

Impact of Emotional Intelligence and Artificial Intelligence on Employee Retention: A Review of the Service Industry

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Abstract—Employee retention is one of the biggest challenges in today's work environment. Organizations are constantly working on different tactics and strategies at organizational and individual levels to retain their talent. To handle the scenario, Artificial intelligence (AI) and Emotional Intelligence (EI) are emerging as significant dimensions to be taken up for the research. Thus, this study aims to examine the role of emotional and artificial intelligence in retaining employees. To investigate the association between these two important variables, a review of the literature was conducted. The findings demonstrate that much research has validated the association between AI and EI and the impact thereof on employee retention.

Keywords— *Artificial Intelligence, Emotional Intelligence, and employee retention*

I. INTRODUCTION

A. Artificial Intelligence

Artificial Intelligence (AI) can be termed as "machines or computers that replicate cognitive functions that individuals encounter in mind, such as learning and problem-solving" [1]. In other words, AI enables machines to mimic human cognitive processes and have the capacity to reason, decide, learn, and develop. It was first presented in 1956 at Dartmouth College, but due to insufficient computational tools, progress was slow until recently. Recent developments in hardware, software, and networking technologies have made it possible for us to build, create, and use large-scale AI systems. Several Industries, such as banking, gaming, agriculture, healthcare, Avs and others employ AI.[1]. AI inspires ideas of machines dictating to us how to act. In reality, AI is assisting organizations in keeping talent on staff and reducing employee turnover. Combining large data, machine learning, and human interaction is key to using AI for retention effectively. AI is being employed in the human resources sector, where turnover estimates are made using neural networks, selection criteria are determined using decision trees, candidates are recruited, employees are engaged via interactive voice response, and much more. It is up to the organizations to decide which AI techniques to use to produce results.

B. Emotional Intelligence

Emotional intelligence (EI) is defined by Mayer and Salovey [2] as the ability to recognize, react to, and manipulate emotional cues without the need for significant analytical thought as well as the capacity to understand and control emotions without necessarily experiencing or fully perceiving them. In EI, there are four branches. The ability to effectively detect, communicate, and distinguish between various emotional manifestations is referred to as the first field of psychology, which is known as emotional perception. The second branch, referred to as emotional absorption, shows emotion-driven reasoning by emphasizing crucial details. An individual's ability to identify and categorize emotions verbally and effectively is referred to as emotional understanding, which is the third topic of study. The four branches work hierarchically, with emotional management acting as the top branch and emotional perception as the most fundamental or bottom branch [3]. If a person was unable to absorb emotional stimuli at the lowest level, as suggested by this concept, they would not be able to control feelings at the higher level. Once awareness has been established, feelings may be employed to assist thought, either consciously or unintentionally.

According to the studies, close to 60% of professional success can be attributed to emotional quotient (EQ) of an individual, further it has been found that majority of the top performers have high EQ. In a research conducted on customers' perception of service quality, it has been found out that restaurant with managers having a high EQ achieved 7% more profit growth compared to the average growth of 15%. That definitely implies that EQ values more than the Intelligence Quotient (IQ).

A study conducted on Lucent Technologies' engineers who were rated as stars by their peer concluded that stars were better at interacting with people.

The accomplishments and shortcomings of 11 American presidents, from Franklin Roosevelt to Bill Clinton, were examined in another insightful research. Six criteria—communication, organization, political

savviness, vision, intellectual style, and emotional intelligence—were used to assess them. It was discovered that emotional intelligence served as the primary characteristic separating the successful (such as Roosevelt, Kennedy, and Reagan) from the failures (such as Johnson, Carter, and Nixon). High levels of EI were identified in top-performing recruiters in a survey of U.S. Air Service recruiters. The Air Force revised its selection criteria considering these findings. An additional analysis revealed that future hires with high EI scores performed 2.6 times better than those without. The Air Force was capable to reduce attrition rates amongst new recruiters by more than 90% in a year and save close to \$3 million in recruiting and retraining costs by utilizing EI in selection. Over the years the concept of Emotional Intelligence has evolved constructively. It has been studied for different perspectives by different schools of thought, which had given rise to three important theoretical frame works to study Emotional Intelligence (Refer Figure 1)

