

Ansoff Matrix Analysis in Nursing Education: A Case Study

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Abstract--This research aims to analyze the nursing education program in the Faculty of Nursing, Universitas Padjadjaran (Unpad), through an Ansoff Matrix approach and solution. The research background that institutions that provide nursing education in Indonesia produced nurse graduates in the last decade has increased. This situation increases competition among nursing education institutions. The Nursing Faculty is developing programs to provide excellent nursing education services to compete with other nursing educational institutions. The research was conducted at the Unpad Nursing Faculty. The research used qualitative methods and a case study. The primary data source is from interviews with faculty administrators, and the secondary data source is from documents and reports or other trusted data. Based on analysis of the Ansoff matrix, researchers found that in the last five years, the Faculty of Nursing has developed many programs divided into four quadrants of the Ansoff matrix: Market Penetration, Market Development, Product Development, and Diversification.

Keywords-- *Ansoff matrix; Nursing education; case study*

1. INTRODUCTION

In the era of Industry 5.0, the development of health science continues to boom and the need for health services is increasing following human life expectancy. Nursing education continues to adapt and develop to meet the need for quality health services. In the last 30 years, based on data from AIPNI the number of higher nursing education has proliferated from only two state universities, nowadays, 341 institutions provide nursing education at the nursing professional level. Padjadjaran University was the second institution, after Indonesia University, are establish undergraduate nursing education. The challenges of trusted nursing education are the need for innovation and strategy. For the last ten years, the faculty of nursing Unpad has created programs to maintain the existence among health education users like hospitals and other health business companies. The field of strategic management recognized the Ansoff matrix, which is framework for market penetration, market development, and product development. The faculty of nursing Unpad has created many programs that we can analyze using this concept. From this case, we can learn how to preserve nursing education for the future.

A. Nursing Education

Nursing is the most significant health worker in Indonesia. According to data from the Central Statistics Agency (BPS), Indonesian nurses reached 582,023 people in 2023. Historically,

nursing education in Indonesia has existed since the Dutch colonial era. In Law No. 20 of 2003 concerning the national education system, nursing education is divided into vocational, academic and professional education. The nursing education level comprises a diploma, bachelor's, master's, specialist and doctoral degree. Nursing education in Indonesia is divided into two parts: the Indonesian Nursing Vocational Education Association, which oversees the diploma education level, and the Indonesian Nursing Education Association, which oversees the bachelor's, master's, specialist and doctoral education levels.

In order to meet the demands of professionalism in nursing services, Nursing Education at the undergraduate level began in 1985 at the Faculty of Medicine, University of Indonesia, with an acceptance system from high school education level and continuing from nursing diploma education. In 1998, the master of nursing science; in 2003, the specialist nursing program, and in 2008, the doctoral program in nursing was first held at the University of Indonesia. Because of the need for nurses at the undergraduate level, in 1994, the nursing study program was opened at Padjadjaran University, and in 2011, the master of nursing education level was opened. Currently, the Faculty of Nursing continues to develop various programs to meet the need for quality nursing education.

B. The Ansoff Matrix

The field of Strategic Management has evolved a great deal since its inception. During the 1960s, the discipline paid attention to studies that focused on the importance of managerial skills (Garrido ,2020; Andrews, 1971; Ansoff, 1965; Chandler, 1962). H. Igor Ansoff, recognized as the father of strategic management, made significant contributions to the field with the development of the product market strategies matrix for diversification (a.k.a. the Ansoff matrix) and various landmark publications, including the books Corporate Strategy and Implanting Strategic Management (Puyt, 2024). We can use it when planning for growth in both clinical and research capacities. Relevance Allows departments to strategically plan whether to expand existing services, develop new ones, or diversify into new fields, increasing sales revenue or profitability (Meldrum & McDonald, in Cleberg 2019). This framework uses a two-by-two figure to show the four strategic options for companies to use in this framework: market penetration, market development, and product development. The x-axis focuses on the firm's markets and determines if it is

looking to enter new markets or innovate in its current markets. The y-axis of the Ansoff matrix focuses on the firm's products and determines if it wants to pursue strategies around its existing products or explore new ones. Ansoff's strategic diagnosis and positional matrix are invaluable strategic tools for firms. However, it could be argued that these positional analyses singularly reflect a blind spot in modelling the firm's future strategic performance potential, as neither considers the interactions of the other (Kiple, 2012)

