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Application of OCRA Method with ROC Weighting in Selection of Best Prudential Agent

Artha Uliana Sinaga[*], Mesran

Faculty of Information Technology and Computer Science, Informatics Engineering Study Program, Budi Darma University, Medan, Indonesia
Email: [1,*]arthaulianas@gmail.com, [2]mesran.skom.mkom@gmail.com
Corresponding Author's Email: arthaulianas@gmail.com

Abstract−The problem that often arises is the gap in the selection of the best agents which was previously influenced by a lack of objectivity in recruiting, and many agents do not match the existing knowledge and criteria. The impact is a discrepancy in selecting the best agent with predetermined criteria, resulting in stagnation and disrupting overall operations. This condition risks damaging the smooth operation and disrupting the achievement of the desired goals. Thus, it is necessary (DSS) to assist in the process of selecting the best agent. The solution is to apply the OCRA method using ROC weighting. The application of the OCRA method with ROC weighting is expected to provide an optimal solution in selecting the best agent based on predetermined criteria. This method was chosen because it is able to determine the weight value for each attribute. From the preference assessment, it can be seen that the value of 0.833 has the highest value. Therefore, it can be concluded that in the tenth alternative (A10), there is a choice that is considered the best agent. This choice was given to Lastri Simbolon, who was ranked as the best agent.

Keywords: Agent; OCRA Method; ROC Method; Decision Support System

1. INTRODUCTION

A company will be able to achieve its target if its employees can work optimally. Then there needs to be cooperation between the manager and his subordinates. If the managers in a company take care of conceptual matters and ideas, the employees will take care of technical matters. These two parts cannot be said to be higher or more important than managers or employees alone, but rather become a unified whole. A company must be oriented towards real material profit, so its management must also be professional. So from there, it is necessary to increase the capacity of its workers.

PT Life Assurance is one of the best insurance agents in Indonesia. This good image cannot be separated from the participation of militant prudential agents. Agents not only pursue quantitative targets set by the company but also service qualities that satisfy consumers. Then many companies or business-oriented businesses go out of business because they are not managed professionally. Companies lack product and service innovation, which also involves the quality of prudential agents. These prudential agents are the spearhead of PT Life Assurance because these agents are in direct contact with consumers in the field. So with the application of the OCRA method with ROC weighting in researching the best prudential agents at PT Life Assurance.

Mesran, Tengku Mohd Diansyah, Fadlina in an article entitled "Implementation of the Rank Order Centroid (ROC) Method and Operational Competitiveness Rating Analysis (OCRA) in Applying Computer Lecturer Performance Assessment (Case Study: STMIK Budi Darma)" concluded that the criteria used need to be reconsidered by including cooperation criteria. Especially for the assessment of lecturer performance, that lecturers who are still under 4 years and who have been more than 4 years cannot be made the same assessment, this is because new lecturers under 2 years do not yet have a class, so that the tenure and class will have a low value even though from a direct assessment of cooperation, the lecturer has a good value. Determining the weight using the Rank Order Centroid (ROC) method is considered to provide convenience on the basis of giving weight[1]. Mayadi, R Wisnu Prio Pamungkas, Azlan, Khairunnisa, Fince Tinus Waruwu whose article entitled Determination of the Best Kasi Applying the OCRA Method with Rank Order Centroid (ROC) Weighting "concluded that the OCRA (Operational Competitiveness Rating Analysis) method can be used to determine the best Kasi by obtaining the best alternative value in A4 with the name Ibnu Majid of 1,347 best alternatives as the first rank[2]. Elvi Alfionita Panjaitan, Yenny Desnelita in an article entitled "Implementation of Rank Order Centroid and Additive Ratio Assessment Methods in Lecturer Performance Assessment" concluded that the application of the ROC and ARAS methods in the Decision Support System is used in obtaining accurate and fast results on lecturer performance assessment. Where, the alternative that gets the highest score and ranking is A4 on behalf of Rosmawati with a value of 0.1865 and rank 1. This Decision Support System can be used as a tool in conducting lecturer performance appraisals. The application of the ROC and ARAS methods is able to provide recommendations to GKM as a user in the form of an assessment based on the weight of predetermined criteria and alternatives ranked from the highest to the lowest value of lecturer performance appraisal[3]. Previous research conducted by Naomi Titania L. Toruan, in 2021, which discusses the determination of the best minutes applying the OCRA method. So after calculating the alternatives and criteria, the results obtained an optimization value of 1.665 on alternative A1 as the best preference value[4]. Research conducted by Surya Sintamie Hasibuan in 2021, which discusses determining recommendations for employee position mutations applying the OCRA method. So after calculating the alternatives and criteria there is a result of a ptimation value of 0.375 on alternative A13 as the best preference value[5]. Research conducted by

