

UNIVERSITY STRATEGY AND IMPLEMENTATION USING THE DAVID STRATEGIC-MANAGEMENT MODEL: A CASE STUDY FROM INDONESIA

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ABSTRACT

The competency standards of university graduates must comply with the National Standards of Education, the Indonesian National Qualification Framework (KKNI), and other criteria set by the university. Universities need to set strategies and implementations to achieve the standard of graduate competence consisting of attitudes, knowledge, and skills stated in the formulation of graduate learning achievements. A case study using a qualitative approach was conducted at the university in Banten, Indonesia. The purpose of this study is to explore academic strategies in university. This includes examining the key drivers for strategic planning, the opportunities pursued in strategic planning, and challenges encountered in the process of strategic planning. The findings suggest that key drivers for strategic planning in the university include market competition and customer requirements. Secondly, the findings are the university should pursue three major strategic planning opportunities, including improved academic operational efficiency, improved student competency, and lecturer's qualification, as well as improved services of the university. Thirdly, the change management process is reactive and not necessarily transformational in its degree, even though it can involve large-scale changes. The findings integrated into a model contribute to understanding the relationship between the context of strategic planning, the content of strategic planning, and the process of strategic planning in university.

Keywords: graduate competence, strategic planning, university, change

INTRODUCTION

Universities educate future business executives and leaders by emphasizing a balance of academic knowledge, soft skills development, and holistic student character building. Graduates are expected to master knowledge and skills; have integrity or the integration between beliefs, thoughts, words, and actions; be stewards to fulfill commitments in seeking, developing, using time and assets with full responsibility and integrity to serve others; and have mutual respect for stakeholders in the spirit of integrity and service. On top of those, a graduate should have research skills, professionalism, and a heart to do community services.

The perceptions of stakeholders (parents of students, students, graduates, institutions, or organizations using graduates, professional communities that oversee the graduate profession) become a reference source for making quality corrections and innovations (Kusnandi, 2017). The quality of educational services is the operational of the university's vision and mission (Lunenbug, 2010). Higher education quality management is a shared responsibility of the entire academic community (Susilo, 2018).

The university through academic department manages various study programs and teaching and learning activities based on curricula that are prepared and implemented according to the rules of SN DIKTI (National Standards for Higher Education) and KKNI (Indonesian National Qualifications Framework) (Kementerian Pendidikan dan Kebudayaan, 2013), which will have an impact on the results of accreditation carried out by BAN-PT (National Higher Education Accreditation Body). The strategy and implementation of the

academic department to realize the university's vision and mission by improving the quality of graduates is the purpose of this research.

This research seeks to answer three research questions (RQ):

RQ1: What are the key drivers for strategic planning in university?

RQ2: Which opportunities should be the target in strategic planning for a university?

RQ3: What are the challenges encountered in the process related to strategic planning in a university?

These research questions provide a solid foundation for fulfilling the purpose of this study.

LITERATURE REVIEW

Strategic Management

The word strategy or *Strategos* in Greek means military general. The term strategy in the military refers to the action taken in response to the opposite party. According to Oxford Dictionary, “military strategy is the art of so moving or disposing of the instruments of warfare (troops, ships, aircraft, missiles) as to impose upon the enemy, the place, time and conditions for fighting by oneself.” Strategy ends or yields to tactics when there is actual contact with the enemy.

According to David and Foray (2017):

“Strategic management is the art and science of formulating, implementing, and evaluating cross-functional decisions that enable an organization to achieve its objectives. The term strategic management in this text is used synonymously with the term strategic planning. The latter term is more often used in the business world, whereas the former is often used in academia. Sometimes the term strategic management is used to refer to strategy formulation, implementation, and evaluation, with strategic planning referring only to strategy formulation.”

Mintzberg (1987) advocates the idea that strategies are not always the outcome of rational planning. They can emerge from what an organization does without any formal plan. He defines strategy as:

“a pattern in a stream of decisions and actions”

Mintzberg distinguishes intended strategies from emergent strategies. Intended strategies refer to the plans that managers develop, while emergent strategies are the actions that take place over a while. In this manner, an organization may start with a deliberate strategy and end up with another form of strategy.

Porter (1996) of the Harvard Business School, shares his ideas on competitive advantage, the five-forces model, generic strategies, and value chain. He opines that the core of general management is strategy, which he elaborates as:

“... how activities complement one another in a way that creates competitive advantage and leads to superior profitability...”

A long-term strategic policy is a defining feature of all universities, encompassing organizational change, curriculum innovation, staff development, and student mobility to achieve excellence in teaching and research (Hassanien, 2017; Rudzki, 1995).

Strategic management in this paper is defined as the process of systematically analyzing various organizational strengths, weaknesses, opportunities, and threats (SWOT), or strategy formulation and implementation to meet a set of objectives of the organization followed by critical evaluation or monitoring implementation of the strategy (Slikkerveer, 2019).

Stages of Strategic Management

The strategic management process consists of three stages: strategy formulation, strategy implementation, and strategy evaluation (David & David, 2017). It's all starts with defining an organization's vision and mission, then identifying an organization's external opportunities and threats, determining internal strengths and weaknesses, establishing long-term objectives, generating alternative strategies, and choosing strategies to pursue to end the stage of strategy formulation. Strategic issues include deciding what new business to enter, what to abandon, whether to expand operations or diversify, whether to enter international markets, whether to merge or form a joint venture and how to enhance digital business transformation. An organization should make the best decisions related to specific products, markets, resources, and technologies committed to gain a long-term competitive advantage.

At the strategy implementation stage, a firm will establish annual objectives, budgets, devise policies, allocate resources, redirecting marketing efforts, developing information systems, a strategy-supportive culture, creating an effective organizational structure, and linking employee compensation to organizational performance. Implementing strategy into action means mobilizing employees and managers and requires interpersonal skills, change management, personal discipline, commitment, and sacrifice for successful strategy implementation. (Kolb, Lublin, & Baker, 1986).

The manager regularly monitors a strategy that is not working through evaluation activities include reviewing external and internal factors changes, measuring performance, and taking corrective actions in the strategy evaluation stage, three stages formulation, implementation, and evaluation of strategy activities occur at three hierarchical levels: corporate, divisional, or strategic business unit, and functional.

Vision and Mission Analysis

In educational practices, the vision and mission of the university will be the basis to direct various decisions and policies in nine components: Customers; Products or services; Markets; Technology; Survival, growth, and profitability; Philosophy; Self-concept; Public image; and Employees.

