Designing talent pool information systems at managerial level at PT. Pindad Enginiring Indonesia

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Abstract. The background of this study is to determine human factors as key factors that are very important in increasing company competitiveness. The way the company manages this factor is by applying the concept of talent management. PT. Pindad Enginiring Indonesia (PT PEI) is one of the companies that is implementing the concept, but obstacles are found at managerial level in the company, where the performance appraisal and potential are very slow. Meanwhile, the results of the assessment are needed to determine the right management for the employee's career. Therefore, companies need what is called a Talent Pool. The term Talent Pool in Talent Management is a tool used as a talent centre to classify, recommend, and develop employee talent used by several companies or experts. In this tool, the classification process uses the HAV 5X5 Matrix which will be developed into an information system design using the FAST method. The Talent Pool design is expected to be a tool to present performance and potential assessments, speed up the assessment process to present the results of the assessment, classify results to determine employee competencies, and be able to be the best recommendation tool in determining an employee's career path.

1. Introduction

In the current era of global business competition, every company will be demanded to increase the company’s competitiveness. Human factors are the main factors that drive such improvement efforts [1-4]. Many companies believe that one way to improve company performance is to have talented or more talented employees than others [1-10]. That can be seen in terms of speed in thinking, dexterity in doing a job, and maturity in making decisions. But it is not easy to get these employees, it takes a long process and time to train and grow the experience of an employee. Employees who are trained and built will be ready to work in certain jobs or positions [1-7]. A way for companies to know the whereabouts of employees, by applying the concept of talent management [1,6-9].

PT. Pindad Engineering Indonesia is one company that is trying to apply the concept of talent management but problems are found at managerial level. The company needs to accelerate the presentation of the results of performance appraisals and the potential to prepare employees who fill the required positions at managerial level [1-3,6-10]. While the assessment process takes 5-6 months without preparation time before the process of determining positions for employees at managerial level. Thus, the company’s efforts to apply the concept of talent management require what is called a talent pool [1,2]. In talent management there is the term talent collection is a tool or concept used to classify and centre Talent Development that is used by several companies or experts. This concept / tool can be used as an effort to manage employee talent and classify it into groups that show their own
talents. In addition, guaranteed information is related to competency development. This talent pool can be developed into the design of information systems using the FAST method, this is to speed up the process of evaluating and presenting results. Benefits will guarantee supply of talented employees to the company, speed of information, and accuracy of decision making [1,2,11].

2. Method
In an effort to apply the concept of talent management to the talent pool system, the data needed includes performance and potential criteria, compiled Office data, regulations, assessment process flow, and physical assessment documents. Data will be processed in a collection of talents using a 5 x 5 HAV matrix as a tool that classifies employee talent based on performance criteria and selected potential, besides this matrix is commonly used in the classification process using the Talent pool system. Talent pool will be developed into an information system design to speed up the assessment process. Information system design will use the FAST method to find out in detail the design process through to system development. The FAST method consists of 9 stages, in this study conducted until the 7th stage namely development and testing [1,6,12-14]. The results of the system will show employee talent based on a 5 x 5 HAV matrix [1,11,15]. Based on that rating scale, a 5 x 5 HAV matrix is shown in Figure 1.

![Matrix HAV 5 x 5](image)

**Figure 1.** Matrix HAV 5 x 5.

3. Results and discussion
The design method used is the Framework for Systems Thinking Application (FAST) method with the Driven development strategy model. The development of this information system talent collection uses the XAMPP application as an Apache server access service that connects the MySQL database as a data storage service, and the HTML and PHP programming languages. In addition, Laravel uses it as an application interface / display maker. So the system is expected to have good flexibility, because the system can be adjusted by changing features according to the wants and needs of the company [1,7]. The physical design will be used as the main reference by creating a concept process block model using Data Flow Diagrams (DFD), data blocks using Entity Relationship Diagrams, and physical communication blocks using an interface model called Use-case Diagrams. The yield model is used for developing the Talent Pool Information system. The system is called Talent Pool 1.0.

The advantage of this system is the speed in the process as well as the results of performance and potential assessments, have access rights that are tailored to the positions involved, the system is able
to group employees into one of the 25 groups available on the HAV 5x5 matrix in accordance with the concept of talent management, and the system has high flexibility if there is development. While the shortcomings of this system is that the system has not become a major decision tool in determining the position and career path of an employee and the system does not yet have statistical features based on the results of the assessment [1-10]. This is the design used in the talent pool system.

3.1. Modelling interface using use case diagram
System Communication Model is depicted using the use-case diagram. Use-case is an interaction that is performed or received by actors and relationship that connects actors and Use-case so that the functions will be known in the system. The use-case diagram consists of several components, namely use-case, actor, and relationship [1,12,14]. The data modelling with the use-case diagram can be seen in Figure 2.

![Use-case diagram functional needs system](image)

**Figure 2.** Use-case diagram functional needs system.

3.2. System interface
The system interface in program creation refers to the design of the previously designed interface. The system interface overview for the talent assessment and classification can be seen in Figure 3.
4. Conclusion

Based on the results of the study, it concluded as follows:

- The design of the talent pool information system is the design of an appropriate information system to assist the talent management at PT. Pindad Enjiniring Indonesia, particularly managerial levels.
- The design serves as an objective, effective and efficient recommendation tool for the fulfillment of the company's competency needs.
- The system design can present information on the results of rapid and potential performance assessment for employee setup process that fills the required positions at managerial level.
- Follow-up recommendations can be done in the system, according to company policies and assessment results that have been processed in the information system.
- The Model Talent pool is suitable for implementation in PT. Pindad Enjiniring Indonesia using a matrix HAV 5x5 which divides employees into 25 talent groups. The talent pool
Model was used as the basis for the design of the talent pool information system at PT. Pindad Enjiniring Indonesia. The design of the information system was named Talent Pool 1.0.

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