DECISION SUPPORT SYSTEM FOR DETERMINING NEW BARISTA CANDIDATES USING MOORA METHOD AT BROUW COFFEE SHOP

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ABSTRACT

Barista is a profession whose job is to make coffee drinks and serve them to customers. Baristas are one of the important factors for the success of a coffee shop because having a good barista will create good food and drinks as well. Brouw is one of the coffee shops that does not have a scoring system in determining prospective baristas. The results of decisions are only based on personal intuition so that the assessment process is not objective. Therefore, a decision support system is needed to assist decision makers in determining new barista candidates. The decision support system method used in this study is the MOORA (Multi-Objective Optimization on the basis of Ratio Analysis) method and is designed with PHP programming language, using MySQL Database, and Laravel Framework. There are nine alternatives and five criteria, namely coffee blending skills, work experience, appearance, salary, and the ability to use a coffee machine. The application of the MOORA method resulted in the selection of an alternative Anna Putri with a rating value of 0.2502 as a new barista at Brouw coffee shop.

Keyword : Decision Support System, Moora, Barista

1.   INTRODUCTION

At present, the habit of drinking coffee is still increasing in Indonesia. So that coffee shops are still a trend both from the young and the old. In addition to being a place to enjoy coffee drinks, coffee shops are also a place to do tasks, meet clients, and socialize. The mushrooming of coffee shops in Indonesia makes competition between coffee shops tight. Therefore, Barista is one of the important factors for the success of a coffee shop. With baristas who have the ability, creativity, and good taste will produce good drinks and food as well. This will attract customers to come and become repeat customers. Barista is a profession whose job is to make coffee drinks and serve them to customers. It can be said to be an artist in the field of coffee, because each barista has a different taste based on the experience, knowledge, and creativity possessed by the barista. In a   coffee shop, the determination of new barista candidates is one of the important decision making. So that the appropriate new barista can be produced.Brouw is one of the coffee shops in Medan that does not have a scoring system regarding the determination of new barista candidates. The decision-making process has been carried out with several tests, namely interviews, the use of coffee machines, and making coffee drinks. The results of decision making only use personal intuition from the coffee shop owner and the absence of a clear assessment process. This method is considered less efficient and not objective. Therefore, a decision support system is needed to assist decision makers in determining the right barista candidates clearly, efficiently, and objectively. A decision support system is an information-producing system that becomes a tool in making decisions. However, the end result remains with the decision maker. One of

the methods contained in the decision support system is the [2] Multi-Objective Optimization method on the basis of Ratio Analysis (MOORA). The MOORA method is a multi-objective system that optimizes more than one conflicting attribute simultaneously. This method can be used to solve problems with complex levels of calculation. The MOORA method is useful for calculating ratings on an alternative. Previous research on barista selection conducted by Hutasoit, et al in 2018 entitled "Analysis of Barista Selection using the Topsis Method (Case Study: Mo Coffee)" this research discusses barista selection using the Topsis method. The criteria used are the ability to mix coffee, get to know coffee and its intricacies, the ability to taste the taste, work experience, master the use of a set of coffee machine tools and accessories, and the ability to make latte art. The result obtained was the selection of Widharta as one of the alternatives with a final value of 0.6126. Some previous studies that have applied the MOORA method are research conducted by Putra, et al in 2020 entitled "Decision Support System for Employee Performance Appraisal at PDAM Martapura Oku Timur Using the MOORA Method" this study discusses the decision support system using the MOORA method. The result obtained is that one alternative is selected as an employee who has the best performance with a value weight of 0.3692 based on criteria of attitude and behavior, ability and skills, cooperation, and responsibility. The second research conducted by Juanda & Sianturi in 2020 entitled "Decision Support System for Permanent Employee Selection at Trinity Teknologi Nusantara with Moora Method" This study discusses the selection of permanent employees through ranking with criteria for education, experience, interviews, and psychological test results. From these criteria, it was produced that one of the employees was selected to be a permanent employee with a value weight of 0.4977. Based on the background described above, the author is interested in conducting research entitled "Decision Support System for Determining New Barista Candidates Using the MOORA Method at Brouw Coffee Shop". Based on this, the author made a proposal system using the smart concept in the form of customer data, service orders, stock of goods, and computerized payments based on the website. With the registration system or ordering car services online, it will be easier for customers to order car service. Such as the ease of time in placing orders anytime and anywhere. Therefore, the author is interested in conducting research with the title "Smart Website-Based Workshop ".Information technology is very influential for the progress of a business. All groups have started to do entrepreneurship in various ways to promote their business, one of which is using an e-commerce website or application. At this time, the habit of using perfume is a lifestyle that has been done by many people for a long time, perfume is used because it provides fragrance and freshness for its users, besides that it can be a characteristic of someone from his body scent, and parfume can also increase the confidence of its users and can eliminate body odor. DSS (Decision Support System) serves as an addition for decision makers to expand knowledge and possibilities, but does not replace the assessment system is shown for decisions that require judgment and decisions that can be processed with technical algorithms. Quality Parfume is one of the perfume refill businesses in Medan City. In carrying out work activities, business owners still have difficulty obtaining information because the existing sales system is still carried out manually. Systems that have been running require time to manage data into information. In the perfume industry, competition is getting tougher because of the many perfume products offered by various brands. For customers who want to try parfume will definitely choose the best perfume to use. Therefore, the *Weighted Product* (WP) method can be used as an evaluation to determine the best alternative perfume products that can meet customer needs. Based on the description of the problem above, the author wants to implement a system that can be used to help consumers to choose the best perfume products that are in accordance with the ranking results that will appear in the system. With the application of this method, it can also make it easier for the store to determine the best perfume products. Therefore, the author wants to create a system entitled **"Implementation of *the Weighted Product* Method to Determine the Best Perfume Alternative (Case Study: Quality Parfume)"**.

