Key Performance Indicator for Multi Branch Employee Performance Assessment Based on Simple Additive Weighting

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Abstract. The success of the company in managing human resources is very crucial, especially companies that have different locations. Different locations are termed multi-branch, which is management of human resource performance based on clear and anti-subjective assessment parameters and carried out regularly. The performance parameters of employees in a company can be influenced by various factors including motivation, competence, and perceived organizational support. Futhermore, the company parameters will concern about the cost and benefits. Managing a business with one building location will be different from managing a business in many locations, especially with the number of subsidiaries reaching 13 locations. The complexity of corporate governance will be higher, therefore a mechanism is needed to simplify this complexity from point of view of the Simple Additive Weighting Method where the determinant of the variable is initiated as *Ci-Cn* to obtain a normalized matrix of R for Benefit (B) and Cost (C) values. This research, the Benefit values are *C1,C3,C4* while the Cost values are *C2,C5,C6.* The normalization for Benefit is initiated as *Rij = (Xij/XijMax)* and *Rij = (XijMin/Xij)*for the initiation of the Cost of calculating normalization R. The results obtained are then processed into a normal matrix with the initiation *W = [(C1),(C2),(C3),(C4),(C5),(C6)].*

1. Introduction

The parameter of company success is the ability to optimally utilize human resources involved in every business process [1]. Human resource is one of the important keys for the development of a company scale [2]. Good or service companies need quality human resources to collaborate and to advance the company [2][3]. Quality of human resources will make it easier for the company to achieve its vision and mission [4]. Employees as superclass entities of the company, have many subclasses under them that are connected to each other [5]. One of the company's resources is to involve humans in the business process and every human being likes awards. Furthermore, companies need to view awards in various forms

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such as renumeration, incentive, bonuses and salaries, which are important things to trigger human resources to work actively. The company's point of view is based on cost and benefits, with the aim of working and mutual benefit [6].

Incentives could given to each employee if the company has finished evaluating the performance of each employee [7]. Nowadays, it is considered important that companies can implement Key Performance Indicators (KPI) to assess the performance of their employees [8][9]. KPI-based assessments are considered more representative today as an evaluation of employee performance appraisals, because the parameters and indicators in the KPI framework are clearer and are expected not to subject oriented [10]. KPI adoption is carried out periodically and continuously to obtain return or evaluation feedback of what has been done within a fixed period of time [11][12].

This study uses an internet service company engaged in internet rental and printing services which has 13 branches spread across the city of Semarang, Central Java. Each branch has a maximum of 9 employees, and the total number of employees working is 108 people excluding the staff manager and head office staff. Performance appraisal in this company still uses a conventional system using data files from data processing application of spreadsheets [13][14]. Performance assessment indicators are still done manually. Furthermore, it has a weakness in the calculation and accuracy of processing employee performance, often there are deficiencies in employee performance appraisals. The time to collect employee performance data also take a lot of time, because the system still sending spreadsheet files by email and corrected one by one by the Human Resource Department (HRD) and Chief Business Officer (CBO). Validation process by HRD and CBO does not yet have an integrated computer-assisted information system. Another Weakness of the conventional system that has been implemented by the company is that the employee appraisal criteria do not have a constant assessment variable and are still left to the per-branch policy, so that the performance appraisal parameters do not have a clear enough reference for employees. This research specifically aims to establish Key Performance Indicators with the same standards in multi-branch companies, furthermore aims to facilitate management in measuring employee performance with the same unit of measure, and prevent employees from social inequality.

2. Research Method

Evaluation of employee performance appraisals in multi branch companies needs to be standardized so that the duties and responsibilities of each individual in the company are the same for every position performed. The research method used in this study refers to the Waterfall Model. The reason for the adoption of this method is that the company is already running, so the Waterfall Method is deemed appropriate for the reference steps of this research. The Waterfall Model is a Software Development Life Cycle (SDLC) that works sequentially according to the process sequence phase, meaning that when the Waterfall Model is adopted, one phase is completed; then moves to the next phase. The Waterfall Model was proposed by Winston W. Royce in 1970 to describe the practice of software engineers. The Waterfall Model consists of the Analysis, Design, Implementation, Testing, Maintenance phases.

