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**PROPOSED BUSINESS STRATEGY FOR SMALL  
ARCHITECTURE FIRM IN TANGERANG: CASE STUDY TOP  
HOUSE**

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**Abstract**

Top House is a small architecture firm located in South Tangerang that focuses on design consultants for low and medium-rise buildings. The preliminary study has been conducted by interviewing the firm's owner who also acts as the principal architect, to identify company problems. The results showed that the company revenue and net profit decreased significantly by about 20% from 2017 to 2019 and 75% from 2016 to 2019. Moreover, the consultancy service orders became small and decreased from 2015-2019. The decreased revenue and net profit were caused by a poor company and incomprehensive management system. To solve the problem using the external and internal environmental analysis. The external environmental analysis used the PESTEL, Porter Five's Forces, and competitor analysis. Meanwhile, the internal environmental analysis used the VRIO framework, value chain analysis, and existing Business Model Canvas (BMC). Afterward, the data were summarized in the SWOT table for strategy formulation. It consisted of IE matrix and TOWS matrix as company level strategy and functional level strategy, then the new proposed Business Model Canvas (BMC). Based on the analysis of IE Matrix, the current company classification position is in cluster five. This indicates that the company should implement a hold and maintain business strategy with two options, namely market penetration and product development. Furthermore, pros and cons analysis is used to obtain the best strategy from these options. The company should implement a product development strategy by improving the existing product quality, namely green architectural requirements in the design concept and utilizing BIM technology. The TOWS matrix resulted in 11 functional strategies applied in the marketing, human resources, operations, and financial field.

**Keywords:**

Architecture Firm, Business Model Canvas, IE Matrix, TOWS Matrix

**Introduction**

Tangerang is an area with a potentially large market for architecture business. Based on BPS data, in September 2019, DKI Jakarta and Banten provinces were classified among the top ten average expenditures for housing, household facilities, various goods, and services. Tangerang area was the largest sales property compared to others in 2019 due to the increasing development. Further, it was close to DKI Jakarta as the center of national economic activity (Fauzian, 2019). This condition allowed the architectural firm business to experience growth despite the competition. However, the Covid-19 pandemic led to its decline, and demand for architecture firms shifted to landed house project typology (Archify, 2019 & Lusida, 2020). This situation contributed to higher supply than demand, which is challenging. Therefore, the architecture firm should create a unique value product from the competitors to emerge the best.

Top House is a private company engaged in an architecture firm focus on low and medium-rise building projects with client B2C model. Furthermore, it has various types of projects located in the Bumi Serpong Damai (BSD) and Jakarta area, specifically residential houses, offices, warehouses, shops, and apartment units. This firm was established in early 2015 with its official office in Bumi Serpong Damai (BSD), Tangerang. It aimed to produce a low and medium-rise building with a good reputation, sustainable, and competitive advantages in the Jabodetabek area.

Since its establishment in 2015, the owner expected growth and increased revenue and profit from architectural consultation services. In early 2015, the company created a vision and mission, though it did not take concrete steps to achieve or realize its targets. In this regard, there were no written business strategies/ plans, formal company targets, and proper management system. The management was established conventionally with no periodic evaluation. This condition was manifested in performance parameters, including the significant revenue and net profit decrease with 20% from 2017 to 2019 and 75% from 2016 to 2019, respectively. Furthermore, the service orders for consultancy became small and decreased from 2015-2019. Currently, this company is unable to compete with its opponents and realize its vision and mission. Therefore, it should establish fundamental changes in strategizing business for consultancy architects, gain revenue & large market share, and increase profit.

**Literature Review*****Strategic Management***

Strategic management is defined as the art and science of formulating, implementing, and evaluating cross-functional decisions that enable an organization to achieve its objectives. Based on this definition, strategic management focuses on integration, marketing, finance/accounting, production/operations, research and development, and information systems to achieve organizational success (Fred R. David, 2011). According to Wheelen & Hunger (2012), Strategic management is a set of managerial decisions and actions that determines the longrun performance of a corporation. Similarly, Fred R. David (2011: 38) stated that its process consists of three stages, specifically, strategy formulation, strategy implementation, and strategy evaluation. Wheelen & Hunger (2012) showed external and internal environmental scanning, strategy

formulation, strategy implementation, evaluation, and control. Further, Rothaermel (2017) defined strategic management as an integrative management field that combines analysis, formulation, and implementation in the quest for competitive advantage.

There are three elements to produce a good strategy (Rothaermel, 2017), including:

1. Diagnosis of the competitive challenge is accomplished through analysis of the firm's external and internal environments.
2. A guiding policy addressing the competitive challenge is achieved through strategy formulation, leading to the firm's corporation, business, and functional strategies.
3. A set of coherent actions to implement the firm's guiding policy is attained through strategy implementation.

### ***Strategy Formulation***

Strategy-formulation techniques are integrated into a three-stage decision-making framework. The tools presented here apply to all sizes and types of organizations and help strategists identify, evaluate, and select strategies. The three stages include:

1. The input stage summarizes the basic input information needed to formulate strategies. This study uses a formulation framework consisting of the EFE and IFE Matrix. An External Factor Evaluation (EFE) allows strategists to summarize and evaluate economic, social, cultural, demographic, environmental, political, governmental, legal, technological, and competitive information. The Internal Factor Evaluation (IFE) summarizes and evaluates the major strengths and weaknesses in the business functional areas and provides a basis for identifying and evaluating relationships among these areas.
2. The matching stage focuses on generating feasible alternative strategies by aligning key external and internal factors. It uses IE Matrix techniques based on two dimensions specifically, the IFE and EFE total weighted scores on the x- and y-axis, respectively. Based on this, recall that each division of an organization should construct an IFE and EFE Matrix for its part. The total weighted scores derived from the divisions allow the corporate-level IE Matrix (Fred R. David, 2011).
3. The decision stage use pros and cons as an alternative strategy. According to Franklin, the best way to reach an optimal solution in a tough decision is use pros and cons analysis, which validates his system for a single decision (Charyk, 2017).