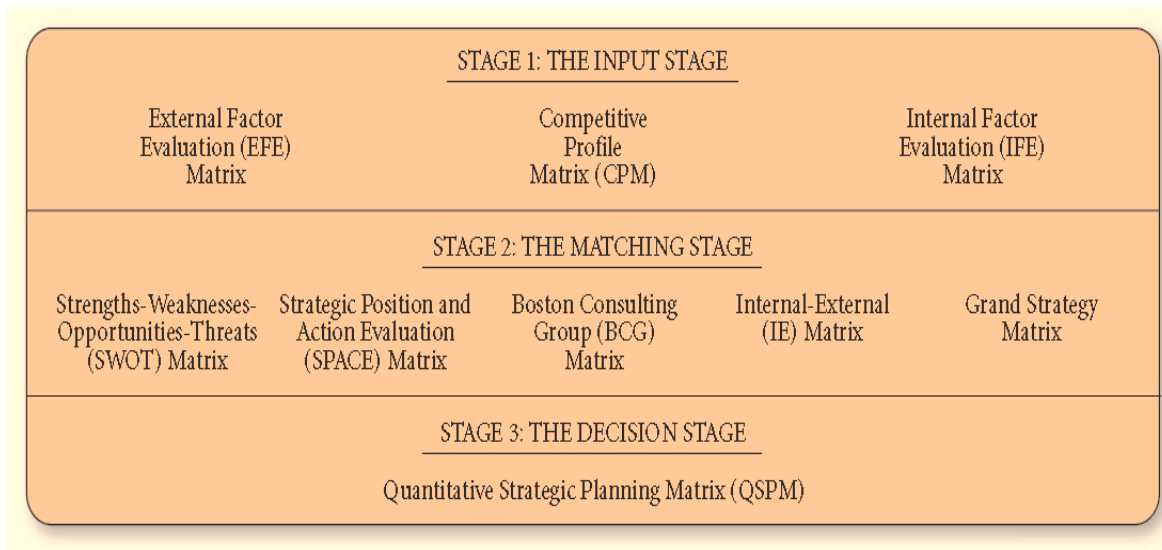
The statement by Cleland and King (1975) recommends that an institution must carefully in writing vision and mission statements:

- 1) To ensure that all employees understand and acquire the vision and mission
- 2) To focus on internal and external factors in line with vision and mission
- 3) To focus on how to allocate the available resources
- 4) To focus all jobs, departments, activities, and sharing goals

Strategy Formulation

Strategy formulation is divided into a three-stage decision-making framework. This framework (Figure 1) can be applied to all types and sizes of organizations and helps identify, evaluate, and define strategies. The nine techniques mentioned in Figure 3 are needed to integrate intuition and analysis into the analytical framework of strategy formulation. These techniques are useful for developing strategies and objectives and serve as a basis for identifying, evaluating, and selecting alternative strategies (David & David, 2017).

Figure 1. Strategy Formulation Stages (David & David, 2017)



Input Stage

The purpose of an external audit is to develop a list of opportunities that could benefit the organization as well as threats that should be avoided. Organizations need to respond, maintain, or act against these factors by formulating strategies that take advantage of external opportunities or minimize the impact of potential threats (David & David, 2017). Organizations need to identify strengths and weaknesses internally and externally to formulate strategies. Organizations must be agile and adaptive to keep up with emerging developments.

The EFE (External Factor Evaluation) matrix provides opportunities for strategic planners to evaluate economic, social, cultural, demographic, environmental, political, governmental, legal, technological, and competitive information. The EFE matrix is a tool used by companies to assess the company's external environment and identify existing opportunities and threats. The analysis is carried out using the IFE (Internal Factor Evaluation) matrix which is a tool to evaluate the strengths and weaknesses in various organizational functions and the relationships between the observed areas.

The CPM Matrix (Competitive Profile Matrix) identifies the main competitors, including their strengths and weaknesses with the strategic position of the organization. The values of weights and total weighted in CPM and EFE have the same meaning. In CPM, there are critical success factors that come from internal and external issues. The internal analysis focuses on efforts to identify organizational strengths and weaknesses as part of the strategic management process (David & David, 2017).

Matching Stage

There are several possibilities for actions and ways to implement them, so strategic planners need to identify and evaluate strategic alternatives for the organization. The matching stages in the strategy formulation framework consist of a SWOT matrix (Strengths, Weaknesses, Opportunities, Threats), SPACE (Strategic Position and Action Evaluation) matrix, BCG matrix (Boston Consulting Group), IE Matrix (Internal-External), and Grand Strategy Matrix. All this information relies on the information obtained from the input stage to match external opportunities and threats with internal strengths and weaknesses. This is an essential step to formulate a feasible strategy (David & David, 2017).

The process of matching internal and external factors is the most challenging part of developing a SWOT matrix, which may require good judgment. The strategy formulation is based on four components in SWOT, including:

- 1) SO (Strength-Opportunities)
- 2) WO (Weaknesses-Opportunities)
- 3) ST (Strengths-Threats)
- 4) WT (Weaknesses-Threats).

The SPACE matrix describes two internal dimensions, namely FP (Financial Position) and CP (Competitive Position) to be the factors in determining the overall strategic position of an organization. The SPACE matrix maps the condition of academics using a Cartesian diagram model with two dimensions and four quadrants for educational institutions (Joibary & Nagaraja, 2011).

The BCG matrix emphasizes the organization's efforts in formulating its strategy. This matrix graphically depicts the differences between divisions based on two dimensions, namely relative market share position and industry growth (David & David, 2017). The BCG matrix method determines the position of higher education based on identifying the initial market share position, determining the market growth rate, analyzing the opportunities and threats, and ranking the university operating in BCG Matrix, and continue with analyzing and determining the ways this position can be maintained over the long term in the context of developing strategic concepts by higher education institutions (Dworak, 2016).

The IE Matrix consists of the total IFE weight score on the X-axis and the total EFE weight score on the Y-axis. This matrix has three main areas: grow & build, hold & maintain, harvest & divest.

The Grand Strategy Matrix is one of the most popular tools used to formulate strategies. This matrix highlights two evaluative dimensions, namely competitive position and market growth, and is divided into the quadrant of the matrix.

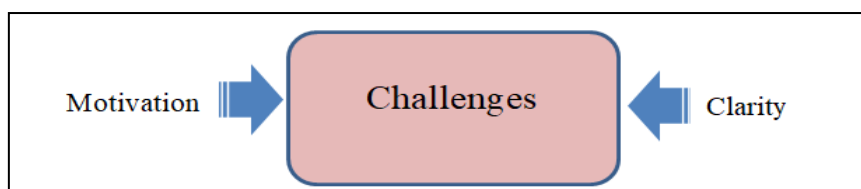
Decision Stage

This stage is the third stage in strategy formulation, namely decision-making. QSPM (Quantitative Strategic Planning Matrix) is a tool that allows strategic planners to evaluate alternative strategies objectively based on previously identified external and internal critical factors.

Implementation Strategy

Fred David states that strategy can be implemented properly only when the organization can market its goods and services effectively (David & David, 2017). However, before an educational organization markets its services, the organization needs to prepare for the educational program to be offered. Strategy formulation focuses on effectiveness, while implementation focuses on efficiency. Decision-making should be based on excellence. In the implementation process, strategic management needs to pay attention to its position based on a close to customer orientation (Sallis, 2005). Ensuring the organization is close to the customer in an educational context is a key goal.

Figure 2. Keeping Close to Customer Concept



Sallis (2005) explains how to ensure the services offered by the organization are in line with market needs. Leaders need to listen to the needs of customers and staff to make feedback in organizational development (Smirnovs & Jamil, 2015). Three big things are highlighted in ensuring the organization's position is close to the customer:

- 1) Motivation, related to the motivation of students, lecturers, and all staff in carrying out their duties and work.
- 2) Challenges, related to the development of expertise and competencies needed by society, and support environmental changes.
- 3) Clarity related to the programs offered by the organization and what students expect as customers.

