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ARTICLE

The Analytical Hierarchy Process (AHP) for Best Employee Selection: Reward Implementation Strategy in Government Agencies

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ABSTRACT
Reward is a strategy for empowering employees as human resources to achieve the bureaucratic reform target, namely creating civil servants' human resources with integrity, neutrality, competence, capability, professionalism, high performance, and prosperity. An appreciation of the award is giving the title of the best employee to ASN (Civil Servants), who have the best performance and achievement. Generally, the superior carries out the employee appraisal system, which is often subjective. The Office of Religious Research and Development Ministry of Religious Affairs Semarang has implemented an assessment of the best employee based on peer assessment. The article aimed to describe and discuss the process of evaluating and selecting the best employees at the Office of Religious Research and Development in Semarang. This study used a quantitative approach through the Analytic Hierarchy Process (AHP). The respondents were 38 civil servants at the Office of Religious Research and Development Semarang, consisting of 9 administrative and 29 research personnel. The findings showed that the application of AHP succeeded in selecting the two best employees, consisting of one person from the administrative staff and one from the research staff. The assessment of employees is relatively objective because a rather large number of colleagues carry it out. AHP is likely to be applied in government agencies because it is flexible, easy to understand, and can solve complex problems. Also, AHP can be used by non-governmental institutions.

A. INTRODUCTION

The government's bureaucratic reform policy has been rolled out by promulgating Presidential Regulation of the Republic of Indonesia No. 81 of 2010 on the Grand Design of Bureaucratic Reform 2010-2025. The policy was adopted to accelerate the achievement of good governance. The embryo of bureaucratic reform has existed since 2004 by applying the principles of clean government and good governance. Furthermore, in 2011, all ministries, institutions, and local governments were targeted to have commitments to implementing the bureaucratic reform process.

The achievements of bureaucratic reform show a significant upward trend. Simplification of the organizational structure has been carried out in 90 ministries and institutions until June

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2021, which impacts reducing 46,159 organizational units of administrative positions. The process aims to accelerate decision-making, licensing, and public services. The achievements of bureaucratic reform are also shown by the index of bureaucratic reform, which, on average, increased. The MENPANRB (Ministry of State Apparatus Utilization and Bureaucratic Reform) noted an increase in the index of bureaucratic reform in ministries and institutions, from 73.91 in 2019 to 74.93 in 2020. and the index of provincial government increased from 64.23 in 2019 to 64.28 in 2020. In addition, the index for public service also rose. In 2020, it reached 3.84, compared to 2017, which was only 3.33 (Kemenpan-RB, 2021).

The targeted areas of change in bureaucratic reform cover all aspects of government management to accelerate the achievement of good governance. In the part of human resources (HR), the target through bureaucratic reform is the creation of human resources with integrity, neutrality, competence, capability, professionalism, high performance, and prosperity. Then, it needs the right strategy in implementation, including a system of reward and punishment that is applied consistently and continuously. A reward is an appreciation or acknowledgement given by the government or institution for individual achievements (Mulyadi, 2020). Rewards are not only money but also praise, certificates, awards, trophies, and other forms of appreciation (Busro, 2018). The reward system is a need for government agencies, aiming to create disciplined and integrity human resources following the targets of changes in bureaucratic reform.

Giving rewards to employees aims to reward achievements and increase employees' motivation to better in work. In addition, it also aims to create fair, objective, and positive competition and increase employee commitment, loyalty, and integrity (Busro, 2018). The predicate of best employee is an award besides promotions. The predicate of the best employee may be given by seeing the achievement, such as monthly/annual performance reports, direct supervisor assessments, and other mechanisms. Selection of the best employees can also be conducted through peer assessment using various forms of instruments and analysis, for example, the Analytic Hierarchy Process (AHP).

AHP, as a decision support analysis method, has several advantages; it is easy to understand and can solve complex problems. In practice, the application of AHP provides an opportunity for all individuals to be involved in the measurement process with the existence of a peer assessment system. Thus, decisions made through applying AHP can be objective and independent.

Several studies on AHP have been carried out relating to human resource development, which is applied in the selection of prospective employees of the company (Yani & Yuniarti, 2019), employee salary determination (Mardika, 2021), and institutional performance measurement (Lestari et al., 2020; Santika & Lestari, 2021). In addition, there is also research on applying AHP in technology development, such as determining appropriate technology (Nasution, 2020) and superior product development (Hayat et al., 2019). Based on previous studies, the application of AHP has not been found in implementing the reward system on employee performance. Therefore, this article can fill the void in the study of the application of AHP in the selection of the best employees as the implementation of the reward system in government agencies. The choice of the best employees is part of the reward principle in management as long as this selection is based on an assessment by superiors. Therefore, the main issue discussed in this article is how AHP is applied in selecting the best employees.