The TOWS matrix illustrates how the external opportunities and threats facing a particular corporation are matched with that company's internal strengths and weaknesses to result in four sets of possible strategic alternatives (Wheelen,2012).

### ***Product Development***

It is a strategy that increases sales by improving or modifying present products or services (Fred R. David, 2011).

### ***PESTEL Analysis***

It is a framework for evaluating the impact of the firm's external environmental factors affecting its potential to gain and sustain a competitive advantage. These factors create both opportunities and threats for the company. PESTEL stands for Political, Economic, Social, Technological, Environmental, and Legal factors (Rothaermel, 2017).

### ***Porter's Five Forces Analysis***

This model is a framework that identifies five forces determining an industry's profit potential and shapes a firm's competitive strategy. It consists of a threat of entry, power of suppliers, power of buyers, threat of substitutes, and rivalry among existing competitors. A five forces analysis provides the basis for firm positioning to gain and sustain a competitive advantage (Rothaermel, 2017).

### ***Competitor Analysis***

This deals with identifying its competitors and evaluating strategies to determine their strengths and weaknesses relative to the own product or service (Kotler Armstrong: 2016). Therefore, it is needed for companies to have more detailed knowledge about competitors and also determine the right marketing strategy to fight competitors (Oman, 2015).

### ***VRIO Framework***

VRIO represents a framework addressing the resource attributes underpinning competitive advantage. A resource qualifying to form a basis of competitive advantage should be valuable (V), rare (R), costly to Imitate (I), and organized to capture the value (O) of the resource (Rothaermel, 2017).

### ***Value Chain Analysis***

This describes the internal activities that a firm engages in when transforming inputs into outputs. Each activity the firm performs along the horizontal chain adds incremental value. The framework of the value chain has two categories, including primary and support activities. In this regard, Primary activities ones contribute to the creation of value directly, whereas support activities consist of functions and tasks intended to anchor primary activities. (Rothaermel, 2017).

### ***Business Model Canvas***

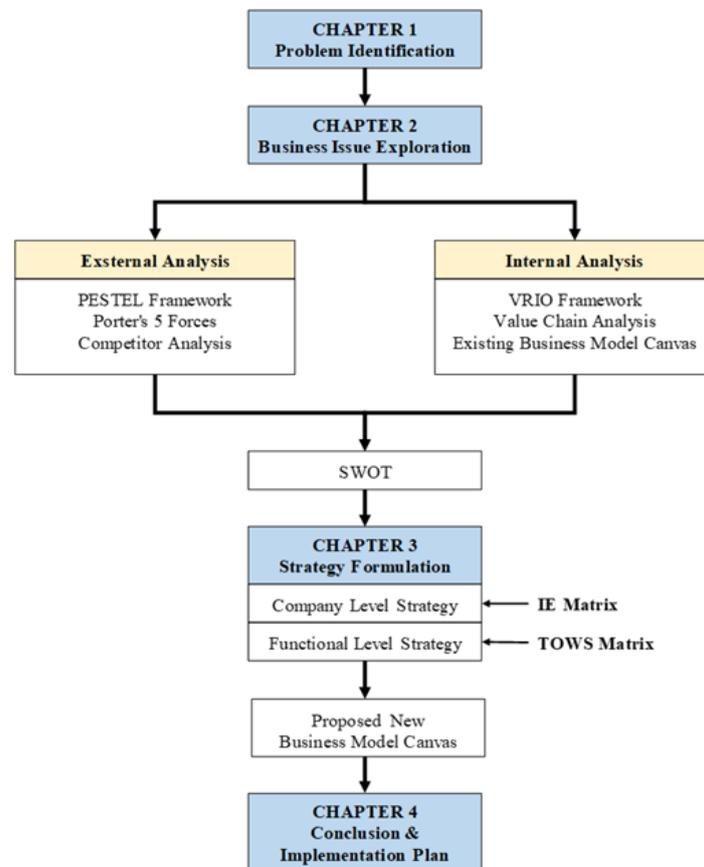
This is a framework business template consisting of nine squares that are mutually exclusive related. These boxes contain the essential illustrating elements of how the organization creates value and benefit from its customers (Osterwalder & Pigneur, 2010).

### ***SWOT Analysis***

It evaluates a firm's current situation and prospects by simultaneously considering internal and external factors. Therefore, it focuses on these factors affecting the firm's ability to gain and sustain a competitive advantage either positively or negatively (Rothaermel, 2017). According to Kotler, Keller (2009: 89), the overall evaluation of the strengths, weaknesses, opportunities, and threats is also called SWOT analysis. Rangkuti (2008:18) stated that this analysis is used to identify various factors systematically to formulate strategy. It is based on the logic that maximizes the strengths and opportunities and minimizes weaknesses and threats mutually.

