

AI Chatbots Or Human Coaches? Exploring Employee Well-Being in Corporate Sector of Northern Province, Sri Lanka: The Moderating Role of Digital Literacy

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Abstract: Well-being of employees has become a focal point for organizations, as it influences productivity and overall performance. Although AI chatbots and human coaching have become popular support mechanisms, there is a lack of studies assessing their comparative effectiveness in the Northern Province of Sri Lanka's corporate sector, and the impact of employees' digital literacy is yet to be figured out. Hence, this research attempts to determine the influence of AI chatbots and human coaching on employees' well-being, as well as the effect of employees' digital literacy on the relationships. A quantitative, cross-sectional survey design was adopted, and data were collected from 182 corporate sector employees in the Northern Province of Sri Lanka using a structured questionnaire. The data were analysed using descriptive statistics, correlation analysis, regression analysis, and moderation analysis through Hayes' PROCESS Macro in SPSS. The results indicate that both human coaching and AI chatbots improve employees' well-being, though the impact is greater with human coaching due to the personal and empathetic nature of the coach. Moreover, digital literacy was found to be a negative moderator to both relationships, indicating that the lower the digital skills of employees, the greater the aid from support systems. The results show that organizations need to create an optimum combination of digital and human technologies, based on the employees' digital readiness to create the desired impact on well-being at the workplace.

Keywords: AI Chatbots, Corporate Sector, Digital Literacy, Employee Wellbeing, Human Coaches

Introduction

Across the world many people are grappling with various mental health issues such as anxiety, stress, depression, and phobias, among sleep disorders (Chaudhry & Debi, 2023). Adoption of Artificial Intelligence (AI) is rapidly transforming many aspects of organizational processes, where a particular emphasis is put on the well-being of the employees and their mental health (De Mel, et, al.2025). Research on AI in workplace settings indicates that technology can positively contribute to employee well-being when it is aligned with employees' needs, implemented safely, and to improve accessibility, resilience, and personalized support (Valtonen et al., 2025; Park et al., 2024; De Mel et al., 2025). Simultaneously, human-coaching is still recognized as a highly individualized and relationship-based support system especially in Sri Lanka. Meta-analyses suggest that coaching in the workplace has a positive impact on the performance, psychological functioning, goal attainment, and organizational performance through enhancing empathy, situational judging, and personalized directions (Jones et al., 2016; Cannon-Bowers et al., 2023). In general, digitally literate employees are more inclined to learn more about the functionality of chatbots, engage with digital systems without doubts where they have the capacity to use, interpret, judge and utilize digital instruments and low-digital literate employees, who might feel uncertain, or disengaged as it varies based on the digital capability and readiness (Moravec et al., 2024; Alharbi et al., 2025, Sivapalan & Jeyarajah, 2022).

Although the significance of employee well-being in contemporary organizations has been increasing, the main issue is that organizations can either implement the support of an AI chatbot or human-coaching without definite evidence on what mechanism employees consider to be more effective to improve well-being. The problem should be researched at present since the digital transformation is quickly transforming HR practices, and employee well-being has become a major organizational issue (WHO, 2022, 2024). Therefore, comparing both mechanisms is crucial as they aim to enhance employee well-being, yet they differ significantly in accessibility, emotional depth, scalability and employee acceptance. The employee well-being in Northern Province, Sri Lanka, is a matter of special attention due to the post-conflict conditions and economic instability that affect the preferences of the employees towards the types of support they require. The chronic stressors of unresolved grief and persistent social disruption still impact Northern Sri Lanka communities after the conflict, thus having adverse effects on the psychological well-being (Thomas et al., 2022). These regional conditions may cause psychological stress to affect the well-being, job satisfaction, and the need for organizational support. Though prior researchers have identified mental-health and well-being issues in high-stress work environments in Sri Lanka, the evidence-based comparison of AI-based and human-based support systems in the corporate world has not been conducted

extensively (Cardozo et al., 2012; Dilogini et al., 2024). Hence, this research aims at filling the gap of empirical information on what support system is perceived to be more effective and practical in terms of employee well-being as it adds value to the growing body of literature and offers practical information on organizations that strive to achieve success in employee support systems.

Hence the objectives of the research study are,

- To investigate the role of AI chatbot support and human coaching in enhancing employee well-being among corporate sector employees in Northern Province.
- To examine the perceived effectiveness of AI chatbot support and human coaching in enhancing employee well-being among corporate sector employees in the Northern Province of Sri Lanka.
- To examine the moderating role of Digital literacy in the relationship between AI Chatbot, Human Coaching and Employee Wellbeing among corporate sector employees in Northern Province.

