

THE IMPACT OF ARTIFICIAL INTELLIGENCE ON EMOTIONAL INTELLIGENCE IN THE SERVICE SECTOR: A REVIEW

Archana Pandey*, Neha Tiwari**

*Assistant Professor, SVIMS, Indore, Madhya Pradesh, India. Email: drarchanapandey1289@gmail.com

**Principal, Sapphire Group of Institutions, Indore, Madhya Pradesh, India.
Email: nehaharmatiwari20@gmail.com

Abstract: The increasing integration of artificial intelligence (AI) into various aspects of modern life raises questions about its influence on emotional intelligence (EI). This study critically examines existing literature to reveal the multidimensional relationship between AI and EI. Through a comprehensive analysis of studies spanning diverse domains such as education, healthcare, human-computer interaction, and banks, this study explores the potential effects of AI on the development, expression, and regulation of EI. It synthesises findings regarding AI's capacity to recognise, interpret, and respond to human emotions, as well as its role in enhancing or diminishing EI competencies. In addition, ethical considerations, challenges, and opportunities arising from the intersection of AI and EI are discussed. The study highlights gaps in current research and offers insights for future investigations aimed at understanding and harnessing the interplay between AI and EI to promote human well-being and societal advancement.

Keywords: Artificial Intelligence, Emotional Intelligence, Service Sector

INTRODUCTION

Artificial intelligence (AI), a field of computer science, focuses on enabling computers to have human-like behaviours. It includes various areas such as game playing, expert systems, neural networks, natural language processing, and robotics. At present, computers have not achieved complete AI, meaning they cannot fully replicate human behaviour. The most significant progress has been made in the realm of game playing (Gupta, 2023). Emotional intelligence (EI) is the capacity to recognise, understand, and manage both one's own emotions and others', utilising this awareness to inform decision making and behaviour (Salovey & Mayer, 1990).

AI's rapid advancement lacks EI crucial for effective collaboration. It emphasises the need for humanised learning content as AI lacks creativity and cultural awareness. EI Powered by MPS offers holistic solutions

integrating EI and AI for effective learning outcomes, addressing the evolving needs of organisations amid AI proliferation (Werder, 2023).

In the rapidly evolving landscape of the service sector, the integration of AI has become increasingly prevalent, revolutionising the way businesses interact with their customers (Shukla & Agnihotri, 2023). While the primary focus of AI implementation has often been on enhancing efficiency, reducing costs, and optimising processes, an emerging area of interest lies in understanding its impact on EI within service interactions. EI, defined as the ability to perceive, understand, manage, and regulate emotions, plays a pivotal role in service delivery, particularly in sectors where human-to-human interaction is paramount.

As AI technologies permeate various facets of service provision, ranging from chatbots and virtual assistants to personalised recommendation systems, questions arise

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regarding their potential to either complement or diminish the role of EI in service interactions (Brynjolfsson & Mitchell, 2017). This study aims to delve into the complex interplay between AI and EI within the service sector context, shedding light on both the opportunities and challenges posed by the integration of these two domains.

The service sector encompasses a broad spectrum of industries, including healthcare, hospitality, retail, finance, and customer service, each with its unique requirements for emotional engagement and rapport-building. Traditionally, EI has been considered a fundamental attribute for service professionals, enabling them to empathise with customers, anticipate their needs, and tailor solutions accordingly. However, with the advent of AI-driven service solutions, the dynamics of these interactions are undergoing a paradigm shift.

On one hand, AI technologies offer the promise of greater efficiency and scalability in service delivery, allowing organisations to handle larger volumes of inquiries, personalise recommendations, and provide round-the-clock support. Moreover, AI-driven analytics can offer valuable insights into customer preferences and behaviour, enabling organisations to enhance their service offerings and anticipate market trends. Yet, on the other hand, there are concerns about the potential erosion of the human touch in service interactions, as AI algorithms lack the nuanced understanding of human emotions and context that characterise human interactions.