II. METHOD

This study was conducted using a qualitative method with a case study approach. Baškarada (2014) and Khalifa Ababacar Sy Diop (2020) claimed that the subjective (qualitative) case study technique was mainly used but not entirely understood by analysts. This study takes the understanding of the qualitative case study method to another level, which aims to understand at least the categorization of the case study method. Researchers obtain sources of information based on the results of interviews with leaders and managers of nursing education. Other data sources are documents and information about nursing education programs that can be accessed publicly. Based on the information and interview results, an analysis was carried out for program mapping based on the Ansoff matrix theory. A scientific literature search was carried out using Google Scholar, Scopus, Science Direct, and Sage Journal to support the analysis and understand the Ansoff matrix.

III. RESULT AND DISCUSSION

Based on the results of a case study on the management of nursing education in the Faculty of nursing, various programs are spread across the four quadrants of the Ansoff matrix. The Faculty of Nursing, as one of the organizers of higher nursing education, continues to strive to develop its various programs so that its existence and impact can continue to be recognized at the national level. The Ansoff matrix is divided into four categories: market penetration, product development, market development, and diversification. The Faculty of Nursing can develop programs in the four quadrants as a nursing education provider.

Tabel 1

Ansoff matrix analysis in nursing education: A case study		
	Existing Products	New Products
Existing Markets	<p>Market Penetration, Alumni Achievement and Performance Pathway Program</p>	<p>Product Development, Doctoral Education Programs in Nursing</p>
New Markets	<p>Market Development Unpad Pangandaran Under Graduate Nursing Program</p>	<p>Diversification V Nurse Lab</p>

A. Market Penetration

Market penetration is the simplest and first option for growth in most companies. They are already in the market with a present or on-hand product. Market penetration is an attempt to increase company sales without leaving the original product market strategy at the cost of rivals in the market (Ansoff, 1957). The Faculty of Nursing to increase the number of students, especially nursing master's students. Institutions providing nursing master's education have grown rapidly from 18 institutions in 2018 to 45 institutions providing nursing master's education in Indonesia in 2024.

To increase the number of students in the master's program and the admission of new master's students, the Alumni Achievement and Performance Pathway program is being launched. It is open to Unpad graduates, both new graduates and those who have graduated for over two years. In its process, alums will be contacted by the Faculty regarding the offer of the opportunity to continue their education at Unpad and then receive a letter of recommendation from the Dean. In addition, alums can also apply to obtain a letter of recommendation. Prospective participants in the Alumni Achievement and Performance Pathway SMUP will register and complete documents according to the provisions of the regular SMUP program. However, prospective participants in this pathway get convenience through exemptions from the Academic Ability Test and English Language Ability Test, which are usually requirements in regular selection. The program is organized based on the Decree of the Chancellor of Padjadjaran University Number 2692/UN6.RKT/Kep/HK/2021 Concerning the SMUP Guidelines for Achieving and Performing Alumni. Penetration efforts by providing special programs for alums can help increase the number of students; in 2024, the number of alums students will be 6 out of 17 nursing master's students. The growth vectors are market penetration, market development, product development and diversification (Hall & Lobina, 2007). This matrix is used by marketers with the valor to grow in the market and create a competitive advantage. Ansoff matrix offers strategic alternatives to accomplish these objectives (Husain, 2013).

B. Market Development

The second marketing strategy is Market Development, also known as Market Extension. In this strategy, the business expands to new markets. In order to achieve this, it uses additional market segmentation and can realize the opportunities of the market to design marketing strategies in the best way to achieve the greatest possible effect by recognizing a new clientele. Market development is when an existing product is entered into a new market. Pollalis (2017) West Java Province has a vision to improve its region's education quality. The Governor of West Java encouraged Padjadjaran University to open classes in Pangandaran. This condition is an effort to market the development of Unpad nursing education. The undergraduate nursing program product is stable and can be developed outside the region. Currently, the

number of undergraduate nursing students at the Pangandaran Campus is 171 students and new students in 2024 a total of 49 students; the number of new students in 2024 has increased by more than 10% compared to the number of students in 2017 which was 23 students. The market development efforts carried out were quite successful. Although the development of programs outside the main campus area has a good market, there are challenges in management and infrastructure readiness. A way to achieve this is by finding a new use for the product or adding new features or benefits to it. For all these to be accomplished, the condition is that the existing markets have been examined thoroughly to involve new markets. There are many methods regarding this strategy, such as new geographical markets, new product packages, etc. However, the most known is the new geographical market with the franchise method, which allows the company to expand by exporting products to other places. Pollalis (2017).