Continuous development and improvement as an effort to achieve excellence and guaranteed quality is not an easy thing. This requires commitment from the entire academic community, collaboration, a coordination system, and the right leadership.

Strategy Monitoring

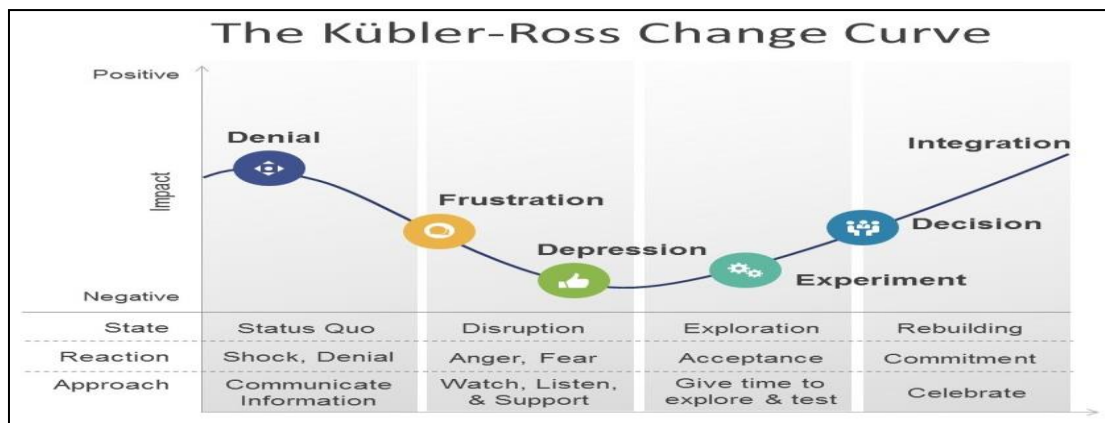
The implementation strategy requires monitoring to ensure that the formulated implementations are relevant to market needs. There are three main activities in strategy evaluation:

1. Examine the underlying bases of a firm's strategy
2. Compare expected results with actual results
3. Take corrective actions to ensure that performance conforms to plan

Change Management

Change management is needed to ensure the successful implementation of the strategy is due to the organization's dynamic environment which consists of people with their thoughts, feelings, and actions. According to (Balogun & Hailey, 2004), change management responds to changes in direction, starting point, approach style, targets, levers, and roles.

Figure 3. The Kubler-Ross Change Curve (Kübler-Ross, 1969)



The Kübler-Ross curve of change shows the stages that appear to change (Tahir, 2019). Starting with the denial stage that is usually marked by surprise or silence. The approach that is needed in response to this is to communicate information. The frustration stage is between rejection and depression. The stage of depression is to deal with it by seeing, listening, and providing support. At the experimental stage, it is necessary to provide opportunities for

exploration and testing. The next stage is the decision and followed by integration. At this stage, every achievement needs to be celebrated.

RESEARCH METHODS

A case study is suitable for answering the ‘how’ and ‘why’ type of research questions (Saunders, Lewis, & Thornhill, 2007) and allowing for in-depth investigation in the dynamics of single settings (Eisenhardt, 1989). Since this study is exploratory in nature and deals with questions of how and why universities use strategic planning, a case study is used as a research strategy to understand a phenomenon in a natural setting (Palena et al., 2006). In the case study research, the number of cases and the time perspective also need to be considered. A single case study can be used if the informant gives comprehensive information, the case represents extreme uniqueness, and it is difficult to access other targets (Yin, 2014). Due to time constraints, the case study was cross-sectional and not longitudinal to focus on a phenomenon at a particular time and not its changes over time.

The criteria to find a university are in terms of size (number of employees, less than 100 employees), ownership structure (limited), and customers (student). Due to limited access to universities in Tangerang, Banten, search engines, reviewing websites, and articles available of the university are approached by phone. The Head of Academics establishes appointments with the Rectors, who are also interviewed with in-depth questions.

Data Collection

The data were collected from the Rector and key persons of the university and recorded and transcribed for data analysis. Secondary data such as text, graphics, and printed materials were taken from the websites of the university. The focus of questions was based on the research questions and outlined in the literature review as the content of strategic planning, the context of strategic planning, and the process of strategic planning. Few respondents wish to remain the anonymous name of the university and personal identity of all cases in this study.

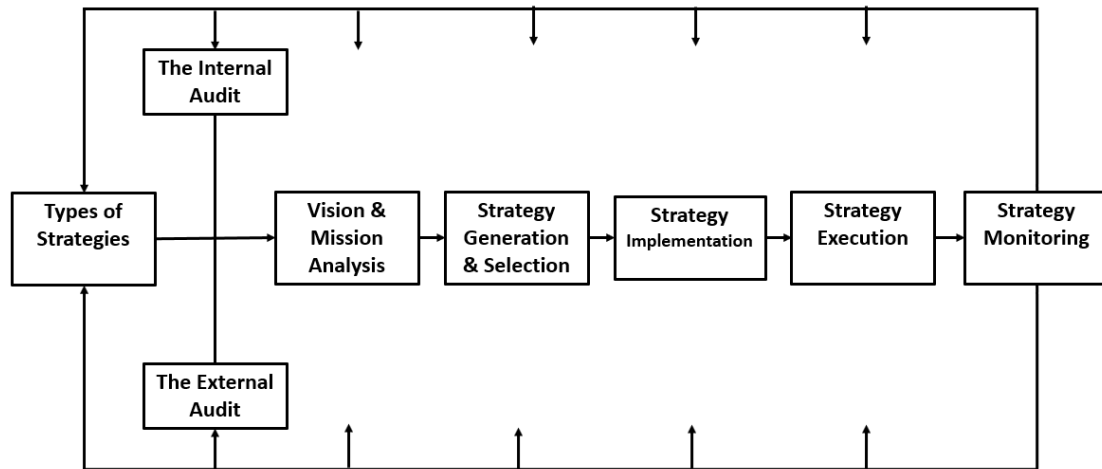
Data Analysis

In this case study, a single case or one university were analyzed, according to research questions, existing theories, followed by exploring connections and patterns of the case. The focus of this case study aims to investigate the phenomenon from one context or university and link the data to a proposition by finding their outcomes using pattern matching or similarity technique (Yin, 2014). Data were collected using different methods such as explanation building, logic models, and single-case analysis. Miles and Huberman defined cross-case analysis as searching for patterns, similarities, and differences across cases with similar variables and similar outcome measures (Hardani et al., 2020).

In addition to identifying the “case” and the specific “type” of case study to be conducted, the researcher considered it is prudent to conduct a single case study for the understanding of the phenomenon. A single holistic case might be the decision-making of one university to take into consideration the context. So, one university was chosen because it is a unique or extreme situation as a holistic single case study (Yin, 2014).

Strategic planning, implementation, and evaluation begin with internal and external analysis, vision and mission analysis, strategy making and selection, strategy implementation and evaluation as well as change management needed by the organization according to the strategic management model from (David & David, 2017).

Figure 4. Strategic Management Model (David & David, 2017)



RESULTS AND DISCUSSION

Strategy formulation begins with a university vision and mission analysis based on 9 components that must be met to cover all aspects, from customers to employees.

