the acceleration of start-ups in the development of new businesses by providing appropriate resource services through a technology-based beginner entrepreneur development program. The main partners for business incubation activities are technology-based start-ups, government Ministry such as the Ministry of Research, Technology and Higher Education (Kemendikbud), the Ministry of Industry (Kemenperin), the Ministry of Cooperatives and SMEs (Kemenkopukm), Bappenas, as well as the business and industrial sectors.

Commercial research or training and laboratory analysis services are a form of research activity services including analysis of research samples for products, specimens, clinical and pre-clinical trial services, and other services. This service is intended for (in particular) Bogor Agricultural University researchers, as well as state-owned enterprises and private companies both at home and abroad for the development of research on products, services or systems.

E. Development Roadmap of Science Techno Park

The creation of a new innovation hub in a cohesive area to boost regional excellence is the goal of Science Techno Park, which was designed as a part of that goal. A system of innovation is a collection of institutions or productive processes that affect the direction, pace, and diffusion of innovation (including technology and best practices) as well as the learning process.

Over the next two years the development of Science Techno Park will include institutional strengthening and development of priority industries, with stages as shown in the Figure below.

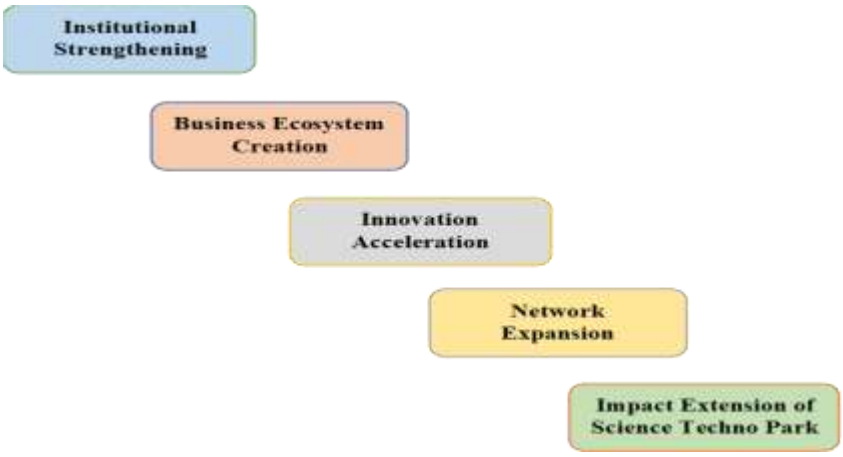

Figure 3. 1 Development Implementation Stages of Science Techno Park

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The innovation system can be seen as an approach or business process in development that focuses on systematic efforts to strengthen and accelerate of new knowledges/techniques/inventions in the economic or industrial system so as to achieve an increase in added value. Science Techno Park needs to take some steps in their business development. In addition to business incubation services that need to be further enhanced, Science Techno Park also has to differentiate services in their business in addition to business incubation services and developing leading industries from the tenants or startup companies they fostered. With its business process improvement, Science Techno Park also carry out several strategic steps such as:

1. Cooperate with industry partners.
2. Collaborating with accompanying partners or coaching for tenant/startup construction.
3. Conduct partnership with technology or innovation licensing partners.
4. Provide services for makloon production.

4. CONCLUSION

The author proposes a business strategy for Science Techno Park to improve its business incubation services in develop its inwall tenants and startup companies so that their business can grow and be sustainable in the future. From business review and business issue of Science Techno Park, the author identifies internal and external factors, then analyzes the data obtained with quantitative and qualitative methods. Then the author proposed business solutions and business strategy for problem solving. In this chapter the author explains conclusion of this study and set up implementation of the future business strategy plan for Science Techno Park.