### ***Conceptual Framework***

Conceptual framework is the path of a research to become meaningful, acceptable, and provide the best explanation of the natural phenomenon progression for study (Adom, 2018). Furthermore, it outlines the plans for research thesis. In general, the conceptual framework guides the researcher to ensure the study is relevant and is described as follows:



**Figure 1. Conceptual Framework**

Source: Author Analysis, 2020

### Research Methodology

This study used a qualitative research method with data collected from the reasoning behind individuals, industry, and stakeholders (known as the 'why'). Specifically, it was conducted through open-ended, exploratory questions to seek a deep understanding of social phenomena within their natural setting (Utah University, 2019). Pure qualitative research relies on the collection of qualitative data. There are two categories method use to gather information, namely primary data and secondary data (Douglas, 2015). According to Mesly (2015), primary data is collected directly from the first person while secondary is from other research conducted by different people. Primary data in this study was collected directly from the internal organization Top House, the parties related, and the client as a customer through in-depth interviews, focus group discussion, and observations method. Qualitative interviews were conducted face-to-face with participants, telephone, or engaged in the focus group with six to eight interviewees in each group (Creswell, 2018). Meanwhile, the secondary data was obtained through offline sources like books and online resources, including journals, reports, articles, websites, government publications, industry Associations.

The in-depth interview with the firm's owner who also acts as the principal architect, was performed since the study began by identifying the problem in the company. The interview results were used as the data for external analysis, consisted PESTEL, Porter Five's Forces, and competitor analysis. However, they were also used for internal analysis, consisted the VRIO framework, value chain analysis, and business model canvas. The internal analysis data is also

strengthened by the results of interviews from clients, internal organizations and related parties. Furthermore, the group discussion with five architects within the organization aimed to determine results in the IE matrix as strategy formulation.

The study began by finding the problem with the architecture firm of Top House. Afterward, the business issue was explored by analyzing the environment's internal and external conditions. The external analysis methodology consisted PESTEL, five forces porter, and competitor analysis, while internal analysis methodology consisted VRIO framework, value chain analysis, and existing business model canvas. The results were then summarized in the SWOT table for the strategy formulation, which consisted of IE matrix as the firm's company level strategy and TOWS matrix as the firm's functional level strategy. The company level strategy will determine the business direction and achieve its objectives, whereas the functional level strategy will define the specific actions of the department. They also connect and support each other, followed by the proposed new business model canvas.

## Findings And Argument

### *PESTEL Analysis*

**Table 1: The Results of PESTEL Analysis**

<b>Factors</b>		
<b>Political</b>	National issue and global issue.	Threat
<b>Economical</b>	<ul style="list-style-type: none"> <li>Indonesia's GDP 2020. (World Bank, 2020)</li> <li>The interest rate decreased in 2019 to 2020. (Trading Economics, 2020)</li> <li>The inflation rate. (World Bank, 2020)</li> </ul>	This situation potentially affects the decreasing demand of the property and architecture consultant service.
<b>Social</b>	<ul style="list-style-type: none"> <li>The population of Indonesia is ranked position 4 in the world and has increased annually with yearly growth under 1%. (Worldometers, 2020)</li> <li>Jakarta and Banten are the top ten regions with the most household consumption in Indonesia. (Fauzian, 2019 &amp; BPS, 2019)</li> <li>Modern style is among the architectural designs which are popular and long-lasting in the market. (Cendana, 2015 &amp; Dekoruma, 2020).</li> <li>The situation covid-19 changes the interest in specific project typology of housing, education, hospital. (Archify, 2020 &amp; Lusida, 2020)</li> <li>The trend of the architectural style will be included in the environment factor in the future. (Newdecortrends, 2020 &amp; Mazaya, 2020)</li> </ul>	Opportunity This situation potentially affects the increasing demand of the property and architecture consultant service specifically for housing typology.

<b>Technology</b>	<ul style="list-style-type: none"> <li>Technology and internet development are growing rapidly in Indonesia and are supported by the government. (Hoot-Suite, 2020 &amp; Kemenperin, 2017)</li> <li>The phenomenon of the industrial era 4.0 is Innovation technology for architecture. (Hanegraaf, 2017., Autodesk, 2020., Pawitro, 2020 &amp; IAI, 2020).</li> </ul>	Opportunity The technology can trigger the business process architecture service faster, effective, and efficient with high-quality product services.
<b>Environmental</b>	The global warming issue (NOAA, 2019) and green architecture (Yeang, 2000 & Constructor, 2014,).	Opportunity Demand for green buildings will increase.
<b>Legal</b>	Architect Certificate requirement, Indonesian Architects Association (IAI). (IAI, 2020).	Opportunity Assurance architect capability and expertise.

Source: Author Analysis, 2020

PESTEL Analysis is a framework used to identify the macro-environment in the company. Six factors influence the small architecture firm, consisted political, economic, social, technological, environmental, and legal. The first step is to identify variables that affect the company and assess them to find out how much influence and impact it has, then categorized them whether the category is an opportunity or a threat. Technological, environmental, and social factors are categorized as opportunities and they have a strong influence and impact, while politic, economic factors are categorized as threats. This analysis will be explained further in the SWOT analysis section.

### *Porter's Five Forces Analysis*

**Table 2: Top House Porter Five Forces Analysis**

<b>External Forces of the Business</b>	<b>Results</b>
The threat of new entrants	High
Bargaining power of suppliers	Medium
Bargaining of buyers	High
The threat of substitutes products or services	Low
Rivalry among existing competitors	High

Source: Author Analysis, 2020

Porter's Five Forces is a framework for analyzing a company's competitive environment. The data collected through interviews with the top management level were analyzed. Based on this analysis, the threat of the new entrant, bargaining of the buyer, and rivalry among existing competitors are in the high forces category. This input is a threat that makes the competition among small architecture businesses difficult. Furthermore, several competitors and new entrants offer to lower the price to obtain orders, hence, creating a price war among them. However, the Bargaining power of suppliers and threat of substitutes products or services are categorized below high and have less impact. This analysis will be explained further in the SWOT analysis section.

