Proposed Strategy for The Development of Turbomachinery Equipment Service in Indonesia (Case Study: PT XYZ)

Sitti Annisa Mandasari and Harimukti Wandebori

Abstract — PT XYZ is one of the companies in Indonesia focusing on heavy rotating equipment, repair and manufacture Not only domestically, the company also plans to expand the business internationally to other countries in South East Asia. By increasing the company's sales revenue and expanding the market share, PT XYZ might be able to achieve the goal. However, in the sales it is found that the current operational management strategy can no longer sustain profitable and it makes the sales revenue drops for the last two years.

The purpose of this research is to find and identify the strategy of the turbomachinery equipment service business to keep on growing in Indonesia. The conceptual framework used this strategy begins with analyzing the external environment by using PESTLE, Porter's Five Forces, and competitor analysis. After external analysis, internal analysis is done by analyzing the resources and the value chain. Later on, all of the results will be summarized with a SWOT analysis. The results reveal that the company does not have a coherent business strategy. Thus, it evokes several problems in some internal parts of the company, such as an ineffective marketing strategy and improper resource allocation.

The applied strategy in this research is the differentiation strategy. This differentiation strategy expansion will be the key to support the company's development in the turbomachinery equipment service market in Indonesia. Meanwhile, the outcome is expected to extend PT XYZ's market share, product development, and service development later in the future.

Index Terms — Turbomachinery, Indonesia, Business Strategy, Differentiation Strategy.

I. INTRODUCTION AND RESEARCH OBJECTIVES

For the past few years, electricity demand in Indonesia increases rapidly. Strong economic growth and other factors related to urbanization and industrialization might be the reasons. According to The Ministry of Energy and Mineral Resources [7], the number of demands increase from 134,5 TWh in 2008 to 203 TWh in 2015 with an average growth of 6% per year.

As a way to fulfill the public and business field's request for electricity, President of Indonesia, Joko Widodo, announced the installation project of 35.000 megawatts (MW) power plant in May 2015. This project spreads around South Sumatera, South Kalimantan, Bengkulu, East Nusa Tenggara, Banten, and Central Java. The Ministry of

Energy and Mineral Resources predicts most of the 35.000 MW projects will be COD (Commercial Operation Date) inbetween 2025 until 2028. Along with the full operation of the 35.000 MW project, the capacity of installed electricity in 2028 may reach 97.500 MW.

A turbine is one of the components that hold an important key to determine a power plant's success. An optimal condition of turbine equipment is required to make the power plant business proceeds accordingly with the company's expectation. Therefore, the turbine's maintenance and repair need to be done periodically.

PT XYZ is one of the service companies that own several Turbomachinery service providers. Besides that, the company has some experiences in various energy supply industries like electricity, oil and gas, fertilizer, and petrochemical. Domestically, PT XYZ does not have a lot of strong opponents because turbomachinery equipment service is still rare. A limited resource and specific technology used in this business might be the reasons why this field is still limited in Indonesia.

A. Statement of The Problem

In terms of sales, a decreasing sales result is found in the last two years. This downturn is reflected by the declining profit percentage that shows a downward trend from 2017 to 2018.

PT XYZ itself has several problems in business activity; most of them come from the internal side of the company. One of the main issues derives from the lack of strategy set by the company to run the business. Whereas, business strategy is very crucial for a company, especially for those who have the vision to expand the market share overseas.

According to Wheelen, Hunger, Hoffman, & Bamford [16], business strategy is an important point of a business due to its focus to improve a business' competitive position. Besides that, a business strategy gives a significant effect to a business performance. Business strategy can also be defined as a long-term action plan done by PT XYZ to achieve competitive excellence over its competitors. By comparing the company and the competitors' strengths and weaknesses sides, the goal might be accomplished.

B. Research Objectives

The research aims to analyze and identify the factor that affects a company's business process to develop the right business strategy for PT Taka Turbomachinery Indonesia to apply.

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II. RESEARCH METHODOLOGY

A qualitative approach is applied in this research. This methodology is chosen to identify the best strategy to solve PT XYZ's business problem. Besides that, data collection is also considered as an essential component to carry out research. Thus, primary and secondary data are used in this research. A collected data from first-person experience is called primary data.

Meanwhile, collected data from previous researches, government organizations, or relevant news about a business problem is defined as secondary data. Interview, as primary data, is used to complete the information for secondary data. However, in secondary data, PESTLE Analysis, Porter's Five Forces Analysis, and Competitor Analysis are used for external environment analysis. Moreover, the company's internal data is needed to finish the whole study in this research.

