DEVELOPMENT OF MACRO-BASED STRATEGIC PLANNING APPLICATION EXCEL: AS A TOOL FOR FORMULATING HUMAN RESOURCE MANAGEMENT SRATEGIS

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Abstract

So far, in formulating strategies in an organization, especially reviewing from the aspect of human resource management, analytical tools that are often used to process the data obtained are SWOT Analysts, Internal Factor Analysis and External factors and Competitive Profile Matrix how to analyze the strength of weaknesses in opportunities and threats of a company (SWOT) and matrix Competitive profile analyzes the strategic position of the company compared to similar competitors, especially in terms of human resource management, namely employees, because employees are the spearhead of an organization.

The purpose of software development in the form of this application is so that it can be used to formulate strategies in the organization and its specifics can be applied also to formulate strategies in the human resource management division Software tools developed in the form of analytical tools in the form of applications consisting of SWOT Analysis, Competitive Profile Matrix, External and Internal environment analysis per business in the form of data analysis tables and diagrams that can illustrate weights, ratings and interpret the company's position and formulate strategies that are suitable for the company to apply.

The development method carried out is the development model of Borg & Gall (2001) using waterfall grooves at the development stage.

The results of this software development are called macro excel-based strategic planning applications) which are tested by including fictitious data on human resource management, IFA and EFA analysis, SWOT analysis, and Competitive Profile Matrix, and the result is a quadrant of strategies that formulate what strategies can be applied to the organization's resource management division.

Keyword: Development, Strategic, Application, Human Resource Management, Formulating

INTRODUCTION

Human resources have a strategic value that must be taken considered (De Saa-Perez and Garcia-Falon, 2002). To have quality and superior human resources, companies need to develop strategic policies and effective human resource activities Snell and Bohlander (2010). Therefore, to obtain optimal results, human resource management must be carried out strategically, and must always be associated with corporate strategy (Snell and Bohlander, 2010; Leopold and Harris, 2009). Barney (1991) states that resources can create a sustainable competitive advantage only if they are scarce, valuable, immutable, and nonreplaceable. According to this view, to be able to utilize human capital as a sustainable competitive advantage, human resources must first add value to the company. There are many potential workers with different skills, abilities, and capabilities and companies are trying to attract the most talented ones to add value to the company. Second, human resources must be scarce to create a sustainable competitive advantage. All recruitment and selection programs of organizations that have a practice of human resource management strategies focus on attracting and hiring the most skilled or talented employees. Boxall and Purcell (2003) suggest that it is possible to find a strategy in every business undertaken, because strategy has been embedded in an important choice in the psyche of every manager and staff of the company regarding what to do and how to do it. This is referred to by them as a choice of strategy or as a corporate strategy. A further dimension is that the strategy is directed at maintaining the survival of the organization as well as producing sustainable profits for the organization The strategy in human resource management emphasizes the need for human resource planning and the application of strategies to be formulated in the context of organizational strategy. This strategy is responsive to changes in the organization's external environment to the point that it requires interpretation and adaptation by practitioners to ensure conformity between the human resources strategy and the organization's business plan. Thus, the overall theme of the human resource management strategy is the integration of the compliance of all human resource functions for broad organizational purposes, and responsiveness to the external environment of Tampubolon, (2016). Bamberger and Meshoulam (2000) stated that the concept of Human Resource Management Strategy is the result of policy and practice decisions related to human resource strategy.

So far, in formulating strategies in an organization, especially reviewing from the aspect of human resource management, analytical tools that are often used to process the data obtained are SWOT Analysts, Internal Factor Analysis and External factors and Competitive Profile Matrix how to analyze the strength of weaknesses in opportunities and threats of a

company (SWOT) and matrix Competitive profile analyzes the strategic position of the company compared to similar competitors, especially in terms of human resource management, namely employees, because employees are the spearhead of an organization. Strengths and weaknesses are under internal factors and can be controlled from within the organization or profession (David et al. 2019; Li et al. 2020). Opportunities and threats are under external factors, which can be detrimental or beneficial and are beyond the control of the organization or profession (David Fred et al. 2019; Li et al. 2020). How strengths and weaknesses are matched with opportunities and threats to determine the success and survival of an organization (Mbachu and Frei 2011). Therefore, SWOT analysis is central to strategy formulation.

