Formulation Strategy For Promoting Investment Of Technopolis: A Case Study

Ayu Erliza, Roni Zakaria, Wahyudi Sutopo, Anugerah Widiyanto, and Eko Supriyanto

Abstract— Promoting region is not same as promoting a product using 4P (product, promotion, price, and place). Implement strategy for promoting investment of Technopolis is needed to ensure the long term success of the areas under their responsibility. Starting from factors in place marketing and transferred be SWOT analysis, this paper proposed the potential investment sector for industry development, target market, a proposition based approach, partnership network, for Technopolis as a result about formulation strategy for promoting investment in Technopolis Region. This paper recommended the design for promoting investment policy to support the strategy that have build.

Index Terms—Technopolis, strategy for promoting investment, place marketing, SWOT analysis

I. INTRODUCTION

TECHPOLIS is the conception of the regional dimension of economic development, social and cultural, which has a center of science and technology activities, productive activities and the movement of people who support the acceleration of innovation development, diffusion and learning [1] -[2]. Meanwhile, Technopolis Region is a region that consists of one or more science and technology activities, productive activities, and the movement of people in a particular area as a development system that indicated by the presence of functional linkages and spatial hierarchy of the innovation system [1].

The purpose of the development Technopolis area is different with the development of the industrial area and special economic zones. The aim of the Technopolis development is more focused on building a network of innovation and learning tool in the development of innovation [2]. In addition, the development of the area does not only require economic capital, but also intellectual capital and social capital.

The presence of capital requirement makes Technopolis should promote its region. But, promoting region is not same as promoting a product using 4P (Product, Promotion, Price, and Place) [3] refined [4]. Because region is the place product that can be seen in many aspects as businesses, and strategic marketing can be applied to places, as well as Technopolis Region [5] -[16]. So it must be adjusted to meet the needs of Technopolis customers [17]. The overall targets of a Technopolis can be reached only when this task has been accomplished.

The performance of Technopolis depends on its age, its location, its state of development, the maturity of the local knowledge economy, the advantage of its public image and its location in order to strengthen their links with research centers and universities, and to develop their communication policy [18]. All these factors are assessed by companies before deciding to invest. Therefore, implement promoting investment strategies of Technopolis is needed to ensure the long-term success of the areas under their responsibility.

Investment promotion is an activity that disseminate information about, or attempt to create an image of the investment site and provide investment services for the prospective investors [19]. Reference [20] explained that investment promotion is the act of marketing a country or a region in an effort to attract and retain investors, both local and foreign. Thus, emphasis on investment promotion activities is to attract investors.

The investment promotion activities were categorized into four i.e. National image building, Investor servicing, and Policy advocacy [27]. Reference [28] explained the framework for promoting investment through six activities. That is strategy, organization, marketing, investor targeting, investment facilitation, and aftercare and policy advocacy.

The initial step of investment promotion is arranged of strategies for promoting investment. It is needed to support the development of the Technopolis Region. Investment promotion strategy is a map to help a developer to achieve the goals set. This strategy must begin with an initial understanding of what can be offered by the location to potential investors [28].

Our research emphasizes the importance of the formulation of strategies for promoting investment in the Technopolis because managing strategic market planning is more difficult for public communities and regions than for private companies [5]. Therefore, the research aims to develop a conceptual framework about the formulation of strategy promoting investment in the case of Technopolis Area.
This paper used success factor in place marketing to generate an internal and external environment that is affecting of investment promotion in Technopolis. Then, we analyzed and recommended formulation strategy for promoting investment in Technopolis Region by SWOT analysis.

II. METHODOLOGY

Using the case of Technopolis, this paper develops a conceptual framework about the formulation of strategy investment promotion. The methodology for this research used place marketing and SWOT analysis.

Place marketing means designing a place to satisfy the needs of its target markets [29]. It succeeds when citizens and businesses are pleased with their community, and the expectations of visitors and investors are met. Success factors try to explain “why” place marketing practices are successful or unsuccessful while assessment criteria are goals to assess the degree of success in place marketing practices [17]. We used the success factor in place marketing to generate internal and external environment and the result is the strengthen, weakness, opportunity, and threat of Promoting Technopolis Development.