This study seeks to explore the multifaceted impact of AI on EI in the service sector, considering factors such as customer satisfaction, trust, loyalty, and the psychological implications of human-AI interactions. By synthesising existing research findings, theoretical frameworks, and practical insights, this study aims to provide a comprehensive understanding of the implications of AI adoption for EI within service contexts. Ultimately, it is hoped that this study will inform both practitioners and policymakers about the optimal integration of AI and EI to enhance service delivery and customer experiences in the digital age.

LITERATURE REVIEW

A possible way in which AI can influence EI and job performance is by fostering trust between human employees and AI systems. Trust involves perceiving someone or something as dependable and capable, playing a crucial role in facilitating effective communication and co-operation (Mayer et al., 1995). Having confidence in AI systems can yield favourable outcomes for both job performance and emotional welfare (Gefen et al., 2003; Fiske et al., 2007). In

the past few decades, there has been significant growth and progress in the field of AI, leading to its widespread impact on various aspects of society, such as the workplace, which has been thoroughly explored (Brynjolfsson & Mitchell, 2017). AI has significantly enhanced effectiveness and efficiency across both digital and physical business domains, emerging as a prominent subject in academic discourse since the 1950s. Its application spans various sectors including communication, information technologies, healthcare, agriculture, logistics, education, and aviation. Notably, AI yields substantial returns particularly within banking, human resources, healthcare, tourism, and hospitality sectors. Beyond streamlining routine tasks, AI enhances employee satisfaction, while the integration of AI-driven chatbots significantly elevates service standards (Buhalis & Leung, 2018). In 2019 String introduced the concept of scientists endeavouring to emulate the cognitive developmental trajectory observed in childhood for implementation in AI. Within this framework, it is speculated that AI could potentially acquire emotions resembling those of humans. Nevertheless, it is crucial to acknowledge the intricate interconnection between emotional and cognitive functions. Emotions solely derived from cognitive processes may substantially differ from authentic human emotions (Pessoa, 2017). AI is widely recognised for enhancing business strategies and streamlining job processes alongside data analysis. However, its capacity to lead businesses towards future targets aligned with market demands remains unproven.

OBJECTIVE OF STUDY

The main objective of this research is to explore the role of AI on EI in the service sector.

RESEARCH METHODOLOGY

This research is qualitative in nature and relies on secondary data sources, including peer-reviewed journals, professional articles, white papers, industry surveys, and government reports. A systematic literature review has been conducted to ground the study in existing academic frameworks. Key themes were identified through thematic content analysis, and insights were synthesised to form a coherent narrative around AI's impact on EI.

Discussion

The discussion surrounding the integration of AI and EI in the service sector is multifaceted and presents both opportunities and challenges. Correlation between AI and

EI is intricate, contingent upon the particular context and utilisation of AI (Shukla et al., 2023). This discussion will address key points raised in the literature review and provide insights into the implications of this integration.

- *Positive Impact of AI on EI*

- AI technologies offer significant potential to enhance EI in the service sector. By analysing vast amounts of data, AI systems can provide insights into customer emotions, preferences, and behaviour patterns, enabling organisations to tailor their services more effectively.
- Moreover, AI-driven solutions such as chatbots and virtual assistants can augment human capabilities facilitating empathetic interactions with customers. These tools can help service professionals better understand and respond to customer needs, thereby improving overall EI within service interactions.
- AI addresses fundamental issues and accessibility on a global scale, striving to ensure equitable outcomes and opportunities for remote regions worldwide (Magapu & Viddiparty, 2019).

- *Negative Impact of AI on EI*

- Despite its benefits, there are concerns about the potential erosion of human empathy and connection in service interactions as AI becomes more prevalent. AI algorithms may lack the nuanced understanding of human emotions and context, leading to less empathetic and personalised responses.
- Overreliance on AI-driven solutions could diminish the development of EI skills among service professionals, as they may rely too heavily

on automated systems rather than honing their own interpersonal skills.

