

Unlocking the Values of Artificial Intelligence (AI) in Human Resource Management (HRM) in Enhancing Employee Retention

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Abstract

Purpose: This study investigates the value of AI in HRM practices within organizations with a significant impact on employee retention.

Design/methodology/approach: To achieve the stated objectives a systematic literature review (SLR) method was conducted.

Findings: The finding of study emphasizes the importance of addressing these issues and the role of Artificial Intelligence (AI) in enhancing human resource practices to increase employee retention. AI techniques, such as machine learning and big data analysis, provide effective methods for predicting employee turnover, optimizing recruitment processes, boosting employee engagement, and undertaking sentiment analysis.

Practical implications: By incorporating AI into HR practices, organizations can mitigate turnover issues and cultivate a more positive work environment, resulting in increased employee retention.

Keywords: Artificial Intelligence, Human Resource Management, Employee Engagement, Employee Retention

Introduction

Motivation of employee turnover to leave a job is a critical issue for organizations in Malaysia (Munir & Tobi, 2020). According to recent research on employee retention that the reason why employees quit organizations is complicated and may be related to HR functions. The issue of employee turnover cause organizations to deal with high cost and uncertainty of training new employees. This situation causes employees to feel demotivated and reduce the performance as well as contribute to increasing turnover rate of the organizations (Alias, Rohmanan, Ismail, Koe, & Othman, 2018). Moreover, employees want to leave their organization due to some of the reasons, such as in the hiring process, the organization did not hire the right candidate in the first place, because of the poor candidate selection by the employer, many newcomers conducted early turnover due to lack of skills needed and poor job match (Srinithi & Sivapragasam, 2022). On the other hand, lack of training given by the organization for career development is one of the reasons for high turnover. Also, lack of performance appraisal such as monitoring and giving feedback for the employee can be considered as a reason for employee turnover. In general, lack of tracking employee engagement also can lead to turnover, the organization may need to identify employee personal behavior and employee feedback for the organization to improve in order to make them feel appreciated (Fatemi, 2019).

Furthermore, employee turnover issues have been ongoing for decades, according to Hosen (2022) employee turnover rate achieved 10.9% globally in 2017. In Malaysia, the issues of employee turnover have become a serious problem, also it has become a challenge for the organization to retain their employees, due to increasing demand for the skilled employees and opportunities to get a better place in the job industry (Munir & Tobi, 2020). Employers in Malaysia have to deal with a high rate of voluntary turnover rate, for example, the voluntary turnover rate in 2017 was 12.8%, compared to an average of 10% in all major Asia-Pacific markets (Hewitt, 2017). Lately, the Institute of Labour Market Information and Analysis recorded, the average employee turnover rate for the year 2019 in Malaysia is approximately 20%. In addition, the report mentions that the Accommodation service industry recorded the highest turnover rate with around 45% in 2019.

For the purpose of this study the term Hotel Industry will be used, which is part of the Accommodation Service Industry. The average employee turnover rate globally in the hotel industry is significantly higher than the other industries, according to recent statistics it ranges from 30% to 73% globally (Michael & Fotiadis, 2022). In Malaysia, the hotel, tourist and leisure industry contribute significantly to Malaysia economic growth, contributing around 6% of Malaysia GDP (Malaysian Reserve, 2021). Nevertheless, the hotel industry ranges 45% of employee turnover which is the highest turnover rate among the other industries. The hotel industry in Malaysia is a highly-customer-focused industry in which communication among workers and tourists helps to determine the business performance. Surprisingly, the hotel industry fosters a turnover culture typified by the “acceptance of turnover as part of the workgroup norm. That is, it is a normative belief held by employees that turnover behavior is quite appropriate” (Iverson & Deery, 1997). Numerous studies have been conducted over the past few decades to solve the hotel turnover issue. The concern is expanding due to the enormous economic, organizational and mental side effects of turnover on the hotel industry. Many of the reasons for high turnover in the Hotel Industry are lack of training for growth and progress, lack of considering employee engagement, compensation package, and unmatched job and skills after being hired (Al-Suraihi, Samikon, Al-Suraihi, & Ibrahim, 2021).

In addition, Artificial Intelligence (AI) helps to avoid employee turnover. The strategies that AI uses effectively for retention are machine learning and big data with a human touch. AI is used in human resources departments where turnover prediction is done by neural networks, selection criteria through decision trees, recruitment, engagement through interactive voice responses, HR sentiment analysis and many more. It depends on the organizations to choose from available AI techniques to bring in results. On the context above, the purpose of this paper is to emphasize the importance of AI in human resource practices in the organization and its impact on employee retention.

