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<p>Evaluation Of Lecturer Performance For The Promotion Of Structural Position Using Profile Matching Method Nalsa Cintya Resti1,a) and Siti</p>

Rochana2,b) 1Information System, Technical Faculty, [University of Nusantara PGRI Kediri, Indonesia](#) 2Technical Informatics, Technical Faculty, [University of Nusantara PGRI Kediri, Indonesia](#) Corresponding author: a)nalsacintyaresti@gmail.com b)shirofull65@gmail.com Abstract. Problem which often happen in assessment of lecturer performance is subjective decision making, especially if some existing lecturer have close ability. Using decision support system is expected to increase objective in decision making. It's replaced by counting all of criteria to all lecturer, so that lecturer with the best ability will be chosen. Decision Support System by using Profile Matching (competency gap) conducted to determine the lecturer recommendation for promotion based on 3 aspects, that is Intellectual Aspect, Attitude aspect and Behavior aspect. [The result of this process is](#) lecturer's [ranking](#). The best lecturer will be chosen to fulfill the empty position. INTRODUCTION Everyone will be faced with a situation where they had to choose one or more options. [Profile Matching Methods is a decision-making](#) mechanisms by assuming [that there is an ideal level of predictor variables that must be](#) fulfilled [by subject](#) studied [2]. One application of this method is evaluation of lecturer performance for promotion of structural positions. [Decision Support System \(DSS\) is a computer-based](#) of [information system](#) whose [the](#) main purpose is [to](#) help the decision-making utilizing [data and models to solve](#) semi-structured and [unstructured problems](#) [2]. [DSS is designed to support all stages of decision making](#), which starts [from](#) identify [the](#) problem, choose [the relevant data, determine the approach used in the decision making](#) until evaluate alternative [activities](#). Purpose [of this research is to](#) produce [a system that can be used](#) for decision support system to get candidates who has the best lecturer profile as close as possible with ideal profil using Profile Matching Method so can increase the objectivity of decision making. RESEARCH METHODS This study is a qualitative research with case study design. Qualitative approach used in research to describe the use of profile matching in candidates selection of lecturer with the required qualification. The ability of lecturer in various aspects is quite difficult to obtain because of many factors. The right methods are needed in order to get highly accurate corresponding predetermined profile. Profile Matching Method would produce the corresponding rank. The instrument of this research consisted of observation and interview. Interview were conducted to lecturer and students at the university. [Recently, technologies dealing with the issue of](#) resource integration between profiles [are getting a growing attention](#). [In this section we](#) present a number of approaches and techniques that were used using Profile Matching Method: In [1], the authors address the problem of providing intersocial networks' operation and functionalities and particularly focus on the user profile matching. Their contribution in that paper is a matching framework able to consider all the profile's attributes. Their goal is [to discover the biggest possible number of](#) social [profiles that refer to the same person](#) between two social networks. In [7], profile matching means [two users comparing their personal profiles and is often the first step towards effective](#) Profile matching [social](#) network. [However](#), conflict with [users growing privacy concerns](#) [about](#) disclosing [their personal profiles to complete](#) strangers [before deciding to interact with them](#). In [9], profile matching also can be used in [MSN application that matches one with nearby people for dating, friend-making or small-talks based on common](#) interest. [In such application, a user only needs to input some attributes in her profile, and the system would automatically find the](#) person [around with similar profile](#) [6]. In [3,8], [they proposed a matching technique in which each user](#)