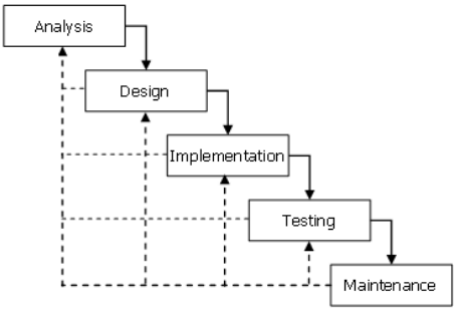

Figure 1. Waterfall Model[15]

The analysis phase begins by determining the System Requirements Specification (SRS) where in this phase all the initial requirements are identified, including the objectives and scope as well as, the software behavior is determined according to the organization's need,namely functional and non-functional requirement. Functional requirements are determined through use case studies that describe user interaction with the application, user interface function, database application requirement. Meanwhile, non-functional criteria refers to the identification of constraints, limitations and requirements imposed on the design and operation of the application and not on certain non-system behaviors. The design phase is a planning process and research problem solving solutions. In this phase, software development and design is determined and carried out which includes algorithm design, thinking framework, device architecture design, conceptual database schemes, conceptual design and graphical user interface design, and structural definition. The implementation phase refers to the realization of the company's operating system procedures into a Decision Support System Method that is selected or developed for later application to programming languages, webs,databases, and other device components. This phase is an implementation of the adopted decision support system, namely Simple Additive Weighting, which is used to standardize the multi-branch assessment managed by the company. The Testing phase is a verification and validation process that the stages have been carried out to meet the requirements and specifications and have achieved the intended objectives. The Maintenance phase is a continuous process of monitoring and escort after the implementation process runs to improve the output produced, as a means of correction and quality improvement as well as maintaining the reliability of the methods applied. Revisions or iterations are carried out before heading to the next stage according to the Waterfall Method system flow.

2.1 Development Procedure

The research and development design used refers to the Waterfall Model, namely Analysis, Design, Implementation, Testing and Maintenance. These five stages were adopted into the design of key performance indicators for multi-branch employee performance assessment using Simple Additive Weighting (SAW) in internet café services companies in the city Semarang. This study also presents a simulation model that is in line with the Waterfall Model which is related to resources, inputs, workflows and expected outputs. In more detail, the procedure for developing this research is to conduct a needs analysis where the stages are further divided into process levels, including literature study. Literature study is an activity in order to find the phenomenon of gap and research gap. Various literature and supporting data relating to employee appraisal decision support systems using the Simple Additive Weighting Method and accompanying technologies, such as programming languages and system design are

reviewed in this study. In addition to literature study, the development procedure was carried out by field observations to study existing facts, then followed by interviews using a questionnaire instrument. Another step taken is designing an object-oriented software engineering using the Unified Modeling Language.

2.2 Research Outcomes Procedure

The research performance procedure is intended to collect data that can be used as a basis for determining the level of effectiveness of the previous procedures that have been carried out. The adoption of the Simple Additive Method is used to help solve the problem of evaluating employee performance in multi-branch office, so to get the expected result in the analysis phase, the following steps are needed :