2. RESEARCH METHOD
2.1 Research Procedure
This research aims to create a web-based decision support system regarding the determination of new barista candidates. In this study, the author discusses a system intended to facilitate Brouw coffee shop in the assessment process and decision making regarding the determination of new barista candidates using the MOORA method.
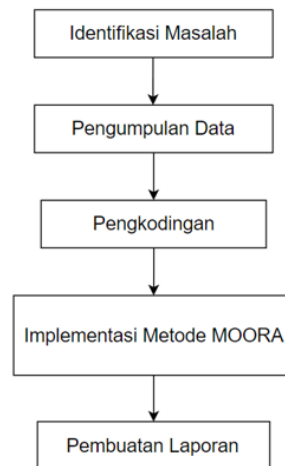
Figure 1 Research Framework

Based on figure 1, the study begins by identifying the problem that exists in Brouw *coffee shop*, namely the absence of an objective assessment system in determining new barista candidates. So that the results of decision making are only based on the intuition of the decision maker. Next is data collection carried out by interviews, and literature studies. The next step is to code the decision support system to be designed, namely with PHP programming language, *MySQL* database*, and Laravel framework, then implement the MOORA method, and the last step is report generation.*

2.2 Data Collection Methods

In preparing the thesis, a method is needed to compile and complete existing data. The stages of the method are as follows:

1. Data collection by interview is a data collection technique by asking a number of questions orally. The interview aims to obtain data that is only known by data sources or sources that are private.
2. Observation Observation is one way to get any information from an event by observing directly. Science is the basis of all events or activities that occur either in a small scope or in a larger scope. This observation also includes systematic recording activities about all the symptoms of the object under study.

2.3 Software Development Methods

System development or research software is a way used to describe the main stages in the system development process for this system development process, including through several stages from planning, analysis until the system is implemented and maintained. System development used in im research, namely using the waterfall system development model.
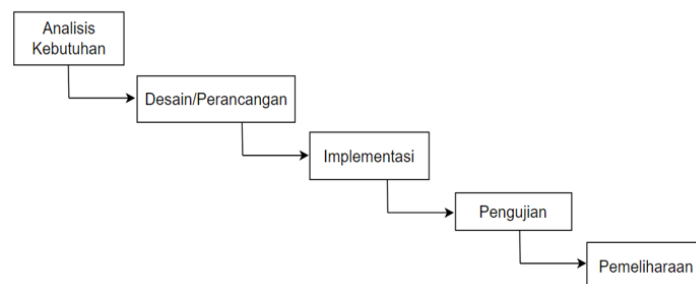

Figure 2 Stages of the Waterfall Method

2.4 Need Analyis

System analysis is necessary to outline user needs and specifications of the system to be built. The system analysis includes the criteria that will be used to assess prospective new baristas at the Brouw coffee shop, the processes executed, and the outputs produced. The decision support

system that will be built aims to assist decision makers in determining new barista candidates using the MOORA method which will produce information about alternatives (prospective baristas) in the form of ranking that can be used to assist decision making.