### *Competitor Analysis*

This is the process of identifying the competitors. The data collected through interviews, observation, and check website. Top House has three competitors with similar products, business scope, market area, segment market and location proximity, namely Formative, Soni Budiono Architect, and Studio Air Putih. From the analysis, the architecture firms have the same products with a similar price. In general, Top House has the lowest price than others although it is still under other competitor reputation, especially with Studio Air Putih that has many awards. Furthermore, its marketing is unaggressive than other competitors, only using word of mouth with no distribution channel. This analysis will be explained further in the SWOT analysis section.

### VRIO Framework

**Table 3: VRIO Framework of Top House**

Resource	Valuable	Rare	Costly to Imitate	Organized to capture value	Competitive Advantage
<b>Tangible</b>					
Financial capability	Yes	No	No	No	Competitive Parity
Strategic Office	Yes	No	No	Yes	Temporary competitive advantage
large storage for materials sample	Yes	No	No	Yes	Temporary competitive advantage
High specification Hardware for designer	Yes	No	No	Yes	Temporary competitive advantage
Software for designer	Yes	No	No	Yes	Temporary competitive advantage
Office supplies	Yes	No	No	No	Competitive Parity
Workforce	Yes	No	No	Yes	Temporary competitive advantage
Standard manual book Design	Yes	No	No	No	Competitive Parity
Equipment for survey and design	Yes	No	No	No	Competitive Parity
Certification architect	Yes	No	No	No	Competitive Parity
<b>Intangible</b>					
Reputation and experience company	Yes	No	No	No	Competitive Parity
Company culture	Yes	No	No	No	Competitive Parity

Good relationship and networking with business partners.	Yes	No	No	Yes	Temporary competitive advantage
Competencies and professional level of the workforce.	Yes	No	No	No	Competitive Parity
Creativity and innovation of architects.	Yes	No	No	No	Competitive Parity
Leadership capability	Yes	No	No	No	Competitive Parity
Management knowledge	Yes	No	No	No	Competitive Parity

Source: Author Analysis, 2020

VRIO framework is the tool used to analyze a firm's internal resources and capabilities to investigate whether they are a source of sustained competitive advantage. The result of the VRIO framework is obtained from the interview with the internal organization. Based on the VRIO analysis, all the resources of Top House are still in the category of competitive parity and temporary competitive advantage. This means that the company requires the right strategy formulation to make resources and capabilities become a sustainable competitive advantage. This analysis will be explained further in the SWOT analysis section.

### Value Chain Analysis

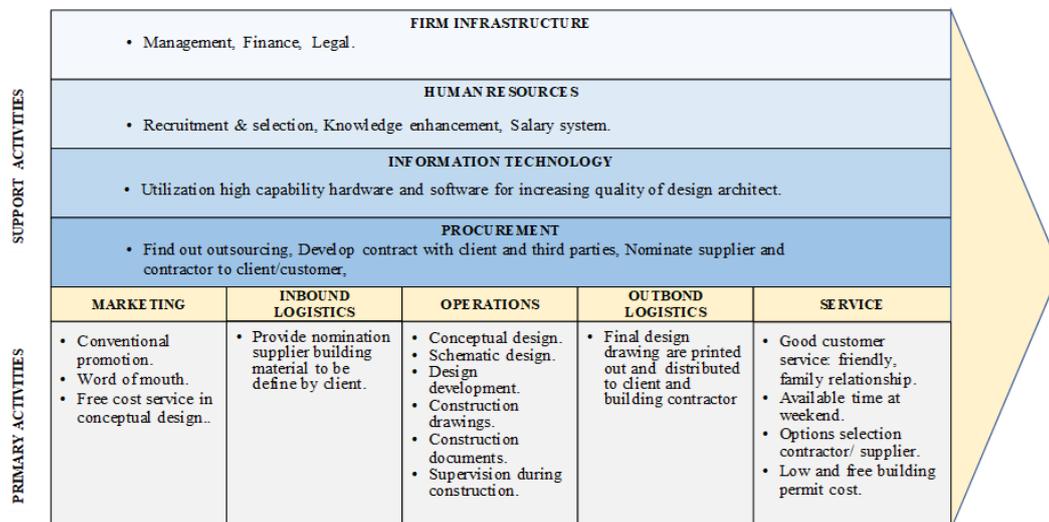


Figure 2. Top House Value Chain Analysis

Source: Author Analysis, 2020

Value chain Analysis refers to a framework for understanding how a business process value is created to provide a competitive advantage. The result of the value chain was obtained from the interview with the internal organization, business partnership, and client. Based on this analysis, it can be categorized as a strength or weakness as outlined below.

#### Strength: Firm Infrastructure

- The market price of the small architecture firm is approximately 4% of the total cost of building construction. Due to the high competition in the market, Top House offers consultation prices below the average price to attract more customers and increase its supply.