Data on strengths, weaknesses, opportunities, and threats related to the human resource management division are analyzed manually and calculated manually. To see the company's position compared to competitors, the competitive profile matrix is also analyzed manually, therefore it is necessary to develop special tools to carry out analysis in the form of software in the form of an application that can be used to formulate strategies in the company, especially strategies in the Human Resource Management division. So that the company data obtained can be included in this analysis tool, then the desired results are obtained in the form of scores that can be given meaning or size, and can be input for the organization, The purpose of developing software in the form of this application is so that it can be used to formulate strategies in the organization and its specifications can be applied also to formulate strategies in the source management division human resources developed in the form of analytical tools in the form of applications consisting of SWOT Analysis, Competitive Profile Matrix, External and Internal environment analysis per business in the form of tables and data analysis diagrams that can describe weights, rankings and interpret the company's position and formulate appropriate strategies for the company to implement.

This application was developed by referring to the concept presented by Rangkuti (2016), namely SWOT Analysis is a strategic planning method used to evaluate strengths, weaknesses, opportunities, and threats in a project or a business speculation. These four factors make up the acronym SWOT (strengths, weaknesses, opportunities, and threats).

RESEARCH METHODS

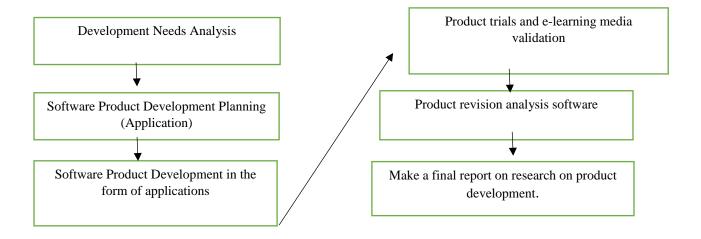
Research and *Development* (R&D) According to Gay (1990) is an effort or activity to develop an effective product for school use, and not to test theory.

The development research model that will be carried out is the development model of Borg & Gall (2001) using waterfall grooves at the development stage. The stages of start development of needs analysis, product planning, product development, trial/implementation (validation), revision and report generation.

The stages of this development research are as follows: 1) Stage of analysis of development needs: At this stage, what is done is to look for theories or references related to analysis in strategic management, as well as its application as a strategy for human resource management, 2) The planning stage of the development product: At this stage what is done is to formulate the goal of product development, that is, to create an application used as an analysis tool, 3) Product development stage: At this stage, what is done is to make an application in the form of a SWOT analysis tool, competitive profile matrix analysis, analysis of the company's external environment, and analysis of the company's internal environment to see the competitive position of a company so that it can formulate what strategies will be applied, programmatic products in the form of tables, and decision diagrams, 4) Product trial phase: At this stage what is done is to implement the application by filling in with fictitious data related to human resource management, and as a trial, ask expert validators to assess the validity of this application development product, 5) Product revision stage: at this stage what is done is to correct the shortcomings of the product after testing, 6) Make a final report on research on product development

Development Flowchart

Figure 1. Development Flowchart



RESULTS AND DISCUSSION

Description of the Application Development Process

This product is designed as an analytical tool that can be used as a tool to formulate strategic decisions that can be taken by the company. The idea to develop this strategy analysis tool originated when analyzing data related to human resource management strategies in an organization, using SWOT analysis, where data is processed by having to calculate manually, using formulas from reliable and reliable sources or references. Strategic management can provide a managerial action and decision that ultimately determines the

achievement of organizational goals (Wheelan & Hunger, 2012). The process begins with environmental scanning activities, both from the internal and external environment that may affect the performance of the organization. The scan is then followed by the formulation of a strategy based on the Matrix of strengths, weaknesses, opportunities, and threats (SWOT). The application product, which is named the macro excel-based strategic planning application, is made so that data obtained from organizations related to human resource management data, or data related to other fields in the organization is easier to analyze and more measurable. This macro excel-based strategic planning application product was developed by studying the steps of analyzing the internal environment (IFA) and external environment (EFA). In this product, the steps to analyze the internal environment (IFA) and external environment (EFA) have been programmed, which can later be stored on the desktop, so that users only need to enter strategic factors related to human resource management, then the rating, then the results of the analysis will appear, and a decision diagram will also appear. In the matrix analysis of competitive profiles, users only enter the determining factors for success and rating, in three similar companies, a table will appear of each company superior to which factor.