University Vision

Becoming a Global University and Student's Top Choice

University Mission

Preparing a generation with global insight, experts in their fields, and an entrepreneurial spirit. Having competent, certified, and innovative teachers. Supporting government programs in educating the nation with scholarships. Improving the quality of science through research and community service.

University Objectives

- 1) To educate the nation's life and increase the body of knowledge.
- 2) To prepare graduates who can master their fields and stand alone in advancing science in the context of developing the state and nation.
- 3) To research for the advancement of science, technology, art, and culture in advancing the quality of people's lives.

University Values

- 1) Integrity
The integration of beliefs, thoughts, words, attitudes, and actions.
- 2) Stewardship
The search, development, use of talents, time, and treasures that God has entrusted to us to serve and develop with integrity.
- 3) Respect
Appreciate stakeholders in the spirit of integrity and service.

The table below describes the components included in the university's mission.

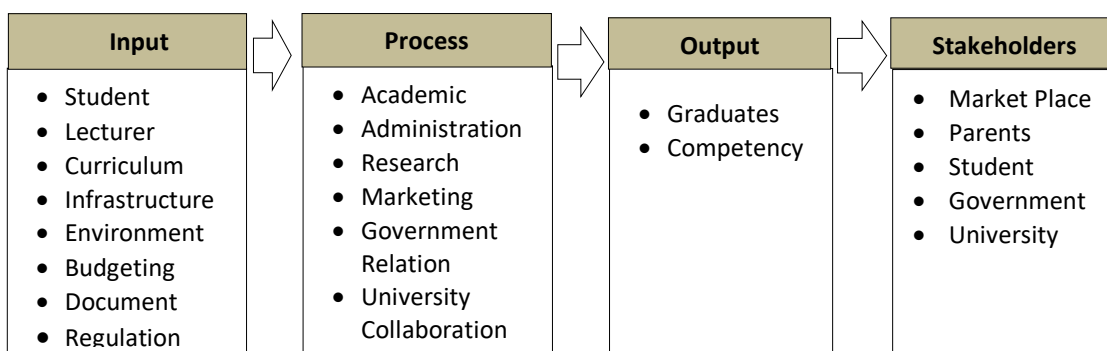
Table 1. Mission Components Analysis

	Components	Mission
	Customer	Students
	Product and services	Regular Class, Employee Class, Blended Class
	Market	Grade 12, Employee
	Technology	Digital Learning
	Survival, growth, and profitability	Collaboration Learning Research-based-teaching and learning Scholarship and Lowest Price in the area
	Philosophy	Nurturing future leader with integrity, servant leadership, stive for excellent and humanity
	Self-concept	Qualified and Certified faculty
	Public image	Integrity, Stewardship, Respect
	Employees	Lecturer, Department Head, Staff

The Internal Audit

The second step in the strategy formulation is a SWOT analysis by considering the input-process-output flow at the university.

Figure 5. University Input-Process-Output flow



Strengths and weaknesses that have been recorded will be given a value in weight and rating. The weight is in the range of 0.0 (not important) to 1.0 (important) and the sum of all weights is 1.0. The rating is based on major weakness (rating = 1), minor weakness (rating = 2), minor strength (rating = 3), major strength (rating = 4). If the total score obtained is below 2.5, then the organization is declared internally weak. However, if the total score obtained is above 2.5, then the organization is declared internally strong.

Table 2. Internal Factor Analysis Score (EFAS)

	Strengths	<i>Weight</i>	<i>Rating</i>	<i>Weighted Score</i>
1	Faculty members recruitment system	0.03	2	0.06
2	Internal quality assurance system	0.05	2	0.10
3	Academic processing system	0.08	2	0.16
4	Link with DIKTI (higher education institution)	0.01	3	0.03
5	Curriculum development system	0.03	2	0.06
6	Experiential learning method	0.03	2	0.06
7	Connection to the group of companies	0.03	2	0.06
8	Student exchange programs with universities in Asia and Europe	0.01	1	0.01
9	Lecturers and students collaborate in research-based learning	0.03	1	0.03
10	Students professional certifications	0.03	2	0.06
	Weaknesses	<i>Weight</i>	<i>Rating</i>	<i>Weighted Score</i>
1	New Teaching learning system implementation in progress	0.05	3	0.15
2	New Academic standard in progress	0.10	4	0.40
3	New Study program based on university expertise	0.03	2	0.06
4	New Digital learning workshop for senior faculty	0.10	2	0.20
5	New Graduate Learning Outcomes	0.03	3	0.09
6	New University vision and mission in daily operation	0.10	3	0.30
7	New Curriculum in preparation	0.15	4	0.60
8	New Internal accreditation procedure	0.05	2	0.10
9	New Assessment weight system	0.03	2	0.06
10	New Graduates passing grade system	0.03	3	0.09
	Total IFAS/Internal Factor Analysis Score	1.00		2.68
	The Nominal IFAS (0.63 – 2.05)			-1.42

Based on Table 2, the score obtained in the internal factor analysis score (IFAS) is 2.68. It shows that there are internal weaknesses due to the education standard document as the basis for curriculum preparation and implementation of the higher education curriculum incompletely. Focus on implementation of university academic processing system and internal quality assurance system will keep the university's gain advantages in the strength factor position. Implementing a new curriculum, academic policies, and operationalize vision and mission will reduce the weaknesses factor of the university.

The External Audit

External evaluation factor analysis is to collect data on external opportunities and threats. Each factor is given a weighted value from the range of 0.0 (less important) to 1.0 (very important), which refers to the industry (industry-based). It is necessary to provide a rating for each factor based on the effectiveness of the company/organization strategy with the provisions of rating 1 (slow response), rating 2 (average), rating 3 (above average), rating 4 (superior). If the score is more than 2.5, the company's strategy is considered effective in responding to opportunities and minimizing external threats. If the score is below 2.5, it means the company is not capable of taking advantage of opportunities or avoid external threats.

Table 3. External Factor Analysis Score (EFAS)

Opportunities		Weight	Rating	Weighted Score
1	National and international scientific programs invitation	0.05	1	0.05
2	Parent group of companies support	0.07	4	0.24
3	Professional certification as competency	0.04	3	0.12
4	Partnerships with industry	0.05	2	0.10
5	Research and funding from DIKTI (higher education)	0.04	1	0.04
6	Business startup incubator	0.06	1	0.06
7	External human capital development	0.03	1	0.03
8	New Technology and innovation	0.01	2	0.02
9	Collaboration and comparative studies	0.04	1	0.04
10	Economic and society support	0.08	1	0.08
Threats		Weight	Rating	Weighted Score
1	Limited Qualified lecturers	0.05	1	0.05
2	Average students rank enrollment	0.04	1	0.04
3	International university	0.02	1	0.02
4	Similar programs with rival university	0.05	1	0.05
5	Higher Standard of research and publications	0.04	3	0.12
6	Higher Standard of community service	0.03	1	0.03
7	Higher Standard of E-learning systems and technology	0.08	4	0.24
8	Higher Quality Assurance System ranking (BAN PT - SPME)	0.10	4	0.40
9	Higher Industry competencies	0.05	2	0.10
10	Limited price increase due to pandemic	0.07	1	0.07
Total EFAS/External Factor Analysis Score		1.00		1.99
The Nominal EFAS (0.78 – 1.21)				-0.43

The score of external factor analysis score obtained from the external factor evaluation matrix is 1.99. Focus on partnering with parent groups of companies for financial support and industry linkage will improve the professionalism of faculty members enhances the university to grab the opportunities available. The biggest challenge is from the external assessment of BAN-PT that runs the External Quality Assurance System (SPME) due to rating results conducted by BAN-PT on the quality of higher education often affect public perceptions in terms of viewing the quality of educational institutions. The universities' challenge is to strengthen and maximize the quality of education services provided to the community, research and publication, and standard of E-learning systems and technology that increase the rating of the university.