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Dwina pri indini et al, in 2021, which discusses determining the best learning media applying the OCRA method. So after calculating the alternatives and criteria there is a result of an optimistic value of 2.296 on alternative A3 as the best preference value[6].

2. RESEARCH METHODOLOGY

2.1 Research Stages

The following is a simple sequence of the data collection stages in this study.

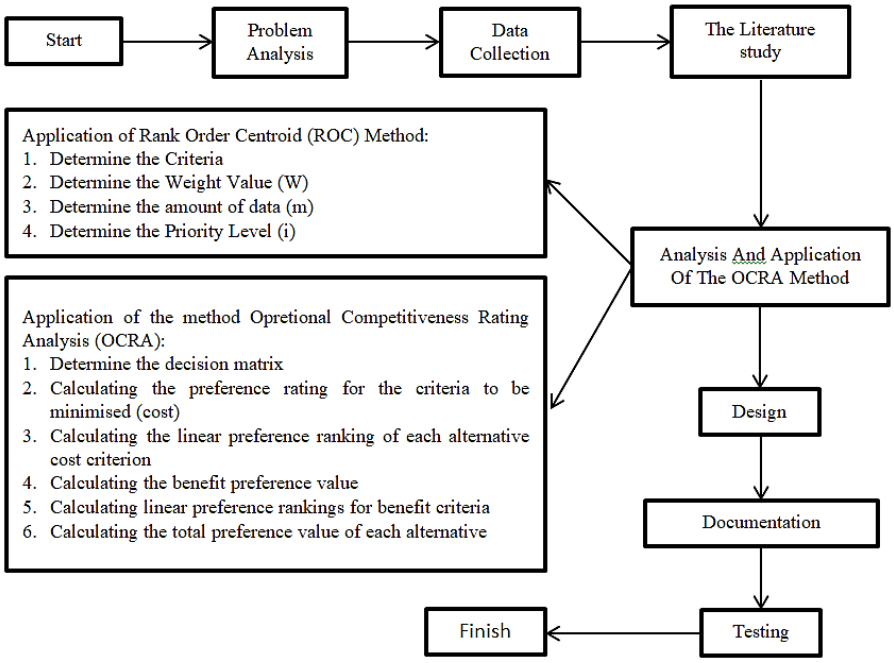

Figure 1. Reasearch Framework

1. Problem Analysis is useful in overcoming problems and analyzing data before running the calculation process.
2. In this data collection, collecting data through observation plays an important role in gaining a deeper understanding of the best online learning media selection process.
3. At the Literature Study stage, efforts are made to understand more deeply the object of research through exploration of references from various sources, such as books, journals, and various other sources.
4. Analysis and Application of OCRA Method, Starting with analyzing the problem to choose the best online learning media. The first step is to determine the weight value of the criteria using the ROC method, and then proceed with applying the OCRA method through appropriate calculations.
5. In the design of the author provides some insight into the selection in determining the best prudential agent. The system design stage is a data that is analyzed into a form that is more easily understood by users and users.
6. This documentation is the final stage in conducting research to make the research into a report. This documentation is also made to provide an explanation of the application so that it can facilitate other people who want to develop applications from this system further.
7. This test implements the results of the method calculation. After the calculation of the method. The next step is testing the method in producing the greatest preference value and optimization value with the ROC and OCRA methods in selecting the best prudential agent at Life Assurance Rantau Parapat North Sumatra.