The approaches and techniques of SWOT analysis are used to support tools for decision-making in the competitive environment in a given organization [30] - [36]. It is typically the first step toward developing an investment promotion strategy, because a SWOT analysis provides a general perspective of the overall position of a city seeking to attract investment. The SWOT analysis is the conventional approach of searching for insights into ways of realizing the desired alignment [37]. The SWOT analysis is no doubt a valuable tool in the study of business strategy because it invites decision makers to consider important aspects of their organization’s environment and helps them organize their thoughts.

As a strategic planning tool, the SWOT Analysis is used to evaluate the strengths, weaknesses, opportunities, and threats involved in a project or in a business venture or in any other situation of an organization requiring a decision in pursuit of an objective. It involves monitoring the internal and external marketing environment of the organization or individual

III. SUCCESS FACTOR IN PLACE MARKETING AND SWOT ANALYSIS

There are 8 (eight) factors to successfully place marketing [17]. The factor is shown in Fig. 1. Success factor in place marketing is used to generate an internal and external environment that affecting of investment promotion. Pelalawan Technopolis Region in Indonesia is used to be our case study. We analyzed existing condition of this Technopolis to generate its strengths, weaknesses, opportunities, and threats as shown in Table 1.

IV. RESULT AND DISCUSSION

From Table 1, the strengths, weaknesses, opportunities, and threats that exist in the Pelalawan Technopolis Area is already generated. After analyzing, the existing factors

<table>
<thead>
<tr>
<th>No</th>
<th>Success Factor</th>
<th>Explanation of Factor</th>
<th>S</th>
<th>W</th>
<th>O</th>
<th>T</th>
<th>Explanation of Case Study</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Planning Group</td>
<td>Responsibilities for the planning and control process of place marketing [29].</td>
<td>✓</td>
<td>✓</td>
<td>-</td>
<td>-</td>
<td>S - Support by local government</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>W - Unidentify area’s manager and developer</td>
</tr>
<tr>
<td>2</td>
<td>Vision and Strategic Analysis</td>
<td>Vision is the profound intuition and insight of the place. Strategic analysis is a detailed examination of the elements of strategic information for this purpose [38].</td>
<td>✓</td>
<td>-</td>
<td>✓</td>
<td>-</td>
<td>S - Strategic Analysis for Technopolis Area builds upon the vision of the development of Technopolis</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>O - Defined as Focused Investment Area</td>
</tr>
<tr>
<td>3</td>
<td>Place Identity And Place Image</td>
<td>How the place is wanted to be perceived and a unique set of place brand associations [39].</td>
<td>-</td>
<td>✓</td>
<td>✓</td>
<td>-</td>
<td>W - Unidentify place image and place identity</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>T - Located in an area that is prone to hotspots</td>
</tr>
<tr>
<td>4</td>
<td>Public-Private Partnership</td>
<td>Cooperation between the public sector and private sector’s players[17].</td>
<td>-</td>
<td>-</td>
<td>✓</td>
<td>-</td>
<td>O - No implementation of PPP</td>
</tr>
<tr>
<td>5</td>
<td>Global Market and Local Development</td>
<td>Local development is build by economic development programmes and simultaneously think in global terms in its targeting and positioning [17].</td>
<td>✓</td>
<td>✓</td>
<td>-</td>
<td>-</td>
<td>S - Be in strategic location</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>S - Have already Masterplan to development technopolis</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>S - Close to the raw material of downstream palm oil</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>W - Inadequate infrastructure</td>
</tr>
<tr>
<td>6</td>
<td>Political Unity</td>
<td>Agreement about public affairs in general among the political decision makers [17].</td>
<td>-</td>
<td>✓</td>
<td>-</td>
<td>-</td>
<td>W - Does not have its own regional administration</td>
</tr>
<tr>
<td>7</td>
<td>Process Coincidence</td>
<td>Remarkable concurrences of events, apparently by chance, which take place during the process [40].</td>
<td>-</td>
<td>✓</td>
<td>✓</td>
<td>-</td>
<td>O - Larger potentials market for palm oil and its downstream</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>T - Issue that Indonesian palm oil industry is not environmentally</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>W - No threat of investment by local regulations</td>
</tr>
<tr>
<td>8</td>
<td>Leadership</td>
<td>The holistic capability of the place management to conduct the complex process, form the right strategies and obtain the organising power [17]</td>
<td>✓</td>
<td>✓</td>
<td>-</td>
<td>-</td>
<td>S - No specific legislation about technopolis in Indonesia</td>
</tr>
</tbody>
</table>
mutually forms were a SWOT matrix. The matrix was used to develop support strategies.