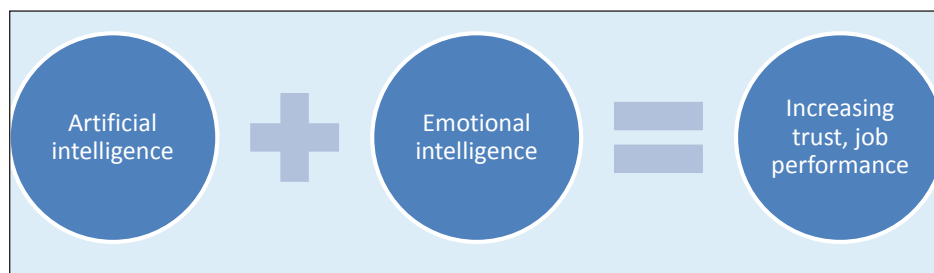
- According to Shukla et al. (2023), the inverse relationship noted between AI utilisation and EI in certain fields implies that AI-driven interventions might not be appropriate for every facet of EI, particularly those associated with emotional regulation and empathy.

- *Complex Interplay Between AI and EI*

- The relationship between AI and EI is complex and dynamic. While AI can augment EI in some aspects, it may also pose challenges to its development and application in service interactions.
- Striking a balance between leveraging AI for efficiency and preserving human-centric values such as empathy and rapport-building is crucial. Organisations need to carefully consider how they integrate AI technologies into their service delivery processes while ensuring that human connection remains a priority.

- *Ethical and Responsible AI Deployment*

- As AI continues to evolve, it is essential to prioritise ethical and responsible design and deployment practices. This includes ensuring transparency, fairness, and accountability in AI algorithms to prevent unintended consequences or biases that could impact EI in service interactions.
- Organisations should also invest in ongoing training and development programmes to empower employees with the skills needed to navigate the evolving landscape of AI and EI effectively.



The integration of AI and EI in the service sector presents both opportunities and challenges. While AI has the potential to enhance efficiency and effectiveness, it is essential to recognise the importance of human-centric values such as empathy and connection. By striking a balance between technological advancements and humanistic principles, organisations can harness the benefits of both AI and EI to deliver exceptional service experiences in the digital age.

CONCLUSION

The critical roles played by both AI and EI in shaping our future are undeniable. AI, leveraging its capacity to analyse vast datasets and execute intricate tasks, is fundamentally transforming numerous industries and enhancing various aspects of our existence. However, as AI evolves in sophistication, it becomes imperative to ensure its ethical

and responsible design and deployment to mitigate unforeseen repercussions (Nandan et al., 2023).

Simultaneously, EI retains its pivotal significance in our personal and professional realms. Our adeptness in recognising and managing emotions, as well as comprehending and empathising with others, remains vital for fostering healthy relationships and attaining success. With AI progressively automating routine functions, the value of EI skills escalates in the workplace.

In summary, striking a balance between the advancements of AI and the significance of EI is paramount. As we integrate AI further into our daily lives, preserving the essence of human connection and empathy is essential. Ultimately, individuals and organisations poised for success will be that adept at harnessing the benefits of both AI and EI to realise their objectives.

Scope for Future Research

The future scope of research on the impact of AI on EI in the workplace encompasses several promising directions. Longitudinal studies can explore the long-term effects of AI integration on EI and job performance, while industry-specific and cross-cultural research can provide insights into sector-specific challenges and cultural variations. Investigating AI's role in leadership development, team dynamics, and ethical implications will further enhance our understanding of AI's potential to foster emotionally intelligent leaders, improve team collaboration, and promote employee well-being. In addition, developing AI-enhanced EI training programmes and studying employee perceptions and acceptance of AI can inform strategies to boost employee buy-in and mitigate resistance.

Future research can also focus on the integration of AI with other emerging technologies such as the Internet of Things (IoT) and blockchain to create smarter workplaces. Policy and regulation studies can ensure ethical AI use and protect employee rights, while the development of customised AI solutions can cater to specific organisational needs. Advancing real-time emotion recognition and response capabilities of AI systems will improve their accuracy and sensitivity in various workplace scenarios. By addressing these areas, future research can provide valuable insights for organisations aiming to leverage AI for enhanced employee well-being, productivity, and overall job performance.

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