2.2 Decision Support System

A decision support system can be defined as a system designed to assist individuals or groups in making complex or difficult decisions. Basically, the concept of SPK is only limited to helping managers conduct research, replacing the position and role of managers. Spk is an interactive information system that provides information, modeling and data manipulation. This system is used to help make decisions in semi-structured situations where no one is sure how decisions should be made[7]–[9].

2.3 Prudential Agent

Agents are intermediaries who act on behalf of a company specifically to market products and services produced by the company in a certain area. At an agent, only products and services produced by the relevant company will be available; no other products and services. The products and services are sold by the agent at a price set by the

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manufacturer. The agent receives remuneration in the form of commission from the company, in line with the sales volume achieved. There are three types of agents representing three different economic roles: production agents, selling agents, and buying agents[10], [11].

2.4 Rank Order centroid method

In the research, the ROC Method approach is used to generate weight values for each criterion analyzed. The use of the ROC method aims to emphasize the priority of each criterion. In this case, the first criterion is considered to have the highest priority compared to the second criterion. Similarly, the second criterion is considered more important than the third criterion. This process continues sequentially until the lowest priority of all criteria is determined [12]. This step is then used in the first equation [13], [14].

$$Cr_1 \geq Cr_2 \geq Cr_3 \geq \cdots \geq C_m \quad (1)$$

So that after the process will produce:

$$W_1 \geq W_2 \geq W_3 \geq \cdots \geq C_m \quad (2)$$

To get the wight valie (W), the 3rd equation is used, as follows:

$$W_m = \frac{1}{m} \sum_{1=1}^{m} (\frac{1}{i}) \quad (3)$$

2.5 OCRA Method

OCRA is one of the methods that support in making a decision, this method is very useful as an analysis and comparison decision to complete research thoroughly and quickly [15]–[19]. The following are some of the stages involved in solving problems by applying the OCRA method.

1. Formation of decision matrix X.

$$X = [X_{ij}]mxn \begin{bmatrix} X_{11} & \cdots & X_{21} & \cdots & X_{1n} \\ \vdots & \ddots & \vdots & \ddots & \vdots \\ X_{21} & \cdots & X_{22} & \cdots & X_{2n} \\ \vdots & \ddots & \vdots & \ddots & \vdots \\ X_{m1} & \cdots & X_{m2} & \cdots & X_{mn} \end{bmatrix} i = 1, \ldots., m; j = 1,2, \ldots., n \quad (4)$$

2. Preference ranking where only the performance value of the alternatives for the criteria to be minimized is calculated (cost).

$$\bar{I}_l = \sum_{j=1}^{g} W_j \frac{max(X_{ij}) = X_{ij}}{min(X_{ij})} \quad (5)$$

3. In this step, calculating the linear preference ranking of each alternative for the criteria to be minimized (cost).

$$\bar{\bar{I}}_I = \bar{\bar{I}}_l = \bar{I}_l - \min(\bar{I}_l) \quad (6)$$

4. Preference ranking where only the performance value of the alternatives for the criteria to be maximized is calculated (benefit).

$$\bar{O}_l = \sum_{j=g+1}^{n} W_j \frac{X_{ij} = min(X_{ij})}{min(X_{ij})} \quad (7)$$

5. In this step, calculate the linear preference ranking of each alternative for the criteria to be maximized (benefit).

$$\bar{\bar{O}}_l = \bar{O}_l - min(\bar{O}_l) \quad (9)$$

6. Calculate the total preference value for each alternative.

$$P_i = \left(\bar{\bar{I}}_l + \bar{\bar{O}}_l\right) - min\, \bar{\bar{I}} + \bar{\bar{O}}) \; i = 1,2, \ldots., m \quad (10)$$

3. RESULT AND DISCUSSION

3.1 Application of Alternatif

In the application of alternative data taken in the form of sample data in the selection of prudential agents in 2022. The data obtained comes from PT Prudential Life Assurance.