The AHP method was applied by the Office of Religious Research and Development Semarang, a work unit under the Ministry of Religious Affairs of the Republic of Indonesia, in selecting the best employees. So far, the selection and awarding of the best employees have been carried out through evaluation by the leaders. This leader's evaluation frequently leads to rumours that the best employees are chosen based on their proximity to the leader. Such words are counterproductive to the empowerment principle in management and cause resentment in

employee interactions. In 2019, the Office of Religious Research and Development Semarang introduced the utilization of the Analytic Hierarchy Process (AHP) for employee selection, aiming to identify the most qualified individuals. This article seeks to find out how the AHP method is applied in selecting the best employees at the Office of Religious Research and Development Semarang and what is the impact of selecting the best employees with AHP on the quality of institutional management at the Office of Religious Research and Development Semarang? This article is expected to make a scholarly contribution by exploring the utilization of the Analytic Hierarchy Process (AHP) in selecting exemplary employees and examining its influence on enhancing the overall quality of institutional management.

B. LITERATURE REVIEW

The analytic Hierarchy Process (AHP) is a decision-support model developed by Saaty (1980). With AHP, decision-makers can present hierarchical relationships among factors, attributes, characteristics, or alternatives in a multi-factor decision-making environment (Utomo et al., 2021). In practice, AHP develops a score in the form of numbers that aims to rank each decision alternative and determine the possibility the option meets the criteria for making decisions (Nurasyiah, 2021). There are two principles in implementing AHP: creating a hierarchy by arranging elements hierarchically, combining them, and evaluating criteria and alternatives (Nurasyiah, 2021).

AHP as a decision-making model applies sequential steps. First, it defines the problem and determines the expected solution. Second, it creates a hierarchical structure that begins with the main goal. And it makes a pairwise comparison matrix (Supriadi et al., 2018). Meanwhile, in the conventional AHP application, there are three main steps. First, it develops a model by building a hierarchy representing the problem. Second, it evaluates and decides what reflects the preferences of decision-makers. And it does prioritize and synthesize by preparing priorities from alternatives that are compared (Utomo et al., 2021). Sulistyaningrum (2018), In her study, delineates four distinct stages within the Analytic Hierarchy Process (AHP). The tasks being undertaken include the construction of a hierarchical model, the development of a questionnaire, the establishment of priorities through the application of weighting to criteria, and the assessment of consistency.

The Analytic Hierarchy Process (AHP), as a method for decision support analysis, possesses both advantages and disadvantages in its practical implementation. The Analytic Hierarchy Process (AHP) offers several benefits. Firstly, it provides a structured, flexible, and easily understandable framework. Secondly, it enables the resolution of complex problems by breaking them into manageable components. Thirdly, AHP applies to elements that lack a linear relationship, thereby capturing their interdependence.

Additionally, AHP provides a measurement scale, facilitating the quantification of criteria and alternatives. Lastly, AHP ensures consistency in decision-making processes. However, it is essential to note that there are several drawbacks associated with the Analytic Hierarchy Process (AHP). Firstly, the individuals participating in the assessment must comprehensively understand the process. Additionally, any improvement initiatives must commence from the initial stages, as the AHP does not allow for the incorporation of pre-existing models. Moreover, the final model generated by the AHP is susceptible to the influence of expert subjectivity, which may impact its accuracy and reliability. Lastly, it is worth noting that the AHP lacks constraints regarding trust and truth, potentially leading to limitations in its applicability and validity (Romindo et al., 2021).

Applying AHP in selecting the best employees refers to the five work cultures of the Ministry of Religious Affairs, which include integrity, professionalism, innovation, responsibility, and exemplary. The five work cultures have been implemented in the Ministry

of Religious Affairs since 2015. Integrity is a perception that reflects the consistency between actions, principles, and values. Professionalism shows ability and competence. Innovation is the ability to create new things that are beneficial to society. Responsibility is a high awareness that every action must be accounted for. An example is being able to set a good example for others (Suwanto, 2019). Based on the peer assessment, these five work cultures are the main criteria for selecting the best employees.

Researchers or academics have conducted studies on applying AHP in various decision-making interests. AHP can be used in the framework of institutional decision-making related to human resource development (HR), policies in the context of business development, and policies related to the community's interests.

An example of applying AHP for HR development was carried out by Yani & Yuniarti (2019), who used AHP in selecting employees at STMIK Atma Luhur Pangkalpinang. Mardika (2021) also applies AHP in determining employee salaries. Both studies employed the Analytic Hierarchy Process (AHP) as the primary methodology for determining the optimal employee selection and the appropriate percentage for salary increases. Lestari et al. (2020) and Santika & Lestari (2021) researched institutional performance using AHP that blended with a balanced scorecard method. The research shows that AHP can also be applied with other methods. Also, Juan & Rondonuwu (2018) used AHP to support the human resource scorecard method in measuring employee performance.

An example of research that used the AHP method to review business development policies or superior products was carried out by Hayat et al. (2019), who examined the design of a joint application prototype for venture decision support using the AHP method. Nasution (2020) also uses AHP to determine the appropriate technology for utilizing oil palm biomass for smallholders in North Sumatra. Yulihartanto (2021) reviewed the fuel distribution scheduling for self-propelled oil barge (SPOB) using the AHP method. These studies show that AHP can also be used to assess product selection decisions, strategies, and the selection of development aspects in business, industry, and others.