2.2.1 Determination of Criteria

Determination of criteria is the main reference in the Simple Additive Method to make it easier to formulate a decision making system. The criteria variable is initiated as "*C1-Cn"* to provide a caption to the assessment variable. This study has six (6) assessment variables, namely : Attendance (C1), is the number of employee attendance records in one assessment period. Lateness (C2), is a record of the delay in the number of employee attendance in one period. Shift Keep Report (C3), is the number of tap reports originating from the fingerprint machine within the time period set by the company. Recapitulation of Deposit (C4), is the number of adjustments determined by the company with three predicates, namely : positive, negative and the result of recapitulation. Print Error (C5), is the number of failed records per each employee duty. The calculation is the accumulation of all print failures caused by misprint, print machine errors, and other failures, then compared to the needs of internet cafes and the needs of the next shift. The total print error calculation is calculated by using the print logger inputted in the failed and incorrectly printed columns. The company formulation has formulated the following: Percentage *error print = total errortotal logger * 100.* The last variable is Stock Opname (C6) which is the stock of goods, especially paper and printer ink.

2.2.2 Determination of Rating

Determination of rating is a step in the Simple Additive Weighting Method by giving weight of importance and value to each criterion and alternative. Determination of rating is a very important stage in the decision process, where the weight is determined from the phenomena that occur in the company which are reflected in a floating point number that is referenced to the number of variables and initiation of the variables. Weighting each criterion is a first step towards determining a rating. In this study the weighting of each multi branch is a follows:

TABLE 1. Variable Weighting Process

Initiation Variable	Variable Name	Weight
C1	*Attendance*	0.3
C2	*Lateness*	0.2
C3	*Shift Keep Report*	0.15
C4	*Recapitulation of Deposit*	0.1
C5	*Print Error*	0.1
C6	*Stock Opname*	0,15

If the weighting has been completed and agreed upon by all stakeholders, then the next step is to set a rating for each variable. The indicators for each variable can appear and weighting can be carried out for each indicator. Cost and Benefit is initiated into the symbol "C" for the Cost and "B" for Benefit. The following is an overview of the rating of each key performance indicator variable for multi branch employee performance assessments based on Simple Additive Weighting :

TABLE 2. The Process of Weighting Each Variable and Indicator.

Attendance C1 (B)	**Weight**	**Lateness C2 (C)**	**Weight**
24-25	5	Late >7 Times	5
22-23	4	Late 5-6 Times	4
20-21	3	Late 3-4 Times	3
18-19	2	Late 1-2 Times	2
<17	1	Not Late	1
Shift Keep Report C3 (B)	**Weight**	**Shift Keep Report C4 (B)**	**Weight**
24-25	5	Adjustment (+)	5
22-23	4	Not Adjustment	4
20-21	3	Minus 5000 – 10.000	3
18-19	2	Minus 11.000 – 15.000	2
<17	1	Minus 16.000 – 20.000	1
Variable Error Print C5 (C)	**Weight**	**Stock Opname C6 (C)**	**Weight**
7% – 8%	5	Minus > 16.000	5
5% – 6 %	4	Minus 11.000 – 15.000	4
3% – 4%	3	Minus 5.000 – 10.000	3
1% – 2%	2	Positive Stock Opname	2
0% – 1%	1	Not Lost Inventory	1

2.3 Formulation Of Criteria on Decision Matrix

The decision matrix is a decision normalization process initiated as (X) into a scale that can be compared with all alternative ratings that have been previously prepared. The decision matrix formulation is based on the company's cost and benefit. Technically, the variables included in the company's Benefit (B) are : C1,C3,C4. Meanwhile, the variables included in the company Cost (C) are : C2,C5,C6. If each rating is initiated as "r", the value of the decision matrix as "xij" and the maximum value of the decision matrix per column as "xijmax", and the minimum value per column in the decision matrix of each branch as "xijmin", so it be assumed that "rij" is an extract from the decision matrix (X) against the weight (W) which is the decision matrix. Every maximum function that is sought needs to pay attention to the value matrix "xijmax", and vice versa if it reduces costs, then "xijmin" is calculated, so that "rij" is the ratio between "J" as costs and "J" as profits of companies that always go side by side in the company's business processes. Cost should be reduced, whereas profits should be maximized. Benefit variable functions need to be maximized, while cost variables need to minimized, so the formulation is a follows:

$$rij = \begin{cases} \frac{Xij}{Max\ Xij} \ If\ J\ is\ the\ profit\ variable\ (Benefit) \\ \frac{Min\ Xij}{Xij} \ If\ J\ is\ a\ cost\ attribute\ (Cost) \end{cases} \quad (1)$$