Table 1. Prudential Agent Data

No	Name	Expertise	Quality of Work	Honesty	Attendance	Discipline	Age
1	Mey Hendra Saragih	Good	Good	Not Good	(85%) Good	Good Enough	45 Tahun

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No	Name	Expertise	Quality of Work	Honesty	Attendance	Discipline	Age
2	Theresia Sitorus	Very Good	Good	Good Enough	(100%) Very Good	Good	30 Tahun
3	Zainuddin Simbolon	Good Enough	Very Good	Good	(85%) Good	Good	47 Tahun
4	Iqhamsa purba	Not Good	Good Enough	Good	(75%) Good Enough	Not Good	45 Tahun
5	Tumono	Good	Good	Very Good	(45%) Not Good	Good	35 Tahun
6	Ruatam Sipayung	Good Enough	Not Good	Not Good	(85%) Good	Good	50 Tahun
7	Widya siagian	Very Good	Good	Good	(100%) Very Good	Very Good	45 Tahun
8	Bagus Sidabutar	Not Good	Very Good	Good Enough	(45%) Good Enough	Good	50 Tahun
9	Jainal Simbolon	Very Good	Good	Very Good	(85%) Good	Not Good	48 Tahun
10	Lastri Simbolon	Good Enough	Good Enough	Good Enough	(100%) Very Good	Not Good	40 Tahun
11	Gunawan Sihombing	Good	Very Good	Good	(85%) Good	Good	55 Tahun
12	Masda silalahi	Good Enough	Not Good	Not Good	(85%) Good	Good	35 Tahun
13	Susi Pardede	Not Good	Good	Good	(45%) Not Good	Good Enough	46 Tahun
14	Sarah Panjaitan	Good	Good Enough	Very Good	(100%) Very Good	Good	48 Tahun
15	Lusi Simanjuntak	Very Good	Good	Not Good	(75%) Good Enough	Not Good	38 Tahun

3.2 Application of Criteria

The application of the criteria used in determining the best Agent acceptance title at PT Prudential Life Assurance which will be developed for the benefit of the public or the best Agent can be seen in table 2:

Table 2. Criteria Data

Criteria	Description	Type
C1	Expertise	*Benefit*
C2	Qualiti of Work	*Benefit*
C3	Honesty	*Benefit*
C4	Discipline	*Benefit*
C5	Age	*Cost*

3.3 ROC Method

ROC is method that the provides weights based on the level of importance of the criteria. The ROC calculation can be seen as below.

$W_1 = \frac{1+\frac{1}{2}+\frac{1}{3}+\frac{1}{4}+\frac{1}{5}}{5} = 0{,}456$

$W_2 = \frac{0+\frac{1}{2}+\frac{1}{3}+\frac{1}{4}+\frac{1}{5}}{5} = 0{,}257$

$W_3 = \frac{0+0+\frac{1}{3}+\frac{1}{4}+\frac{1}{5}}{5} = 0{,}156$

$W_4 = \frac{0+0+0+\frac{1}{4}+\frac{1}{5}}{5} = 0{,}09$

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$W_5 = \frac{0+0+0+0+\frac{1}{5}}{5} = 0{,}04$

Tabel 3. Criteria Weight Value Data

Criteria	Description	Weight	Type
C1	Expertise	0.456	*Benefit*
C2	Qualiti of Work	0.257	*Benefit*
C3	Honesty	0.156	*Benefit*
C4	Discipline	0.09	*Benefit*
C5	Age	0.04	*Cost*

