



Decision Support System for Growth Hacker Recruitment Using the Multifactor Evaluation Process Method (Case Study: Startups in Indonesia)

Efori Bu'ulolo¹, Bister Purba²

^{1,2}Politeknik Negeri Medan, Medan, Indonesia

Author Email: eforibuulolo@polmed.ac.id¹, bisterpurba@polmed.ac.id²

Abstract. In a highly competitive and dynamic startup ecosystem, the position of Growth Hacker plays a strategic role in driving rapid, efficient, and sustainable user growth and revenue increase. Growth Hackers are required to combine data analysis skills, creativity, and a deep understanding of digital marketing and technology to design and implement innovative growth strategies. Therefore, the recruitment process for this position cannot be done carelessly, but requires a systematic approach that considers various criteria objectively. This study aims to develop a Decision Support System (DSS) using the Multifactor Evaluation Process (MFEP) method to assist managers or recruitment teams in startup companies in assessing and selecting the best candidates for the Growth Hacker position. A case study was conducted on a technology startup based in Indonesia. Four main criteria were used in the assessment: highest level of education, data analysis skills, digital marketing expertise, and experience & portfolio. Each criterion was assigned a weight based on its level of importance, and candidates were evaluated based on the weighted scores of each factor. Based on the final results of the MFEP method application, Alternative A3 with the highest score (0.3341) is recommended as the best candidate for the Growth Hacker position.

Keywords: Decision Support System, Growth Hacker, Startup, MFEP, Recruitment

1. INTRODUCTION

In recent years, the growth of the startup ecosystem in Indonesia has experienced rapid growth. Intense competition and the ever-changing dynamics of the market demand that startups continuously innovate to accelerate user growth and increase revenue. In this context, the role of a Growth Hacker becomes crucial. A Growth Hacker is not only required to have a deep understanding of digital marketing strategies but must also be able to analyze data and generate creative ideas that can drive significant and sustainable growth for the company.

Mistakes in hiring Growth Hackers for startup companies can have serious consequences, such as stifling innovation and stagnating business growth. Therefore, a more structured and objective approach is needed to assist in the selection process. This study proposes the implementation of a Decision Support System (DSS) designed to provide recommendations based on the evaluation of various important criteria [1], [2]. The method used in this DSS is the Multifactor Evaluation Process (MFEP), which enables a comprehensive and systematic assessment of candidates [3], [4].

MFEP is a quantitative decision-making model that uses a weighting system to collectively integrate various factors in the evaluation process. This method produces decisions through the combination and collaboration of factors. For decisions with strategic implications, approaches such as MFEP are highly recommended. In the initial stage, all important criteria in decision-making are given appropriate weights, and then the alternatives to be selected are evaluated based on those criteria [5], [6].

2. METHODOLOGY

2.1 Decision Support System

A Decision Support System (DSS) is a computer-based technology solution specifically designed to assist in the decision-making process, particularly when dealing with complex issues within an organization. DSS integrates data, analytical models, and knowledge to provide relevant and timely information to decision-makers. With DSS, organizations can systematically evaluate various alternatives, thereby improving the efficiency and



accuracy of the decisions made. This system is particularly useful in situations where decisions require the analysis of large amounts of data and multiple interrelated variables, thereby supporting the optimal achievement of organizational objectives [7], [8], [9].

2.3 Multifactor Evaluation Process

The Multifactor Evaluation Process (MFEP) is a quantitative approach that relies on an ordinal scale-based weighting system to support multi-criteria decision-making processes. In this context, decision-makers conduct subjective assessments of a number of relevant technical factors, which are then used to compare various available alternatives. MFEP plays a crucial role in generating strategic decisions, particularly when applied in quantitative analysis-based decision support systems. This method enables a comprehensive evaluation of each criterion involved to determine the most representative relative weights based on their level of importance. A similar procedure is also applied to the previously identified alternatives. Subsequently, the evaluation process is carried out by integrating the established preference weights, thereby producing a more objective, systematic, and accountable basis for decision-making [10], [11], [12], [13].

Below is the formula used in the MFEP method to evaluate and compare several alternatives based on the weight and value of each criterion to obtain the most optimal decision [14][15]:

- a. Calculating Factor Weight Values (Total factor weight values must equal 1)
- b. Calculating Factor Values and Alternative Values
- c. Calculating Evaluation Weight Values (NBE)

$$NBE = NBF * NEF \tag{1}$$

Explanation:

- 1) NBF = Factor Weight Value
- 2) NEF = Factor Evaluation Value

- d. Calculating the Total Evaluation Weight Value (NBE)

$$TBE = \sum NBE \tag{2}$$

2.3 Research Stages

The research stages for solving the problem of Growth Hacker acceptance using the MFEP method in this study can be seen in the following figure:

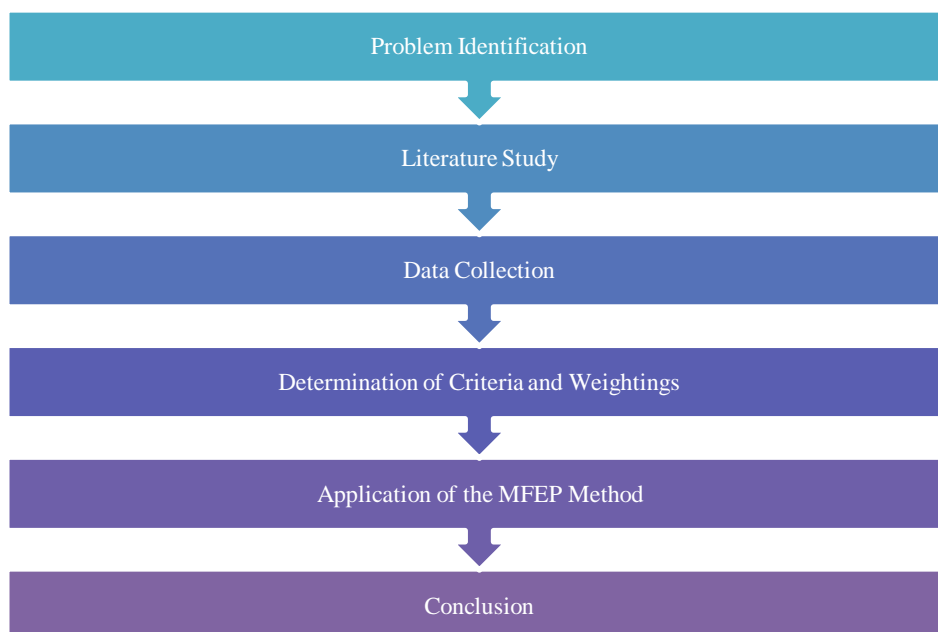


Figure 1. Research Stages



2.4 Research Data

The research data used in applying the MFEP method in solving the startup case study in accepting Growth Hackers can be seen in the following tables:

Table 1. Growth Hacker Acceptance Criteria

Criteria	Criteria Weight	Sub Criteria	Sub Criteria Weight
Highest Level of Education (C1)	27%	Bachelor	38%
		Diploma 3	33%
		Vocational High School/Senior High School	29%
Data Analysis Skills (C2)	26%	Very Good	38%
		Good	33%
		Enough	29%
Digital Marketing Expertise (C3)	24%	Very Good	38%
		Good	33%
		Enough	29%
Experience & Portfolio (C4)	23%	1–3 years	38%
		4 – 6 years	33%
		7 – 9 years	29%

The alternative data for Growth Hacker acceptance in this study consisted of four candidates. Each candidate had different scores for each criterion determined by the decision makers. The complete alternative data can be seen in Table 2.

Table 2. Alternative Data for Growth Hacker Recruitment

Alternative	Criteria			
	C1	C2	C3	C4
A1	Senior High School	Good	Enough	3 years
A2	Bachelor	Enough	Good	6 years
A3	Vocational High School	Very Good	Enough	9 years
A4	Diploma 3	Enough	Very Good	4 years

3. RESULTS AND DISCUSSION

3.1 Weight Factor Calculation Results

The results of the calculation of the weight value of each factor in this study are presented in detail in Table 3, which shows the relative contribution of each factor in the decision-making process for accepting Growth Hackers.

Table 3. Weight Factor Calculation Results

Criteria	Weight	Weighting Results
C1	27%	0,27
C2	26%	0,26
C3	24%	0,24
C4	23%	0,23
Total Weighted Score		1

3.2 Results of Factor Value Calculations and Alternatives

The results of the calculations for each factor and alternative used in an effort to resolve issues related to the acceptance of Growth Hackers are presented in detail in Table 4 below:



Table 4. Results of Factor Value Calculations and Alternatives

Alternative	Criteria			
	C1	C2	C3	C4
A1	0,29	0,33	0,29	0,29
A2	0,38	0,29	0,33	0,33
A3	0,29	0,38	0,29	0,38
A4	0,33	0,29	0,38	0,33

3.3 Evaluation Weighting Calculation Results

The results of the evaluation weight calculations used to resolve issues in the Growth Hacker recruitment process are as follows:

a. C1 Evaluation Weight Value

$$NBE_{A1} = 0,27 * 0,29 = 0,0783$$

$$NBE_{A2} = 0,27 * 0,38 = 0,1026$$

$$NBE_{A3} = 0,27 * 0,29 = 0,0783$$

$$NBE_{A4} = 0,27 * 0,33 = 0,0891$$

b. C2 Evaluation Weight Value

$$NBE_{A1} = 0,26 * 0,33 = 0,0858$$

$$NBE_{A2} = 0,26 * 0,29 = 0,0754$$

$$NBE_{A3} = 0,26 * 0,38 = 0,0988$$

$$NBE_{A4} = 0,26 * 0,29 = 0,0754$$

c. C3 Evaluation Weight Value

$$NBE_{A1} = 0,24 * 0,29 = 0,0696$$

$$NBE_{A2} = 0,24 * 0,33 = 0,0792$$

$$NBE_{A3} = 0,24 * 0,29 = 0,0696$$

$$NBE_{A4} = 0,24 * 0,38 = 0,0912$$

d. C4 Evaluation Weight Value

$$NBE_{A1} = 0,23 * 0,29 = 0,0667$$

$$NBE_{A2} = 0,23 * 0,33 = 0,0759$$

$$NBE_{A3} = 0,23 * 0,38 = 0,0874$$

$$NBE_{A4} = 0,23 * 0,33 = 0,0759$$

3.4 Total Evaluation Weight Calculation Results

The final results of the total evaluation weight calculation as the basis for resolving the issue of Growth Hacker recruitment are presented as follows:

a. A1

$$\sum_{i=1}^n TBE_{A1} = 0,0783 + 0,0858 + 0,0696 + 0,0667 = 0,3004$$

b. A2

$$\sum_{i=1}^n TBE_{A2} = 0,1026 + 0,0754 + 0,0792 + 0,0759 = 0,3331$$

c. A3

$$\sum_{i=1}^n TBE_{A3} = 0,0783 + 0,0988 + 0,0696 + 0,0874 = 0,3341$$

d. A4

$$\sum_{i=1}^n TBE_{A4} = 0,0891 + 0,0754 + 0,0912 + 0,0759 = 0,3316$$



From these calculations, an alternative ranking can be compiled based on the highest to lowest TBE values in Figure 2 below:

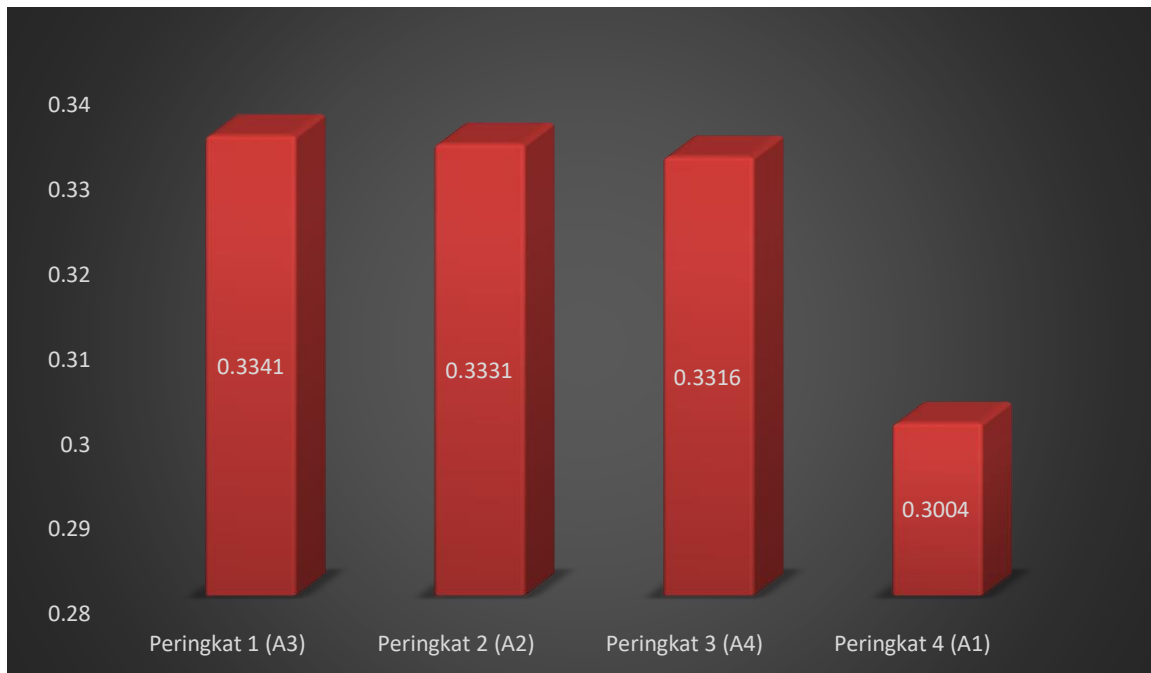


Figure 1. Alternative Ranking Results in Growth Hacker Recruitment Using the MFEP Method

4. CONCLUSION

Based on the final results of the MFEP method calculations in this study, Alternative A3 obtained the highest total evaluation weight score (0.3341), making it the recommended top candidate for the Growth Hacker position. The next rankings in order are A2 (0.3331), A4 (0.3316), and A1 (0.3004). Thus, the application of the MFEP method in this decision support system has proven capable of addressing candidate selection issues in a structured, quantitative, and transparent manner, and providing accurate decision support for startup management in determining the most suitable Growth Hacker candidate aligned with the company's needs and priorities.

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