A Fuzzy Expert System for Talent Pool Management in Indonesia

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A R T I C L E I N F O

A B S T R A C T

Addressing the VUCA (Volatility, Uncertainty, Complexity, and Ambiguity) situation, one of the company's strategies is to design a talent management strategy program to identify talent needs based on the company's vision, mission, strategy, and values. Talent is the knowledge and abilities possessed by a person relevant to the company's needs, supporting the company's goals and strategies. The company has a system that designs and manages the talents of its employees to acquire and retain their employees, namely talent management (TM). Talent management is an organizational scheme that systematically guides, directs, and guides in obtaining, developing, and retaining employees with talent or talents to achieve organizational goals. Therefore, this study aims to assist companies in making it easier to identify employees based on a 3x3 talent mapping matrix based on AI (Artificial Intelligence) in the E-Fillment Division, making it easier for companies to determine the right development program for these employees

INTRODUCTION

Addressing the VUCA (Volatility, Uncertainty, Complexity, and Ambiguity) situation, one of the company's strategies is to design a Talent Management (TM) strategy program to identify talent needs based on the company's vision, mission, strategy, and values (Ahram, 2019; Hamid et al., 2023; Wagner & Hollenbeck, 2020). Talent is the knowledge and abilities possessed by a person relevant to the company's needs, supporting the company's goals and strategies (Nijs et al., 2014; Yasin, 2017). The company has a system that designs and manages the talents of its employees to acquire and retain their employees, namely Talent Management (TM) (Liu et al., 2021). TM is an organizational scheme that systematically guides, directs, and guides in obtaining, developing and retaining employees with promising talent to achieve organizational goals (Rustiawan et al., 2023).

Generally, the method for determining employees entitled to the development program is known by the company conducting a selection or assessment for each program (Stadler, 2011). Besides, through Human Resource Development (HRD) division, commonly determining employees to receive team member development programs still uses a selection system proposed by the team member concerned, recommendations from superiors and job requirements (Wagner & Hollenbeck, 2020). In addition, TM with a 3x3 talent mapping matrix makes it easy to determine team member positions and makes it easier for companies to determine the right team member development programs and career strategies (Azmi et al., 2016; Sparrow et al., 2015).

Today, Artificial Intelligence (AI) is applied in the role of human resources, including the TM process (Liu et al., 2021). TM now challenges intelligent TM and uses intelligent systems (including AI) in all parts of the TM process. Today's companies and organizations have large-scale data management requirements and require data intelligence to manage this problem (Hamid et al., 2023). Besides, AI could be an excellent system to accommodate the complexity of the TM process, especially in identifying good talented people.

Therefore, this study aims to assist companies in making it easier to identify employees based on a 3x3 talent mapping matrix based on AI (Artificial Intelligence) in the E-Fillment Division, making it easier for companies to determine the right development program for these employees.

THEORETICAL FRAMEWORK

Related work regarding using intelligent systems, including AI, for the TM process are diverse. Different intelligent system methods would be proposed to provide specific TM process solutions. Research by Siregar and Kartika (2020) used the Analytical Hierarchy Process (AHP) to identify how talent is managed and develop future TM objectives and strategies. Santoso et al. (2021) used a similar method to analyze the current position of competence and future needs in Indonesia's banking and financial technology sectors. The result showed that the competence and future needs have been very fragmented. In addition, three priority areas of expertise in Industry 4.0 were identified: cooperation and networking, adapting to change, entrepreneurialism and business thinking.