Literature Review

Recent literature emphasizes employee well-being as a multidimensional concept which encompasses psychological health, emotional stability and functional abilities in work. Research demonstrates that employee well-being is shaped not only by individual factors, but also by organizational factors making it an important focal variable in organizational research (Pandey et al., 2025). AI has had a tremendous impact on the way human resource management practices (Budhwar et al., 2022). AI denotes the technologies, which mimic human intelligence, whereas chatbots are the software solutions, which are aimed at recreating human dialogue via text- or voice-based interaction and personalized feedback (Nicky H. D et al., 2024; Casu et al., 2024). AI offers scalable and real-time care by monitoring stress, psychoeducation, and conversational assistance (García-Madurga et al., 2024; Leightley et al., 2026). Systems powered by AI can also enhance resilience, and engagement, but the results on the overall well-being are inconclusive among users and settings (Abd-Alrazaq et al., 2020; Leightley et al., 2026). In contrast, human coaching is a person-based intervention that offers personalized directions, contemplation, and emotional advocacy. Recent research suggests that coaching in the workplace can positively impact staff well-being, attitudes, and work adjustment (Mowat et al., 2025). Likewise, employees demonstrate that stress-management and health coaching have the potential to enhance the perception of stress, sleep, self-efficacy, and happiness, which makes coaching an addition to well-being, independent of performance results (Ziaka et al., 2025).

The success of these support systems may also be dependent on digital literacy. The studies of AI implementation show that digital literacy has a major effect on the perception, acceptance, and utilization of sophisticated AI programs like ChatGPT (Moravec et al., 2024). The systematic review of AI in the working life additionally indicates that the attitudes of the employees towards AI are different depending on competence, preparedness, and the context of implementation (Savolainen et al., 2025). Sri Lankan evidence also indicates that user-side variables such as trust and readiness, affect AI chatbot acceptance (Rathnayake et al., 2025).

Methodology

Research Design

The research is based on the quantitative research approach to investigate the effects of AI chatbots and human coaching on employee well-being, with digital literacy as the moderating variable. The survey was designed using a cross-sectional approach, i.e., data was gathered at a single time.

Participants / Sample

The target population consists of the corporate sector employees in the Northern Province of Sri Lanka. The sample of 200 respondents was selected based on a purposive sampling technique, which implies the inclusion of only those employees with experience in AI chatbots or human coaching. The respondents were primarily in the age group of 20-40, having various job functions and backgrounds.

Materials / Instruments

The self-developed questionnaire was used to collect data. It comprised four parts, which were AI Chatbot Usage (7 items), Human Coaching (7 items), Employee Well-Being (8 items), and Digital Literacy (7 items). A 5-point Likert scale (strongly disagree to strongly agree) was used to measure all the questions. Reliability was assessed

using Cronbach's alpha for each construct, while validity was examined through item review and construct-level assessment.

Procedures / Data Collection/ Data Analysis

Data was gathered using online surveys. The participants were made aware of the study's purpose and subsequently consented to the study. The data was tested with the help of SPSS software and summarized using descriptive statistics. A correlation matrix was used to examine the relationships among the variables and to identify potential multicollinearity concerns. Regression analysis was conducted to examine the effect of AI chatbot support and human coaching on employee well-being. The role of digital literacy was tested using moderation analysis in Hayes' PROCESS Macro in SPSS. Reliability analysis was conducted using Cronbach's alpha to assess the internal consistency of the measurement items.

Ethical Considerations

The study subjects provided informed consent, and their responses were anonymous and confidential. The involvement was voluntary.

Limitations

The study has limitations since it employed a cross-sectional study design, self-reported data, and purposive sampling, which may limit the generalizability of the findings.

Hypothesis Formulation

H1: AI chatbot usage positively affects employee well-being.

It was proven that AI chatbots can decrease workload, offer on-demand support, and increase job satisfaction, which improves well-being (Huang and Rust, 2021; McLean et al., 2020).

H2: Human coaching positively affects employee well-being.

With coaching, employees cope with stress, establish objectives and get feedback that enhance emotional wellbeing and workplace satisfaction (Grant, 2014; De Haan et al., 2016).