#### Weaknesses: Marketing, Operations, Firm Infrastructure, Human Resources

- The company only implements the marketing by word of mouth (WOM) and offers free service in the conceptual design. This strategy is ineffective due to client dissatisfaction. Further, it does not recommend clients to others thus, this condition causes a decline in their number. Therefore, the company should evaluate WOM strategy and perform other marketing activities to increase clients.
- After conducting client interviews, this firm was unavailable during operation process service, including inadequate response complaints and correct feedback, slow addressing client's concerns, lack of commitment, improvement of progress report consistently, incompetencies as planner and supervisor, and improper communication and coordination during the construction process.
- The company has not developed and implemented the human resource management system properly. There are many HR concerns like the lack of soft and hard skills, high employee turnover rate (80% per year), and lack of people development system.
- The company has an inadequate management system. They have managed business conventionally only based on one SOP design, and there is no written company policy.
- The revenue and net profit significantly decreased by around 20% from 2017 to 2019 and 75% from 2016 to 2019, respectively. The profit decreased significantly are caused the revenue decreased and company expenditure increase significantly as affected the increasing installment payment of company debt and increasing the operational cost. In addition, cashflow still positive although the amount decreased.

*The Existing Business Model Canvas*

THE BUSINESS MODEL CANVAS

KEY PARTNERS	KEY ACTIVITIES	VALUE PROPOSITIONS	CUSTOMER RELATIONSHIPS	CUSTOMER SEGMENTS
<ul style="list-style-type: none"> <li>Quantity surveyor: Dodie freelancer</li> <li>Civil engineering</li> <li>3D animator: Ichan Freelancer, Icha Freelancer</li> <li>Interior Designer: Inori, Green Wood Furniture.</li> <li>Building Contractor: Bewilral CV, Marstand CV</li> <li>Building Material Supplier.</li> </ul>	<ul style="list-style-type: none"> <li>Architectural design development</li> <li>Develop budget estimation for construction</li> <li>Presentation building design to client</li> <li>Nominate supplier for material selection and contractor.</li> <li>Prepare document construction.</li> <li>Supervision during construction.</li> <li>Office administration</li> </ul>	<ul style="list-style-type: none"> <li>Competitive consultant fees.</li> <li>Modern tropical building design concept that less maintenance and lower electric consumption.</li> </ul>	<ul style="list-style-type: none"> <li>Personal assistance</li> <li>Online communication through Email, Telephone, and WhatsApp</li> </ul>	<ul style="list-style-type: none"> <li>Upper class people</li> <li>B2C Model</li> <li>Low and Medium Rise Building focus on personal residence, office and shophouse.</li> <li>Businessman, Professional, Executive (age 25-65 years old)</li> </ul>
	KEY RESOURCES		CHANNELS	
	<ul style="list-style-type: none"> <li>Human resources</li> <li>Tools Design: Hardware &amp; software</li> <li>Office facilities and Equipment for design on assets.</li> <li>operational vehicle</li> <li>Business partners</li> <li>Internet</li> </ul>		<ul style="list-style-type: none"> <li>Word of mouth</li> <li>Direct selling</li> <li>Telephone service</li> </ul>	
COST STRUCTURE		REVENUE STREAMS		
<ol style="list-style-type: none"> <li>Manpower Monthly Salary: Director, Architects, Drafter, Administration</li> <li>Office cost: electricity, PDAM, IPL, Internet, TV Cable, telepon, etc</li> <li>Accommodation cost</li> <li>Tools cost: PC, printer A2, Photocopy machine, paper, etc</li> <li>Outsourcing cost: 3D animator, QS, Civil engineering, Drafter</li> </ol>		<ol style="list-style-type: none"> <li>Architectural design services fee: 2D Drawings, 3D modelling, Rendering, Animation + Supervision fee.</li> <li>Building permit fee</li> </ol>		

**Figure 3. Top House Existing Business Model Canvas**

Source: Author Analysis, 2020

It is a framework for describing a business model through nine building blocks, namely Customer segments, Value propositions, Channels, Cost structure, Customer relationships, Revenue streams, Key resources, activities, and Partnerships. The business model canvas data was collected through interviewing the internal organization. The value propositions was categorized as a strength in the company. This is because of its strong positive effect on delivery value from the company to a client. It includes modern tropical architecture style, which gives a strong character to the building and remains the most popular. Further, the building concept with less maintenance and lower electric consumption provides better value in design. All the values propositions are the competitive advantage of Top House. This analysis will be explained further in the SWOT analysis section.

**SWOT Analysis****Table 4. Top House SWOT**

<b>STRENGTH (Internal)</b>	<b>WEAKNESS (Internal)</b>
<ul style="list-style-type: none"> <li>Competitive consultant fee. (BMC, Value Chain Analysis)</li> <li>Modern tropical building design concept that less maintenance and lower electric consumption. (BMC)</li> </ul>	<ul style="list-style-type: none"> <li>Less marketing activities. (BMC, Value Chain Analysis)</li> <li>Lack of service during operation process. (Value Chain Analysis)</li> <li>Lack of human resources capability. (Value Chain Analysis, VRIO)</li> <li>Inadequate of management system. (Value Chain Analysis)</li> <li>Increasing company expenditure. (Value Chain Analysis)</li> </ul>
<b>OPPORTUNITY (External)</b>	<b>THREAT (External)</b>
<ul style="list-style-type: none"> <li>Information technology development. (PESTEL)</li> <li>Building design concept to include green architecture requirement. (PESTEL)</li> <li>Increasing demand on landed house building. (PESTEL)</li> </ul>	<ul style="list-style-type: none"> <li>Tight competition among small architecture firm.(PESTEL, Five Porter's Force, Competitor Analysis)</li> <li>Price war among competitor. (Five Porter's Force , Competitor Analysis)</li> </ul>

Source: Author Analysis, 2020

A SWOT Analysis evaluates the internal strengths, internal weaknesses, external opportunities, and external threats in an organization's environment. The strengths are obtained from the value chain analysis and the business model canvas, whereas the weaknesses are obtained from the value chain analysis, business model canvas, and VRIO. The opportunities are obtained from the PESTEL, while threats are obtained from the PESTEL, five-porter's force and the competitor analysis. The variable on the SWOT table will be used in the IE matrix, including EFE, IFE, and Tows Matrix.