S-O strategies formulated by using the power of Pelalawan Technopolis Area to take advantage of existing opportunities. W-O strategy formulated by minimizing the weaknesses of the region to take advantage of the opportunities Pelalawan Technopolis Area. S-T strategy formulated by using the power of Pelalawan Technopolis Area to address the threat. Whereas W-T strategy formulated by minimizing the weaknesses and avoid threats from the external environment as shown as Fig. 2.

Based on the result of SWOT matrix in table 2, we have discussion consists of:

A. Formulation Strategy For Promoting Investment in Technopolis

Based on SWOT matrix, we resulted formulation strategy for promoting investment that consists of target market, potential investment sector for industrial region, a proposition based approach, and partnership network.

Potential Investment Sector For Industrial Development

Technopolis should define and communicate its special features and competitive advantages effectively. Technopolis must find ways to differentiate and position themselves for their target markets.

To formulate a potential sector for industrial development targets for inward investment used sector leading method and the best prospects for investment in the city. It is done by identifying key sectors in the city and the most promising sectors for investment by investors and the opinion of experts.

Target Market

Target market is one or several market segments that will be the focus of promotion activities. Technopolis must have a clear priority target to execute the promoting of the action plan. The target market for Technopolis is made based on concentrate marketing, which means promotion strategy just serving the needs of the particular group. We arrange the target market for the Technopolis Region to be 4 groups.

<table>
<thead>
<tr>
<th>Entity</th>
<th>The Player</th>
<th>The Role</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local Partner</td>
<td>Local governments, chambers of commerce, key private sector players.</td>
<td>Make a strategic policy development and the development of Pelalawan Technopol,</td>
</tr>
<tr>
<td>Existing Investor</td>
<td>The company that have invested in Regency/City/Country.</td>
<td>Expand its business to be an opportunity that must be utilized; keep existing projects currently in order to closer the cooperation with existing investor; to be a supplier in the Technopolis Region.</td>
</tr>
<tr>
<td>Intermediaries</td>
<td>Accountants, bankers, venture capitalists, real estate, including large developers to provide sites and properties throughout the area, office service providers, and transportation providers.</td>
<td>Support the implementation of activities in the Technopolis Region.</td>
</tr>
<tr>
<td>New Investor</td>
<td>New investor in the field of industry and new investors in the field of university and R&amp;D institution.</td>
<td>Build brain-ware on top in the view of investors; Develop industrial anchor that earmarked for Technopolis Region.</td>
</tr>
</tbody>
</table>
Entrepreneurship Network (industry), and administrator board area [2]. The division of the region requires a more effective way to handle the growth aspirations of both existing investors and potential in the area.

This enables a more proposition-based approach to be successful as recognizes that decision-making around new projects is function-led and often it is irrelevant what particular sector the company is involved in the dynamics of the movement and location factors which will be considered have more to do with shared services and back-office strategies than any specific banking, retailing or drinks cluster.

To assess the proposition-based approach in Technopolis Region is used a decision matrix analysis and the in a deep interview with the experts of the developer Technopolis to specify criterion and the weight of development Technopolis [41]-[42]. The goal of the interview is to deeply explore the respondent's point of view, feelings and perspectives [43]. The result is reported in Table 2.

There are two factors of all factors with the highest weights. This is due to support the development of brainware on top-investor's perspective needed to attract investors to invest. Meanwhile, the underlying theme with Compliance of Country development is needed in order to keep the country's development objectives are achieved. Three other factors more influential toward technical aspects of regional development. Think about how assessment in the decision matrix, Represents the worst category number 1, number 2 represents poorly categories, number 3 represents the category of enough, number 4 represent a good category, and the number 5 represents an excellent category.