profile is represented as a vector consisting of the values of individual profile fields (e.g., name, date of birth, etc.). This is flowchart to show the flowing of the research from input to output: Start Determine [the weight of gap value](#) Mapping [the gap](#) Matching the weight with gap table Calculating the [core and secondary factor](#) Calculating [the total value](#) based on percentage [of core and secondary factor](#) Ranking Output FIGURE 1. Flowchart the flowing of the research from input to output The weight of gap value is is define below: [TABLE 1. WEIGHT OF GAP VALUE No. Difference of Gap Value Information 1 0 5 No gap 2 1 4.5 Competence of individual excess 1 level 3 -1 4 Competence of individual less 1 level 4 2 3.5 Competence of individual excess 2 level 5 -2 3 Competence of individual less 2 level 6 3 2.5 Competence of individual excess 3 level 7 -3 2 Competence of individual less 3 level 8 4 1.5 Competence of individual excess 4 level 9 -4 1 Competence of individual less 4 level 10 5 0 Competence of individual excess 5 level](#) [Core factor is the aspect most needed](#) to get the optimal performance. The formula of core factor is: $NRC = \frac{\text{average value of core factor}}{\text{total value of core factor}}$ in every aspect $\sum NC$ $NC = \frac{\text{total value of core factor}}{\text{sum of item in every aspect}}$ $NRC = \frac{\sum IC}{IC}$ $IC = \text{sum of item in every aspect}$ [Secondary factor is the aspect other than the core factor. The formula of secondary factor is: NRS = average value of secondary factor in every aspect](#) $\sum NR$ $NS = \text{total value of secondary factor in every aspect}$ $NRR = \frac{\sum IR}{IS} = \text{sum of item in every aspect}$ After get [the value of core factor and secondary factor](#), the next step [is to calculate the total value based on](#) percentage [of core factor and secondary factor](#). Core factor [is the dominant aspect that affect the performance assessment of each profile](#), while [the secondary factor is not the dominant aspect of the assessment](#). In this study the percentage of [core factor is 60% and the secondary factor is 40%](#). [Formula](#) for total value are: ? Intelligent Aspect: $NAK = 60\%(NRC) + 40\%(NRS)$? Attitude Aspect: $NASK = 60\%(NRC) + 40\%(NRS)$? Behavior Aspect: $NAP = 60\%(NRC) + 40\%(NRS)$ With NRC is [value of core factor](#) and NRS is [value of Secondary Factor](#). The next step [is to calculate](#) ranking value. The [final result of the profile matching method is](#) obtained [ranking](#) from each candidate to fill the empty position. Formula for ranking: $30\% (NAK) + 30\% (NASK) + 40\% (NAP)$ Where: $NAK = \text{Total value of intelligent aspect}$ $NASK = \text{Total value of attitude aspect}$ $NAP = \text{Total value of behavior aspect}$ RESULT AND DISCUSSION Below is the data [on the classification of Core Factor and Secondary Factor](#): TABLE 2. Classification [of core factor and secondary factor](#) No. Assessment Aspect [Core Factor Secondary Factor 1. Intelligent Aspect 1. Educated academic qualification 2. Understanding the national at least S2 education system 3. Lecturer's Research 5. Managerial and entrepreneurial competencies 4. Having a functional position of 6. Maximum age 60 years old Asisten Ahli 2. 3. Attitude Aspect 1. Has an attitude of nurturing and motivating 3. Has a reputation for academic and leadership 4. Can cooperate well with the team of lecturer Behavior Aspect 1. Perseverance 2. Good integrity 2. Circumspection 5. Has a good track record 3. Firmness 4. Wise Percentage of Core Factor is 40%, while percentage of Secondary Factor is 60% for each aspect. Percentage of intelligent aspect is 30%, attitude aspect is 30%, and behavior aspect is 40%. As for the assessment in this study using ordinal scale: 1. Very Less 2. Less 3. Enough 4. Good 5. Very Good Calculation using Profile Matching Method described in this section from the calculation of weight for each aspect of the criteria to the calculation of the final value used in decision making. Calculation the weight of each aspect of the criteria described below. a. Calculation of Weighting Every Aspect - The value of intelligent aspect: TABLE 3. Value of intelligent aspect No. NIK](#)

1 2 3 4 1 0001 5 4 4 3 2 0002 4 3 5 4 3 0003 4 3 5 4 4 0004 5 5 4 3 5
0005 4 4 3 3 6 0006 3 3 4 3 7 0007 2 5 4 4 - The value of attitude aspect:
TABLE 4. Value of attitude aspect 5 2 3 3 4 4 5 3 6 4 3 2 3 5 4 3 No. NIK 1
2 3 4 5 7 0007 1 2 3 4 5 6 0001 0002 0003 0004 0005 0006 3 5 2 5 3 2 5
4 4 4 3 4 3 4 3 5 4 5 2 - The value of behavior aspect: TABLE 5. Value
of behavior aspect 5 4 3 4 5 4 4 5 4 3 4 5 3 4 No. NIK 1 2 3 1 0001 5 4 4 2
0002 4 3 5 3 0003 5 4 4 4 0004 3 5 4 5 0005 4 4 4 6 0006 5 4 4 7 0007 3
3 5 4 3 4 5 4 4 3 4 From the weight calculation of each aspect of the
criteria can be continued by the following competencies gap mapping
calculation. b. Calculation of Gap Competency Mapping. Gap competency
mapping calculation generate weighting gap. - Table 6 is competency gap
intelligent aspect. In this table we can get the gap from the value of
intelligent aspect from Table 2 (value attribut) and value target. And the
weight of gap value of intelligent aspect seen from the Table 6. - Table 7 is
competency gap attitude aspect. In this table we can get the gap from the
value of attitude aspect from Table 3 (value attribut) and value target. And
the weight of gap value of attitude aspect seen from the following table.