**External Factor Evaluation (EFE) Matrix****Table 5: EFE Score**

No	Opportunity	Weight	Rating					Average Rating	Stdev	CV	Score
			1	2	3	4	5				
1	Information technology development	0.227	3	3	2	3	3	2.8	0.447214	16%	0.635
2	Building design green architecture	0.187	2	2	2	2	3	2.2	0.447214	20%	0.411
3	Increasing demand on landed house building	0.200	2	2	2	2	2	2	0	0%	0.400
No	Threat										
1	Tight competition among small architecture firm	0.200	1	1	1	1	1	1	0	0%	0.200
2	price awar among competitor	0.187	4	4	4	4	4	4	0	0%	0.747
<b>Total</b>		1.0									<b>2.392</b>

Source: Author Analysis, 2020

External Factor Evaluation (EFE) Matrix is used to examine company's external environment. This analysis is performed by focusing on group discussion among five architects within the

organization where each architect gave a weighting and rating for each key external factor. From the table above, it can be seen that the result of the EFE matrix is 2.392 which represents that the company has a medium internal position. This EFE matrix will be explained further in the IE matrix position section.

### Internal Factor Evaluation (IFE) Matrix

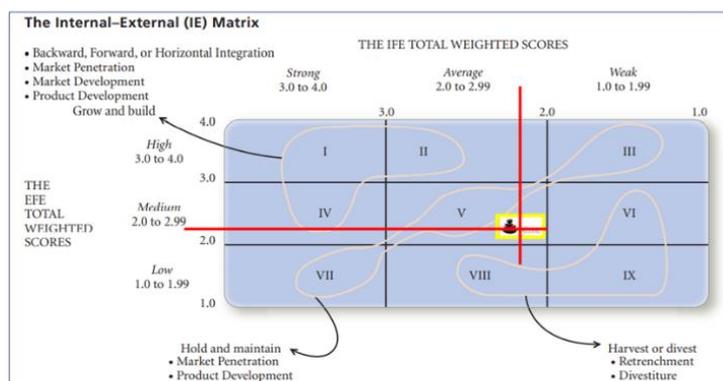
**Table 6: IFE Score**

No	Strength	Weight	Rating					Average Rating	Stdev	CV	Score
			1	2	3	4	5				
1	Competitive consultant fee	0.162	4	4	3	3	3	3.4	0.547723	16%	0.550
2	Modern tropical building design that less maintenance and low electric consumption	0.162	3	3	3	3	3	3	0	0%	0.486
No	Weakness										
1	Less marketing activities	0.171	2	2	2	3	2	2.2	0.447214	20%	0.377
2	Less service during operation process	0.190	2	2	2	2	2	2	0	0%	0.381
3	Lack of human resources capabilities	0.171	1	1	1	1	1	1	0	0%	0.171
4	Inadequate management system	0.143	2	2	2	2	3	2.2	0.447214	20%	0.314
5	Increasing company expenditure.	0.190	2	2	2	2	2	2	0	0%	0.381
<b>Total</b>		1.0									<b>2.280</b>

Source: Author Analysis, 2020

Internal Factor Evaluation (IFE) Matrix is used to examine company's internal environment. This analysis is done by conducting a group discussion among five architects within the organization where each architect gave a weighting and rating for each key internal factor. From the table above, it can be seen that the result of the IFE matrix is 2.280 which represents that the company has an average internal position. This IFE matrix will be explained further in the IE matrix position section.

### IE Matrix Position - Company Level strategy



**Figure 4. Top House IE Matrix**

Source: Author Analysis, 2020

The External Factor Evaluation (EFE) scoring as the x-axis is 2.392, while Internal Factor Evaluation (IFE) as the y-axis is 2.280. Consequently, the current company position is classified in cluster v (five). This means Top House should implement hold and maintain a business strategy consisting of market penetration and product development. To achieve the right strategy, this study implement pros and cons as alternative strategies as follows:

**Table 7: Pros & Cons of Alternative Strategies**

No	Strategy	Pros	Cons
1	<b>Market Penetration</b>	<ul style="list-style-type: none"> <li>• Top House has a competitive price over opponents.</li> <li>• Market landed housing is growing.</li> <li>• Top House has less activity marketing.</li> <li>• The market share of Top House is lower than a competitor.</li> <li>• This firm is located in the right marketplace and close to a large demand market.</li> <li>• The competitor has done intensive marketing.</li> </ul>	<ul style="list-style-type: none"> <li>• The company's reputation is not strong enough.</li> <li>• It has no experienced marketer yet.</li> <li>• The capability and capacity of the organization is still weak.</li> <li>• The company has not availed a proper marketing system.</li> </ul>
2	<b>Product Development</b>	<ul style="list-style-type: none"> <li>• The modern tropical design building concept matches with green architecture requirements.</li> <li>• Availability of technology for supporting product development.</li> <li>• Increasing trend of green environment requirements related to global warming issue.</li> <li>• Tight competition among small architecture firms.</li> <li>• The product still lacks service and needs to be improved.</li> <li>• The price war among competitors.</li> <li>• High forces from new entrants and rivalry among existing competitors of the small architecture firm.</li> <li>• Creates different values of the product regarding competition in the market.</li> </ul>	<ul style="list-style-type: none"> <li>• It increased the expenditure cost for product development.</li> <li>• Lack of competent people in the organization.</li> </ul>

Source: Author Analysis, 2020

The pros and cons are used to answer a strategic question. This analysis is obtained from the focus group discussion. The list all of pros column reveal the reasons why choose this option strategy, while the list of cons columns reveal the reason why not choosing this option strategy. Based on this analysis, the company should implement a product development strategy due to the value of Top House, which needs to be improved. Further, it adds a value proposition for its strength, thus giving it a competitive advantage and increasing the market share.