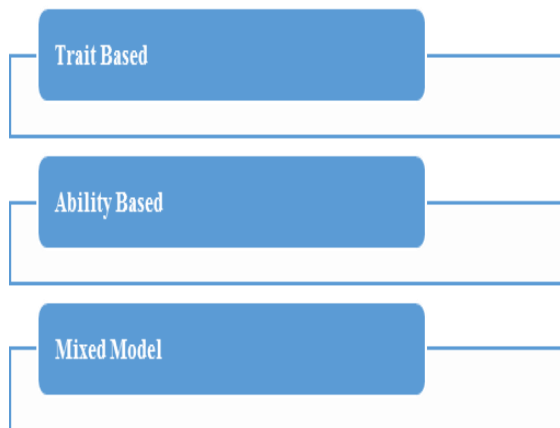


Figure 1: Models of Emotional Intelligence

Source; Created by authors

1) *Trait Model Of EI*: Konstantinos Vasilis Petrides, proposed a conceptual, trait-based model of emotional intelligence and has been refining it over the course of many publications. Investigating trait EI within a psychological framework is important. Trait EI, to put it simply, is how someone perceives their own emotional intelligence. In contrast to the ability-based model, which relates to real abilities, this concept of EI includes behavioral tendencies and self-perceived capabilities and is assessed through self-report.

Emotional intelligence (EI) is described as "the ability to objectively navigate through emotions and use emotions to refine thinking" in the ability model of EI. In order to promote both mental and emotional development, it necessitates the qualities necessary to precisely recognize emotions, access and generate emotions to

support thought, interpret emotions and emotional information, and control emotions introspectively.

According to the paradigm, EI encompasses four different kinds of skills, as listed:

2) *Emotion perception*: It is the capacity to recognize and classify one's own emotions as well as those of others in voices, faces, and cultural artefacts.

3) *Applying Emotions*: It is the capacity to use feelings to support various cognitive processes, such as reasoning and problem-solving.

4) *Comprehending emotions*: It is the capacity to decipher the language of emotions and to identify the intricate connections between them.

5) *Management of Emotions*: The capacity to control our own and others' emotions is considered to be the management of emotions. As a result, an individual high on emotional intelligence can regulate their emotions, including not so pleasant ones, and use them to further desired objectives.

6) *Mixed Model of EI*: The mixed model of EI has been proposed by Daniel Goleman and it emphasizes EI as a broad range of talents and skills that influence leadership effectiveness. The 4 major elements of mixed model are"

a) *Self-awareness*: It is the individual's capacity to be aware of their own emotions, strengths, limitations, motivations, and to understand how these affect others, using intuition to inform judgments.

b) *Self-regulation*: It is the ability to manage one's irrational feelings and impulses and adjust to changing circumstances.

c) *Social skills*: It refers to directing interactions to influence others in the appropriate direction

d) *Management of Relationships* - It incorporates ideas like concern for others' feelings, especially when making decisions. Motivation is the state of being pressured to succeed for the sake of success.

C. Employee Retention:

Employee retention is a significant problem today all over the world, especially in service-based sectors [4], and there is limited knowledge of how to approach this problem holistically [5]. An employee's greatly impacts the overall effectiveness of the organization in terms of cost and productivity. According to numerous studies, when an individual leaves unexpectedly, the expense of recruiting a replacement increases almost twofold, affecting operation management, employee morale, and workflow effectiveness. But it is no longer shocking that we can now identify ways to improve employee retention techniques thanks to machine learning. Economies all

over the world are dealing with this problem, which, as a result of their low retention rates, costs millions of dollars in training and recruitment. The service sector has been singled out as being severely affected by this problem, with little information available to assist businesses in finding solutions. For instance, the United Arab Emirates suffered a loss of \$2.7 billion as a result in 2015 [6] and similar amounts from other adjacent economies are not likely to come as a surprise. The subject of turnover intention has received much scholarly attention [7]. While this is going on, several researchers have examined the dependent variable known as an employee's decision to leave the firm despite having early intentions to do so [8]. According to study [9], the phrase "employee retention" refers to an organization's goal of keeping its staff. According to studies, employee retention is a problem everywhere in the world, and most organizational authorities are unsure of how to ensure it [10]. There is a paucity of studies on how top officials, may help keep the individuals with the company, which is why organizations have different perspectives on employee retention.

II. LITERATURE REVIEW

Employer-employee relations are seen by organizations as a mutually beneficial process as they increasingly recognize that employees are the catalyst for their success. According to Cascio, retention refers to measures made by management to prevent employees from quitting the company, such as rewarding them for doing their duties well, fostering cordial working relationships between staff members and supervisors, and keeping a secure, healthy workplace. Organization's performance and productivity are affected by employee retention. A leader's emotional intelligence (EI) favors results -like enhanced performance and lower personnel turnover rates. [8] Many organizations are looking for better strategies for improving employee

III. RESERCH OBJECTIVE

Earlier studies have proven that emotional intelligence affects employee and organizational performance. This study aims to study the relationship between artificial and emotional intelligence with employee retention in the context of the service industry.