The following is the calculation of the *Multi-Objective Optimization method on the basis of Ratio Analysis* (MOORA) to support the decision to determine new barista candidates at Brouw *coffee shop* with several stages, namely:

1. Determining Criteria and Weights.

The first step taken is to determine the criteria and weights based on the needs of the Brouw *coffee shop* to be the basis for decision making as follows:

Table 1 Criteria and weights

Criterion	Information	Attribute	Weight
C1	Coffee Mixing Skills	Benefits	30%
C2	Work Experience	Benefits	25%
C3	Appearance	Benefits	20%
C4	Salary	Cost	15%
C5	Ability to Use Coffee Machine	Benefits	10%
Total			100%

2. Input Criteria Values

The input of criteria values in each alternative comes from the values obtained by prospective baristas when conducting several tests, namely interview tests, using coffee machines, and making coffee drinks.

Table 2 Criterion Value

No	Alternative	Criterion				
		C1	C2	C3	C4	C5
1	David Son	80	85	70	1800000	90
2	Syifa Firli	75	60	85	1600000	80
3	Elsa Maharani	80	90	75	1900000	85
4	Anna Princess	70	85	95	1500000	75
5	Fira Elyz	85	70	65	1700000	90
6	Melvia Siregar	65	70	80	1500000	70
7	Sela Yulia	90	80	60	1800000	85
8	Dani Ramadhan	70	80	85	1600000	85
9	Rani Julia	60	70	85	1500000	80

3. Creating a MOORA Decision Matrix

At this stage the value of the criteria that have been inputted in each alternative will be converted into a decision matrix, namely:

$$X_{ij} = \begin{pmatrix} 80 & 85 & 70 & 1800000 & 90 \\ 75 & 60 & 85 & 1600000 & 80 \\ 80 & 90 & 75 & 1900000 & 85 \\ 70 & 85 & 95 & 1500000 & 75 \\ 85 & 70 & 65 & 1700000 & 90 \\ 65 & 70 & 80 & 1500000 & 70 \\ 90 & 80 & 60 & 1800000 & 85 \\ 70 & 80 & 85 & 1600000 & 85 \\ 60 & 70 & 85 & 1500000 & 80 \end{pmatrix}$$

4. Normalizing Matrix Values

The next step is to normalize the decision matrix using equation (2).

a. C1 value

$$A_{11} = 0.353 \frac{80}{\sqrt{80^2+75^2+80^2+70^2+85^2+65^2+90^2+70^2+60^2}} =$$

$$A_{12} = 0.331 \frac{75}{\sqrt{80^2+75^2+80^2+70^2+85^2+65^2+90^2+70^2+60^2}} =$$

$$A_{13} = 0.353 \frac{80}{\sqrt{80^2+75^2+80^2+70^2+85^2+65^2+90^2+70^2+60^2}} =$$

$$A_{14} = 0.309 \frac{70}{\sqrt{80^2+75^2+80^2+70^2+85^2+65^2+90^2+70^2+60^2}} =$$

$$A_{15} = 0.375 \frac{85}{\sqrt{80^2+75^2+80^2+70^2+85^2+65^2+90^2+70^2+60^2}} =$$

$$A_{16} = 0.287 \frac{65}{\sqrt{80^2+75^2+80^2+70^2+85^2+65^2+90^2+70^2+60^2}} =$$

$$A_{17} = 0.397 \frac{90}{\sqrt{80^2+75^2+80^2+70^2+85^2+65^2+90^2+70^2+60^2}} =$$

$$A_{18} = 0.309 \frac{70}{\sqrt{80^2+75^2+80^2+70^2+85^2+65^2+90^2+70^2+60^2}} =$$

$$A_{19} = 0.265 \frac{60}{\sqrt{80^2+75^2+80^2+70^2+85^2+65^2+90^2+70^2+60^2}} =$$

b. C2 value

$$A_{21} = 0.367 \frac{85}{\sqrt{85^2+60^2+90^2+85^2+70^2+70^2+80^2+80^2+70^2}} =$$

$$A_{22} = 0.259 \frac{60}{\sqrt{85^2+60^2+90^2+85^2+70^2+70^2+80^2+80^2+70^2}} =$$

$$A_{23} = 0.389 \frac{90}{\sqrt{85^2+60^2+90^2+85^2+70^2+70^2+80^2+80^2+70^2}} =$$

$$A_{24} = 0.367 \frac{85}{\sqrt{85^2+60^2+90^2+85^2+70^2+70^2+80^2+80^2+70^2}} =$$

