Determination of Campus Promotion Policy Strategy Applied The Profile Matching Method

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ABSTRACT

Decision support system, an application that is used to facilitate members of the university promotion team to determine the policy of the university's promotion strategy. This author discusses the decision support system for determining the university's promotional strategy policy with the profile matching method. The purpose of this paper is to make a decision support system application with a new method. The application used is matlab 7.10 which is used to test based on the results of weighting and calculation. The decision support system application that is produced is as expected in the weighting stage, both in testing, although there are still deficiencies in several respects. The adoption of a decision support system for determining the campus promotion strategy policy with the profile matching method can facilitate university promotion team members in making a wise decision. The method used in the implementation of this decision support system is the determination of the university promotion strategy policy with the profile matching method.

Keyword: Decision Support, Determination of University Promotion Strategy Policy, Profile Matching.

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1.   INTRODUCTION

Decision making that is done quickly, right on target, and can be accounted for is the key to success in global competition in the future. Having a lot of information alone is not enough, if you are not able to quickly convert it into the best alternative in the decision making process [1]. However, prior to the decision making process of the various alternatives available, it is necessary to have a criterion. Each criterion must be able to answer one important question about how well an alternative can solve the problem at hand. One of the decision-making problems faced with various criteria is the process of determining the university's promotion strategy [2]. Determining the right university promotion strategy will support the success of the promotion. Therefore, this must be determined as well as possible to minimize the occurrence of errors that can thwart the promotion process.

Every year the campus or university conducts promotion activities for new student admissions where the main priority of the promotion is to get students in accordance with the capacity that has been provided. To get prospective students as expected, of course, this private tertiary institution will promote various places both inside and outside the province. But in determining the university's promotion strategy policy quickly and precisely is not easy, there are many things that must be researched and considered so that it requires a lot of time [3][4].

The problem that is often experienced by the promotion team when conducting a university promotion is where the school visited is doing an activity such as doing a try out, an exam or the principal does not allow the promotion team members to do a university promotion at the school for some reason. These problems are very often experienced by members of the promotion when in the field in order to overcome the above problems, a policy or strategy must be done to overcome them [5][6].

Profile matching method is a suitable method to be applied in decision making with a variety of criteria, including in determining the campus promotion strategy policy precisely and quickly, the smaller the gap generated, the greater the value weights which means it has a greater chance for a campus to be promoted. a freshman from a school that was admitted to a promotion team[7][8].

2.   LITERATURE REVIEW

A.   Decision Support System (DSS)

Humans are part of nature because their lives are inseparable from nature. The process of human life is an element that increasingly dominates other elements in nature. This is because humans are equipped with the abilities to be able to develop. All the processes that occur around him and in him are felt and observed by using all the senses he has, he thinks and then acts and acts.

In dealing with all the processes that occur around him and in him, almost every time humans make or make decisions and implement them. This is based on the assumption that all actions carried out consciously are a reflection of the results of the decision making process in his mind, so that in fact humans are very accustomed to making decisions [1].

B.   Profile Matching

Profile matching is a very important process in HR management where the competencies (abilities) required by a position are determined first. These competencies / abilities must be fulfilled by holders / prospective holders of positions. In the profile matching process, it is broadly a process of comparing individual competencies into position competencies so that competency differences can be known (also called gaps), the smaller the gap produced, the greater the value weights which means that there is a greater chance for employees occupying the position.

To analyze employees who are in accordance with a particular position is carried out using the profile matching method, which in this process first determines the competencies (abilities) needed by a position. In the profile matching process, it is broadly a process of comparing individual competencies to position competencies so that differences in competencies are known.

From the end of the 19th to the 20th century, probability theory played an important role in solving the uncertainty problem. The GAP mathematical model or profile matching is a method for comparing criteria against criteria that are used as a reference in order to find the value of each of the existing profiles. In the system built the writer uses the GAP mathematical model by finding the difference between the GAP by comparing the accumulation of criteria based on the weight with the existing standard qualification value, with the final result in the form of meeting the requirements or not fulfilling.

3.   RESULTS AND DISCUSSION

Analyze and collect all the needs needed in solving problems that will be solved by using a decision support system to determine the university's promotion strategy. This is intended to make it easier to do what is desired so that the system runs as it should. In other words, the old system can be used as a comparison to create a new system later. System analysis is a breakdown of a whole problem into its component parts with the intention to identify and evaluate problems, opportunities, obstacles that occur in the needs that are expected so that improvements can be proposed. After researching directly the spaciousness of the promotion of the university campus, namely on the system of determining the university's promotional strategy. Namely the actions or policies taken in the field or go to the intended school. Where the decision making system for determining the university's promotional strategy is still manually.