Competitive Profile Matrix (CPM)

The ratings and total weighted values obtained in the CPM Ratings refer to strengths and weaknesses with the provisions of 1 = major weakness, 2 = minor weakness, 3 = minor strength, 4 = major strength.

Table 4. Competitive Profile Matrix (CPM)

Critical Success Factors	Weight	University A		University X		University Y	
		Rating	Score	Rating	Score	Rating	Score
Lecturer Quality	0.12	2	0.24	2	0.24	3	0.36
Leadership Effectiveness	0.20	2	0.40	3	0.60	3	0.60
Graduates Competences	0.06	1	0.06	3	0.18	3	0.18
Study Time Management	0.04	1	0.04	2	0.08	3	0.12
Infrastructure Maintenance	0.03	2	0.06	3	0.09	4	0.12
Employee dedication	0.07	1	0.07	3	0.21	3	0.21
The Experiential Learning	0.07	1	0.07	2	0.14	3	0.21
Global Curriculum	0.15	1	0.15	3	0.45	4	0.60
Governance Structure	0.04	2	0.08	2	0.08	2	0.08
Process based education	0.04	1	0.04	2	0.08	4	0.16
Employee Competency Development	0.08	1	0.08	2	0.16	3	0.24
Education Services	0.10	1	0.10	3	0.30	4	0.40
Total	1.00		1.39		2.61		3.28

Based on the score obtained by the university, the competitive profile matrix is 1.39. This value is below the average, which is 2.5. It also shows that Universities X and Y get higher scores, which means that the two universities have a stronger position.

Strength-Weaknesses-Opportunities-Threats (SWOT) Matrix

Matching internal and external factors are the most difficult part of developing a SWOT matrix. The strategy formulation was developed from 4 factors in SWOT, including: SO (Strength-Opportunities), WO (Weaknesses-Opportunities), ST (Strengths-Threats), and WT (Weaknesses-Threats).

Table 5. SWOT Matrix

	Strength	Weaknesses
	<ol style="list-style-type: none"> 1. Faculty members recruitment system 2. Internal quality assurance system 3. Academic processing system 4. Link with DIKTI (higher education institution) 5. Curriculum development system 6. Experiential learning method 7. Connection to the group of companies 8. Student exchange 	<ol style="list-style-type: none"> 1. New teaching learning system implementation in progress 2. New academic standard in progress 3. New Study program based on university expertise 4. New digital learning workshop for senior faculty 5. New graduate learning outcomes 6. New university vision and mission in daily operation

	programs with universities in Asia and Europe 9. Lecturers and students collaborate in research-based learning 10. Students professional certifications	7. New curriculum in preparation 8. New internal accreditation procedure 9. New assessment weight system 10. New graduates passing grade system
Opportunities	SO Strategies	WO Strategies
1. National and international scientific programs invitation 2. Parent group of companies support 3. Professional certification as competency. 4. Partnerships with industry 5. Research and funding from DIKTI (higher education) 6. Business startup incubator 7. External human capital development 8. New technology and innovation 9. Collaboration and comparative studies 10. Economic and society support	1. Develop a new curriculum fit to industry (S5, O4) 2. Improve collaboration in research-based learning (S9, O5) 3. Set all student certification and industry experiences as the passing grade (S10, O3)	1. Develop university integrated system (W1, O8) 2. Provides lectures certification (W10, O3)
Threats	ST Strategies	WT Strategies
1. Limited qualified lecturers 2. Average students rank enrollment 3. International universities 4. Similar programs with rival university 5. Higher standard of research and publications 6. Higher standard of community service 7. Higher standard of e-learning systems and technology 8. Higher quality assurance System ranking 9. Higher industry competencies 10. Limited price increase due to pandemic	1. Accelerated lectures qualification (S1, T1) 2. Develop programs & curriculum fit to industry (S7, T9)	1. Focus on university ranking (W8, T8) 2. Train and educate faculty members to fit the standards (W2, T9)

Strategic Position and Action Evaluation (SPACE) Matrix

University SPACE matrix IE analysis is helpful to elaborate on the difference between the SP and IP axes. SP refers to the volatility of profits and revenues for university. Thus, SP volatility (stability) is based on the expected impact of changes in core external factors such as technology, economy, demographic, seasonality, and so on. The higher the frequency and magnitude of changes in university, the more unstable the SP becomes. A university can be stable or unstable on SP, yet high or low on IP. The university would be unstable (-6 or -7)

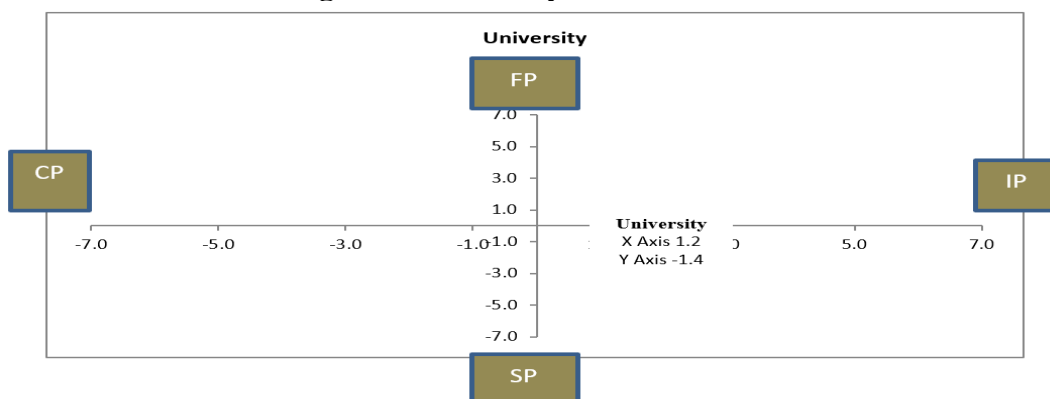
on SP yet having high growth on IP, or university would be stable (-1 or -2) on SP yet having low growth on IP.