Research Objectives

The objectives of the study are framed as follow:

- a. To examine the relationship between AI in Human Resource Management (recruitment and selection, training and development, performance appraisal) and Employee Retention.
- b. To examine the mediating role of Employee engagement in the relationship between AI in Human Resource Management (recruitment and selection, training and development, performance appraisal) and Employee retention.

Literature Review

Employee Retention

Employee retention can be identified as the ability to maintain the employee relationship with the organization in order to keep working in the organization. This can be related to the organization's attempt to support, motivate and encourage the employees to stay in the organization for a longer period of time by tracking the number of workers who are joining and leaving the organization (Das & Baruah, 2013). Employee retention is seen as the important issue in organizations, particularly in terms of financial and non-financial, it is assumed that these employees are valuable to keep in the organization since they will help the organizations succeed (Arumugam, 2019). Furthermore, it is encouraged for the organization to establish and implement the retention strategies in order to support them dealing with the employee's intention to leave the organization. Basically, retention strategies may be influenced by some of the human resource function factors, including the hiring of the right candidate in the first place, the relationship between employee and management, compensation and benefits, working culture and environment, and career development opportunities (Gorde, 2019). These are the factors that may consider how satisfied workers are within the organization, and it may lead them to stay longer with the organization.

Employee Engagement

According to Kahn (1990), employee engagement is the involvement or the enthusiasm of employees to their jobs in which they actively participate and contribute their physical, emotional, and intellectual capacity to their jobs. In other words, engagement is a positive attitude that motivates employees to work hard and be involved in achieving organizational goals. An engaged employee ensures lower turnover, greater intention to stay, greater talent attraction, developing knowledge base, and obtaining competitive advantage (Albrecht, Bakker, Gruman, Macey, & Saks, 2015). Employee engagement is critical and greatly influences organizational success which helps to achieve more business goals and helps to drive the organization forward. Employees will decide whether or not to participate based on the resources they receive from their employer. This perspective illustrates the beneficial relationship between the organizations support of their employees and the employees desire to improve both their individual and team performance. Employees are more likely to engage with organizations that offer training and development, such as learning new knowledge and skills, opportunities to grow, and chance to develop abilities (Naufer & Kumar, 2020). On the other hand, according to Nair and Salleh (2015), performance appraisal which provides observation, evaluation, and feedback for employee performance have a positive effect on employee engagement.

Artificial Intelligent (AI) in HR Practices

Artificial intelligence can be defined as a science that has a purpose to duplicate aspects of human intelligence such as critical thinking, learning, reasoning, and perceiving using computer programs that are guided by logic (Premnath & Arun, 2020). AI has an ability to process big data and convert it into meaningful information for guidance to make decisions in transforming and increasing employee and candidate experience in organizations for the better. The ability of AI to ingest big data and present context to decision makers is different from other technologies that were designed to efficiency while AIs are also designed to complete any task with adding value. AI's ability to integrate easily into HR functions and provide significant value to HR because AI strengths the speed and efficiency of HR functions by taking over mundane tasks while personnel move towards developing unique aspects such as empathy, critical thinking and creativity. Although AI appears to take over much of the work done in the

HR function, it is still far from completely replacing HR personnel due to the constant need for human intervention when dealing with employees.

AI is an innovation breakthrough that helps growing organizations to compete in this era by trading off labor for better handling of machines with the aim of recruiting high-performing potential candidates for companies (Premnath & Arun, 2020). Recruitment is the most predominant function in HR where AI is used to replace manual screening of candidates with AI-powered screening to streamline this time-consuming process. In addition, By using AI, HR personnel can help their employees not only identify training needs and provide timely and accurate training, but it can also identify the best career path for employees which helps develop talent within the company on an ongoing basis. By using developments in the e-learning platform, companies can provide personalized training with certain flexibility at times and locations based on employee profiles and the skills.

Artificial Intelligent (AI) in HR Practices

AI can help organizations to find, select and train the best candidates in a simpler manner to lower employee turnover in the workplace (Malik, De Silva, Budhwar & Srikanth, 2021). Specifically, such expert systems are seen as effective tools to support HR practices. Discussed below is how AI influences the primary HR functions; recruitment and selection, training and development and performance appraisal in an organization to help with employee retention.