The use of AHP is not only for the internal interests of the institution but also for the benefit of the community. AHP recommends regional development and utilization, such as research by Shakia et al. (2020) on providing Green Open Space (RTH) in the Kepanjen district. Haris et al. (2022) also used AHP to examine the suitability of regional spatial plans (RTRW) based on flood hazards in Kuningan Regency. AHP is also implemented by Suning (2020) and Muawanah et al. (2020) to discuss the development of maritime and marine tourism, and Yuda & Rudiarto (2021) reviewed the priority locations for systemic land registration in Semarang regency. In a study conducted by Damayanti & Sebayang (2019), an investigation was conducted to examine the efficacy of civil servants in serving the community. The research focused on identifying strategies to encourage the public to shift from private to public transportation modes. In their study, Hayuningtyas et al. (2020) employ the Analytic Hierarchy Process (AHP) model to investigate performance enhancement, risk reduction, and institutional analysis within the context of Garut Regency.

Based on the studies above, research related to AHP that researchers have carried out generally revolves around three things. The first relates to institutional strengthening, product development, and community interests outside the institution. In contrast to these existing studies, this research focuses on applying AHP in selecting the best employees in the first category, institutional strengthening, namely human resources. However, in previous research, it was generally in the employee selection process and performance measurement. This research focuses on selecting the best employees as part of the principle of empowerment. Selection of the best employees is a reward for recognizing employee work performance. This kind of appreciation for the principle of empowerment will provide encouragement and motivation so that performance will increase (Anggono, 2021). Rewards are not only in the

form of money but also praise, certificates, awards, trophies, and other forms of appreciation (Busro, 2018). Preference can be given by giving the best employee title as a reward for employees for the performance that has been achieved and to motivate all employees to continue improving.

To date, there has been a lack of scholarly investigations conducted on the Office of Religious Research and Development Semarang. This study will contribute novel insights into the Institute under investigation. The research presented in this study introduces a novel application model of the Analytic Hierarchy Process (AHP) to select the most qualified employees. The study specifically examines the impact of this model on institutions within the Office of Religious Research and Development in Semarang.

C. METHOD

This study uses a descriptive quantitative approach, utilizing self-assessment questionnaires and peer assessment as the primary instruments. The research questionnaire was constructed by five performance indicators of the Ministry of Religious Affairs employees: integrity, professionalism, innovation, responsibility, and exemplary. These five performance indicators are measured by weighting by officials who have the capacity. Then a questionnaire is used to measure employee performance.

The questionnaire aims to obtain an assessment for selecting the best employees, which was carried out at the Office of Religious Research and Development Semarang in 2019. The assessment technique uses the Analytic Hierarchy Process (AHP) approach. This process involves all employees, who are divided into four areas, namely, administration (9 people), public services researchers (10 people), education researchers (10 people), and literature researchers (9 people). The assessment results are purely based on the respondent's choice (peer assessment), where all employees have the same opportunity to be assessed and carry out an assessment.

The Analytic Hierarchy Process (AHP) is carried out through several stages: building a hierarchical model, designing questionnaires, determining priorities/weighting for criteria, checking consistency, and collecting data (Sulistyaningrum, 2018). The five stages of the Analytic Hierarchy Process (AHP) are executed with comprehensive backing from organizational leadership to ensure the active involvement of all employees, thereby influencing the credibility of the assessment outcomes.