Table 6. SPACE Matrix

Internal Analysis: <u>Financial Position (FP)</u>		External Analysis: <u>Stability Position (SP)</u>	
Budget allocation for all study programs	6	Economics deficit	-3
Budget for public relation & branding	5	Competition pressure	-6
Budget for foundation and rector office	3	Digital changing in teaching learning process	-6
Budget for technology enhancement	2	Student motivation	-4
Revenue increase > 5%	2	Public image	-6
<u>Financial Position (FP) Average</u>	3.6	<u>Stability Position (SP) Average</u>	5.0
Internal Analysis: <u>Competitive Position (CP)</u>		External Analysis: <u>Industry Position (IP)</u>	
Graduate Competencies standard	-6	Lecturers qualification	5
Learning sources	-3	Education demand	6
Programs offered and infrastructures	-4	Degree demand	6
Clear job description & training	-5	Faculty members training	5
Employee productivity & compensation	-4	Three objectives of university	6
<u>Competitive Position (CP) Average</u>	-4.4	<u>Industry Position (IP) Average</u>	5.6

Based on the SPACE matrix analysis in table above and the description of figure, the university is in the X (1.2) and Y (-1.4) competitive quadrant coordinates. The appropriate strategy is product development, namely developing the curriculum or study program at the university following the national qualification framework, based on the needs of industry, student, and all stakeholders.

Figure 6. University SPACE Matrix



Boston Consulting Group (BCG) Matrix

The BCG matrix emphasizes the organization's efforts in formulating its strategy. The matrix illustrates the difference in two dimensions, namely the relative market share position

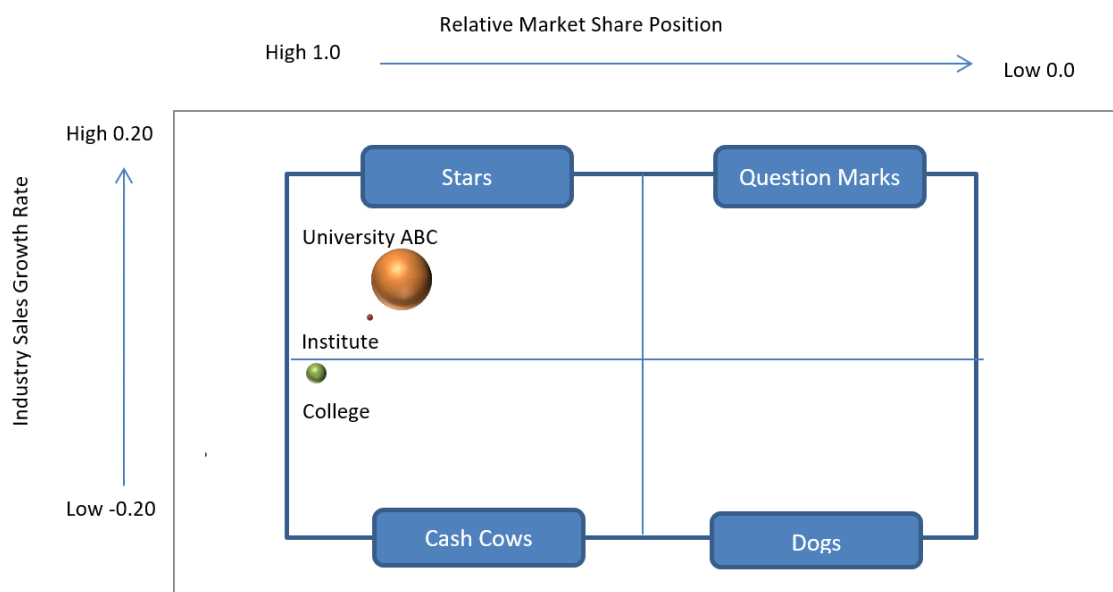
and market growth rate. The BCG matrix method to determine the market growth rate in higher education is based on market share.

Table 7. Market Growth Rate

Higher Education	2018	2019	Market Growth Rate	Relative Market Share Position
University	130,374	146,094	0.12	0.89
Institute	1,286	1,365	0.06	0.94
College	13,692	13,336	-0.03	1.03

Source: Higher education statistic in Indonesia year 2018 and 2019

Figure 7. University BCG Matrix year 2018



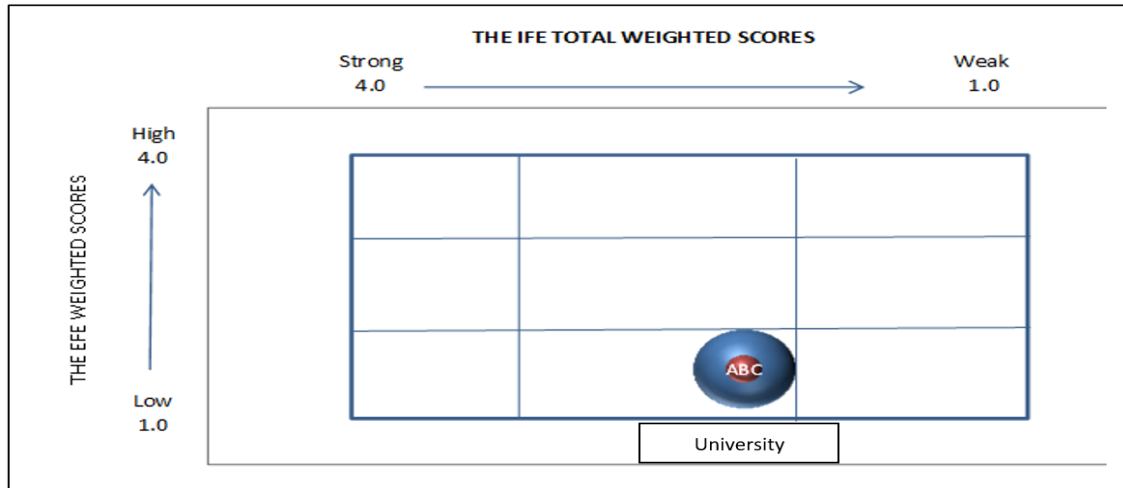
Based on Figure 7's BCG Matrix, the university position is in the star quadrant, meaning the best long-term opportunities to grow and develop. The university shall prioritize the quality of its educational services and should seek financial support in the process. The strategy suitable for this condition is product development, namely by developing study programs offered by a quality that aims to produce graduates' competencies that compete in their fields.

The institute's position is in the star quadrant, with a high market share position and high market growth rate in an acquiring number of students which is closed to the university's potential. The college position is in the cash cow quadrant that less high market share but still the potential to grows compared to the university and the institute, a cash cow is yesterday's stars. College should be managed to maintain its position with product development or diversification otherwise it will become weak, retrenchment or divestiture. All three higher education types should be focus intensively on market penetration, market development, and product development, or integrative backward integration, forward integration, and horizontal integration strategies can be most appropriate for these positions.

Internal-External (IE) Matrix

The Internal-External matrix (IE) consists of two main dimensions, namely the total IFE weight score on the X-axis and the total EFE weight score on the Y-axis. This matrix also focuses on three main areas, including grow & build, hold & maintain, harvest & divest.