Tabel 4. Criteria scores for skill, quality of work, honesty, discipline

No	Description	Weight
1	Very Good	4
2	Good	3
3	Good Enough	2
4	Not Good	1

Based on alternative in table 1, the suitability rating is obtained which can be observed in table 5 below::

Tabel 5. Suitability rating values

Name	C1	C2	C3	C4	C5
Mey Hendra Saragih	3	3	1	2	45
Theresia Sitorus	4	3	2	3	30
Zainuddin Simbolon	2	4	3	3	47
Iqhamsa purba	1	2	3	1	45
Tumono	3	3	4	3	35
Ruatam Sipayung	2	1	1	3	50
Widya siagian	4	3	3	4	45
Bagus Sidabutar	1	4	2	3	50
Jainal Simbolon	4	3	4	1	48
Lastri Simbolon	2	2	2	1	40
Gunawan Sihombing	3	4	3	3	55
Masda silalahi	2	1	1	3	35
Susi Pardede	1	3	3	2	46
Sarah Panjaitan	3	2	4	3	48
Lusi Simanjuntak	4	3	1	1	38

3.4 OCRA Method

The steps for completing the (OCRA) method in selecting the best agent at PT Life Assurance can be seen as explained below:

1. Form a decision matrix

$$X = [x_{ij}]_{mxn} = \begin{bmatrix} 3 & 3 & 1 & 2 & 45 \\ 4 & 3 & 2 & 3 & 30 \\ 2 & 4 & 3 & 3 & 47 \\ 1 & 4 & 3 & 3 & 45 \\ 3 & 3 & 4 & 1 & 35 \\ 2 & 1 & 1 & 3 & 50 \\ 4 & 3 & 3 & 4 & 45 \\ 1 & 2 & 4 & 3 & 50 \\ 4 & 3 & 4 & 1 & 48 \\ 2 & 2 & 2 & 1 & 40 \\ 3 & 4 & 3 & 3 & 55 \\ 2 & 1 & 1 & 3 & 35 \\ 1 & 3 & 3 & 2 & 46 \\ 3 & 2 & 4 & 3 & 48 \\ 4 & 3 & 1 & 1 & 38 \end{bmatrix}$$

2. Calculate the preference ranking for the criteria to be minimized (cost) for criteria C4 and C5.

$\bar{I}_1 = \sum \left(0.09 \frac{4-2}{1}\right) + \left(0.04 \frac{55-45}{38}\right) = \sum 0{,}18 + 0{,}010 = 0{,}019$

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$\bar{I}_2$=$\sum\left(0.09\frac{4-3}{1}\right)+\left(0.04\frac{55-30}{38}\right)$= $\sum$ 0,09 + 0,026 =0,116

$\bar{I}_3$=$\sum\left(0.09\frac{4-3}{1}\right)+\left(0.04\frac{55-47}{38}\right)$= $\sum$ 0,09 + 0,008 =0,098

$\bar{I}_4$=$\sum\left(0.09\frac{4-3}{1}\right)+\left(0.04\frac{55-45}{38}\right)$= $\sum$ 0,09 + 0,010 =0,001

$\bar{I}_5$=$\sum\left(0.09\frac{4-1}{1}\right)+\left(0.04\frac{55-35}{38}\right)$= $\sum$ 0,27 + 0,021 =0,021

$\bar{I}_6$=$\sum\left(0.09\frac{4-3}{1}\right)+\left(0.04\frac{55-50}{38}\right)$= $\sum$ 0,09 + 0,005 =0,095

$\bar{I}_7$=$\sum\left(0.09\frac{4-4}{1}\right)+\left(0.04\frac{55-45}{38}\right)$= $\sum$ 0,09 + 0,010 = 0,001