This paper proposes the proposition development Technopolis area is divided into 3 sections with the priority that education and research area, administrator board area, and industrial area. Where every area of development followed by the development of other supporting facilities. Facilities include offices, trade and services, recreation, sports, religious buildings, green space and buffers, as well as the area of infrastructure facilities and support facilities area.

**Partnership Network**

The existence of regional actors in promoting Technopolis is still needed on the one hand for better adapting regional interventions into specific regional contexts and on the other hand for raising the professionalism of administrative structures and human resources. Reference [44] distinguished four regional dimensions in R&D policies depending on the passive or the active role of regional actors as shown in Table 4.

With Technopolis Partnership Network, the investment promotion agency of Technopolis will work closely with the

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**TABLE 3**

<table>
<thead>
<tr>
<th>Criterion</th>
<th>Weight</th>
<th>Industry Region</th>
<th>R&amp;D Region</th>
<th>Development Region</th>
</tr>
</thead>
<tbody>
<tr>
<td>Land used</td>
<td>0.15</td>
<td>5</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Accessibility</td>
<td>0.15</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Support the development of brainware on top-investor's perspective</td>
<td>0.25</td>
<td>2</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>Availability of intermediaries to support region</td>
<td>0.2</td>
<td>4</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Compliance with the underlying theme of Indonesia development</td>
<td>0.25</td>
<td>4</td>
<td>5</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Score**

<table>
<thead>
<tr>
<th>Industry Region</th>
<th>R&amp;D Region</th>
<th>Development Region</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.5</td>
<td>4.15</td>
<td>3.7</td>
</tr>
</tbody>
</table>

---

**TABLE 4**

<table>
<thead>
<tr>
<th>Type of Typology Region</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stages</td>
<td>Regions are seen as appropriate scales of action or stages where policy is enacted, though regional units are not participants</td>
</tr>
<tr>
<td>Implementors</td>
<td>Regional authorities and agencies have a role in the implementation of nationally-defined policy initiatives and delivering centrally conceived priorities.</td>
</tr>
<tr>
<td>Partners</td>
<td>Regional bodies have a role in shaping and delivering R&amp;D&amp;DI agendas.</td>
</tr>
<tr>
<td>Independent policy-makers</td>
<td>Regional authorities act autonomously in agenda-setting.</td>
</tr>
</tbody>
</table>
Partnership Network is shown in Fig 4. of activities and sharing of resources. We proposed the agency also works closely with research institutions and economic development agencies within and outside the region and act as a focus to bring together resources to address strategic issues. This network will be led by the Administrative Board of Technopolis Area and coordination of activities and sharing of resources. We proposed Partnership Network is shown in Fig 4.

B. A Case Study For Pelalawan Technopolis

To support strategy for promoting investment that has been made, design of investment promotion policy for Pelalawan Technopolisis needed. It begins from several studies in three main Technopolis area. That is industry area, R&D and education area, and government area. Reference [45] shown the importance of the value chain in industry area of Pelalawan Technopolises. Logistics system in industry area also must be analyzed. Study of R&D and education area about main curriculum and research focus and study of the type of investment and the organizer Technopolis Agency is needed to discuss. Figure 5 shown the main study for design of investment promotion policy in Pelalawan Technopolises.

Model Kartasheva is able to demonstrate a model of investment promotion policy on the basis of maximizing profits for the government and investor [46]. The model is affected by mechanism promotion and financial contract where every mechanism has a policy constraint. The explanation of symbols is shown in Table 5. Equation (1) shows the optimal investment promotion policy.

\[ W(p,t) = v p_H [s(q_H) + \sigma_H t_H] + (1-v)p_L [s(q_L(\mu_L)) + t_L] \]

V. CONCLUSION AND FUTURE RESEARCH

The factors in place marketing are successfully used to analyze the strengthen, weakness, opportunity, and threat to Technopolis Region. A conceptual framework of formulation strategies for promoting investment is developed by SWOT analysis consist of potential investment sector, target market, a proposition based approach, partnership network in Technopolis Region.

To support strategy for promoting investment that has been made, future research about design of investment promotion policy for Technopolis is needed. The design will generate the best policy to attract investor invest in the Technopolis Region to consider the purpose of the Technopolis development, that is more focused on building a network of innovation and learning tool in the development of innovation.

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