IV. RESEARCH METHODOLOGY

A review of the published literature was done for this study. Further, the review attempts to provide an extensive examination of the extant literature on AI and EI specifically in terms of the retention function of human resource management which has strong consequences for the service industry. This review involves a process of gathering and analysing the literature and the themes emerging from the selected studies that are within the parameters of this research. The study presents the information collected through electronic means from the established databases such as Springer, Emerald, Taylor and Francis, Sage etc..

V. FINDINGS AND DISCUSSION

A. Emotional Intelligence And Employee Retention

This study is carried out to better understand how emotional intelligence affects employee retention. As a result, the Management may be better able to see the value of EI and begin taking steps to raise the EI of new recruits in an effort to limit or lower turnover rates. An organization's efficiency is reduced by the grater incidence of staff attrition, which also affects the process of looking for suitable employees. Due to the increased costs associated with hiring new talent, recruiting teams may have to contend with fewer resources each hire to stay within budgets. It may also result in a longer time lag, or the amount of time needed to fill a post. The mean time to fill a vacancy during the past few years has been 42 days. Because they are required to take on extra projects for an extended length of time, this inevitably increases the workload for the current staff. Excessive attrition might ultimately hurt an employer's reputation. As remaining employees start to worry about their futures within the company, work conditions and interpersonal connections suffer. Additional research demonstrates a strong association between EI and employee turnover rate. The study emphasizes the value of emotional intelligence and demonstrates how advantageous it can be for organizations. In comparison to those who quit, the overall EI score among employees on the company's rolls is somewhat higher. So, the high EI of employees can be used to retain them in the organization [11]. The effect of leader's EI on employee retention and that to create a better working atmosphere and encourage subordinates to stay with the company, employees at work require those in positions of power have high emotional intelligence to handle challenging situations and enticing problems. According to the study, leaders' EI and retention of individuals are positively linked. It shows how a leader's ability to manage their team's emotions while enhancing their feelings and capacities can dramatically increase retention rates. The study also noted that job satisfaction plays a mediating role in the link between leaders' emotional intelligence and retention of staff. According to the study, emotionally intelligent leaders may develop a feeling of community among their workforce, which can enhance career progression and, ultimately, encourage employee retention. The results are consistent with study [8] scholarly assertions, which highlight the significant contribution of leaders' emotional intelligence and its effect on employee retention. In the hospitality industry the degree of job involvement acts as a mediator in the association between emotional intelligence and retention [12].

B. Artificial Intelligence And Employee Retention

In today's competitive environment, the most difficult task is finding outstanding employees, but retaining talent inside the team is also difficult. Employer

retention is regarded by 57% of organizations as being the most difficult and important responsibility [13]. This obstacle might be overcome by AI, whose use might be able to anticipate the needs and behaviors of particular employees. With the aid of this technology, HR professionals can take the required precautions before an event occurs [14].

Malik et al [16] in their research, have found out that adoption of artificial intelligence in certain HR functions lead to certain positive sentiments among employees (Refer Figure 2)

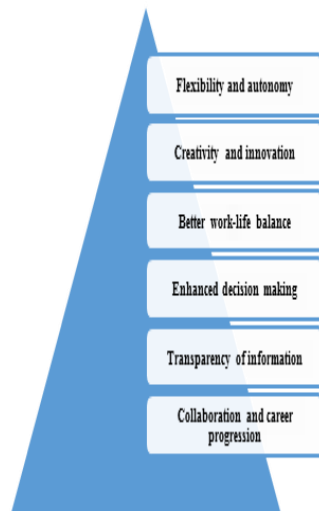


Figure 2: Positive sentiments of employees towards employee retention.

Source: Malik, N., Tripathi, S.N., Kar, A.K. and Gupta, S. (2022), "Impact of artificial intelligence on employees working in industry 4.0 led organizations", International Journal of Manpower, Vol. 43 No. 2, pp. 334-354.