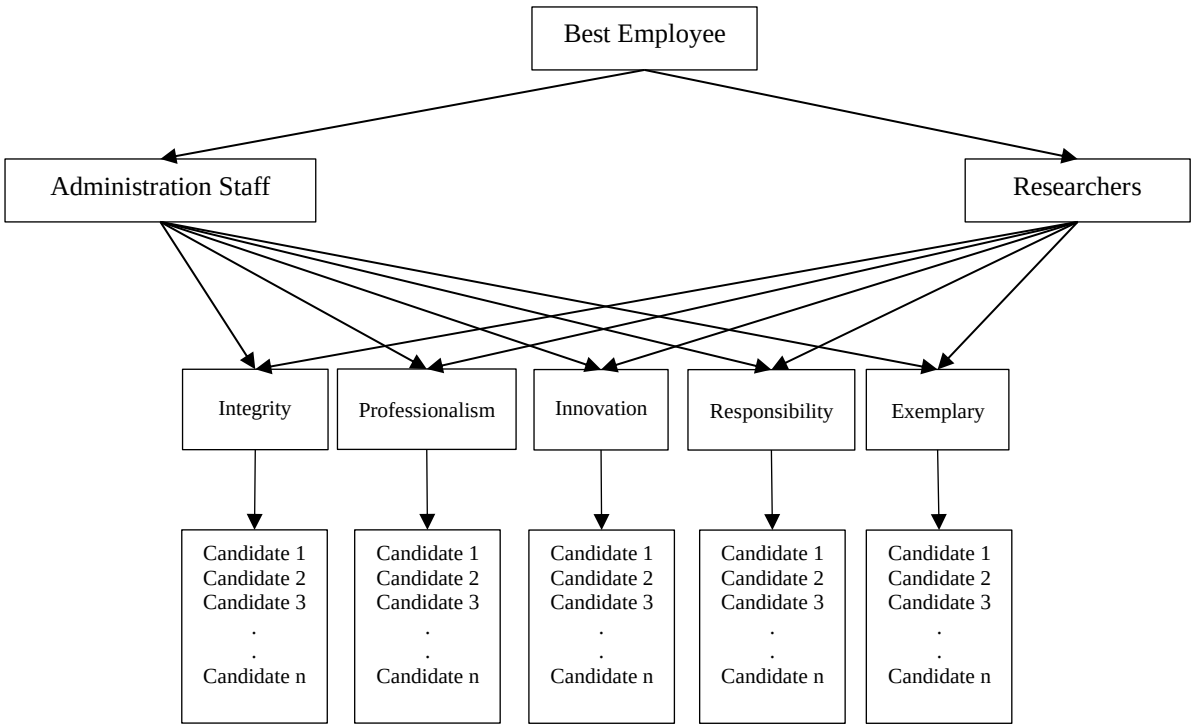
D. RESULT AND DISCUSSION

The application of AHP in selecting the best employees at the Office of Religious Research and Development Semarang was carried out through five stages: building a hierarchical model, designing questionnaires, determining priorities/weighting for criteria, and consistency checking. The explanation of each step is described as follows.

Building a Hierarchical Model

A hierarchical model is constructed to delineate the framework of challenges encountered in the decision-making process. This model elucidates the various elements influencing decision-makers, specifically the criteria and alternatives. In selecting the best employees at the Office of Religious Research and Development Semarang, the requirements referred to five work culture indicators: integrity, professionalism, innovation, responsibility, and exemplary. At the same time, the alternative is a candidate for the best employee, which contains all the names of 38 employees. By considering the effectiveness and efficiency of time, selecting the best employees is divided into four areas: administration, public services researchers, religious education researchers, and religious literature researchers. The selection of employees in the

administration is carried out in only 1 stage, while the research field is carried out in two phases. The hierarchical model for selecting the best employees is described in Figure 1.



(Source: Sulistyaningrum (2018) and Data Processed by Researchers)

Figure 1. Hierarchical Model for the Selection of the Best Employee

Figure 1 shows a hierarchical model for selecting the best employees at the Office of Religious Research and Development Semarang. There are two established categories: the best employees from the administrative staff and the researcher. The number of candidates from the administrative staff was 9, while the candidates from the researcher element were 29. Given the substantial pool of candidates within the researcher category, identifying the most qualified employees is divided into two distinct stages. The first stage is the selection process in each field (public services, religious education, and literature), and the second stage is the final selection.

Designing a Questionnaire

This study utilized a rating scale ranging from 1 to 5. The numerical representation of 1 is positioned centrally, indicating that the two variables under consideration possess equal significance or influence. Therefore, the numeral 1 represents a level of significance equivalent to others. A value of 2 indicates a slightly higher level of importance. In contrast, a numerical value of 3 signifies a higher significance level. The significance of the numerical value 4 holds considerable importance. A value of 5 indicates a significantly higher level of importance (Sulistyaningrum, 2018). Thus, the questionnaire for selecting the best employees with the criteria for the five work cultures of the Ministry of Religious Affairs is described in Table 1.

Table 1. The Questionnaire Design of the Best Employee Selection

Variable	5	4	3	2	1	2	3	4	5	Variable
Integrity					x					Professionalism
Integrity						x				Innovation
Integrity		x								Responsibility
Integrity										Exemplary
Professionalism										Innovation
Professionalism										Responsibility
Professionalism										Exemplary
Innovation										Responsibility
Innovation										Exemplary
Responsibility										Exemplary

Source: (Sulistyaningrum, 2018) and Data Processed by Researchers

Based on Table 1, the number of pairs may occur using the combination principle, with the following calculation results.

$$C_2^5 = \frac{5!}{2!\,(5-2)!} = \frac{5x4x3x2x1}{2x1\;(3x2x1)} = 10$$

Table 1 illustrates the weight of each criterion from the five work cultures of the Ministry of Religious Affairs. The first line shows that integrity and professionalism are equally important (score 1). The second line shows that innovation is slightly more important than integrity (score 2, on the right). The third line means that integrity is more important than responsibility (score 4, on the left). The instrument is used to determine the weighting of each criterion.

Determining Priorities/Weighting for Criteria

Determination of the weight for criteria might be performed through the opinions or judgments of respondents who are assumed as experts in making priorities. In selecting the best employees, at the Office of Religious Research and Development Semarang, the weights are determined by structural officials, consisting of the head of the agency, the head of the administrative subdivision, and three heads of affairs. Weights or priorities can be calculated by processing pairwise comparison matrices (Sulistyaningrum, 2018). The results of the weighting criteria and the calculation stages are presented in Table 2.