3. Result and Discussion

3.1 Calculation of Multi-branch Criteria

Based on table 1 the weighting of each variable, the next step is to find alternative results for each value, which are compared with each employee who works in a branch. Each variable has a different value depending on how much effort it takes to bring benefits to the company, which is reflected in the value obtained for each employee in each branch. Evaluation criteria for variables that have been calculated by means of random sample using the Simple Additive Weighting Method. This research uses Fatmawati, Wolter Monginsidi and Gadjah branches as samples of the calculation of the criteria for further generalization to other branches.

TABLE 3. Random Sampling Criteria Calculation of SAW Method in Company Branch

Fatmawati Branch Criteria						
Employee	C1	C2	C3	C4	C5	C6
Dimas	24	5	22	0	0.29%	0
Fahmi	25	5	16	2480	1.90%	0
Luky	26	1	26	4177	0.00%	1500
Kholid	25	5	18	0	0.00%	1500
Yasin	23	3	13	1457	4.90%	0
Lestari	23	0	23	128.478	0.38%	0
Radith	14	7	11	0	1.77%	0
W. Monginsidi Branch Criteria						
Employee	C1	C2	C3	C4	C5	C6
Ridlwan	20	2	19	3.996	3.84%	0
Aji	27	3	24	0	0.00%	0
Aldi	14	2	14	498	0.00%	0
Arif	23	5	22	0	19.0%	0
Bagus	22	4	22	0	0.00%	0
Monica	24	0	24	11.477	0.22%	0
Rizal	22	0	22	0	0.00%	0
Vitrianti	17	1	17	-18.513	1.18%	0

Gadjah Branch						
Employee	C1	C2	C3	C4	C5	C6
Adi	27	5	22	990	12.7%	0
Firman	23	0	18	0	0.00%	0
Hanif	21	1	21	1.495	0.00%	0
Okta	26	1	25	57.480	0.69%	-36.000
Pianus	24	1	20	0	47.8%	9000
Rosma	24	1	24	26.926	0.39%	22.000
Vino	26	1	15	475	5.46%	0

3.2 Match Rating for Multiple Branches

Every criteria from all branches that have been calculated, the next step is to match the ranking criteria. The basis for the determination is to maximize the Benefit function and minimize the Cost function. The process of matching the values from the table is guided by the previous steps in table 2.

TABLE 4. Match Rating for Multiple Branches

Fatmawati Branch Match Rating						
Employee	C1 (Max)	C2 (Min)	C3 (Max)	C4 (Max)	C5 (Min)	C6 (Min)
Dimas	5	4	4	4	1	1
Fahmi	5	4	1	5	2	1
Luky	5	2	5	5	1	2
Kholid	5	4	2	4	1	2
Yasin	4	3	1	5	4	1
Lestari	4	1	4	5	1	1
Radith	1	5	1	4	2	1
W. Monginsidi Branch Match Rating						
Employee	C1 (Max)	C2 (Min)	C3 (Max)	C4 (Max)	C5 (Min)	C6 (Min)
Ridlwan	3	2	2	5	3	1
Aji	5	3	5	4	1	1
Aldi	1	2	1	5	1	1
Arif	4	4	4	4	5	1
Bagus	4	3	4	4	1	1
Monica	5	1	5	5	1	1
Rizal	4	1	4	4	1	1
Vitrianti	1	2	1	1	2	1