$\bar{I}_8$=$\sum\left(0.09\frac{4-3}{1}\right)+\left(0.04\frac{55-50}{38}\right)$= $\sum$ 0,09 + 0,005 = 0,095

$\bar{I}_9$=$\sum\left(0.09\frac{4-1}{1}\right)+\left(0.04\frac{55-48}{38}\right)$= $\sum$ 0,27 + 0,007 = 0,277

$\bar{I}_{10}$=$\sum\left(0.09\frac{4-1}{1}\right)+\left(0.04\frac{55-40}{38}\right)$= $\sum$ 0,27 + 0,015 =0,285

$\bar{I}_{11}$=$\sum\left(0.09\frac{4-3}{1}\right)+\left(0.04\frac{55-55}{38}\right)$= $\sum$ 0,09 + 0,000 =0,009

$\bar{I}_{12}$=$\sum\left(0.09\frac{4-3}{1}\right)+\left(0.04\frac{55-35}{38}\right)$= $\sum$ 0.09 + 0,021 =0,111

$\bar{I}_{13}$=$\sum\left(0.09\frac{4-2}{1}\right)+\left(0.04\frac{55-46}{38}\right)$= $\sum$ 0,18 + 0,009 =0,189

$\bar{I}_{14}$=$\sum\left(0.09\frac{4-3}{1}\right)+\left(0.04\frac{55-48}{38}\right)$= $\sum$ 0.09 + 0,007 =0,097

$\bar{I}_{15}$=$\sum\left(0.09\frac{4-1}{1}\right)+\left(0.04\frac{55-38}{38}\right)$= $\sum$ 0,27 + 0,017 =0,287

3. Calculating the linear preference ranking of each unfavorable alternative (Cost)

$\bar{\bar{I}}_1 = 0.019 - 0.001 = 0.009$

$\bar{\bar{I}}_2 = 0.116 - 0.001 = 0.016$

$\bar{\bar{I}}_3 = 0.098 - 0.001 = 0.002$

$\bar{\bar{I}}_4 = 0.001 - 0.001 = 0.009$

$\bar{\bar{I}}_5 = 0.021 - 0.001 = 0.079$

$\bar{\bar{I}}_6 = 0.095 - 0.001 = 0.005$

$\bar{\bar{I}}_7 = 0.001 - 0.001 = 0{,}000$

$\bar{\bar{I}}_8 = 0.095 - 0.001 = 0.005$

$\bar{\bar{I}}_9 = 0.277 - 0.001 = 0.177$

$\bar{\bar{I}}_{10} = 0.285 - 0.001 = 0.185$

$\bar{\bar{I}}_{11} = 0.009 - 0.001 = 0.001$

$\bar{\bar{I}}_{12} = 0.111 - 0.001 = 0.011$

$\bar{\bar{I}}_{13} = 0.189 - 0.001 = 0.089$

$\bar{\bar{I}}_{14} = 0.097 - 0.001 = 0.003$

$\bar{\bar{I}}_{15} = 0.287 - 0.001 = 0.187$

4. Calculate the preference ranking for the maximized criteria (Benefit) for criteria C1, C2, and C3.

$\bar{O}_1 = \sum\left(0.456\frac{4-3}{2}\right)+\left(0.257\frac{4-3}{3}\right)+\left(0.156\frac{4-1}{2}\right) = \sum 0{,}228 + 0{,}085 + 0{,}234 = 0{,}547$

$\bar{O}_2 = \sum\left(0.456\frac{4-4}{2}\right)+\left(0.257\frac{4-3}{3}\right)+\left(0.156\frac{4-2}{2}\right) = \sum 0{,}000jjj + 0{,}085 + 0{,}156 = 0{,}163$

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$\bar{O}_3 = \sum\left(0.456\frac{4-2}{2}\right) + \left(0.257\frac{4-4}{3}\right) + \left(0.156\frac{4-3}{2}\right) = \sum 0{,}456 + 0{,}257 + 0{,}078 = 0{,}809$