Figure 8. The IE Matrix

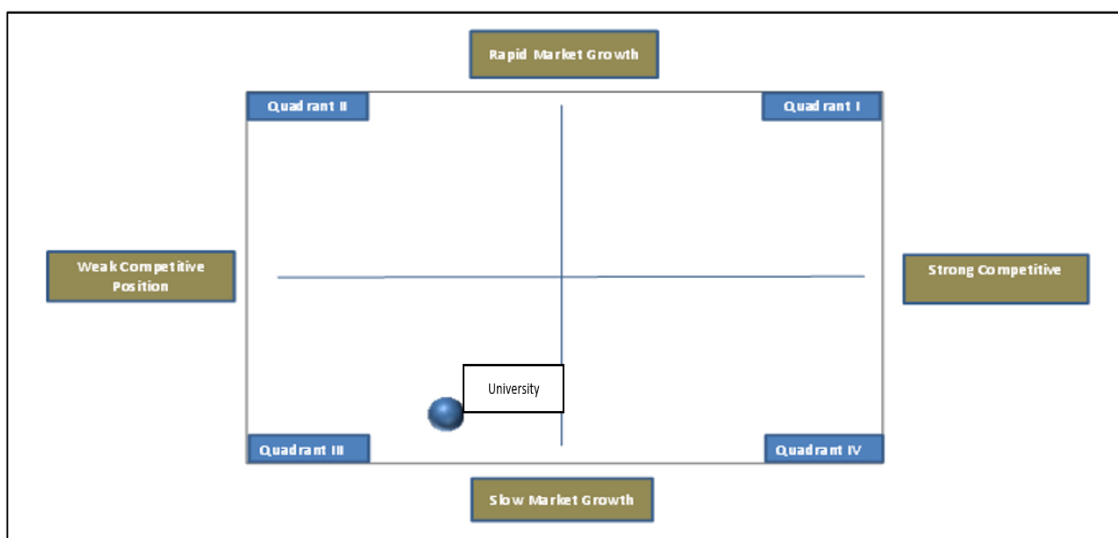


Based on the IFAS and EFAS, the university's position is in the middle quadrant of the third region, namely harvest or divest. The university is in a dangerous condition. Organizations are at risk of experiencing divestment or reduction in the types of assets in the form of money, goods, or people.

Grand Strategy Matrix

The Grand Strategy Matrix is one of the most popular tools used to formulate strategies. This matrix highlights two evaluative dimensions, namely competitive and market growth position. The Grand Strategy is in order of attractiveness in each quadrant of the matrix.

Figure 9. The Grand Strategy Matrix



Based on net results in IFAS (-1.42) and net results of EFAS (-0.43), The Grand Strategy matrix shows that the university is in quadrant III or Weaknesses and Threats region that the university should make some drastic changes to avoid further decline. Even organizations that compete in slow-growth industries and have weak competitive positions suggest the university improve their academic system should come first.

The Decision Stage

Quantitative Strategic Planning Matrix (QSPM)

The third stage in strategy formulation is decision-making. QSPM is a strategic planning tool to evaluate alternative strategies objectively based on previously identified critical external and internal factors. QSPM requires input from the input stage and the matching stage objectively.

Table 8. QSPM Matrix

	Strengths	Weight	Curriculum Development		University Ranking		Learning Technology	
			AS	TAS	AS	TAS	AS	TAS
1	Faculty members recruitment system	0.06	4	0.24	2	0.12	3	0.09
2	Internal quality assurance system	0.05	4	0.20	2	0.10	1	0.05
3	Academic processing system	0.05	3	0.15	2	0.10	4	0.20
4	Link with DIKTI (higher education institution)	0.01	2	0.02	-	-	-	-
5	Curriculum development system	0.01	2	0.02	-	-	-	-
6	Experiential learning method	0.01	2	0.02	-	-	-	-
7	Connection to the group of companies	0.01	3	0.03	-	-	-	-
8	Student exchange programs with universities in Asia and Europe	0.03	3	0.09	1	0.03	2	0.06
9	Lecturers and students collaborate in research-based learning	0.05	4	0.20	2	0.10	1	0.05
10	Students professional certifications	0.05	4	0.20	1	0.05	2	0.10
	Weaknesses	Weight	Curriculum Development		University Ranking		Learning Technology	
			AS	TAS	AS	TAS	AS	TAS
1	New Teaching learning system implementation in progress	0.10	3	0.30	2	0.20	4	0.40
2	New Academic Standard in progress	0.07	4	0.28	3	0.21	2	0.14
3	New Study program based on university expertise	0.03	4	0.12	2	0.06	3	0.09
4	New Digital learning workshop for senior faculty	0.08	3	0.24	-	-	4	0.32
5	New Graduate Learning Outcomes	0.03	4	0.12	3	0.09	-	-
6	New University vision and mission in daily operation	0.10	4	0.40	3	0.30	2	0.20
7	New Curriculum in preparation	0.10	4	0.40	-	-	2	0.20
8	New Internal accreditation procedure	0.10	3	0.30	4	0.40	2	0.20
9	New Assessment weight system	0.03	4	0.12	-	-	-	-
10	New Graduates passing grade system	0.03	4	0.12	2	0.06	-	-
	Opportunities	Weight	Curriculum Development		University Ranking		Learning Technology	
			AS	TAS	AS	TAS	AS	TAS

1	National and international scientific programs invitation	0.04	-	-	2	0.08	-	-
2	Parent group of companies support	0.07	-	-	-	-	-	-
3	Professional certification as competency.	0.03	3	0.09	1	0.03	-	-
4	Partnerships with industry	0.03	3	0.09	1	0.03	-	-
5	Research and funding from DIKTI (higher education)	0.10	3	0.30	1	0.10	-	-
6	Business startup incubator	0.05	3	0.15	1	0.05	-	-
7	External human capital development	0.03	4	0.12	-	-	3	0.09
8	New technology and innovation	0.05	3	0.15	-	-	2	0.10
9	Collaboration and comparative studies	0.04	4	0.16	2	0.08	3	0.12
10	Economic and society support	0.03	-	-	-	-	-	-
			Curriculum Development		University Ranking		Learning Technology	
	Threats	Weight	AS	TAS	AS	TAS	AS	TAS
1	Limited Qualified lecturers	0.10	4	0.20	-	-	-	-
2	Average students rank enrollment	0.03	-	-	-	-	-	-
3	International university	0.02	-	-	-	-	-	-
4	Similar programs with rival university	0.05	4	0.20	-	-	3	0.15
5	Higher Standard of research and publications	0.04	3	0.12	1	0.04	-	-
6	Higher Standard of community service	0.03	3	0.09	1	0.03	-	-
7	Higher Standard of E-learning systems and virtual library	0.08	-	-	2	0.16	4	0.32
8	Higher Quality Assurance System ranking	0.10	4	0.40	2	0.20	-	-
9	Higher Industry competencies	0.05	3	0.15	-	-	4	0.20
10	Limited price increase due to pandemic	0.07	4	0.28	2	0.14	-	-
	TOTALS	1		5.87		2.76		3.08

In Table 8, two alternative strategies (1) Curriculum Development, (2) University Ranking, and (3) Learning Technology are being considered by the university. The Sum Total Attractiveness Scores (TAS) of 5.87, 2.76, and 3.08 indicates that the university should prioritize curriculum development followed by developing learning technology and then university ranking. The dashes indicate which factors do not affect the strategy choice being considered. If a particular factor affects one strategy, but not the other, it affects the choice being made, so AS (Attractiveness Scores) should be recorded for both strategies.

Implementation and Execution Strategy

Strategy implementation requires quality assurance and commitment from all faculty members, collaboration, and coordination with all stakeholders. The focus of strategy implementation is to enhance an excellent education system for student's satisfaction and trust.