Based on analysis in previous chapter, business strategy for the conclusion of problems at Science Techno Park to improve business incubation services for its inwall tenants and startup companies they fostered are:

1. Science Techno Park are still not financially independent due to difficulties in developing a business incubation service business to foster their tenants or startups. From the company's external and internal analysis, a business strategy of Cost Leadership and Moderate to High Levels of Diversification was obtained.
2. In addition, the author proposes functional strategies for Science Techno Park by improve marketing strategies, enhance internal management, and upgrade financial resources through analysis using TOWS Matrix.
3. Science Techno Park need carry out several strategic steps to improve its business process by cooperate with industry partners, collaborating with accompanying partners or coaching for tenant/startup construction, conduct partnership with technology or innovation licensing partners, and provide services for makloon production.
4. Apart from business incubation services as its main business, Science Techno Park also need to develop several other services and become another source of income such as technology services, support services, technical services, and resources acquisition.
5. In addition to business incubation services that need to be further enhanced, Science Techno Park also has to differentiate services in their business in addition to business incubation services and developing leading industries from the tenants or startup companies they fostered. In this study, the author offers a development roadmap that can be used as an implementation plan as business solutions for Science Techno Park to improve business incubation services and to foster its inwall tenants or startup companies in the future.

The implementation of development roadmap and timeline for business strategy that will be propose are described and designed for Science Techno Park. This development roadmap is planned for the next 2 years because it consists of an institutional strengthening, business ecosystem creation, innovation acceleration, network expansion, and impact extention of Science Techno Park that need be proposed and approved by stakeholder, namely Bogor Agricultural University. This implementation plan consists of several programs to improve business incubation services in develop inwall tenants and startup companies for Science Techno Park. To implement this strategy, Science Techno Park needs to be coordinated between field along with person in charge (PIC) so that the stages of programs that have been prepared can be carried out and also the objectives can be achieved.

REFERENCES

1. Abdul Khalid, F., Gilbert, D., and Huq, A. (2012). Investigating the Underlying Components in Business Incubation Process in Malaysian ICT Incubators. Asian Journal Of Social Sciences and Humanities Configurations, 1(1), 88–102.

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2. Al Shami, A., Lotfi, A., Coleman, S., and Dostál, P. (2014). Unified Knowledge Based Economy Hybrid Forecasting. Technological Forecasting and Social Change, 91, 107–123.
3. Bergek, A., Norrman, C., 2008, Incubator best practice: A framework, Journal of Technovation, (28), 1-2, 20-28, Linköping University Electronic Press.
4. BPS-Indonesia Statistics (2021). Statistik Karakteristik Usaha 2021
5. Gozali, L., Masrom, M., Haron, HN, & Zagloel, TYM (2015). Critical Success Factors of Successful E-Business Incubators Framework in Indonesian Public Universities.
6. Grimaldi, R., and Grandi, A. (2005). Business Incubators and New Venture Creation: An Assessment of Incubating Models. Technovation, 25(2), 111-121.
7. Hackett, S.M. and Dilts, D.M. (2004a), "A real options-driven theory of business incubation", The Journal of Technology Transfer, Vol. 29 No. 1, p. 43.
8. Hitt, M. A., Ireland, R. D., & Hoskisson, R. E. (2016). *Strategic management: Concepts and cases: Competitiveness and globalization*. Cengage Learning.
9. Lofsten, H. & Lindelof, P. (2002) Science Parks and the growth of new technology-based firms - academic-industry links, innovation and markets. Research Policy, 31, 859-876
10. Manan, A.A.B.A., Yunos, M.G.B.M., 2011. Technology Business Incubators - A Smart Partnership. International Workshop on Technology Business Incubators in India, India 1- 20
11. Ozdemir, O. C., and Sehitoglu, Y. (2013). Assessing the Impacts of Technology Business Incubators: A Framework for Technology Development Centers in Turkey. ProcediaSocial and Behavioral Sciences, 75, 282–291s
12. Pauwels, C., Clarysse, B., Wright, M., and Van Hove, J. (2016). Understanding a New Generation Incubation Model: The Accelerator. Technovation, 50, 13–24.
13. Rice, Mark P. and Matthews, Jana B. (1995) Growing New Ventures, Creating New Jobs: Principles and Practices of Business Incubation, Quorum Books
14. Rothaermel, Frank T., 2019, Strategic Management, Fourth Edition, New York: McGraw-Hill.
15. Smilor, R.W., Gill Jr. M.D., 1986. The New Business Incubator: Linking Talent, Technology, Capital, and Know How. Lexington: Lexington Books
16. Verman, S., 2004. Success Factors for Business Incubators: An Empirical Study of Canadian Business Incubators. Eric Sprott School of Business, Carleton University, Ottawa, Ontario
17. Wandebori, H., (2019), Manajemen Strategi Dalam Perspektif Indonesia, Bandung, INA: ITB Press.

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