A.   Policy Problems in the Field

From the analysis phase it can be seen clearly the problems that often arise when conducting university promotions, how the team gets problems when they want to enter the school to do promotions up to what solutions can be proposed to solve the problem. Based on the results of research conducted, it was found that there are some problems that are often experienced by promotional teams outside the region when promoting these problems, namely:

1. Socialization
    Class socialization policy when conducting university promotion can be carried out if the promotion team members get permission from the principal, where the promotion team members are permitted to meet face to face with students/students in the school.
2. Waiting at the Gate
    The policy of waiting for students at the school gate is carried out if the promotion team is not allowed to enter the school because students are doing an exam, so the promotion team members wait until the students leave and then fly brochures at the school gate.

3. Request Brochure
    This brochure policy is carried out if the students at the school have returned or the members of the promotion team want to pursue other school times because the area is a lot of schools that must be entered.
4. Leave
    The leaving school policy is a policy that is taken if the school visited does not receive guests or is conducting activities that do not allow members of the promotion team to enter the school..

B.   Competence Based on Policy Aspects at School Visit

In promoting the school campus, the promotion team will surely be faced with unimaginable conditions or conditions where before entering the school, the promotion team members must first obtain permission from the authorities at the visiting school. at the school competency based on the policy aspects of the visiting school can be seen as below.

C.   Intellectual Capacity Aspects

In this aspect, after weighting the value of the permits obtained from the school, the number of students attending the promotional visit and the distance from the initial school to be entered into the promotion can be seen in the gap calculation below.

1. School Permit Lobby
    Weighting from the aspect of school permits obtained from the school authorities visited during the promotion of weighting can be seen in table 1:

Table 1 School Permit Lobby

No	School Permit Lobby	Weight
1	Permit Kep.Sek	4
2	Permit wak.Sek	3
3	Permit piket	2
4	Permit satpam	1

2. Total students
    The weighting of the number of students is based on the overall students in the school entered the promotion, the weighting can be seen as in table 2:

Table 2 Total students

No	0-50	Weight
1	50-100	1
2	100-150	2
3	150-200	3
4	200-250	4

3. School Distance
    The weighting of the distance between the initial school to school which is then done so that members of the promotion team can estimate the distance that will be passed from the school to 1 school the other weighting can be seen in table 3:

Table 3 School Distance

No	School Distance	Weight
1	0-3	5
2	3-6	4
3	6-9	3
4	9-12	2
5	12-15	1

D.   Calculation and Grouping of Core and Secondary Factors

After determining the weight of the gap value for aspects of intellectual capacity, then each aspect is grouped into 2 (two) groups, namely the core factor and secondary factor groups. For the calculation of core factors can be addressed in the formula below:

NCF = Σ NC (I, s, p)
$\quad$ **Σ IC**

Where
NCF   : Average core factor Value
NC(i, s, p) : Total core factor Value
IC   : Total item core factor

Whereas the secondary factor calculation can be shown in the formula below:

NCS = Σ NS (I, s, p)
$\qquad$ **Σ IS**

Where
NSF   : Average secondary factor value
NS(i, s, p)   : Total nilai secondary facto

E.   Count of Total

From the calculation results of each of the aspects above, then the total value is calculated based on the presentations of the core and secondary which is estimated to affect the performance of each promotional member. Examples of calculations can be seen in the formula below:

N(i,s,p)=(x)%NCF(I,s,p)(x)%NSF(I,s,p)

where:
(I, s, p)   : intellectual, work attitude behavior
N (I, s, p)   : Total value of aspects
NCF (I, s, p)   : Average value of corefactors
NSF (I, s, p)   : The average value of the secondary factor
(x)%   : The percent value inputted

For more details, the calculation of the total value first determines the percent value inputted with a core factor of 60% and the secondary factor is summed according to the formula and the results can be seen in the example calculation of aspects of intellectual capacity can be seen in the calculation below.

Ni Sekolah_1 = (66,6% x 2) (33,4% x 1) = 1,3 + 0,3 = 1,6
Ni Sekolah_2 = (66,6% x 1.7) (33,4% x 07) = 1.16 + 0.24 = 1,4
Ni Sekolah_3 = (66,6% x 2) (33,4% x 1) = 1,3 + 0,3 = 1,6
Ni Sekolah_4 = (66,6% x 2,25) (33,4% x 1) = 1,4 + 0,3 = 1,8

F.   Profile Matching

This profile matching process is the process of taking the results of the final value to retrieve values.