Table 2. Priority Assessment Results for Criteria

Variable	5	4	3	2	1	2	3	4	5	Variable
Integrity	x									Professionalism
Integrity		x								Innovation
Integrity					x					Responsibility
Integrity			x							Exemplary
Professionalism	x									Innovation
Professionalism								x		Responsibility
Professionalism					x					Exemplary
Innovation									x	Responsibility
Innovation					x					Exemplary
Responsibility	x									Exemplary

Source: Data Processed by Researchers

After obtaining an assessment from the experts, the next step is compiling a pairwise comparison matrix with the assessment criteria by comparing the criteria in the first column and the criteria in the last column, and first filling the cells above the main diagonal and continuing with the cells below the main diagonal (Sulistyaningrum, 2018).

Table 3. Pairwise Comparison Matrix

Variable	Integrity	Professionalism	Innovation	Responsibility	Exemplary
Integrity	1	5	4	1	3
Professionalism	0.2	1	5	0.5	1
Innovation	0.25	0.2	1	0.2	1
Responsibility	1	2	5	1	5
Exemplary	0.33	1	1	0,2	1
Total	2.78	9.20	16.00	2.90	11.00

Source: Data Processed by Researchers

After calculating the pairwise comparison matrix, the normalization matrix is calculated by dividing each cell value by the total of its respective columns. The last step is to calculate the priority of each criterion by determining the mean row (Sulistyaningrum, 2018).

Table 4. Normalization Matrix

Variable	Integrity	Professionalism	Innovation	Responsibility	Exemplary	Priority
Integrity	0.36	0.54	0.25	0.34	0.27	0.3541
Professionalism	0.07	0.11	0.31	0.17	0.09	0.1513
Innovation	0.09	0.02	0.06	0.07	0.09	0.0668
Responsibility	0.36	0.22	0.31	0.34	0.45	0.3377
Exemplary	0.12	0.11	0.06	0.07	0.09	0.0902

Source: Data Processed by Researchers

Based on table 4 concluded that, of the five values of work culture, the integrity variable is the most important variable at 35.41%, followed by responsibility at 33.77%, professionalism at 15.13%, exemplary at 9.02%, and innovation at 6.68%.

Consistency Checking

Consistency checking in AHP is an important step to ensure no excessive inconsistencies. The level of consistency by respondents can be measured by comparing the consistency index (CI) and the random consistency index (RI). The last step is to calculate the consistency ratio (CR), which results from comparing CI and RI (Padmowati, 2009). The value of RI has been determined by Saaty (1980) in Table 5 (Sulistyaningrum, 2018).

Tabel 5. Random Index

N	1	2	3	4	5	6	7	8	9	10
Random Indeks	0.00	0.00	0.58	0.90	1.12	1.24	1.32	1.41	1.45	1.49

Source: Saaty (1980) in Sulistyaningrum (2018)

The stages of consistency checking in the selection of the best employees at the Office of Religious Research and Development Semarang are described as follows (Sulistyaningrum, 2018):

1. Entering the values of priority or weighting into the pairwise comparison matrix

Table 6. Priority Table as a Weighting Factor

Variable	Integrity	Professionalism	Innovation	Responsibility	Exemplary
	0.3541	0.1513	0.0668	0.3377	0.0902
Integrity	1	5	4	1	3
Professionalism	0.2	1	5	0.5	1
Innovation	0.25	0.2	1	0.2	1
Responsibility	1	2	5	1	5
Exemplary	0.33	1	1	0.2	1

Source: Data Processed by Researchers

2. Multiply each cell in the same column by the weighted value in the column.

Table 7. Calculation of Weighted Sum (WS)

Variable	Integrity	Professionalism	Innovation	Responsibility	Exemplary	Total (WS)
Integrity	0.3541	0.7564	0.2671	0.3377	0.2705	1.9858
Professionalism	0.0708	0.1513	0.3339	0.1689	0.0902	0.8150
Innovation	0.0885	0.0303	0.0668	0.0675	0.0902	0.3433
Responsible	0.3541	0.3025	0.3339	0.3377	0.4508	1.7791
Exemplary	0.1180	0.1513	0.0668	0.0675	0.0902	0.4938

Source: Data processed by researchers

3. Calculate the λ_{maks} obtained from the weighted sum, divided by each priority divided by the priority of each criterion divided by n = 5.