This product is designed by applying steps and formulas to perform the analysis, steering, and working closely with the programmer or IT who will create the designed program. After discussing the results of the design and the form of the program as desired, the programmer directs, if the product produced will later take the form of an application and based on what it looks like. After discussing again, this product can later be in the form of an application based on macro excel, and it is agreed upon.

Products are made into software in the form of applications for planning in strategic analysis, human resource management strategies or other fields, for making strategic decisions on what companies should take by programmers. After discussing the contents and formulas in the contents of this application later, the product is done, based on excel macros.

Application Trial Results

The product in the form of an application program produced is desktop-free, so that it can be installed on a user's laptop or computer, this application is tested for use to students from three classes or offering for strategic human resource management courses, who are asked to practice using this application product.

When started to open an application program, this application program cannot be opened. So, it is known that this application program cannot be opened if the excel macros have not been set first, then the user must activate the excel macros first, so that in the instructions for use the team makes steps to use with the instructions to activate the excel macros first.

Students also do not understand the rating that must be entered, so they must first explain how to obtain a rating, so they just fill in the internal environment analysis (IFA) and external environment analysis (EFA) tables.

In appearance, the coloring and decision diagram according to validators is quite interesting and already effective, there are only a few writings on the table that need to be corrected and the table if there can be a slot for adding fill columns.

Application description

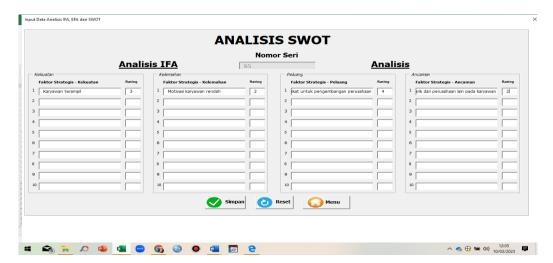
The resulting product is in the form of an analytical application program to formulate strategies, which consists of the initial display of the SWOT and Competitive menus, Internal Factor (IFA) and External Factor (EFA) analysis tables containing columns of strategic factors of strengths and weaknesses, opportunities and threats, decision diagrams and matrix analysis of competitive profiles containing a table of superior factors determining the success of a company compared to competitors of its similar business. The form of the product in the form of this application program is as follows:

Initial View (enter SWOT/Competitive menu)
Figure.2 IFA, EFA, SWOT and COMPETITIVE Analysis Menus



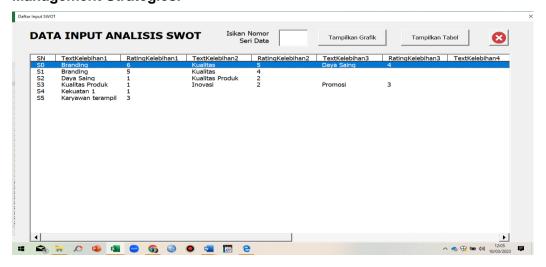
After entering the SWOT menu, the IFA and EFA (Strengths, Weaknesses, Opportunities and Threats) table will appear which is equipped with a save and reset menu as follows:

Figure 3. IFA and EFA analysis



After filling in the IFA and EFA analysis, with fictitious data related to human resource management in the form of strengths, namely employee skills with a rating of 3, weaknesses, namely low employee motivation with a rating of 2, opportunities that employees have many talents for company development and threats, namely with a rating of 4, attractiveness from other companies to employees with a rating of 2, After being filled and saved, the following display will come out:

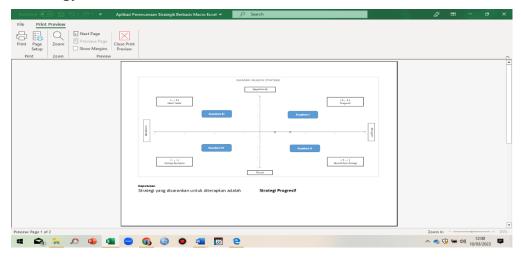
Figure 4. Example of SWOT Analysis Input Data Results Formulating Human Resource Management Strategies.