$$A_{25} = 0.302 \frac{70}{\sqrt{85^2+60^2+90^2+85^2+70^2+70^2+80^2+80^2+70^2}} =$$

$$A_{26} = 0.302 \frac{70}{\sqrt{85^2+60^2+90^2+85^2+70^2+70^2+80^2+80^2+70^2}} =$$

$$A_{27} = 0.345 \frac{80}{\sqrt{85^2+60^2+90^2+85^2+70^2+70^2+80^2+80^2+70^2}} =$$

$$A_{28} = 0.345 \frac{80}{\sqrt{85^2+60^2+90^2+85^2+70^2+70^2+80^2+80^2+70^2}} =$$

$$A_{29} = 0.302 \frac{70}{\sqrt{85^2+60^2+90^2+85^2+70^2+70^2+80^2+80^2+70^2}} =$$

c. C3 value

$$A_{31} = 0.297 \frac{70}{\sqrt{70^2+85^2+75^2+95^2+65^2+80^2+60^2+85^2+85^2}} =$$

$$A_{32} = 0.361 \frac{85}{\sqrt{70^2+85^2+75^2+95^2+65^2+80^2+60^2+85^2+85^2}} =$$

$$A_{33} = 0.318 \frac{75}{\sqrt{70^2+85^2+75^2+95^2+65^2+80^2+60^2+85^2+85^2}} =$$

$$A_{34} = 0.403 \frac{95}{\sqrt{70^2+85^2+75^2+95^2+65^2+80^2+60^2+85^2+85^2}} =$$

$$A_{35} = 0.276 \frac{65}{\sqrt{70^2+85^2+75^2+95^2+65^2+80^2+60^2+85^2+85^2}} =$$

$$A_{36} = 0.34 \frac{80}{\sqrt{70^2+85^2+75^2+95^2+65^2+80^2+60^2+85^2+85^2}} =$$

$$A_{37} = 0.255 \frac{60}{\sqrt{70^2+85^2+75^2+95^2+65^2+80^2+60^2+85^2+85^2}} =$$

$$A_{38} = 0.361 \frac{85}{\sqrt{70^2+85^2+75^2+95^2+65^2+80^2+60^2+85^2+85^2}} =$$

$$A_{39} = 0.361 \frac{85}{\sqrt{70^2+85^2+75^2+95^2+65^2+80^2+60^2+85^2+85^2}} =$$

d. C4 value

$$A_{41} = \frac{1800000}{\sqrt{1800000^2+1600000^2+1900000^2+1500000^2+1700000^2+1500000^2+1800000^2+1600000^2+1500000^2}}$$
$$= 0.361$$

$$A_{42} = \frac{1600000}{\sqrt{1800000^2+1600000^2+1900000^2+1500000^2+1700000^2+1500000^2+1800000^2+1600000^2+1500000^2}}$$
$$= 0.321$$

$$A_{43} = \frac{1900000}{\sqrt{1800000^2+1600000^2+1900000^2+1500000^2+1700000^2+1500000^2+1800000^2+1600000^2+1500000^2}}$$
$$= 0.381$$

$$A_{44} = \frac{1500000}{\sqrt{1800000^2+1600000^2+1900000^2+1500000^2+1700000^2+1500000^2+1800000^2+1600000^2+1500000^2}}$$
$$= 0.301$$

$$A_{45} = \frac{1700000}{\sqrt{1800000^2+1600000^2+1900000^2+1500000^2+1700000^2+1500000^2+1800000^2+1600000^2+1500000^2}}$$
$$= 0.341$$

$$A_{46} = \frac{1500000}{\sqrt{1800000^2+1600000^2+1900000^2+1500000^2+1700000^2+1500000^2+1800000^2+1600000^2+1500000^2}}$$
$$= 0.301$$

$$A_{47} = \frac{1800000}{\sqrt{1800000^2+1600000^2+1900000^2+1500000^2+1700000^2+1500000^2+1800000^2+1600000^2+1500000^2}}$$
$$= 0.361$$

$$A_{48} = \frac{1600000}{\sqrt{1800000^2+1600000^2+1900000^2+1500000^2+1700000^2+1500000^2+1800000^2+1600000^2+1500000^2}}$$
$$= 0.321$$

$$A_{49} = \frac{1500000}{\sqrt{1800000^2+1600000^2+1900000^2+1500000^2+1700000^2+1500000^2+1800000^2+1600000^2+1500000^2}}$$
$$= 0.301$$