$$\lambda_{maks} = \frac{\sum_{i=1}^{5} \frac{WS_i}{Criteria\ of\ Weight_i}}{n}$$

$$= \frac{\left(\frac{1.9858}{0.3541}\right) + \left(\frac{0.8150}{0.1513}\right) + \left(\frac{0.3433}{0.0668}\right) + \left(\frac{1.7791}{0.3377}\right) + \left(\frac{0.4938}{00902}\right)}{5}$$

$$= \frac{26.8807}{5} = 5.3761$$

4. Calculate the Consistency Index (CI)

$$CI = \frac{\lambda_{maks} - n}{n - 1} = \frac{53761 - 5}{5 - 1} = 0.0940$$

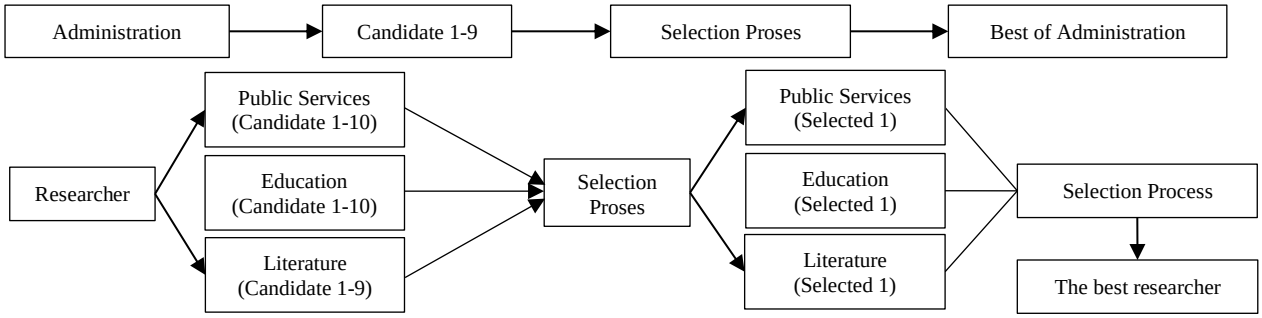
5. It calculates the consistency ratio (CR) obtained from comparing CI and RI, where RI is obtained from a random index table with n = 5, obtained RI = 1.12.

$$CR = \frac{CI}{RI} = \frac{0.0940}{1.12} = 0.0840$$

The CR value of 0.0840 is smaller than 0.1 or 10%, which means the respondent's inconsistency in filling out the instrument is acceptable and can be continued (Padmowati, 2009; Sulistyaningrum, 2018).

Selection Process of the Best Employee

After obtaining the consistency value in the "acceptable" category, the next step is to develop an instrument for selecting the best employees with candidates for all employees. The map of the best employee candidates at the Office of Religious Research and Development Semarang is divided into the best employees from the administrative and researcher.



(Source: Data Processed by Researchers)

Figure 2. Selection Process of the Best Employee

The questionnaire for selecting the best employees was prepared based on the five work cultures of the Ministry of Religious Affairs so that each element (administration and researchers) formed five assessment matrices. The basis for calculating the assessment results is the weighting value determined by structural officials, summarized in Table 8.

Table 8. Results of the Weighting of the Five Work Cultures of the Ministry of Religious Affairs

Variable	Indicators	Weighting	Percentage
Integrity	Harmony among good and right heart, mind, words and deeds	0.3541	35.41%
Responsible	Work thoroughly and consistently	0.3377	33.77%
Professionalism	Work with discipline, competence, and on time with the best results	0.1513	15.13%
Exemplary	Being an excellent example for others	0.0902	9.02%
Innovation	Improving and creating a better innovation	0.0668	6.68%
Total		1.00	100.00%

Source: Data Processed by Researchers

Subsequently, a questionnaire matrix was created using the combination formula based on the number of pairs. In selecting the most suitable employees from a pool of 9 candidates with administrative backgrounds, 36 teams were evaluated. The researcher has designed an employee selection questionnaire categorized into three distinct fields. These fields include the public services field, consisting of 10 candidates and 45 pairs, and the religious education field, comprising ten candidates and 45 teams. And finally, the literature field encompasses nine candidates and 36 pairs. A matrix was constructed for each criterion: integrity, professionalism, innovation, responsibility, and exemplary. A coding system is employed to represent their name based on their respective field to uphold the privacy of the employee's identity. For instance, the area of administration is denoted by code A, public services by code B, education by code P, and literature by code L.

The calculation of the priority scale for each candidate was through the same stages as calculating the priority or weighting for each criterion. After sorting from the highest to the lowest, a summary of the results of calculating the priority scale in selecting the best

employees, the Office of Religious Research and Development Semarang, is presented in Table 9, Table 10, Table 11, and Table 12.

Table 9. The Priority Rank of the Best Employee in the Administration Field

Candidate	Integrity	Professionalism	Innovation	Responsibility	Exemplary	Total
A-1	0.0834	0.0356	0.0141	0.0766	0.0218	0.2316
A-3	0.0645	0.0258	0.0117	0.0647	0.0165	0.1832
A-4	0.0380	0.0165	0.0082	0.0353	0.0081	0.1060
A-6	0.0386	0.0165	0.0062	0.0311	0.0088	0.1012
A-2	0.0317	0.0139	0.0066	0.0363	0.0101	0.0985
A-8	0.0304	0.0132	0.0064	0.0287	0.0078	0.0865
A-5	0.0233	0.0108	0.0047	0.0224	0.0061	0.0673
A-9	0.0224	0.0101	0.0047	0.0223	0.0055	0.0651
A-7	0.0218	0.0089	0.0042	0.0204	0.0054	0.0606