$\bar{O}_4 = \sum\left(0.456\frac{4-1}{2}\right) + \left(0.257\frac{4-4}{3}\right) + \left(0.156\frac{4-3}{2}\right) = \sum 0{,}228 + 0{,}257 + 0{,}078 = 0{,}563$

$\bar{O}_5 = \sum\left(0.456\frac{4-3}{2}\right) + \left(0.257\frac{4-3}{3}\right) + \left(0.156\frac{4-4}{2}\right) = \sum 0{,}228 + 0{,}085 + 0{,}156 = 0{,}469$

$\bar{O}_6 = \sum\left(0.456\frac{4-2}{2}\right) + \left(0.257\frac{4-1}{3}\right) + \left(0.156\frac{4-1}{2}\right) = \sum 0{,}456 + 0{,}257 + 0{,}234 = 0{,}947$

$\bar{O}_7 = \sum\left(0.456\frac{4-4}{2}\right) + \left(0.257\frac{4-3}{3}\right) + \left(0.156\frac{4-3}{2}\right) = \sum 0{,}000 + 0{,}085 + 0{,}078 = 0{,}163$

$\bar{O}_8 = \sum\left(0.456\frac{4-1}{2}\right) + \left(0.257\frac{4-2}{3}\right) + \left(0.156\frac{4-4}{2}\right) = \sum 0{,}228 + 0{,}171 + 0{,}156 = 0{,}555$

$\bar{O}_9 = \sum\left(0.456\frac{4-4}{2}\right) + \left(0.257\frac{4-3}{3}\right) + \left(0.156\frac{4-4}{2}\right) = \sum 0{,}000 + 0{,}085 + 0{,}156 = 0{,}241$

$\bar{O}_{10} = \sum\left(0.456\frac{4-2}{2}\right) + \left(0.257\frac{4-2}{3}\right) + \left(0.156\frac{4-2}{2}\right) = \sum 0{,}456 + 0{,}171 + 0{,}156 = 0{,}783$

$\bar{O}_{11} = \sum\left(0.456\frac{4-3}{2}\right) + \left(0.257\frac{4-4}{3}\right) + \left(0.156\frac{4-3}{2}\right) = \sum 0{,}228 + 0{,}257 + 0{,}078 = 0{,}563$

$\bar{O}_{12} = \sum\left(0.456\frac{4-2}{2}\right) + \left(0.257\frac{4-1}{3}\right) + \left(0.156\frac{4-1}{2}\right) = \sum 0{,}456 + 0{,}257 + 0{,}234 = 0{,}947$

$\bar{O}_{13} = \sum\left(0.456\frac{4-1}{2}\right) + \left(0.257\frac{4-3}{3}\right) + \left(0.156\frac{4-3}{2}\right) = \sum 0{,}228 + 0{,}085 + 0{,}078 = 0{,}391$

$\bar{O}_{14} = \sum\left(0.456\frac{4-3}{2}\right) + \left(0.257\frac{4-2}{3}\right) + \left(0.156\frac{4-4}{2}\right) = \sum 0{,}228 + 0{,}171 + 0{,}156 = 0{,}555$

$\bar{O}_{15} = \sum\left(0.456\frac{4-4}{2}\right) + \left(0.257\frac{4-3}{3}\right) + \left(0.156\frac{4-1}{2}\right) = \sum 0{,}000 + 0{,}085 + 0{,}234 = 0{,}319$