Gadjah Branch Match Rating						
Employee	C1 (Max)	C2 (Min)	C3 (Max)	C4 (Max)	C5 (Min)	C6 (Min)
Adi	5	4	4	5	5	1
Firman	4	1	2	4	1	1
Hanif	3	2	3	5	1	1
Okta	5	2	5	5	1	5
Pianus	5	2	3	4	5	2
Rosma	5	2	4	5	1	2
Vino	5	2	1	5	4	1

3.3 Decision Matrix

The decision matrix component is actualization of the variables that appear and have been determined in the previous process. The decision making matrix has basic criteria which have been established by initiation as (C). The decision matrix is formed by a preprocessing process known as normalization. The weight vector is a constant that is initiated which is an image of the weighting process for each variable (Table.1). The weight vector is initiated as W and the decision matrix as X. The value of W is a predetermined weighting consensus when making consideration by stakeholders involved in multi branch business processes. The use of constant variables is a solution for each branch to be assessed fairly, with the aim of not creating employee gaps in work. High inequity in the company will create a work climate that is not good for the sustainability of the company. The value of X is an array derived from the suitability of the rating of each employee who works in the company, so that to find the decision matrix value, both components are required which are initiated as W and X. The calculation for the decision matrix is as follows :

. Weights Vector : W = [(0.3),(0.2),(0.15),(0.1),(0.1),(0.15)]

a. Decision Matrix (X) based on Weighted value (W) :

TABLE 5. Decision Matrix X based on W value

$$\textit{Branch Fatmawati} = \mathrm{X} = \begin{Bmatrix} 5 & 4 & 4 & 4 & 1 & 1 \\ 5 & 4 & 1 & 5 & 2 & 1 \\ 5 & 2 & 5 & 5 & 1 & 2 \\ 5 & 4 & 2 & 4 & 1 & 2 \\ 4 & 3 & 1 & 5 & 4 & 1 \\ 4 & 1 & 4 & 5 & 1 & 1 \\ 1 & 5 & 1 & 4 & 2 & 1 \end{Bmatrix}$$

$$\textit{Branch W. Monginsidi} = \mathrm{X} = \begin{Bmatrix} 3 & 2 & 2 & 5 & 3 & 1 \\ 5 & 3 & 5 & 4 & 1 & 1 \\ 1 & 2 & 1 & 5 & 1 & 1 \\ 4 & 4 & 4 & 4 & 5 & 1 \\ 4 & 3 & 4 & 4 & 1 & 1 \\ 5 & 1 & 5 & 5 & 1 & 1 \\ 4 & 1 & 4 & 4 & 1 & 1 \\ 1 & 2 & 1 & 1 & 2 & 1 \end{Bmatrix}$$

$$Branch\ Gadjah = \mathrm{X} = \begin{Bmatrix} 5 & 4 & 4 & 5 & 5 & 1 \\ 4 & 1 & 2 & 4 & 1 & 1 \\ 3 & 2 & 3 & 5 & 1 & 1 \\ 5 & 2 & 5 & 5 & 1 & 5 \\ 5 & 2 & 3 & 4 & 5 & 2 \\ 5 & 2 & 4 & 5 & 1 & 2 \\ 5 & 2 & 1 & 4 & 4 & 1 \end{Bmatrix}$$

3.4 Normalized Matrix X

Matrix normalization is a step to find the minimum and maximum function of the Cost (C) and Benefit (B) of a multi branch company. The basis for determining the X matrix is the formulation of a decision matrix based on criteria. Identify the value of Benefit (B), namely : C1,C3, and C4, as well as the Cost (C) C2,C5, and C6, then to carry out the normalization step Benefit (B) is maximized with the formulation Rij = (XijMin/Xij), while the criteria variable Cost is minimized using the formulation Rij = (XijMin/Xij). The following are the results of the Benefit (B) function and the Cost (C) function :