III. EXTERNAL ANALYSIS

A. PESTLE Analysis

PESTLE Analysis is one of the tools which allows the researcher to discover what is happening in the economic environment and a broader aspect of the business. This analysis also helps the company to see all the crucial factors that might impact their business' success or failure. PESTLE an acronym for Political, Economic, Technological, Legal, and Environmental.

Political and Legal

The political factor must be considered in the company because political change might determine one business' success or failure. In this case, Indonesia's current politics is regarded as stable. The presidential election in 2014-2019 was one of the political factors that give a new chance for turbomachinery equipment service business Indonesia. Furthermore, legal is also linked to political matters. A legal relates to licensing and regulations made by the government as the stringent requirement for a turbomachinery equipment service business to run the business in Indonesia.

Economic

An economic factor is the most evident impact on the profitability and the whole market appeal, especially in the turbomachinery equipment service business. According to Hitt, Ireland, and Hoskisson [5], there are several economic performance indicators for the national economy or the other specific applied industries such as gross domestic product, tax and duty, exchange rate, and globalization.

Sociocultural

Sociocultural represents the culture of the community in which the organization operates. This factor covers demography, age distribution, population growth rate, level of education, wealth distribution and social class, living conditions, and lifestyle. Besides that, Sociocultural factors will obtain attitudes, beliefs, norms that affect, and a significant role in the market. One of the services offered by turbomachinery equipment service is Field Service. Field Service is done in the customer's working area, so it will be easy for the customer to monitor the expert's work. However, the company itself is still facing several obstacles with the locals during the project when they are currently in the customer's working place. The problem that usually occurs in the field is gangsterism by some people in the area.

Technological

Every company in the business field acknowledges how crucial and impactful technology is for business and its area. As a manufacturing company, most of turbomachinery equipment businesses utilize some technologies to bring in profits and business opportunities. Likewise, improvement in technology might also increase productivity and reduces expenses.

Environmental

An environmental factor may impact many different essential aspects of business, including customer's willingness to buy the company's product. The locals' risk of getting disturbed by the company's activities is insignificant because some turbomachinery equipment services are done in the industrial area, far from the settlement. Regarding pollution, the company itself already has a system to dispose of the waste produced by the activities done in the company. The company's waste consists of solid waste (e.g., iron and wasted materials from turbomachinery) and liquid waste, B3, which already has a special place accommodated by the company.

B. Porter's Five Forces

Porter's Five Forces Analysis is a tool to identify a specific strength according to business situation [11]. According to Porter, the picture bellows shows five factors that determine an industry potential advantage.

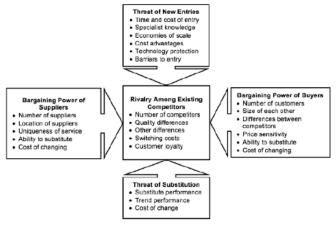


Fig. 1. Porter's Five Forces.

Threat of New Entrants

Turbomachinery equipment service is a vulnerable industry against newcomers' risks. One of the possible dangers is a significant potential of impersonation done by other companies. If it happens, the new companies may quickly enter the business field and go up against the old ones. Besides that, the turbomachinery equipment service business itself gains much interest in the market due to a significant profit that the company will get. At the moment, some new companies appear in the turbomachinery equipment service field. From this analysis, so far, the threat of new entrants is still moderate.

Bargaining Power of Suppliers

In Indonesia, metal or chemical suppliers and the turbomachinery itself are not dominated by one company. At present, many suppliers from Indonesia can fulfill the turbomachinery equipment service companies' needs. A turbomachinery equipment service may have 100 suppliers on average. Thus, it will be easy for the company to switch to another supplier if they want. According to the analysis, supplier's bargaining power for the industry is considered as low

Bargaining Power of Buyers

The tender system is the most used system by the customer. By this matter, the customer is a company (as the organizer) that uses a turbomachinery equipment service. For the organizer, the function of this system is to get the best offer in between tens or hundreds of offers of stocks or assistance. A tender has its benefits, both for the organizer and also the participant. The whole point of this system, the organizer, will get a better offer at a better price. Meanwhile, for the participant, if they win the tender, the project, no doubt, will increase the company turnover. In terms of getting a project, some turbomachinery equipment service companies usually make a presentation in front of prospective customers. Therefore, the bargaining power for this industry is high due to the varied choices for the buyer as an organizer. Thus, the decision about whether the company will get the project or not depends on the tender organizer.

Threat of Substitution

The threat of substitution in the industry is possibly low because only specified companies can give service to fix or to maintain turbomachinery equipment. Experts are required to have skills and experience to fix turbomachinery. Besides that, the turbomachinery equipment service itself has certified workers with experience to support the business activity for the company.