AI in Recruitment and Selection

AI can assist in speeding the recruitment process, regardless of the escalating demand for new employees. By first analyzing huge amounts of information to recognize patterns, it may be used to automate repetitive tasks. According to a recent study, over 40% of organizations regularly advertise job vacancies and recruit applicants through AI (Brin, 2019). AI-enabled recruiting broadens the applicant pool and may increase organizations' potential to attract talented candidates. According to Park (2019), using AI-enabled tools, potential applicants' retention rates can be predicted which consequently increases the effectiveness of placements. Web-based recruiting might seem impersonal and leave candidates unable to ask inquiries about vacancies. Job seekers frequently have inquiries and want to stay in touch with employers. Nevertheless, approximately 40% of applicants never hear back from organizations (Ideal, 2019). AI-enabled chatbots may assist in solving communication issues by addressing candidates' inquiries, giving consistent, timely, and accurate progress updates, retaining touch with them throughout the recruiting process, and decreasing communication gaps that naturally exist during recruitment. Applicants will drop their resumes and other data while conversing with bots, and chatbots may answer basic inquiries regarding the position (Aldulaimi, 2020). AI-powered software like Chabot and Applicant Tracking System (ATS) answers applicants' inquiries in real time and tracks applicants' progress. By using AI in HR, biases in hiring may be avoided. A recruiter's choice may be influenced by factors such as the candidate's race, gender, language, and ethnicity. Automated and AI-powered assessment methods for algorithms reduce human bias and after an audit has been completed, any unfair treatment may be reversed using this procedure (Tewari & Pant, 2020).

AI in Training and Development

AI can assist in speeding the recruitment process, regardless of the escalating demand for new employees. By first analyzing huge amounts of information to recognize patterns, it may be used to automate repetitive tasks. According to a recent study, over 40% of organizations regularly advertise job vacancies and recruit applicants through AI (Brin, 2019). AI-enabled

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AI in Performance Appraisal

Performance appraisals are one of the most contentious procedures in HR and some organizations have stopped using them entirely. Employee performance often changes from month to month and varies according to work tasks or projects. As a consequence, annual evaluations may not accurately reflect an employee's behavior or contribution. There have been issues with supervisor bias and charges of partiality or prejudice in performance evaluations. AI-enabled have drastically improved the speed and accuracy of evaluation procedures. With the use of AI, performance evaluation may be done more regularly which could improve their accuracy in reflecting employee actual work performance, reduce the influence of biases and provide employees more rapid feedback. Chatbots are also being used by organizations to provide employees with more regular performance feedback and coaching to constantly improve their performance (Hroncich, 2019). Moreover, research has shown that employees worry more about feedback's impartiality than its source. Employees also trust computer-generated feedback more than boss evaluation. AI-enabled performance appraisal may also anticipate future performance which can help managers forecast future turnover. IBM showed that AI could predict future employee performance with 96% accuracy (Johnson, Lukaszewski & Stone, 2023).

Employee Engagement Mediate Relationship between AI in HR Practices and Employee Retention.

Employee Engagement Mediate Relationship between AI in Recruitment and Selection and Employee Retention.

By the examination of data like resumes, job postings, and other information, recruiting tools that are driven by AI can assist in selecting the most qualified individuals to fill available jobs. This may result in a more efficient and effective screening of candidates, which in turn may lead to hires of a higher quality as well as improved staff engagement and retention (Kulkarni & Che, 2019). Companies have the ability to establish a pleasant work environment by recruiting the right people. This atmosphere allows employees to feel appreciated and supported, which leads to increased employee engagement and reduced turnover. Chatbots powered by AI may be used to assist with applicant communication and engagement

throughout the whole recruiting process. These chatbots can provide real-time updates on the progress of an application and answer inquiries in a timely manner (Soutar, 2019). Candidates may experience a greater sense of engagement and value as a result of this. Companies can attract and keep top talent by developing a pleasant applicant experience, which in turn leads to a staff that is more engaged in their job and more productive overall.

Employee Engagement Mediate Relationship between AI in Training and Development and Employee Retention.