Table 9. University – Student Relationship Map

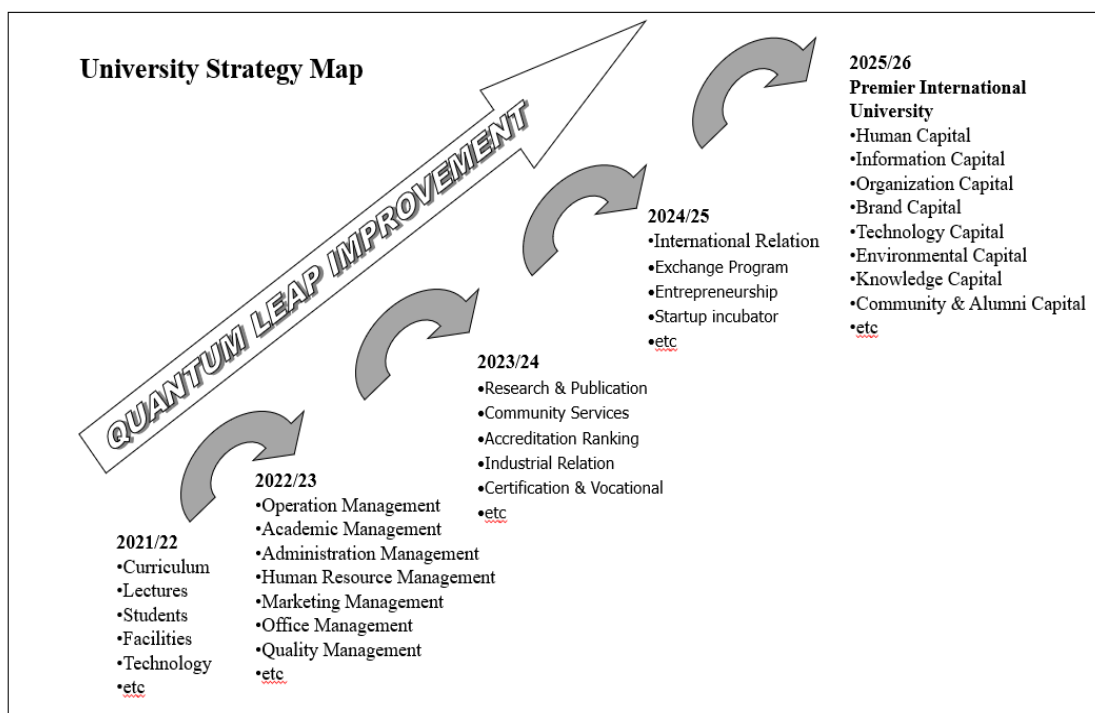
Close to Customer:	University/Educational Context
Motivation	Faculty members provides best education system fit to student environment: curriculum, teaching & learning, excellent educational technology
Challenges	<ul style="list-style-type: none"> • Experiential learning and cases study method • Industry visit and on the job training to earn experiences and certifications

	<ul style="list-style-type: none"> • Community services
Clarity	<ul style="list-style-type: none"> • Latest industry technology and expertise required • Quality knowledge and certification attained • Good university image

Strategy Map

The implementation of the university strategy map requires people, passion, process, physical, policies, profit and professional. The brief university strategy map below summarizes from focus group discussion with the Chancellor, Head of Academic, Head of Administration, Head of Human Capital, and Head of Student Affairs and Public Relations. The main drive of the strategy is to build new processes, systems, technology, and policies based on international and digital transformational.

Figure 10. University Strategy Map



Strategy Monitoring

Periodically, strategy monitoring is needed to ensure all strategies relevant to the market situation. Strategy evaluation can help organizations face dynamic environments in which external and internal factors often change quickly and dramatically. Today’s success does not guarantee tomorrow’s success. All variables can measure organizational performance with typically a favorable or unfavorable variance monthly, quarterly, and annually, and resultant actions needed are then determined.

The strategy evaluation activity taking corrective actions, changes the organization’s structure, replacing one or more key individuals, combining divisions, or revising a university mission. Establishing objectives, devising new policies, raise capital, adding additional staff, differently allocating resources, or developing new performance incentives. Taking corrective actions necessarily means to abandoned existing strategies and a new strategy will be formulated.

Change Management

Change management requires communication skills to understand the resistance to change behavior, manage, or resolve conflict. Forces of change could happen due to pandemics, economics, technology, competition, or social trends. Managing and resolving conflict can be classified into three categories: avoidance, defusion, and confrontation. Strategy implementation is delayed and requires change management to be more relevant in achieving the objectives of each strategy. Resistance to change forces them out of their comfort zone. Communication is key to explaining the goals and direction that the university wants to go so that all parties can understand and have the same passion in achieving the strategy.

CONCLUSION

Based on the analysis of the vision and mission using the nine-component theory presented in the David strategy management model, organizations need to prepare university strategy as the responsibility to stakeholders of the educational institution who expected to train students professionally that is demanded by local businesses when graduates. In this case, the organization needs to develop the quality of educators and education personnel through great strategy and change management.

The SPACE matrix analysis shows that the organization's position is in the competitive quadrant that needs a product development strategy such as the curriculum of each study program fit to national qualification framework, industry, and stakeholder needs. Based on the SWOT analysis and QSPM, the order of priority strategies that allow the organization to implement is as follows:

- 1) Conducting an integrated and intentional new curriculum development based on the needs of industry and stakeholders by involving stakeholders.
- 2) Improving the quality of educators through training and certification.
- 3) Using technology in academics and the process of learning.
- 4) Providing a curriculum source that contains a collection of up to date, documented, and systemically online sources so that they are easily accessible by faculty members.

An integrated strategic management model contributes to the understanding of the relationship between the context of strategic planning, the content of strategic planning, and the process of strategic planning in university and answered three research questions as follow:

RQ1: What are the key drivers for strategic planning in university?

The key drivers for strategic planning in the university come from market competition and customer requirements.

RQ2: Which opportunities should be the target in strategic planning in university?

In response, the university pursues three strategic planning opportunities consisting of improved academic process efficiency, improved student competency and lecturer relationships, and services of the university.

RQ3: What are the challenges encountered in the process related to strategic planning in university?

The challenges in the process related to strategic planning are that the leader faces uncertainty of the future and needs to adapt and constantly grow in response to all changes. To win the competition, it requires a change management to create new university programs or services, market, price, and processes through new technology and innovation. The change management

process is necessarily for transformational in its degree, even though it can produce great strategy from the strategic planning process but without readiness to change, the plan will not fit to the future.

In conclusion, there are four hypotheses proposed for further research:
A higher degree of Strategy Formulation will lead to a higher University Performance
A higher degree of Strategy Implementation will lead to a higher University Performance
A higher degree of Strategy Monitoring will lead to a higher University Performance
A higher degree of Change Management will lead to a higher University Performance

LIMITATION

The first limitation of this research is that there is only one strategic management model that is used for this study. The second limitation is that there is only one university used due to the readiness of the top management to be interviewed, the comprehensive materials related, and a university visit to find the answer to the research questions. The third limitation is the limited research time given to observe the whole stakeholders of the university. The fourth limitation is the student size, lecturer ratio, location, and the number of programs in the university are not intended to generalize all universities.

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