Rivalry Among Existing Competitors

Rivalry among companies operating in turbomachinery equipment service is usually the most influential factor between Five Porter's other elements. A strategy can be said as a success if the plan itself can be a competitive advantage compared to the other companies. Not only domestic competitors, but turbomachinery equipment companies also have competitors overseas. Overseas competitors are usually the strongest competitor for local companies. Besides considering their company's wellknown name, they also use the turbo with their brand. This kind of strategy is one of the competitive advantages for these companies. According to the analysis, it can be seen that rivalry among competitors is considered as high.

C. Competitor Analysis

Competitor analysis is one of the most important things that should be done by a company to get a better idea about competition in the business industry among the companies Hoque [6]. The researcher will make a complete competitor map to find out how many competitors are around, what kind of competitors they are, and their strengths and weaknesses. The competitor map will identify who the main competitors of PT XYZ are and develop a complete profile related to the company. After that, the competitor map will be used to analyze competitors' strengths and weaknesses as a reference for PT XYZ to choose the best business strategy.

IV. FINDINGS AND ARGUMENT

A. TOWS Matrix

TOWS Matrix identifies systematic relation among threats, opportunities, weaknesses, strengths, and offers structure to generate a strategy according to this relation Weihrich [15]. TOWS analysis helps a company to develop four alternative strategies; those are SO strategy (Strengths-Opportunities), WO strategy (Weakness-Opportunities), ST strategy (Strengths-Threats), and WT strategy (Weakness-Threats). SO strategy uses an internal power to utilize opportunities from the outer side. ST strategy is applied to internal power to avoid outside threats. WO strategy adopts external opportunities to reduce internal weakness. WT strategy minimizes weaknesses and threats that may exist. The following is the TOWS Matrix that is made as PT XYZ's strategy in the future.

B. Business Level Strategy & Activity System Map

Porter [11] explains that a company's relative position in the industry specifies whether it has profitability above or below the industry average. In the long run, an aboveaverage fundamental basis will be a sustainable competitive advantage for the company. There are two kinds of competitive advantages that the company wants to achieve which leads to three general strategies to achieve aboveaverage performance in an industry, those are cost leadership, differentiation, and focus strategy.

According to Porter Five Forces in the previous chapter, the bargaining power of buyers and rivalry among competitors are high. That matter might happen because the competitor who has to face PT XYZ during tender may be more dependable in terms of branding. Besides that, they also need to set a lower price boldly, yet with the same service. As the buyer, a client also has a long-lasting durability to choose which company will win the tender. The threat of new entrants in this industry is also at a moderate level. Many new competitors begin to appear, and most of them are local companies trying to enter the turbomachinery equipment service market. Here is PT XYZ's strategy map:

Because the market, especially the turbomachinery equipment service market, is very competitive and keeps on changing, differentiation strategy is the most suitable business strategy for PT XYZ to run the business activity, according to the business level strategy explained before. A manufacturing company like PT XYZ needs to be more innovative to add more services in their total offering as a part of a differentiation strategy to respond to the changing market conditions.

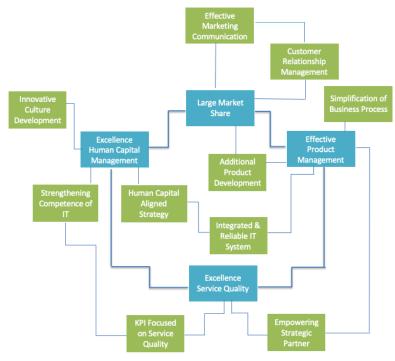


Fig. 2. Activity System Map.