Training systems that are driven by AI are able to give employees personalized and flexible learning experiences that are based on their particular requirements and preferences for how they learn. Because of this, employees may feel more committed to their own professional growth and development, which may lead to increased employee engagement and retention (Seo, Tang, Roll, Fels & Yoon, 2021). Companies may demonstrate to their workers that they value and support them by offering chances for personalized training and professional development. This, in turn, leads to higher levels of employee satisfaction and retention. AI may also be used to identify areas in which employees might want further training and assistance, and it can make recommendations for development that are specifically geared toward meeting those needs. It is possible that this may assist employees feel valued and supported, which will lead to increased loyalty and employee retention (Sanyaolu & Atsaboghena, 2022). Companies are able to foster an environment conducive to learning and expansion by investing in the professional growth of their personnel, which in turn results in a workforce that is more engaged and devoted.

Employee Engagement Mediate Relationship between AI in Performance Appraisal and Employee Retention.

The use of AI-powered performance appraisal systems can give more objective and data-driven assessments of employee performance, hence minimizing bias and enhancing the degree to which fairness is achieved. This may lead to more accurate performance appraisals, which in turn can lead to improved employee engagement and retention through the process of recognizing and rewarding people for their efforts (Madhani, 2020). A culture of recognition and appreciation may be created in an organization by giving employees assessments that are fair and accurate. AI is also capable of providing employees with real-time feedback and coaching, which may assist workers in improving their performance and making them feel more passionate about their job. This can contribute to improved retention rates by enhancing employee contentment and motivation, which in turn can lead to increased satisfaction. This may ultimately lead to a workforce that is more engaged and devoted to their job (Sari, Min, Purwoko, Furinto & Tamara, 2020).

Underlying Theory

The Social Exchange Theory (SET) is a widely recognized theoretical framework in organizational studies that focuses on evaluating social behavior and interactions. Its foundations can be traced back to the works of Homans (1961) and Blau (1964), who are considered as the main proponents of this theory. According to Allen and Shanock (2013), SET has gained significant popularity as a theoretical basis for understanding social exchange phenomena in organizational contexts. Blau (1964) defines social exchange as a voluntary behavior of individuals that is driven by the anticipated and actual benefits they receive from others. The theoretical framework elucidated the underlying factors that contribute to the development of interpersonal connections between employees and employers. The foundation of the intention to remain is rooted in SET (Kusnin and Rasdi, 2018; Mustapha et al., 2010).

Based on the premise of SET, employees maintain the belief that organizations are responsible for providing a favorable work environment and culture. Consequently, they choose to join an organization and apply their expertise and competencies to attain their objectives. Therefore, a positive exchange relationship between employees and their organization leads to heightened levels of organizational commitment. The Social Exchange Theory places emphasis on the notion that interpersonal interactions are predicated on the maintenance of equilibrium between the acts of giving and receiving (Blau, 1964). According to Yin (2017), if an organization promises to provide its employees with incentives, esteem, fairness, and other such factors, the employees are likely to develop a strong sense of trust in the organization. This trust, in turn, can enhance their motivation to exert greater effort in their work, leading to improved job performance and, ultimately, reciprocation towards the organization.

The fundamental premise of Social Exchange Theory (SET) is that individuals form and sustain social connections based on their anticipation that these connections will yield mutual benefits. The intention of employees to remain with their organizations can be influenced by various factors, including recruitment and selection, training and development, performance appraisal, reward and recognition, and career opportunities. These factors can be viewed as social exchange concepts, as their implementation and perceived value by management can lead to employees choosing to stay with their organization. This study has proposed a theoretical framework to examine the impact of perceived artificial intelligence (AI) in human resource management (HRM) practices on employee retention. The proposed framework also considers the mediating role of employee engagement in this relationship.

SET demonstrated that employees who view AI in HR practices as positive and advantageous can be persuaded to increase employee engagement and, as a result, staff retention. When employees are exposed to a work environment that fosters positive relationships, a strong bond is formed between employees and the organization. Incorporating AI into HR practices can therefore assist organizations in fostering positive relationships between employees and employers. In recompense for this, the employee's commitment may be a desirable trait that encourages employees to maintain their loyalty to the organization and has a substantial impact on organizational outcomes, including performance. Therefore, the relationship between AI in HR practices and employee retention is intertwined and exemplifies exchange relationships between resources. The organizational constructs have been observed to provide feedback that effectively meets the needs of both employees and the organization. SET facilitates a compromise between the utilization of AI in HR practices to enhance employee engagement and the preservation of employee retention.