e. C5 value

$$A_{51} = 0.364 \frac{90}{\sqrt{90^2+80^2+85^2+75^2+90^2+70^2+85^2+85^2+80^2}} =$$

$$A_{52} = 0.323 \frac{80}{\sqrt{90^2+80^2+85^2+75^2+90^2+70^2+85^2+85^2+80^2}} =$$

$$A_{53} = 0.344 \frac{85}{\sqrt{90^2+80^2+85^2+75^2+90^2+70^2+85^2+85^2+80^2}} =$$

$$A_{54} = 0.303 \frac{75}{\sqrt{90^2+80^2+85^2+75^2+90^2+70^2+85^2+85^2+80^2}} =$$

$$A_{55} = 0.364 \frac{90}{\sqrt{90^2+80^2+85^2+75^2+90^2+70^2+85^2+85^2+80^2}} =$$

$$A_{56} = 0.283 \frac{70}{\sqrt{90^2+80^2+85^2+75^2+90^2+70^2+85^2+85^2+80^2}} =$$

$$A_{57} = 0.344 \frac{85}{\sqrt{90^2+80^2+85^2+75^2+90^2+70^2+85^2+85^2+80^2}} =$$

$$A_{58} = 0.344 \frac{85}{\sqrt{90^2+80^2+85^2+75^2+90^2+70^2+85^2+85^2+80^2}} =$$

$$A_{59} = 0.323 \frac{80}{\sqrt{90^2+80^2+85^2+75^2+90^2+70^2+85^2+85^2+80^2}} =$$

Here are the results of the normalized matrix in the previous calculation, arranged according to an alternative sequence of criteria:

$$X_{ij} = \begin{pmatrix} 0.353 & 0.367 & 0.297 & 0.361 & 0.364 \\ 0.331 & 0.259 & 0.361 & 0.321 & 0.323 \\ 0.353 & 0.389 & 0.318 & 0.381 & 0.344 \\ 0.309 & 0.367 & 0.403 & 0.301 & 0.302 \\ 0.375 & 0.302 & 0.276 & 0.341 & 0.364 \\ 0.287 & 0.302 & 0.34 & 0.301 & 0.283 \\ 0.397 & 0.345 & 0.255 & 0.361 & 0.344 \\ 0.309 & 0.345 & 0.361 & 0.321 & 0.344 \\ 0.265 & 0.302 & 0.361 & 0.301 & 0.323 \end{pmatrix}$$

5. Attribute Value Optimization

    Optimization of attribute values results from the multiplication of matrices that have been normalized with criterion weighted values.

$$X_{ij} = \begin{pmatrix} 0.353 \times 0.3 & 0.367 \times 0.25 & 0.297 \times 0.20 & 0.361 \times 0.15 & 0.364 \times 0.10 \\ 0.331 \times 0.3 & 0.259 \times 0.25 & 0.361 \times 0.20 & 0.321 \times 0.15 & 0.323 \times 0.10 \\ 0.353 \times 0.3 & 0.389 \times 0.25 & 0.318 \times 0.20 & 0.381 \times 0.15 & 0.344 \times 0.10 \\ 0.309 \times 0.3 & 0.367 \times 0.25 & 0.403 \times 0.20 & 0.301 \times 0.15 & 0.303 \times 0.10 \\ 0.375 \times 0.3 & 0.302 \times 0.25 & 0.276 \times 0.20 & 0.341 \times 0.15 & 0.364 \times 0.10 \\ 0.287 \times 0.3 & 0.302 \times 0.25 & 0.34 \times 0.20 & 0.301 \times 0.15 & 0.283 \times 0.10 \\ 0.397 \times 0.3 & 0.345 \times 0.25 & 0.255 \times 0.20 & 0.361 \times 0.15 & 0.344 \times 0.10 \\ 0.309 \times 0.3 & 0.345 \times 0.25 & 0.361 \times 0.20 & 0.321 \times 0.15 & 0.344 \times 0.10 \\ 0.265 \times 0.3 & 0.302 \times 0.25 & 0.361 \times 0.20 & 0.301 \times 0.15 & 0.323 \times 0.10 \end{pmatrix}$$