Source: Data Processed by Researchers

Table 10. The Priority Rank of the Best Employee in Researcher of Public Services

Candidate	Integrity	Professionalism	Innovation	Responsibility	Exemplary	Total
B-1	0.0505	0.0236	0.0122	0.0489	0.0122	0.1473
B-2	0.0510	0.0229	0.0084	0.0445	0.0130	0.1398
B-3	0.0435	0.0216	0.0104	0.0481	0.0116	0.1353
B-4	0.0494	0.0179	0.0058	0.0417	0.0122	0.1270
B-5	0.0479	0.0144	0.0053	0.0373	0.0111	0.1160
B-6	0.0366	0.0163	0.0086	0.0374	0.0098	0.1087
B-7	0.0204	0.0098	0.0044	0.0242	0.0057	0.0644
B-8	0.0186	0.0084	0.0040	0.0187	0.0049	0.0547
B-9	0.0172	0.0086	0.0042	0.0185	0.0050	0.0534
B-10	0.0189	0.0079	0.0034	0.0185	0.0047	0.0534

Source: Data Processed by Researchers

Table 11. The Priority Rank of the Best Employee in Researcher of Religious Education

Candidate	Integrity	Professionalism	Innovation	Responsibility	Exemplary	Total
P-1	0.0507	0.0248	0.0120	0.0535	0.0123	0.1533
P-2	0.0556	0.0211	0.0051	0.0445	0.0149	0.1413
P-3	0.0397	0.0192	0.0069	0.0447	0.0114	0.1219
P-4	0.0340	0.0156	0.0068	0.0323	0.0079	0.0967
P-5	0.0303	0.0148	0.0083	0.0321	0.0074	0.0929
P-6	0.0384	0.0123	0.0065	0.0275	0.0076	0.0923
P-7	0.0279	0.0134	0.0063	0.0340	0.0078	0.0895
P-8	0.0352	0.0107	0.0044	0.0285	0.0100	0.0888
P-9	0.0235	0.0095	0.0046	0.0212	0.0053	0.0640
P-10	0.0188	0.0099	0.0058	0.0196	0.0054	0.0595

Source: Data Processed by Researchers

Table 12. The Priority Rank of the Best Employee in Researcher of Literature

Candidate	Integrity	Professionalism	Innovation	Responsibility	Exemplary	Total
L-1	0.0727	0.0275	0.0122	0.0620	0.0177	0.1921
L-2	0.0606	0.0294	0.0140	0.0592	0.0154	0.1785
L-3	0.0423	0.0209	0.0082	0.0464	0.0111	0.1289
L-4	0.0403	0.0166	0.0075	0.0438	0.0097	0.1178
L-5	0.0372	0.0139	0.0053	0.0339	0.0107	0.1011
L-6	0.0292	0.0159	0.0069	0.0344	0.0080	0.0945
L-7	0.0302	0.0088	0.0040	0.0206	0.0074	0.0709
L-8	0.0205	0.0105	0.0052	0.0184	0.0052	0.0597
L-9	0.0210	0.0078	0.0036	0.0190	0.0050	0.0564

Source: Data Processed by Researchers

According to the data presented in Table 9, the most outstanding employees in the administration department were selected based on questionnaires utilizing the code A-1, which corresponds to the initials NSM. These individuals were assigned a priority score of 0.2316, equivalent to 23.16%. A rigorous peer assessment identified the top three researchers in three distinct fields. The results, as presented in Tables 10, 11, and 12, indicate the following nominations: Code B-1 (about the field of public services) for the researcher with the initials ZK, achieving a priority score of 0.1473 (equivalent to 14.73%); Code P-1 (associated with the field of religious education) for the researcher identified by the initials UM, attaining a priority score of 0.1533 (15.33%); and Code L-1 (related to the field of literature) for the researcher with the initials MT, scoring 0.1921 (19.21%). Subsequently, the most suitable candidate was determined through a rigorous final selection process involving all 29 researchers. The questionnaire in the final selection of the best researchers is presented in Table 13.

Table 13. Final Questionnaires of the Researcher

Candidate 1	Interest in Candidate 1				Equal	Interest in Candidate 2				Candidate 2
	5	4	3	2	1	2	3	4	5	
ZK										UM
ZK										MT
UM										MT

Source: Data Processed by Researchers

Through the same steps as calculating the priority/weighting, either in determining the weight of the criteria or determining the priority of the previous best employees, the priority matrix from the questionnaire is presented in Table 14.

Table 14. The priority rank of the best employee in the research literature

Candidate	Integrity	Professionalism	Innovation	Responsibility	Exemplary	Total
MT	0.1507	0.0543	0.0222	0.1360	0.0406	0.4039
UM	0.1036	0.0526	0.0203	0.1132	0.0264	0.3161
ZK	0.0997	0.0443	0.0243	0.0885	0.0232	0.2800

Source: Data Processed by Researchers

Table 15 presents the results of a questionnaire completed by 29 individuals to determine the best employee based on the research element. The data reveals that MT received the highest priority score of 0.4039. This indicates that MT carries a weight or priority of 40.39%, while the other two candidates possess scores of 31.61% and 28.00%, respectively.