Theoretical Framework

The Social Exchange Theory (SET) provides an explanatory framework to clarify how employee perceptions of HRM practices can influence their engagement and intention to stay in the organization. According to SET, when organizations use AI-driven HRM practices and employees perceive these practices as positive, they are more likely to reciprocate with positive attitudes and behaviors, which can lead to greater engagement and retention. Therefore, this study proposes that the use of AI in HRM practices can positively impact employee engagement, which in turn can lead to increased retention. Specifically, it is believed that employees will have a better positive impression of organizations that implement AI-driven HRM practices since those organizations are believed to be more supportive and effective which will ultimately lead to greater rates of engagement along with retention. The research framework is presented in Figure 1.

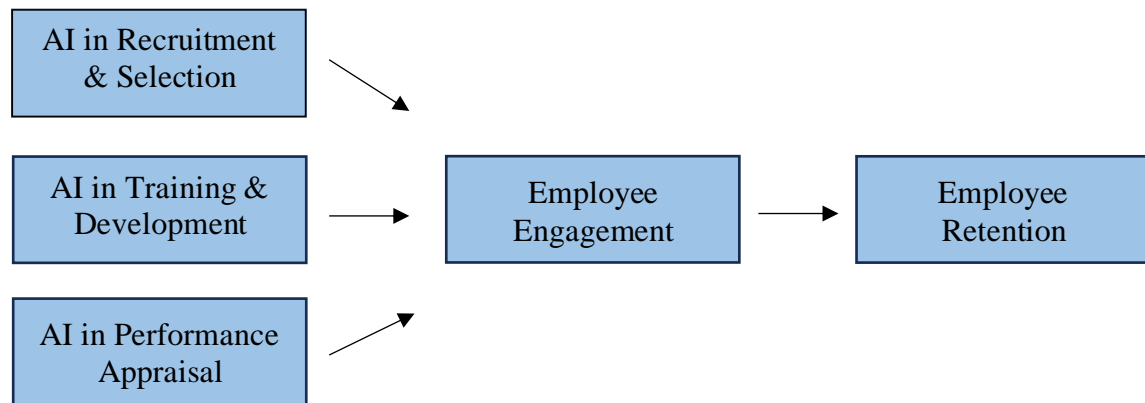


Figure 1: Theoretical Framework

Method

To achieve the stated objectives a systematic literature review (SLR) method was conducted. The keywords such as "Artificial Intelligence in Human Resource Management (recruitment and selection, training and development, performance appraisal), Employee engagement and Employee Retention" have been included in the online database, limited to the period of 2000-2023. The researchers have analyzed literature, drawn the framework and further research directions. These studies were categorized into subtopics, some of the findings of which are presented in the introduction and literature review section as discussed above and further highlighted in the following section. Few examples of selected papers are stated in table 1 in the Appendix section.

This research is grounded on a solid theoretical framework combined with the secondary data from various sources in the area of Artificial Intelligence in Human Resource Management Practices, Employee Retention, and Employee Engagement. The information for this study applies a methodology to review the article that has been gathered from a variety of articles, journals, research papers that are cited in the database such as Emerald, Taylor and Francis Online, ResearchGate, and ProQuest. Apart from this, the data is gathered from departments relevant authorities and published by various researchers, which is available on their websites or reports. The study uses the following key terms as a starting point, Artificial Intelligence and Employee Retention. The present study was undertaken to understand the relationship between Artificial Intelligence in Human Resource Management practice, Employee Engagement and Employee Retention. The secondary data analysis of contemporary literature was examined in order to generate a strong theoretical structure as a foundation for this study.

Discussion

The purpose of this paper is to emphasize the importance of AI in HR practices in the organization and its impact on employee retention. The results of this research provide new insight into the prospective contributions of AI technology to HR practices, notably in the area of improving retention rates. In addition, the importance of employee engagement as a moderator between employees' perception of how their HR department uses AI and their likelihood of retaining with the company is emphasized.

This research found that the implication of AI in HR practices; recruitment and selection, training and development and performance appraisal will enhance employee retention and

higher intention to stay in the organization. Recruitment tools using AI will help to find more eligible candidates which match the job and the skills needed by speeding up the screening process which leads to better employee engagement as well as attracting top talent (Kulkarni & Che, 2019). Furthermore, implementing AI in training and development becomes easier to cater employee needs and preferences. Organizations can boost employee satisfaction through specialized training programmes which indicate employees are recognized and supported (Sanyaolu & Atsaboghena, 2022). Lastly, performance appraisals supported by AI were shown to provide more unbiased and data-driven judgements, reducing bias and enhancing fairness. With a fair assessment that recognizes employee efforts and achievements will create a culture of recognition and appreciation. Employees are more likely to stay with a company if they believe this AI in HR practices procedures are fair and effective (Sari et al., 2020).