$$X_{ij} = \begin{pmatrix} 0.1059 & 0.09175 & 0.0594 & 0.05415 & 0.0364 \\ 0.0993 & 0.06475 & 0.0722 & 0.04815 & 0.0323 \\ 0.1059 & 0.09725 & 0.0636 & 0.05715 & 0.0344 \\ 0.0927 & 0.09175 & 0.0806 & 0.04515 & 0.0303 \\ 0.1125 & 0.0755 & 0.0552 & 0.05115 & 0.0364 \\ 0.0861 & 0.0755 & 0.068 & 0.04515 & 0.0283 \\ 0.1191 & 0.08625 & 0.051 & 0.05415 & 0.0344 \\ 0.0927 & 0.08625 & 0.0722 & 0.04815 & 0.0344 \\ 0.0795 & 0.0755 & 0.0722 & 0.04515 & 0.0323 \end{pmatrix}$$

6. Calculating Optimization Value

    Each alternative will have an optimization value calculated. Using equation (4), the criteria weight is multiplied by the maximum attribute value (max) and then summed, then subtracted by the number of criteria weights with the minimum attribute value (min).

Table 3 Yi values on the MOORA method

Alternative	Maximum (C1+C2+C3+C5)	Minimum (C4)	Yi (Max-Min)
David Son	0.29345	0.05415	0.2393
Syifa Firli	0.26855	0.04815	0.2204
Elsa Maharani	0.30115	0.05715	0.244
Anna Princess	0.29535	0.04515	0.2502
Fira Elyz	0.2796	0.05115	0.22845
Melvia Siregar	0.2579	0.04515	0.21275
Sela Yulia	0.29075	0.05415	0.2366
Dani Ramadhan	0.28555	0.04815	0.2374
Rani Julia	0.2595	0.04515	0.21435

7. Determining the Results of Ranking ValuesBased on the results of the calculation of the optimization value above, the final value results are obtained so that ranking can be done on alternatives.

Table 4 Alternative Ranking

Alternative	Rating Value	Rank
Anna Princess	0.2502	1
Elsa Maharani	0.244	2
David Son	0.2393	3
Dani Ramadhan	0.2374	4
Sela Yulia	0.2366	5
Fira Elyz	0.22845	6
Syifa Firli	0.2204	7
Rani Julia	0.21435	8
Melvia Siregar	0.21275	9

Based on Table 4, results have been obtained using a decision support system for determining new barista candidates using the MOORA method, namely the highest score achieved by Anna Putri with a value weight of 0.2502. So based on this research, it was decided that Anna Putri was chosen to be the new barista at Brouw *coffee shop*.

2.5 *Use Case* Diagram

Here's the Use Case Diagram of the Decision Support System for Determining New Barista Candidates Using the MOORA Method:
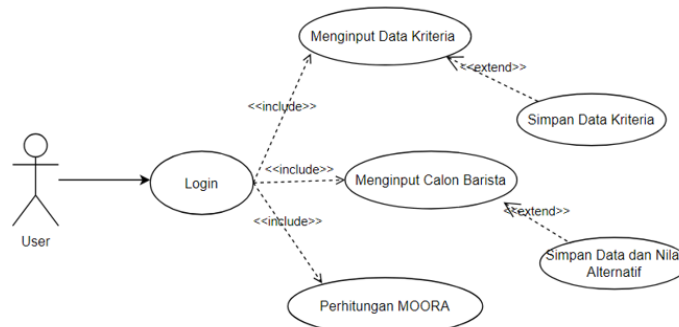
Figure 3. 3 Use Case Diagram

Information:

Use Case Diagram is an activity process that begins with the user logging in. If the login is successful, then the user can input the criteria data and save the data. Then the user can input data and alternative values and save them. So that the MOORA calculation can be processed by the system and get the final result of the decision to determine new barista candidates.

3. Result And Discussion

3.3.1 Research Results

Based on the analysis and design described in the previous chapter, the next stage is to implement the system and test the system. There are several pages that have been designed based on the function of each page. Here are the pages to display:

Login Page

Login Page

The login page is the initial display on the system that has an input menu email address and password to log in to the user account. Here's what it looks like on the login page
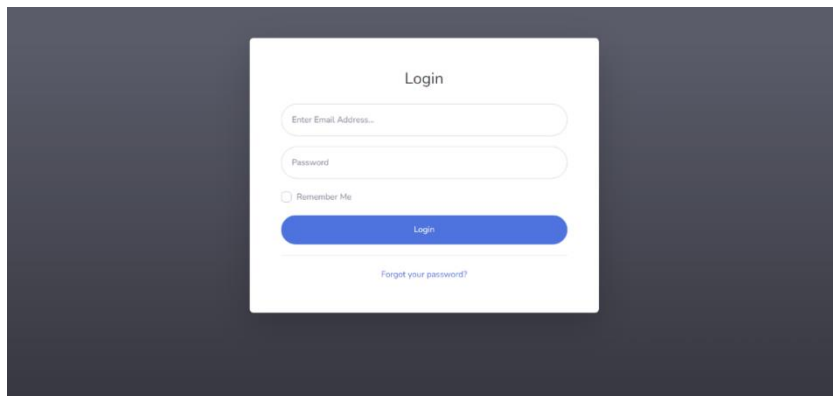
Figure 4. 1 Login Page

Dashboard Page

This page will appear when the user successfully registers. The following dashboard page on the decision support system website determines the candidate for new baristas.
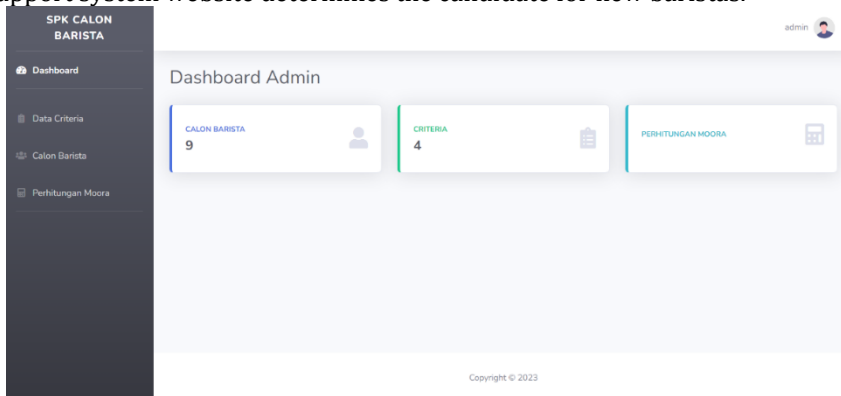

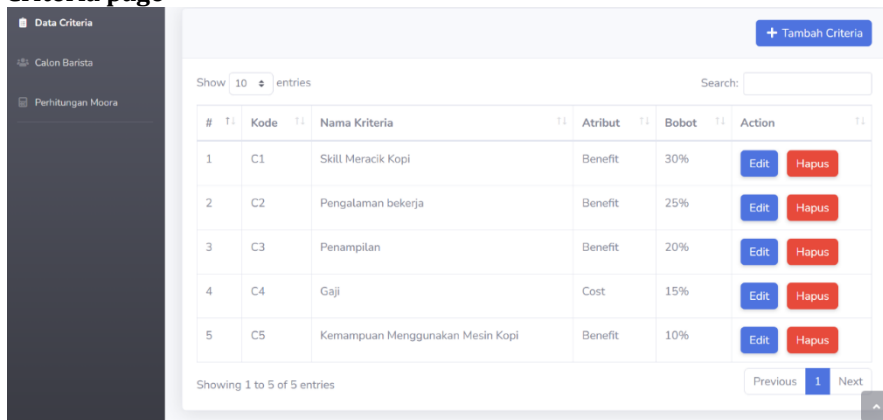**Figure 4. 2 Dashboard Page**

Data Criteria page

Figure 4. 3 Data Criteria page

On this page there is data criteria that have been determined based on the needs of Brouw coffee shop. The criteria page contains added criteria for adding data, criteria codes, criteria names, attributes, weights, and actions to edit or delete data.

Barista Candidate Page

On this page there is data from prospective baristas, namely name, email, mobile number, and address. Then there are the values obtained by prospective baristas based on predetermined criteria. Here's the barista candidate page:

Figure 4. 4 Prospective Barista Page

MOORA Calculation Page
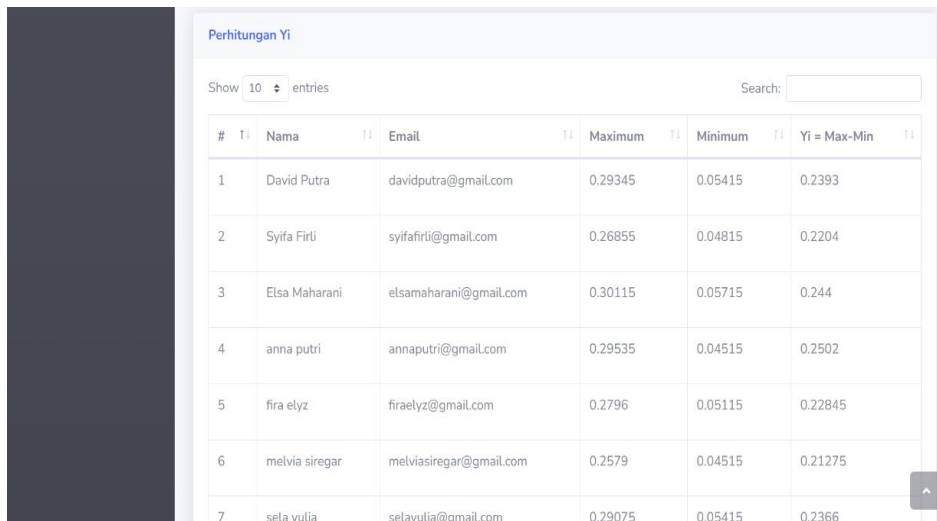
Figure 4. 5 Matrix Normalization Calculation Page

On this page, the calculation process is carried out with the stages in the MOORA method, namely normalizing the matrix value, optimizing attribute values, calculating Yi, and ranking in the following figure:
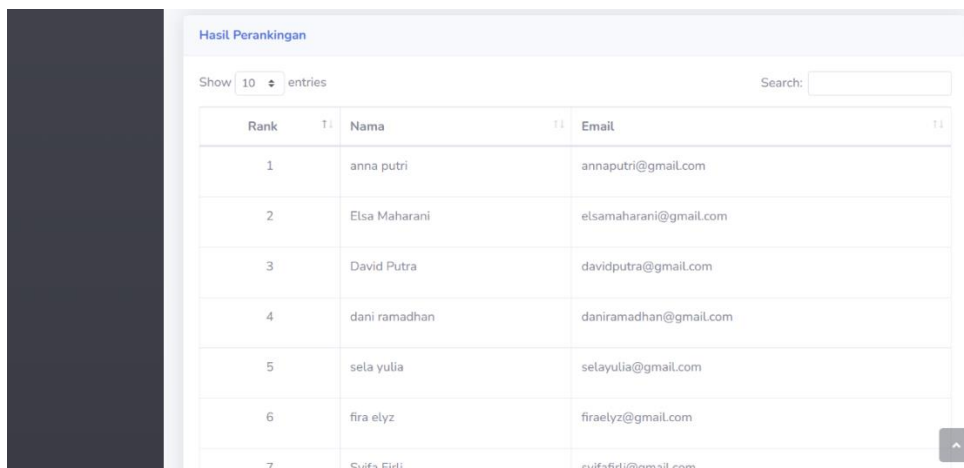

Figure 4. 6 Attribute Value Optimization Calculation Page

Figure 4. 7 Yi Value Calculation Page

Figure 4. 8 Pages of Ranking Results

3.2 Discussion

The decision support system for determining new barista candidates aims to help and facilitate Brouw coffee shop in making new barista decisions that match predetermined criteria. At first, Brow coffee *shop* had several stages of tests, namely interview tests, the use of coffee machines, and making coffee drinks. However, decision making only uses personal instinct so it is considered not objective. With this decision support system, the rating system at Brow coffee shop becomes more objective. In a website-based decision support *system* built using waterfall system development methods that have been successfully applied. The programming language used is PHP using the *Laravel framework* and MySQL database. Then there are several stages in using the decision support system for determining new barista candidates using the MOORA method, namely inputting the criteria data used along with the attributes and weights of these criteria, inputting prospective barista data and values for each criterion, then the MOORA calculation process that results in ranking on alternatives. The final result of determining the new barista candidate was obtained by choosing Anna Putri as an alternative that was considered the most in accordance with the specified criteria. The ranking value obtained by Anna Putri is 0.2502. The following are the ranking results of the decision support system for determining new barista candidates using the MOORA method.

4.   CONCLUSION

The conclusions of this study are:
1. Creating a decision support system for determining new barista candidates using the MOORA method, can make it easier for Brouw coffee shop to determine new baristas according to the required criteria with an objective assessment system and faster time efficiency.

2. The results of this study can determine the appropriate new barista candidate, namely the selection of Anna Putri alternative as a new barista at Brouw coffee shop with a rating value of 0.2502 using the MOORA method. This workshop smart information system can display item data such as stock of goods, item names, types of open goods, only that this system also displays a service queuing system that can be seen by users during the service process.

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