TABLE 6. Competency gap intelligence aspect No. NIK 1 2 3 1 2 3 4 5 6 7
0001 0002 0003 0004 0005 0006 0007 5 4 4 5 4 3 2 4 3 3 5 4 3 5 4 5 5 4
3 4 4 Ideal Profil 4 3 4 Gap 1 2 3 4 5 6 7 0001 0002 0003 0004 0005 0006
0007 1 0 0 1 0 -1 -2 1 0 0 2 1 0 2 0 1 1 0 -1 0 0 Weight of Gap Value 4 5
6 3 4 4 3 3 3 4 2 3 3 4 4 5 3 4 3 2 3 5 4 3 4 4 3 -1 0 0 -1 -1 -1 0 -2 -1 -1
0 0 2 -1 1 0 -1 0 2 1 0 1 0001 4,5 4,5 5 2 0002 5 5 4,5 3 0003 5 5 4,5 4
0004 4,5 3,5 5 5 0005 5 4,5 4 6 0006 4 5 5 7 0007 3 3,5 5 4 3 5 4 5 4 4 5
4 5 4 3,5 5 4 4,5 5 4 5 3,5 4,5 5 Gap TABLE 7. Competency gap attitude
aspect No. NIK 1 2 3 4 1 0001 3 4 4 5 2 0002 5 4 3 4 3 0003 2 4 5 3 4
0004 5 4 4 4 5 0005 3 3 5 5 6 0006 2 4 5 4 7 0007 5 3 2 4 5 5 4 3 4 5 3 4
Ideal Profil 4 4 5 4 1 0001 -1 0 -1 1 2 0002 1 0 -2 0 3 0003 -2 0 0 -1 4
0004 1 0 -1 0 5 0005 -1 -1 0 1 6 0006 -2 0 0 0 7 0007 1 -1 -3 0 Weight of
Gap Value 3 2 1 0 1 2 0 1 1 0001 4 5 4 4,5 2 0002 4,5 5 3 5 3 0003 3 5 5
4 4 0004 4,5 5 4 5 5 0005 4 4 5 4,5 6 0006 3 5 5 5 7 0007 4,5 4 2 5 3,5
4,5 5 4,5 3,5 5 4,5 - Table 8 is competency gap behavior aspect. In this
table we can get the gap from the value of behavior aspect from Table 5
(value attribut) and value target. And the weight of gap value of behavior
aspect seen from the following table. TABLE 8. COMPETENCY GAP
BEHAVIOR ASPECT No. NIK 1 2 3 4 1 2 3 4 5 6 7 0001 0002 0003 0004
0005 0006 0007 5 4 5 3 4 5 3 4 3 4 5 4 4 3 4 5 4 4 4 5 3 4 5 4 4 3 4
Ideal Profil 4 4 5 5 Gap 7 0007 1 2 3 4 5 6 0001 0002 0003 0004 0005
0006 1 0 1 -1 0 1 -1 0 -1 0 1 0 0 -1 -1 0 -1 -1 -1 -1 0 -2 -1 0 -1 -1 -2 -1
Weight of Gap Value 1 0001 4,5 5 4 3 2 0002 5 4 5 4 3 0003 4,5 5 4 5 4
0004 4 4,5 4 4 5 0005 5 5 4 4 6 0006 4,5 5 4 3 7 0007 4 4 5 4 c.