Researchers suggest that in a few years, AI technology will outperform humans in numerous tasks and activities. According to experts, AI has a strong chance of surpassing human effectiveness in activities and automating human jobs in the next few years (Aldulaimi, 2020). Some scholars believe that AI will just function as a support system and will never entirely replace humans. The future will be categorized by human-machine collaboration. Another research on AI and deep learning emphasizes the significance of collaborative interaction between machines and humans, in which robots forecast the results and humans make decisions and decide what to do (Sanyaolu & Atsaboghena, 2022). If it is decided what data to collect, evaluate, manage, and preserve, AI will be able to play a larger role in HR. HRM still has a lot to teach and uncover as more organizations begin to use AI technology, there will be intense competitiveness in the market to attract top talent. In such circumstances, the only thing differentiating organizations will be their capacity to satisfy applicants' digital expectations and provide the greatest experience. The industry will be dominated by the sector that best prepares its people to benefit from the promise of AI and big data (Sanyaolu & Atsaboghena, 2022).

Meaningfully, employee engagement mediates the relationship between how AI is implemented in HR practices and employee retention. According to Singh and Shaurya (2021), AI has the ability to increase employee engagement by providing employees with opportunities for growth and development and real time feedback. Organizations may create engaging and supportive work environments by utilizing AI into their recruiting, training and performance appraisal. The findings of this study suggest that organizations should consider applying AI in HR practices in order to boost employee engagement and retention.

Conclusion

Nowadays, there is an urgent need to embrace HR in light of the impact of AI, since there is a substantial influence on facilities and their operation that enable digitization. HR employees must be fully prepared to embrace the digitalization within their facilities; otherwise, HR risks falling behind and losing out on opportunities to align with the facility and offer value by becoming more digitized and data-driven. In conclusion, this study has highlighted the significance of AI in HR practices and its impact on employee retention which emphasizes the potential benefits that AI technologies can bring to HR functions ultimately leading to enhanced retention rates. Organizations should start exploring AI in HR practices to improve employee engagement and employee retention. By incorporating AI into recruitment and selection, training and development, and performance appraisal processes, organizations can foster an environment that values employee growth and development.

As AI advances, organizations should keep up to date with the latest advancements and its application in HR practices. Organizations can optimize employee retention and create a thriving workforce by adopting and embracing new technologies in HR practices. AI has a promising future in HR, but implementing it in HR involves some challenges that a company must solve in order to fully benefit from it. AI operates like humans only if quality data is collected and provided; otherwise, the results can be inaccurate; hence, trying to gather all people-related data while implementation is a complex procedure, but it is only the first challenge. Next, the confidentiality of organizational documents and policies must be secured so that it may not be manipulated, and appropriate actions must be made to keep them secure and safe. Consequently, it is not guaranteed that AI will be able to conduct tasks with 100% efficiency, but it will be capable of reducing human errors and bias to a large extent. Despite these challenges, many organizations are making an effort to implement AI in HR practices since the benefits greatly outweigh the challenges.

This study has an impact on practical implication and new perspective in the practice of AI being applied to HRM practices, especially in the practice to encourage employee retention. These findings demonstrate that AI in HRM practices may play an essential role in reducing the levels of turnover and increasing retention rate. These findings provide the idea and benefit from the results of this study by giving strategy directions related to the use of AI in HRM practices and processes with a focus on the intention to stay. Furthermore, the application of AI in HRM practices aim to foster positive employee attitudes and enhance individual and organizational performance.

The study of this research indicates that employee engagement will increase the employee's intention to stay. With the application of AI in HRM practices, such as in Recruitment and selection, Training and Development, and Performance Appraisal, it can help the HRM function appear more organized, effective and efficient, and provide the best opportunities and treatment for employees, where this will have an impact on intention to stay from the increasing of employee engagement. These findings also help the organization to understand the importance of employee engagement to increase employee retention. Hence, it advises that organizations promote employee engagement throughout the implementation of AI into HRM practices, in order to encourage the employee to stay longer in the organization. Additionally, Employee engagement is the involvement and enthusiasm of employees for their role and task, interest in their workplace, and involvement in achieving organizational goals. It presented when employees perspective of HRM practices were positive, employee engagement will enhance and employees intention to stay will increase. Thus, employee engagement enables the organization to retain workers and allows employees to develop their skills and performance.

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