Tabel 13. Nilai Akhir

No	ID_Sekolah	C1	C2	C3	NCF	NSF	NI
1	Sekolah_1	3	4	5	2	1	1,6
2	Sekolah_2	4	3	3	1,75	0,7	1,4

3	Sekolah_3	4	4	4	2	1	1,6
4	Sekolah_4	4	4	5	2,25	1	1,8

Where
C1   : Is the weight of the permit value
C2   : Is the weight value of the number of students
C3   : Is the weight of the distance value
NCF   : Is the result of the calculation of the core factor permit and distance
NSF   : Is the result of the secondary factor calculation value
NI   : Is the result of the total value of the NCF and NSF calculations

Tabel 14. Where

No	Last Value	Where
1	1,4	Request Brochure
2	1,6	Wait at the gate
3	1,8	Socialization

Before making a test in matlab, the weight of each criterion in and the weight difference is made into the operating system MS_Windows 7/2000 / XP, for example, can be seen in the Core Factor Calculation (NCF) Coding program using matlab 7.10 as below.:

```
>> NCF1=((dataSek(1,1)+dataSek(1,3))/2)/2
NCF1 =    2
>> NCF2=((dataSek(2,1)+dataSek(2,3))/2)/2
NCF2 =   1.7500

>> NCF3=((dataSek(3,1)+dataSek(3,3))/2)/2
NCF3 =    2
>> NCF4=((dataSek(4,1)+dataSek(4,3))/2)/2
NCF4 =   2.2500
```

Coding of the Secondary Factor Value Calculation program uses matlab 7.10 as below:
```
>> NSF1=(dataSek(1,2)/2)/2
NSF1 =    1
>> NSF2=(dataSek(2,2)/2)/2
NSF2 =   0.7500
>> NSF3=(dataSek(3,2)/2)/2
NSF3 =    1
>> NSF4=(dataSek(4,2)/2)/2
NSF4 =    1
```

Coding program Calculation Results for Gap Value Criteria using matlab 7.10 as below:
```
>>nilai_Gap=[dataSek(:,:)-dataMax(:,:) NSF(:,:)
NCF(:,:)]
nilai_Gap =
 -1.0000      0         0       1.0000    2.0000
      0    -1.0000  -2.0000   0.7500    1.7500
      0       0      -1.0000   1.0000    2.0000
      0       0         0       1.0000    2.2500
```

Coding program The calculation of the Total Value uses matlab 7.10 as below:
>>Persen=xlsread('bobot nilai.xls','persen')
Persen =

  66.6000 33.4000 100.0000 66.6000 33.4000 100.0000 66.6000 33.4000
100.0000
  66.6000 33.4000 100.0000

>>
Ni_1=((Persen(1,1)*NCF1)/100)+((Persen(1,2)*NSF1)/100)
Ni_1 = 1.6660
>>
Ni_2=((Persen(2,1)*NCF2)/100)+((Persen(2,2)*NSF2)/100)
Ni_2 = 1.4160
>>
Ni_3=((Persen(3,1)*NCF3)/100)+((Persen(3,2)*NSF3)/100)
Ni_3 = 1.6660
>>
Ni_4=((Persen(4,1)*NCF4)/100)+((Persen(4,2)*NSF4)/100)
Ni_4 = 1.8325
>> Nilai_Akhir=[Ni_1 Ni_2 Ni_3 Ni_4]
Nilai_Akhir =
  1.6660 1.4160 1.6660 1.8325

>> Nilai_Akhir=[Ni_1;Ni_2;Ni_3;Ni_4]
Nilai_Akhir =
  1.6660 1.4160 1.6660
  1.8325
>> Nilai_Akhir=[Ni_1 Ni_2 Ni_3 Ni_4]
Nilai_Akhir =

  1.6660 1.4160 1.6660 1.8325

>> Nilai_Akhir=[Ni_1;Ni_2;Ni_3;Ni_4]
 Nilai_Akhir =
  1.6660 1.4160 1.6660
  1.8325

Coding program Calculation Results for Gap Value Criteria using matlab 7.10 as below:
>>nilai_Akhir_hasil=[dataSek(:,:)-dataMax(:,:) NSF(:,:) NCF(:,:) Nilai_Akhir(:,:)]
nilai_Akhir_hasil =

  -1.0000   0   0   1.0000 2.0000 1.6660
     0   -1.0000 -2.0000   0.7500 1.7500 1.4160
     0   0   -1.0000 1.0000 2.0000 1.6660
     0   0   0   1.0000 2.2500 1.8325

5.   CONCLUSION
The conclusion obtained from this paper is that the decision to determine the university's promotion strategy policy requires policy criteria, namely, permission from the school, the number of students at the school visit and the distance from the start of other schools. The application of the profile matching method is carried out in 3 steps, namely: giving weights to predetermined criteria, calculating the value of Core Factor (NCF) and the value of Secondary Factor (NSF), calculating the total value. Testing the decision support system for determining the university's promotional strategy policy is done by inputting the criteria weight values and the results of normalization and weighting criteria using the matlab application in Windows Command.

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