Calculation of [Core Factor and Secondary Factor After](#) obtained the
[weighting value of each aspect](#) of the criteria, [next step is the](#) calculation
of [Core Factor and Secondary Factor](#), also obtained the total value for each
lecturer - Table 9 show the [core factor and secondary factor of](#) intelligent
[aspect](#) from competency gap in Table 6. The criteria of core factor are:
educated academic qualification at least S2, lecturer's research, and having
a functional position of asisten ahli. The criteria of secondary factor are:
understanding the national education system, managerial and
entrepreneurial competencies, and maximum age 60 years old. The total
value is average between [core factor and secondary factor](#). TABLE 9. [Core](#)
[factor and secondary factor](#) intelligent aspect No. NIK Core Factor
Secondary Factor Total Value 1 0001 4,5 4 4,3 2 0002 4,8 4,6 4,72 3 0003
4,8 4,3 4,6 4 0004 4,5 4,5 4,5 5 0005 4,3 4,3 4,3 6 0006 4,3 4,3 4,3 7
0007 4,3 4,2 4,26 - Table 10 show [the core factor and secondary factor](#) of

attitude [aspect](#) from competency gap in the Table 7. The criteria of core factor are: has an attitude of nurturing and motivating, has areputation for academic and leadership, can cooperate well with the team of lecturer. The criteria of secondary factor are: circumspection, and has a good track record. The total value is average between [core factor and secondary factor](#). TABLE 10. [Core factor and secondary factor](#) attitude aspect No. NIK Core Factor Secondary Factor Total Value 1 0001 4,2 4,25 4,22 2 0002 4,2 4,75 4,42 3 0003 4 5 4,4 4 0004 4,5 4,75 4,6 5 0005 4,5 3,75 4,2 6 0006 4,3 5 4,58 7 0007 3,8 4,75 4,18 - Table 11 show [the core factor and secondary factor](#) of behavior [aspect](#) from competency gap in the Table 8. The criteria of core factor are: perseverance and good integrity. The criteria of secondary factor are: firmness and wise. The total value is average between [core factor and secondary factor](#). TABLE 11. [Core factor and secondary factor](#) behavior aspect No. NIK Core Factor Secondary Factor Total Value 1 0001 4,75 3,5 4,25 2 0002 4,5 4,5 4,5 3 0003 4,75 4,5 4,65 4 0004 4,25 4 4,15 5 0005 5 4 4,6 6 0006 4,75 3,5 4,25 7 0007 4 4,5 4,2 d. Determine Ranking - Ranking in table 12 are from [the total value of three aspect in Table 9, Table 10, and Table 11](#). TABLE 12. Calculation of total value No. NIK 1 0001 2 0002 3 0003 4 0004 5 0005 6 0006 7 0007 Total Value Total Value Intelligent Total Value Attitude Aspect Behavior Ranking Aspect Aspect 4,3 4,22 4,25 4,26 4,72 4,42 4,5 4,536 4,6 4,4 4,65 4,56 4,5 4,6 4,15 4,39 4,3 4,2 4,6 4,39 4,3 4,58 4,25 4,36 4,26 4,18 4,2 4,2 In the calculation of final result is affected by determination the percentage of each aspect. The resulting output from calculation is the highest to lowest ranking for each lecturer. Result of the highest rank will be recommended to fulfill the structural position.

CONCLUSION From the explanation of the result from this study can be deduced as follows: 1. Decision Support System can help campus to know lecturer achievement seen from the percentage value ranking. 2. This method can provide solution to get the best lecturer to fill the structural position 3. Table 12 shows that lecturer with NIK 0003 has the highest ranking among another lecturer. It means that lecturer with NIK 0003 has nearest value attribut with value ideal. So that lecturer can be promoted to fulfill the empty position.

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