TABLE 6. Normalized Matrix X

Branch Fatmawati					
C1 (Max)	C2 (Min)	C3 (Max)	C4 (Max)	C5 (Min)	C6 (Min)
R11=5/5=1.00	R12=1/4=0.25	R13=4/5=0.80	R14=4/5=0.80	R15=1/1=1.00	R16=1/1 =1.00
R21=5/5=1.00	R12=1/4=0.25	R23=1/5=0.20	R24=5/5=1.00	R25=1/2=0.50	R26=1/1=1.00
R31=5/5=1.00	R32=1/2=0.50	R33=5/5=1.00	R34=5/5=1.00	R35=1/1=1.00	R36=1/2=0.50
R41=5/5=1.00	R42=1/4=0.25	R43=2/5=0.40	R44=4/5=0.80	R45=1/1=1.00	R46=1/2=0.50
R51= 4/5=0.80	R52=1/3=0.33	R53=1/5=0.20	R54=5/5=1.00	R55=1/4=0.25	R56=1/1=1.00
R61 =4/5=0.80	R62=1/1=1.00	R63=4/5=0.80	R64=5/5=1.00	R65=1/4=0.25	R66=1/1=1.00
R71 =1/5=0.20	R72=1/5=0.20	R73=1/5=0.20	R74=4/5=0.80	R75=1/2=0.50	R76=1/1=1.00

Branch W. Monginsidi					
C1 (Max)	C2 (Min)	C3 (Max)	C4 (Max)	C5 (Min)	C6 (Min)
R11=3/5=0.60	R12=1/2=0.50	R13=2/5=0.40	R14=5/5 =1.00	R15=1/3=0.33	R16=1/1=1.00
R21=5/5=1.00	R22=1/3=0.33	R23=5/5=1.00	R24=4/5 =0.80	R25=1/1=1.00	R26=1/1=1.00
R31=1/5=0.20	R32=1/2=0.50	R33=1/5=0.20	R34=5/5 =1.00	R35=1/1=1.00	R36=1/1=1.00
R41=4/5=0.80	R42=1/4=0.25	R43=4/5=0.80	R44=4/5 =0.80	R45=1/5=0.20	R46=1/1 =1.00

R51=4/5=0.80	R52=1/3=0.33	R53=4/5=0.80	R54=4/5 =0.80	R55=1/1=1.00	R56=1/1=1.00
R61=5/5=1.00	R62=1/1=1.00	R63=5/5=1.00	R64=5/5 =1.00	R65=1/1=1.00	R66=1/1 =1.00
R71=4/5=0.80	R72=1/1=1.00	R73=4/5=0.80	R64=5/5 =1.00	R75=1/1=1.00	R76=1/1 =1.00
R81=1/5=0.20	R82=1/2=0.50	R83=1/5=0.20	R84=1/5=0.20	R85=1/2=0.50	R86=1/1=1.00

Branch Gadjah					
C1 (Max)	C2 (Min)	C3 (Max)	C4 (Max)	C5 (Min)	C6 (Min)
R11=5/5=1.00	R12=1/4=0.25	R13=4/5=0.80	R14=5/5 =1.00	R15=1/5=0.20	R16=1/1=1.00
R21=4/5=0.80	R22=1/1=1.00	R23=2/5=0.40	R24=4/5 =0.80	R25=1/1=1.00	R26=1/1=1.00
R31=3/5=0.60	R32=1/2=0.50	R33=3/5=0.60	R34=5/5 =1.00	R35=1/1=1.00	R36=1/1=1.00
R41=5/5=1.00	R42=1/2=0.50	R43=5/5=1.00	R44=5/5 =1.00	R45=1/1=1.00	R46=1/5=0.20
R51=5/5=1.00	R52=1/2=0.50	R53=3/5=0.60	R54=4/5 =0.80	R55=1/5=0.20	R56=1/2=0.50
R61=5/5=1.00	R62=1/2=0.50	R63=4/5=0.80	R64=5/5 =1.00	R65=1/1=1.00	R66=1/2=0.50
R71=5/5=1.00	R72=1/2=0.50	R73=1/5=0.20	R74=5/5 =1.00	R75=1/4=0.25	R76=1/1=1.00

3.5 employee Normalization Matrix

Employee normalization matrix is a step to assess employees based on the normalized X matrix, where the results of Cost (C) and Benefit (B) for multi branches are combined with employees involved in the company's business processes.