TABLE 1: IMPLEMENTATION PLAN AND RESOURCES REQUIREMENTS					
	STRENGTHS (S)	WEAKNESS (W)			
	S1: Competitive pricing with good quality	W1: The company does not have a clear			
	and delivery time.	business strategy			
	S2: Various and highly qualified talent in	W2: Lack of personal who expert in sales			
	managerial and operator.	management that makes the job was not			
		optimal.			
	S3: Various equipment specification.	W3: Lack of appropriate marketing strategies.			
	S4: Partnering with several local or several	W4: Organizational capabilities do not fully			
	turbomachinery equipment company.	support company's business process.			
		W5: The company does not have its own			
		brand on any turbine equipment products.			
		W6: After sales process is still manual.			
OPPORTUNITIES (O)	SO Strategies	WO Strategies			
O1: Indonesia's plan to build 35.000 MW	 Prepare various kind of turbomachinery 	 Develop a proper business strategy to 			
Electricity	equipment to support government of	support the company's business			
	Indonesia's electricity project and other	process. (WI OI O3)			
	projects. (S1 S2 S3 O1)				
O2: Rising number of Independent Power	Conduct collaboration with the power	Improve the manpower planning system			
Plant (IPP).	plant companies who do not have their	(W2 W4 O3)			
	own equipped service unit. (S1 S2 S3				
	O1 O2 O3)				
O3: Power plant companies mostly do not	 Empowering strategic partners (S4 O1 	Improve IT infrastructure and capacity			
have fully equipped service unit	O4)	to provide reliability in business			
		processes and service quality (W6 O4)			
O4: The era of digital technology	Provide the competitive cost with good	Develop turbine equipment products			
	quality to gain trust and loyalty from	with company's own brand. (W5 O3			
	customers (S1 O2 O3)	O4)			
THREATS (T)		04)			
	ST Strategies	WT Strategies			
T1: Tight competition in pricing with local	, ,				
T1: Tight competition in pricing with local and overseas competitors.	ST Strategies	WT Strategies			
	ST Strategies Make some improvement of the	WT Strategies Expand the scope and type of marketing			
	Make some improvement of the marketing system to promote the	Expand the scope and type of marketing communication, not only in Indonesia			
and overseas competitors.	Make some improvement of the marketing system to promote the company products. (S2 S3 T2)	Expand the scope and type of marketing communication, not only in Indonesia			
and overseas competitors.	Make some improvement of the marketing system to promote the company products. (S2 S3 T2) Develop training system and learn from	Expand the scope and type of marketing communication, not only in Indonesia			

organizational needs. (S2 S3 T1)

V. CONCLUSION

Turbomachinery equipment service is one of the fastgrowing industries at the moment. According to a Persistence Market Research study, this industry is predicted to experience a steady growth until 2028. It is strongly driven by the growth of the oil and gas industry, specifically the power plant, which allows the demand for turbines as one of the main engine components in the power plant to remain stable until next few years.

The condition of the turbomachinery equipment service business in Indonesia is currently growing in line with the enterprising government to develop the power plant sector. The government also planned to make a 35.000 Megawatts (MW) power plant project in 2015, which was predicted to be done in 2029. This project is an excellent opportunity not just for the power plant business, but also for the other businesses related to the power plant business at the moment, such as turbomachinery equipment business. In this research, PT XYZ was the company analyzed by the researcher as one of the turbomachinery equipment service companies in Indonesia.

PT XYZ is one of the local companies engaged in the turbomachinery equipment service business since 1998. To face the business rivalry at the moment, PT XYZ needs a proper business strategy and implementation plan so the company can continue to strive and be the leader of turbomachinery equipment service companies in the future.

The researcher recommended a differentiation strategy for PT XYZ's business-level strategy. By this strategy, the company's income is expected to keep on increasing by offering more additional values to customers through provided products and services. An enhancement in the company's business process would make the whole business process more efficient and effective. The following is the Implementation Plan and Resources Requirements for PT XYZ:

TABLE 2: IMPLEMENTATION PLAN AND RESOURCES REQUIREMENTS

Differentiation Strategy	Strategic Initiative	Implementation Plan	Resource Requirement
	Product Development & Innovation	- Product or service innovations based on the	- Research and Development Resources
		market opportunity and customer demand.	- Innovation Culture
	Optimizing e-channels	- Optimizing the use of social media for branding	- Marketing Resources
		management and maintaining good	- Financial resources
		relationship with customer (ex: send	- Employee competencies
		newsletters, event invitations and specialty	- Technological Resources
Business Development		emails).	
	Effective Marketing Communication	- Participating in events or exhibitions related to	- Marketing Resources
		turbomachinery to promote company's	- Employee Competencies
		products.	- Technological Resources
		- Remembering details like a company's	
		anniversary or important event to ensure that	
		customer feel valued, known and understood.	
IT & Operational Development	Fulfillment IT Capacity	- Improve the infrastructure and capacity of IT	- IT Personnel Competencies
			- Technological Resources
			- Financial Resources
ii a operational bevelopment	Digitalization Business Process	- Digitalization and automation of work process	- IT Personnel Competencies
			- Technological Resources
			- Financial Resources
	Improve Human Capital Management	- Developing a manpower planning system to	- Human Capital Management System
Organizational Development		fulfill company needs	
	Increase Employee Competencies	- Designing training programs based on	- Human Capital Management System
		company needs	- Training Need Analysis
			- Financial Resources
	Innovative Cultures	- Practicing "innovation parenting" method to	- Human Capital Management
		internalize the innovation culture in company.	- Employee Competencies

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