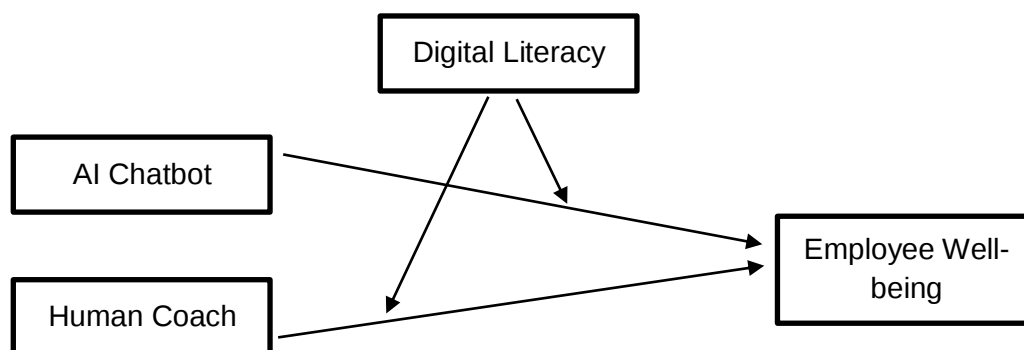
H3: Digital literacy moderates the relationship between AI chatbot usage and employee well-being.

The more digitally literate employees can be useful with AI tools, the more positive effect of AI on well-being they can do (Ng, 2012; van Deursen and van Dijk, 2014).

H4: Digital literacy moderates the relationship between human coaching and employee well-being.

Individuals who are more digitally literate use digital coaching tools and concentrate on better outcomes of well-being (Helsper and van Deursen, 2017).

Conceptual Framework



Data Analysis

Description Statistics

Additionally, the analysis of 182 valid responses were available and no missing data of the age, work experience, gender and preferred work voice. Majority of the respondents were between the age of 20-30 years (78.6) and then 31- 40 years (15.9).

Regarding work experience, most of them (57.7) had 1-2 years of work experience, and 24.2% had 3-5 years of work experience, 15.4% had experienced of 5-10 years, and only 2.7% had more than 20 years of work experience. The sample size was almost entirely female (72.0%), as opposed to 28.0 percent male respondents. Concerning desired work voice and method, Human Coach style was most favoured (44.5%), then the Hybrid approach (35.7%), and the least favoured AI Chatbot style (19.8%).

Hypothesis Testing

Hypothesis	Relationship Tested	Beta (β)	R ²	Sig. (p)	Effect Strength	Moderation	Result
H1	AI Chatbot → Employee Well-being	0.400	0.160	0.000	Moderate	No	Supported
H2	Human Coach → Employee Well-being	0.567	0.321	0.000	Strong	No	Supported
H3	AI Chatbot × Digital Literacy → Employee Well-being	-0.144	0.405	0.021	Weak moderation	Yes (Negative)	Supported
H4	Human Coach × Digital Literacy → Employee Well-being	-0.293	0.513	0.000	Strong moderation	Yes (Negative)	Supported

H1 attests that the use of AI chatbots positively impacts employee wellbeing ($\beta = 0.400$, $p < 0.001$) and it has an effect of 16% on the variance ($R^2 = 0.160$). This implies that chatbots enhance well-being by being efficient, fast in accessing information and assisting in tasks.

H2 demonstrates that human coaching is a more significant influence ($\beta = 0.567$, $p < 0.001$), contributing to 32.1% of the variance ($R^2 = 0.321$), which is why emotional support and guidance at the individual level have a significant role.

H3 represents a negative moderating effect of digital literacy on the AI chatbot- well-being relationship ($\beta = 0.144$, $p = 0.021$; $\Delta R^2 = 1.8\%$), and implies that the effect of chatbots declines with an increase in digital literacy.

H4 represents the negative moderating effects on human coaching ($\beta = -0.293$, $p < 0.001$; $\Delta R^2 = 14.8\%$) indicating that coaching is more effective in employees who are less digital literate.

To sum up, human coaching and AI chatbots enhance the well-being of employees, the latter one being more significant. Nevertheless, both effects are greatly undermined by digital literacy, which means that there is a necessity of workplace assistance, which is personalized.

Validity (Construct Validity)

All variables satisfied validity requirements. For all constructs, the KMO values were greater than 0.80 and Bartlett's Test was significant ($p < 0.001$). In all cases, communalities were above the acceptable limit and total variance explained was greater than 60%. This means all variables display good construct validity. Despite this, digital literacy had a two-factor structure, and the remaining measures were both unidimensional.