TABLE 7. Employee Normalization Matrix

Fatmawati Branch Criteria						
Employee	C1	C2	C3	C4	C5	C6
Dimas	1.00	0.25	0.80	0.80	1.00	1.00
Fahmi	1.00	0.25	0.20	1.00	0.50	1.00
Luky	1.00	0.50	1.00	1.00	1.00	0.50
Kholid	1.00	0.25	0.40	0.80	1.00	0.50
Yasin	0.80	0.33	0.20	1.00	0.25	1.00
Lestari	0.80	1.00	0.80	1.00	0.25	1.00
Radith	0.20	0.20	0.20	0.80	0.50	1.00

W. Monginsidi Branch Criteria						
Employee	C1	C2	C3	C4	C5	C6
Ridlwan	0.60	0.50	0.40	1.00	0.33	1.00
Aji	1.00	0.33	1.00	0.80	1.00	1.00
Aldi	0.20	0.50	0.20	1.00	1.00	1.00
Arif	0.80	0.25	0.80	0.80	0.20	1.00
Bagus	0.80	0.33	0.80	0.80	1.00	1.00
Monica	1.00	1.00	1.00	1.00	1.00	1.00
Rizal	0.80	1.00	0.80	0.80	1.00	1.00
Vitrianti	0.20	0.50	0.20	0.20	0.50	1.00

Gadjah Branch						
Employee	C1	C2	C3	C4	C5	C6
Adi	1.00	0.25	0.80	1.00	0.20	1.00
Firman	0.80	1.00	0.40	0.80	1.00	1.00
Hanif	0.60	0.50	0.60	1.00	1.00	1.00
Okta	1.00	0.50	1.00	1.00	1.00	0.20
Pianus	1.00	0.50	0.60	0.80	0.20	0.50
Rosma	1.00	0.50	0.80	1.00	1.00	0.50
Vino	1.00	0.50	0.20	1.00	0.25	1.00

3.6 Final Assessment

The final process of assessment is obtained from the result of the employee normalization matrix multiplied by the Weight (W) of each employee who has the highest value is obtained, which is a value close to 1. The final assessment of this process is a follows :

Fatmawati Branch :

W = [(0.3),(0.2),(0.15),(0.1),(0.1),(0.15)]

Dimas = (1.00*0.3) +(0.25*0.2)+(0.80*0.1)+(0.80*0.1)+(1.00* 0.15)+(1.00* 0.15) = 0.810

Fahmi =(1.00*0.3)+(0.25*0.2)+(0.20*0.1)+(1.00*0.1)+(0.50* 0.15)+ (1.00* 0.15) = 0.695

Luky = (1.00*0.3)+(0.50*0.2)+(1.00*0.1)+(1.00*0.1)+(1.00* 0.15)+(0.50* 0.15) = 0.825

Kholid = (1.00*0.3)+(0.25*0.2)+(0.40*0.1)+(0.80*0.1)+(1.00* 0.15)+(0.50* 0.15) = 0.695

Yasin = (0.80*0.3)+(0.33*0.2)+(0.20*0.1)+(1.00*0.1)+(0.25* 0.15)+(1.00* 0.15) = 0.613

Lestari = (0.80*0.3)+(1.00*0.2)+(0.80*0.1)+(1.00*0.1)+(0.25* 0.15)+(1.00* 0.15) = 0.807

Radith = (0.20*0.3)+(0.20*0.2)+(0.20*0.1)+(0.80*0.1)+(0.50* 0.15)+(1.00* 0.15) = 0.425