C. Product Development

In product development growth strategy, new products are introduced into existing markets. This method deals with the launch of a new product in a market that already exists and can also implicate the amendment of a product that exists. This method is riskier than the previous one because a new product is being presented in the existing market. It's certain that changing the face of an existing product is interesting and would escalate the product's performance or quality. Pollalis (2017).

The Faculty of Nursing strives to meet the need for quality education. One of the programs that was just launched in 2024 is the doctoral program in nursing. This program can only be realized because the requirements are challenging, especially for teaching lecturers with professor positions. There are only two doctoral education programs in nursing in Indonesia, the University of Indonesia and Airlangga University, so Padjdjaran University is the third university to organize a doctoral program in nursing.

Vice Chancellor for Academic and Student Affairs Prof. Arief Sjamsulaksan Kartasasmita, dr., SpM (K), M.Kes., PhD supports the Doctoral Nursing program "It is time for the Faculty of Nursing to develop its knowledge. The application for the Doctoral Nursing program is robust. In essence, the Faculty of Nursing has very rapid publications and ongoing research, which are very advanced and compact. In the first intake of doctoral students in 2024, the postgraduate nursing study program accepted 14 students. Nursing education providers must maintain the quality of new programs/products despite a large market. When firms mature in current markets, they find new markets for their ongoing products. Therefore, this is a marketing strategy to enhance the firm's current level of income by increasing sales of newly explored products. Marketing your existing product range in a new market is a technique used for growth by the owners (Ansoff, 1957).

D. Diversification

The nursing faculty of Padjajaran University is not only known as a provider of nursing education services that produce resources that health service institutions can accept, but they are also able to produce various quality innovations and research. Innovation is the leading standard in competing in the global market competition Nursing lecturers are required to produce quality innovations. Nursing lecturers have succeeded in producing innovations that support improving the quality of Education technology. Nursing researchers at Padjajaran University innovate in developing learning media that are in accordance with current needs. Vnurslab is one of innovation the educational services, offered by the Faculty of Nursing, Universitas Padjadjaran. This service provides a learning medium in the form of a virtual laboratory of nursing actions based on interactive 3D technology and Virtual Reality. Researchers (Insan Dikti) take advantage of the opportunities for academic and industrial research collaboration offered by the Kedaireka Kampus Merdeka Matching Funds program of the Ministry of Education, Culture, Research, and Technology of the Republic of Indonesia. The Matching Funds program brings together Insan Dikti (researchers from the Faculty of Nursing UNPAD and Binus University) with industry partners (PT. Kreasi Kode Biner) to collaborate in the development of VNursLab: a virtual action laboratory that carries out interactive 3D technology-based actions and Virtual Reality. The development of VNursLab provide increasing need for high-quality and globally competitive nurses, and supporting tools learning media are still limited.

The product diversification strategy involves creating a new customer base product, which expands the original product's market potential, which is why it is quite different from product development. Diversification includes brand extensions or new brands; sometimes, product modification can create a new market by introducing new uses for the product. However, it is the final option to pursue if following the preceding market penetration, product development, and market development strategies does not produce good results and original objectives are not met (Ansoff, 1957).

IV. CONCLUSION AND RECOMENDATION

The results of the study and analysis of case studies of programs that have been implementation at the Faculty of Nursing, Unpad as a provider of nursing education services using the Ansoff matrix approach, the Faculty of Nursing, Unpad has developed educational programs that include Market Penetration, Market Development, Product Development, and Diversification. Unpad Nursing is able to adapt in facing competition by continuing to develop the market for existing products such as the Alumni Achievement and Performance Pathway Program and the Unpad Pangandaran Under Graduate Nursing Program. The Faculty of Nursing, Unpad is also able to create new

programs such as Doctoral Education Programs in Nursing. The Faculty of Nursing create innovation with making Diversification product, by create VNursLab. Maintaining quality is the key to makes these programs sustain and support existence The Faculty of Nursing. The results of this study can be a source how organize nursing education program in perspective marketing strategic, a nursing education institution can develop various programs to maintain survival and continue to gain market share.

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