Reliability Test

Variable	KMO	Bartlett Sig.	Communalities	Factors	Variance %	Validity Decision
Employee Well-being	0.842	0.000	> 0.50 ✓	1	72.07%	Valid
AI Chatbot	0.829	0.000	Mostly > 0.50 (1 slightly low)	1	64.40%	Valid
Human Coach	0.868	0.000	> 0.50 ✓	1	78.64%	Valid
Digital Literacy (Moderator)	0.840	0.000	> 0.70 ✓	2	77.46%	Valid (2 factors)

Variable	No. of Items	Cronbach's Alpha	Reliability Level
Employee Well-being	8	0.942	Excellent
AI Chatbot	7	0.901	Excellent
Human Coach	7	0.952	Very Excellent
Digital Literacy (Moderator)	7	0.897	Good

Cronbach' alpha was used to assess the reliability of all constructs. The values across the items varied from 0.897 to 0.952, which indicates good to excellent internal consistency. As a result, all of the measurement scales employed in this study are valid and appropriate for another statistical conclusion.

Findings and Discussion

The aim of this research was to investigate the effectiveness of employee well-being, perceived organizational support by AI Chatbot and Human coaching, and moderating role persistence of digital literacy among the corporate sector employees in Northern Province Sri Lanka. The findings provide useful insights to the literature on digitally enabled workplace support and human resource development. As for the first objective, the findings revealed that both AI chatbot support and human coaching positively influenced employee well-being. Yet it is human coaching that has greatest influence in this respect. This is consistent with results of previous work that emphasized how AI-based solutions can enhance task efficiency, execution, and accessibility of information on tasks, but their assistance is mostly functional rather than emotional. Conversely, human coaching is known to deliver customized feedback and emotional support and human contact, which have been reported as the most important factors exerting influence on employees' well-being and work satisfaction. This adds weight to the argument that people-centred approaches need to be at the heart of workplace well-being strategies in an era of escalating digitalization.

For the second objective, employees view human coaching as more effective than the AI chatbot support in enhancing their well-being. This is in line with previous findings indicating that empathy, trust and relational communication are important to employees, and are a natural part of the human coaching model but nothing that can be replicated easily in AI and other technology driven solutions. Despite the fact that AI chatbots are recognized for enhancing the speed of responses and lessening the burden of work, the absence of emotional intelligence makes them feel inadequate in handling psychological and social consequences of well-being. The results therefore rule out the notion of technology taking over for human support in developing employees.

As for the third objective, digital literacy appeared to be an important negative moderator of both relationships. It indicates that the effect of AI chatbots and human coaching is stronger for people with low digital literacy, while the opposite seems true for those with high digital skills — most likely they do not need this type of support. The research on digital workplace transformation shows that digitally adapt employees are more autonomous and less dependent upon external help in accordance with this. It also points to why digital capability of existing employee base plays a crucial role in determining adoption rate of AI based HR solutions. Overall, findings suggest that while both AI and human coaching boost employee well-being, human is more effective at doing so. However, this statement is situationally dependent on employees' digital literacy and thus the consequences for workplace support systems should be dual- modal and universal in nature.

Conclusion

This research study has explored the effects of AI chatbot assistance and human coaching on the well-being of employees as well as how digital literacy acts as a moderator in such an effect within the context of corporate sector employees of the Northern Province of Sri Lanka. It has been observed that both AI chatbot assistance and human coaching positively affect the well-being of employees, but the effect is much more pronounced in the case of human coaching due to the emotional and personal aspect it brings. Moreover, it has been seen that digital literacy negatively moderates these relationships as less digitally skilled employees gain more from such interventions than highly digitally skilled employees. Consequently, the results of this research study show that there needs to be a blend of both technology and humans in organizations. In addition to that, the digital competence of the employees should also be considered while designing any well-being program.

Practical implications for HR professionals

To enhance how employees feel at work, people operations staff can integrate artificial intelligence chatbots with human coaching. Because human coaching influences individuals more strongly, it is necessary that organizations provide funds for personalized support, mentoring and assistance programs. At the same time AI chatbots are available to increase how quickly people work when they need to find information or receive routine help.

In those findings, the ability to use digital tools appears as a significant factor. If individuals operations staff measure how well employees use technology, they can create specific training programs for individuals who possess fewer digital skills. To ensure that everyone can use the technology, chatbot systems must be simple and easy to reach.

And it is important that organizations do not use the same strategy for every person. By grouping employees according to their digital skills, staff can provide the specific support that people need. With the combination of technology and human interaction, rather than the removal of human contact, outcomes are more positive. On the whole people operations strategies are effective when they match technological tools and human support systems to what employees are able to do.

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