**TOWS Matrix - Functional Level strategy**

	<b>Strength:</b> 1. Competitive consultant fee. 2. Modern tropical concept that less maintenance and lower electricity consumption.	<b>Weakness:</b> 1. Less marketing activities. 2. Lack of service during operation process. 3. Lack of human resources capability. 4. Inadequate of management system. 5. Increasing company expenditure.
<b>Opportunity:</b> 1. Information technology development. 2. Building design concept to include green architecture requirement. 3. Increasing demand on landed house building.	<b>SO Strategies</b>	<b>WO Strategies</b>
	<ul style="list-style-type: none"> <li>Optimize product value to meet green architecture requirement. [S2, O2, O3]</li> </ul>	<ul style="list-style-type: none"> <li>Increase Marketing activity by multichannel marketing method. [W1, O1, O3]</li> <li>Improve supporting IT facilities to enhance effectiveness of business process. [W4, O1, O3]</li> <li>Utilize BIM technology to enhance productivity of process design. [W2, O1, O3]</li> <li>Enhance organization capability by developing appropriate HRD system. [W2, W3, O3]</li> <li>Develop management system as framework for effectiveness business process and procedures. [W2, W4, O3]</li> </ul>
<b>Threat:</b> 1. Tight competition among small architecture firm. 2. Price war among competitor.	<b>ST Strategies</b>	<b>WT Strategies</b>
	<ul style="list-style-type: none"> <li>Enhance company branding. [S2, T1, T2]</li> <li>Maintain competitiveness of the price in the market. [S1, T1, T2]</li> </ul>	<ul style="list-style-type: none"> <li>Enhance loyalty of customer with implement customer relationship management system. [W1, T1]</li> <li>Update the business positioning in the market regularly. [W1, W2, T1]</li> <li>Restructuring company expenditure for reducing spending cost. [W5, T1, T2]</li> </ul>

**Figure 5. Top House TOWS Matrix**

Source: Author Analysis, 2020

The TOWS Matrix is derived from the SWOT Analysis model that aimed to develop strategic options from an external-internal analysis. The strategies are centered on exploiting opportunities, minimizing threats, overcoming weaknesses, and capitalizing on strengths. These strategies are determined by the authors due to it is the best and most profitable strategy choice that are in line with the company's vision and mission and company level strategy. From the table above, there are 11 functional strategies applied in the marketing, human resources, operations, and finance area. The results of the TOWS matrix are depicted in the following section.

**Table 8: Top House TOWS Result**

<b>Marketing Strategy</b> <ul style="list-style-type: none"> <li>Enhance company branding.</li> <li>Maintain competitiveness of the price in the market by monitoring the price policy in the market and updating existing pricing methodology.</li> <li>Increase marketing activity by multichannel method, consisting of:</li> </ul>
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- Offline marketing: proactive participate in Community/club, attend the architectural exhibition, seminar, and architectural design contest.
- Online marketing: social media marketing, search engine optimization through an excellent website.
- Enhance loyalty through implementing a customer relationship management system.
- Update the business positioning regularly by conducting competitor analysis and developing customer satisfaction questionnaires after the project completion.

### Human Resource Strategy

- Enhance organization capability by developing appropriate HRD system, consisting of:
  - Establishing a recruitment system.
  - Performance appraisal system consisting of job target, performance (hard and soft skill), and behavior.
  - People development system, comprising of the regular internal job training program, visiting an architectural exhibition, joining seminar related to architecture, implementing coaching and mentoring program, job enlargement and enrichment for potential talented employee, job training for an incompetent employee, activate and participate in IAI organization activities.
  - A good remuneration system, consisting of salary and allowances, benefit, reward, and recognition.
  - Employee relationship plan, conducting events together between superior and subordinate or every employee regularly and proposing good workplace improvements (physic).

### Operational Strategy

- Optimize product value to meet green architecture requirements.
- Improve supporting IT facilities to enhance the effectiveness of the business process.
- Utilize BIM technology to promote the productivity of process design.
- Develop management system as a framework for effective business process and procedures, consisting of:
  - Develop and establish company policy clearly as a reference to run the business appropriately.
  - Review, update and improve the existing management system based on a plan, do, check, action (PDCA) as a framework for business process and procedure.
  - Develop and create a standard operating procedure (SOP) for every area/section as a guideline for each employee's work.

### Financial Strategy

- Restructuring company expenditure for reducing spending cost, consisting of:
  - Reorganizing company debt (Extend tenor of the company debt to reduce annual installment costs and early payment to reduce the number of debts).
  - Remove expenditure costs not related to core business.
  - Reduce workforce for drafter and animator cost as affected utilization of BIM technology.
  - Evaluate the effectiveness of spending and cost for utilizing additional information technology to prevent a significant impact on financial performance.