Thus, selecting the best employees through Analytic Hierarchy Process (AHP) made the decisions of the two best employees. They were NSM of the administration element and MT of the researcher element. It is important to acknowledge that the employee selection process utilizing the Analytic Hierarchy Process (AHP) yielded a sound decision, as it was derived from peer assessment. The AHP's validity is further demonstrated by the track records of the top three researcher candidates from three distinct fields who have previously been recognized as the best employees.

Applying AHP in selecting the best employees proves this decision-making method applies to institutional strengthening. Selection of the best employee as part of empowering human resources is an award for recognizing employee work performance. The implementation of AHP offers a peer-review method for evaluating employee performance, which has used chiefly supervisors' assessments. The objectivity of the results of selecting the best employee runs better, considering that all employees rate one employee. The implementation of AHP provides an opportunity for each employee to compare the quality of his performance with other employees.

Objective Selection of Best Employees Through AHP

The process of selecting the best employees by the Office of Religious Research and Development Semarang using the Hierarchical Process Analysis (AHP) method above uses the basis of peer assessment. The use of the AHP method of peer assessment-based has certain advantages. Peer assessment (peer assessment, peer evaluation) has been widely applied in education to improve student learning processes through collaboration among students or peers (Arifin et al., 2018; Nitko & Brookhart, 2007). Therefore, peer assessment is more developed in the educational environment, for example, evaluating teachers' performance with the same approach as the peer assessment model for students (Firyomanto et al., 2016; Trisdiono, 2017). However, the method is still rarely applied in work or agencies because the role of superiors in the evaluating and assessment process is more dominant (Arisandy, 2017). Thus, selecting the best employees at the Office of Religious Research and Development Semarang is a new breakthrough in the government environment, especially in the Ministry of Religious Affairs.

This peer assessment can be viewed as a relatively more objective method, bottom-up, and encourages the participation of all members at the Office of Religious Research and Development Semarang. All employees, administrators and researchers participate in the assessment and selection. It is not just the leadership authority that determines the best employee. Daily work activities within the agency facilitate employee interaction and relationship-building opportunities, enabling colleagues to gain insights into their peers' nature, character, performance, and other cultural work values. The peer assessment also avoids the subjective assessment of leadership, which their position often cannot know directly and intensively on performance (Arisandy, 2017). AHP assessment also builds all employees' participation, motivating and building a better work environment through interaction with fellows. This matter has a positive impact on the management of employee empowerment at the Semarang Religious Research and Development Center, not only in terms of awarding best employees for elected employees but also employees of the Office of Religious Research and Development Semarang getting ratings from colleagues which can be a source of self-evaluation.

Based on the implementation of the Analytic Hierarchy Process (AHP) at The Office of Religious Research and Development Semarang, it was observed that specific weaknesses persisted. One of the potential factors that can introduce bias into the assessment is the presence of employees who lack comprehension or familiarity with the underlying concepts of the instrument. However, this limitation could be mitigated by comprehensively elucidating the instrument and the underlying concepts. Another potential weakness is that employees may become trapped in emotional intimacy. Consequently, they provide subjective evaluations and become trapped in favouritism. In this particular scenario, it has been observed that employees who possess strong social connections and are well-regarded by their peers tend to achieve higher scores, which do not necessarily align with the fundamental concepts outlined in the instrument. The Analytic Hierarchy Process (AHP) user must underscore the importance of all employees engaging in an impartial evaluation. An additional approach to mitigate favouritism entails implementing pre-screening measures to exclude certain employees from consideration. Despite certain limitations, such as subjective assessment bias, the AHP method can generally be regarded as a relatively objective assessment approach due to its inclusion of multiple employees in the assessment process.

E. CONCLUSION

Bureaucratic reform requires improving the quality of the apparatus and institutional performance. Among the principles of employee empowerment is a system of rewards for employee achievements. Selecting the best employees is one of the empowerment steps, where

employees who have excelled and are role models in the work environment are rewarded. Thus, it motivated all employees to improve their performance. The Office of Religious Research and Development Semarang used the Analytic Hierarchy Process (AHP) method to select the best employees. The approach utilized in this study is grounded in peer assessment, executed hierarchically, commencing with the formulation of concepts and culminating in the ultimate evaluation. The AHP method has the advantage of assessing in selecting the best employee, such as peer assessment-based, opens up the participation of all employees, and avoids subjectivity such as emotional closeness and favouritism among employees. The selection of the best employees using the Analysis Hierarchy Process (AHP) approach has encouraged increased management quality at the Office of Religious Research and Development Semarang. Therefore, the Analytic Hierarchy Process (AHP) can be utilized to select the most suitable employees across different agencies. Based on the findings of this study, government agencies should use the AHP method across different domains to enhance institutional performance. This approach can be employed for comparative evaluations and for establishing priority programs within the institution.

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