5. Calculate the linear preference set calculated for the Benefit criterion.

$\bar{\bar{O}}_1 = 0.547 - 0.234 = 0{,}313$

$\bar{\bar{O}}_2 = 0.163 - 0.234 = 0{,}071$

$\bar{\bar{O}}_3 = 0.809 - 0.234 = 0{,}575$

$\bar{\bar{O}}_4 = 0.563 - 0.234 = 0{,}329$

$\bar{\bar{O}}_5 = 0.469 - 0.234 = 0{,}235$

$\bar{\bar{O}}_6 = 0.947 - 0.234 = 0{,}713$

$\bar{\bar{O}}_7 = 0.163 - 0.234 = 0{,}071$

$\bar{\bar{O}}_8 = 0.555 - 0.234 = 0{,}321$

$\bar{\bar{O}}_9 = 0.241 - 0.234 = 0{,}007$

$\bar{\bar{O}}_{10} = 0.783 - 0.234 = 0{,}549$

$\bar{\bar{O}}_{11} = 0.563 - 0.234 = 0{,}329$

$\bar{\bar{O}}_{12} = 0.947 - 0.234 = 0{,}713$

$\bar{\bar{O}}_{13} = 0.391 - 0.234 = 0{,}157$

$\bar{\bar{O}}_{14} = 0.555 - 0.234 = 0{,}321$

$\bar{\bar{O}}_{15} = 0.319 - 0.234 = 0{,}085$

6. Calculating the total preference value for each alternative

$P_1 = (0.019 + 0.313) - 0.001 = 0.331$

$P_2 = (0.116 + 0.071) - 0.001 = 0.186$

$P_3 = (0.098 + 0.575) - 0.001 = 0.672$

$P_4 = (0.001 + 0.329) - 0.001 = 0.329$

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$P_5 = (0.021 + 0.235) - 0.001 = 0.255$

$P_6 = (0.095 + 0.713) - 0.001 = 0.807$

$P_7 = (0.001 + 0.071) - 0.001 = 0.071$

$P_8 = (0.095 + 0.321) - 0.001 = 0.415$

$P_9 = (0.227 + 0.007) - 0.001 = 0.233$

$P_{10} = (0.285 + 0.549) - 0.001 = 0.833$

$P_{11} = (0.009 + 0.329) - 0.001 = 0.337$

$P_{12} = (0.111 + 0.713) - 0.001 = 0.713$

$P_{13} = (0.189 + 0.157) - 0.001 = 0.345$

$P_{14} = (0.097 + 0.321) - 0.001 = 0.417$

$P_{15} = (0.287 + 0.085) - 0.001 = 0.371$

Based on the calculation with the OCRA method above, the ranking results are obtained and can be seen in table 6 below.

Table 6. Preference Valie Result

Alternative	Agent Name	Preference Value	Rating
A1	Lastri Simbolon	0,833	1
A2	Ruatam Sipayung	0,807	2
A3	Masda Silalahi	0,713	3
A4	Zainuddin Simbolon	0,672	4
A5	Sarah Panjaitan	0,417	5
A6	Bagus Sidabutar	0,415	6
A7	Lusi Simanjuntak	0,371	7
A8	Susi Pardede	0,345	8
A9	Gunawan Sihombing	0,337	9
A10	Mey Hendra Saragih	0,331	10
A11	Iqhamsa Purba	0,329	11
A12	Tumono	0,255	12
A13	Jainal Simbolon	0,233	13
A14	Theresia Sitorus	0,186	14
A15	Widya Siagian	0,071	15

From the preference value above, it is shown that 0.833 has the largest value, so it can be determined that the tenth alternative (A10) is the alternative chosen to be the best agent named Lastri Simbolon as the best agent ranked first.

4. CONCLUSION

A decision support system is needed by the Best Prudential Agent at the best PT Life Assurance to produce optimal decisions. The exposure of the OCRA method and ROC Weighting can help solve problems in selecting the Best Prudential Agent at the best PT Life Assurance based on weight criteria and alternatives and make it easier to determine rankings. From the preference assessment, it can be seen that the value of 0.833 has the highest value. Therefore, it can be concluded that in the tenth alternative (A10), there is a choice that is considered the best agent. This choice was given to Lastri Simbolon, who topped the ranking as the best agent.

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