Source: Author Analysis, 2020

**Proposed New Business Model Canvas**

**THE NEW BUSINESS MODEL CANVAS**

KEY PARTNERS	KEY ACTIVITIES	VALUE PROPOSITIONS	CUSTOMER RELATIONSHIPS	CUSTOMER SEGMENTS
<ul style="list-style-type: none"> <li>Quantity surveyor: Dodie freelancer</li> <li>Civil engineering</li> <li>Interior Designer: Inori, Green Wood Furniture.</li> <li>Building Contractor: Bewiral CV, Marstand CV</li> <li>Building Material Supplier.</li> <li>IT specialist</li> </ul>	<ul style="list-style-type: none"> <li>Architectural design development</li> <li>Develop budget estimation for construction</li> <li>Presentation building design to client</li> <li>Nominate supplier for material selection and contractor.</li> <li>Prepare document construction.</li> <li>Supervision during construction.</li> <li>Office administration</li> <li>Marketing activities</li> <li>Human resources activities</li> </ul>	<ul style="list-style-type: none"> <li>Competitive consultant fees.</li> <li>Modern tropical Building concept that less maintenance and lower electricity consumption.</li> <li>Green architecture</li> <li>Faster design process</li> <li>Enhance the user experience.</li> </ul>	<ul style="list-style-type: none"> <li>Customer acquisition: offline channels marketing, online channels marketing.</li> <li>Customer retention: Personal assistance, customer friendly, collect feedback, article and tips periodic.</li> <li>Boosting sales: Build good customer relationship, multichannel marketing fulfillment.</li> </ul>	<ul style="list-style-type: none"> <li>Upper class people</li> <li>B2C Model</li> <li>Low and Medium Rise Building focus on personal residence, office and shophouse.</li> <li>Businessman, Professional, Executive (age 25-65 years old)</li> </ul>
	KEY RESOURCES		CHANNELS	
	<ul style="list-style-type: none"> <li>Human resources</li> <li>Tools Design: Hardware &amp; software</li> <li>Office facilities and Equipment for design on assets</li> <li>operational vehicle</li> <li>Business partners</li> <li>Internet</li> </ul>		<ul style="list-style-type: none"> <li>Offline: Word of mouth, Business card, Direct selling, telephone service, exhibitions.</li> <li>Online: CRM, website, blog articles, social media sites.</li> </ul>	
COST STRUCTURE		REVENUE STREAMS		
<ol style="list-style-type: none"> <li>Manpower Monthly Salary: Director Architects, Administration</li> <li>Office cost: electricity, PDAM, IPL, Internet, TV Cable, telepon, etc</li> <li>Accommodation cost</li> <li>Tools cost: PC, printer A2, Photocopy machine, paper, etc</li> <li>Outsourcing cost: IT specialist, QS, Civil engineering.</li> <li>BIM Platform license fee.</li> <li>Cost IT infrastructure: server, hardware, software, internet connection, broadband</li> <li>Marketing expense: digital marketing (internet marketing and non internet marketing).</li> </ol>		<ol style="list-style-type: none"> <li>Architectural design services fee: 2D Drawings, 3D modelling, Rendering, Animation, + Supervision fee.</li> <li>Building permit fee</li> <li>Interior design</li> <li>Kitchen design</li> <li>Garden design</li> <li>Illustration</li> <li>Advisor in construction</li> <li>Selection of fixtures and finishes</li> <li>Sell product housing accessories</li> <li>Advertising</li> <li>Green building analysis</li> </ol>		

**Figure 6. Top House New Business Model Canvas**

Source: Author Analysis, 2020

This is a guideline for the company to implement a new business model which in line with the company strategy and functional strategy. Based on this, the changes to the seven elements of this model canvas, namely key partners, key activities, value propositions, customer relationships, channels, cost structure, and revenue streams.

There are additional two key activities in business model canvas, specifically marketing and human resources for maximize working process outputs and deliver architect products. Also, the company adds the value proposition to give a better value to the customer. This promotes his satisfaction by enhancing the user experience, providing better service, and positively impacting the environment. Moreover, Top House company optimizes customer relationships

with online and offline marketing strategies to create new clients and maintain them. Besides that, this firm adds revenue streams to increase the company's income and seek the maximum possible profit. These changes lead to additions to the cost structure and key partners. Meanwhile, the customer segment of Top House remained constant before because it is generally limited for the potential upper-class opportunity, a big market for an architecture firm for people who live in the Jabodetabek area, and in this regard the green architecture building concept matches with the existing ones of Top House.

### Conclusion

Top House has faced a decline in revenue and profit in three consecutive years due to the dissatisfaction with the product quality and inadequate marketing activities, which lead to an inability of the firm to get new clients. This condition occurs because the unavailability of a comprehensive management system and poor company management. Consequently, the company is challenged when competing with others in the intense business competition situation. Regarding the increase in revenue and profit, this firm should develop business strategies and action plans to improve its performance.

After analyzing, Top House should implement a hold and maintain strategy with product development strategy. This strategy is performed by improving the existing product quality, consisting of green architectural requirements in the design concept, and utilizing BIM technology. Further, it makes the Top House product value different and better than competitors. In order to realize this, the company should develop a functional strategy based on the TOWS matrix to fix the current internal weakness to make the business more effective and efficient. In addition, the company should upgrade the business model canvas. These methods are purposively in increasing the revenue and net profit, improving business performance, and the ability to compete in the market. In this way, the business can grow and be sustained for a long period.

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