After the data is entered and processed using this macro excel-based strategic planning application, to see the results of the company's position on the diagram, the "Show

Graph" menu is provided. If you click the Show Graph menu, it will display the results of the organization's human resource management strategy in the following diagram, where the position is in quadrant I, positive analysis of the strengths and weaknesses of human resource management +, opportunities and threats of positive human resource management +, so that the strategy that can be applied is the Progressive strategy.

Figure 6. SWOT Decision Diagram (Formulating a Human Resource Management Strategy

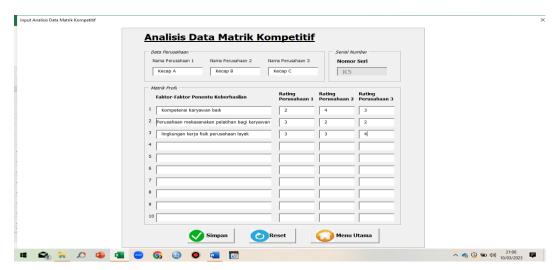


Below the graph will appear the decision of what strategy is suitable for the company to use according to the results of the number data on the SWOT diagram of the company/organization position.

Competitive Profile Matrix Analysis

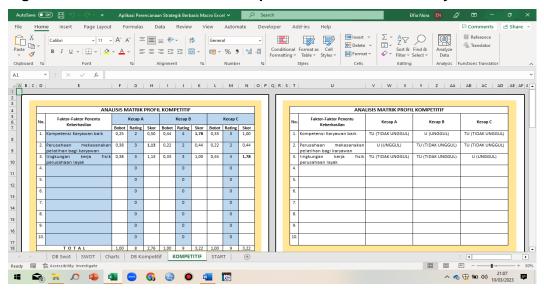
In the matrix analysis of the competitive profile, it begins with clicking on the "COMPETITIVE" menu. Furthermore, a competitive profile matrix table will appear with a menu of company names 1, 2 and 3, determining success and company ratings of 1,2 and 3 which must be filled in later, then there is a save, reset and cancel menu for fields that are not saved, trial analysis of fictitious data on three (3) similar companies using success determinants related to human resource management, The result is as follows:

Figure 5. Competitive Profile Matrix Analysis Tool



After filling in the columns in the competitive profile matrix table, the following table will appear:

Figure 6. Tabel Presentation of Competitive Profile Matrix Analysis Results



While the results obtained from the trials, there are organizations that excel in one determining factor of strategic excellence in a particular area of human resources, but do not excel in other determinants of success. The concept presented is more matured, then the content of the analysis software tools as above.

CONCLUSION

Based on the concept that has been designed to produce analytical software tools as a human resource management analysis tool, what has been produced is as follows: 1) Tools in the form of internal factor (IFA) and external factor (EFA) analysis, which are in the form of software that can be copied and installed on the desktop. Starting from the SWOT and COMPETITIVE menu displays, there is an IFA and EFA analysis filling table, which provides

columns of strategic factors to fill in and ratings, there is a save menu, and continues to the results table and SWOT decision diagram. In the competitive profile matrix analysis table, there are also columns for determining success and rating 3 types of companies that have the same characteristics that must be filled in, then a table of results from the condition of 3 companies, the last is a table of companies that excel in a success determinant, 2) After a product trial, it is known that the product in the form of an application program cannot be opened immediately, if you do not activate the excel macro program, then for users of this application program later have to activate excel macros first, 3) To make it easier for users to operate this application, the team made a video tutorial on using this application, 4) This program is named "Macro excel-based strategy planning application", because this program is used to formulate resource management strategies what the company will implement and create using macro excel, 5) After a trial with fictitious data on the strengths, weaknesses, opportunities and threats of human resource management in the organization, it can be known that an organization is in quadrant I, because the results of the calculation of its value analysis of strengths and weaknesses as well as positive opportunities and threats.

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