C. Figure Generated by authors

In today's competitive environment, the most difficult task is not to find outstanding employees, but to retain talent in the organisation. Employer retention is regarded by 57% of organisations as being the most difficult and important responsibility. This obstacle might be overcome by AI, whose use might be able to anticipate the needs and behaviours of employees. With the aid of this technology, HR professionals can take the required precautions before an event occurs [15]. In his research, the author reveals that the development of AI-supported technologies, and artificial intelligence is revolutionizing everything from hiring to employee engagement. Software search algorithms have now replaced this incredibly time-consuming approach, successfully weeding out the few candidates that meet your needs from a sea of irrelevant applications. AI is transforming and reshaping every aspect of life, in different industries including human resources management. In addition to talent acquisition, it may be used in onboarding, performance, review, and feedback, training, and retention processes. Consequently,

it gives the HR manager more time and energy to concentrate on coaching and inspiring people. In their study, Shrestha et al. evaluate the qualities of decision making between AI and living beings along five key criteria: the narrowness of the search space, the comprehensibility of the judgement process and result, the size of the unconventional set, the speed of the judgement process, and the consistency [17].

Table 1 lists the traits of both human and AI-based decision making under these circumstances.

TABLE 1. COMPARISON OF AI-BASED AND HUMAN JUDGEMENT PROCESS

Conditions for Making Decisions	AI-Based Decision Making	Human Judgement Process
Detail of the decision Search field	Needs a judgment search area with clear objectives that perform certain functions.	Supports a choice search space with a broad scope. The judgement process and result's comprehensibility
The judgement process and result's comprehensibility	The operational forms' diversity can make interpreting the decision-making method and outcomes challenging.	Choices can be explained and interpreted, but they are susceptible to retroactive reasoning
Dimensions of the substitute set	enables the use of vast previously defined sets	Poor capability to consistently analyze a big variety of choices.
Choice with quickness and accuracy	Quite quick. Restricted speed and precision exchange	relatively fast
Replication of results	Judgement methods and results are highly reproducible due to the use of standardized computing techniques.	Replicability can be impacted by both inter and intra individual factors, such as the decision -emotional maker's state and variations in experience, focus, context and experience.

Source: Shrestha, Y. R., Ben-Menahem, S. M., & von Krogh, G. (2019). Organizational Decision-Making Structures in the Age of Artificial Intelligence. California Management Review, 61(4), 66–83.

Machine learning algorithms can forecast the likelihood that an individual will leave their position. Artificial Intelligence may examine several variables; including the duration of work and the amount of time it took for individuals to complete their academics. By adding all these variables, AI technology may provide an approximate prediction about the likelihood that a particular individual will leave their position during the next six months [18]. Long term replacement expenses are finally decreased thanks to the recommendations provided by the AI produced algorithms. Also, the outcomes present businesses with a change to improve the work experience. Employers can access committed talent by predicting a candidate's length of stay with a company,

and it also gives employers a broad notion of what the depth of talent is looking for [19],[20]. It gives an organization, an opportunity to build holistic work environment.

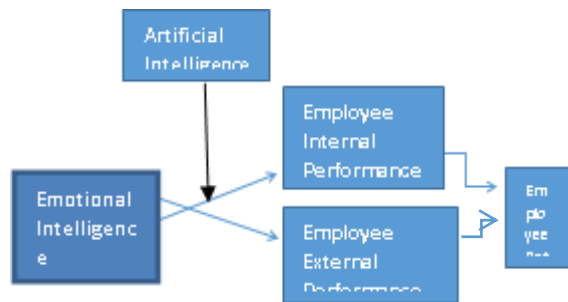


Figure 3 Conceptual Model as proposed by the Authors
Source: Figure generated by author

VI. CONCLUSION

The results clearly show that both emotional intelligence and artificial intelligence have an impact on employee retention and intention to stay with organization. The study emphasizes the significance of these two ideas in service industry. AI is seen to perform better than humans by increasing talent retention and lowering attrition rates. This paper suggests an AI and EI paradigm in service industry that falls under the general heading of HR activities. This raises a number of topics for thought in the service economy, which is undergoing a revolution in AI. Additionally, it provides guidance to management in service industry on what elements to emphasize when making decisions on the education and training of workers in organization. Understanding the relationship between AI and EI can improve results connected to organizations because both AI and EI impact employees and consumers, which is how they are related to organizational efficiency.

VII. LIMITATIONS AND FUTURE RESEARCH

Future studies can be done to demonstrate the conceptual role of artificial and emotional intelligence through actual investigation. Additionally, although the study's primary focus is on employee retention, the impact of AI and EI on different HR practices can produce different results, which the researchers can further consider for the study.

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