Monginsidi Branch :

W = [(0.3),(0.2),(0.15),(0.1),(0.1),(0.15)]

Ridlwan = (0.60*0,3)+(0,50* 0,2)+(0,40* 0,1)+(1,00* 0.1)+(0.33* 0.15)+(1.00* 0.15) = 0.619

Aji = (1.00*0.3)+(0.33* 0.2)+(1.00* 0.1)+(0.80* 0.1)+(1.00* 0.15)+(1.00* 0.15) = 0.846

Aldi = (0.20*0.3)+(0.50* 0.2)+(0.20* 0.1)+(1.00* 0.1)+(1.00* 0.15)+(1.00* 0.15) = 0.580

Arif = (0.80*0.3)+(0.25* 0.2)+(0.80* 0.1)+(0.80* 0.1)+(0.20* 0.15)+(1.00* 0.15) = 0.630

Bagus = (0.80*0.3)+(0.33* 0.2)+(0.80* 0.1)+(0.80* 0.1)+(1.00* 0.15)+(1.00* 0.15) = 0.766

Monica = (1.00*0.3)+(1.00* 0.2)+(1.00* 0.1)+(1.00* 0.1)+(1.00* 0.15)+(1.00* 0.15) = 1.000

Rizal = (0.80*0.3)+(1.00* 0.2)+(0.80* 0.1)+(0.80* 0.1)+(1.00* 0.15)+(1.00* 0.15) = 0.900

Vitrianti = (0.20*0.3)+(0.50* 0.2)+(0.20* 0.1)+(0.20* 0.1)+(0.50* 0.15)+(1.00* 0.15) = 0.425

Gadjah Branch :

W = [(0.3),(0.2),(0.15),(0.1),(0.1),(0.15)]

Adi = (1.00*0.3)+(0.25*0.2)+(0.80*0.1)+(1.00*0.1)+(0.20*0.15)+(1.00*0.15) = 0.710

Firman = (0.80*0.3)+(1.00*0.2)+(0.40*0.1)+(0.80*0.1)+(1.00*0.15)+(1.00*0.15) = 0.860

Hanif = (0.60*0.3)+(0.50*0.2)+(0.60*0.1)+(1.00*0.1)+(1.00*0.15)+(1.00*0.15) = 0.740

Okta = (1.00*0.3)+(0.50*0.2)+(1.00*0.1)+(1.00*0.1)+(1.00*0.15)+(0.20*0.15) = 0.780

Pianus = (1.00*0.3)+(0.50*0.2)+(0.60*0.1)+(0.80*0.1)+(0.20*0.15)+(0.50*0.15) = 0.645

Rosma = (1.00*0.3)+(0.50*0.2)+(0.80*0.1)+(1.00*0.1)+(1.00*0.15)+(0.50*0.15) = 0.805

Vino = (1.00*0.3)+(0.50*0.2)+(0.20*0.1)+(1.00*0.1)+(0.25*0.15)+(1.00*0.15) = 0.707

4. Conclusion

Employee performance, appraisal in multi branches can be assessed using the Simple Additive Weighting Method where the process is to standardize the variables for each branch. The calculations in this study were taken randomly, namely the Fatmawati branch, the Wolter Monginsidi branch and the Gadjah branch as the application sample. Meanwhile, for the other ten branches, a generalization was carried out with the same calculation step. Overall, the assessment score using the Simple Additive Weighting Method is as follows Fatmawati branch, an alternative employee value named Lucky with a score: 0,825. The Wolter Monginsidi branch scored an employee named Monica, with a score of: 1000. The alternative employee grade Gadjah branch is named Firman, with a score of: 0,860. If the company wants to filter more outstanding employees, all branches can see the highest score among the multi branches

which is this study was obtained by the Wolter Monginsidi branch with an employee named Monica who had a perfect score of 1000.

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