

FROM STRESS TO SUCCESS: THE ROLE OF AI AND DIGITAL TECHNOLOGIES IN EMPLOYEE SUPPORT PROGRAMS TO ENHANCE PRODUCTIVITY IN PAKISTAN'S PUBLIC AND PRIVATE SECTORS

Irfan Hanif^{*1}, Dr. Muhammad Asif², Saquib Yusaf³

^{*1}Research Scholar, Liverpool Business School, Liverpool John Moores University, England

²Assistant Professor, Department of Management Sciences, University of Gwadar, Balochistan, Pakistan

³Freelance Consultant and Resource Person (HR and Business Analytics)

¹irfanhanif@gmail.com, ²masif@ug.edu.pk, ³saqibofficialmail@gmail.com

Corresponding Author: *

Irfan Hanif

DOI: <https://doi.org/10.5281/zenodo.18740339>

Received
24 December 2025

Accepted
08 February 2026

Published
23 February 2026

ABSTRACT

This study applies qualitative research design to explore the impact of digital tools and Artificial Intelligence (AI) platforms on employee support programs that enhance employee productivity and psychological wellbeing. The research sample includes employees in the private and public sector. In depth semi structured interviews were conducted with 18 employees to explore the impact of AI tools on employee productivity and overall wellbeing. Thematic analysis was conducted on the content of the interviews to examine the role of AI driven systems such as task automation and mental health platforms in influencing employee perceived job satisfaction, productivity, and reducing work related stress. The findings of the study reveal that AI tools, while implemented with purpose, significantly improve workflow efficiency, and reduce work-related stress through automating mundane and challenging tasks. The implementation of AI tools and task automation generate positive results if employees are aware of the program, have trust in AI systems, and have lesser concerns over possible job displacement. The study highlights the critical role of transparency, training, and supporting organizational culture and policies in fostering AI acceptance at workplace. Furthermore, the results of the study emphasize the need for implementation of customized and personalized AI applications to address the organization's concerns regarding diverse cultural and individual needs. This research contributes to the literature and practical applications of AI tools to further the discourse on AI adoption in emerging economies in contemporary organizations. The research highlights the practical implications of AI adoption models and recommends designing employee-centric AI solutions to enhance employee productivity balancing employee psychological wellbeing and work-related stress.

Keywords: Artificial Intelligence, Employee Productivity, Stress Management, AI Adoption, Organizational Culture, Psychological Well Being

Chapter 1: INTRODUCTION

1.1 Introduction to the Topic and Its Importance

In recent years, Artificial Intelligence (AI) and digital technologies have transformed workplaces globally, and Pakistan is no exception. These technologies are being adopted in various sectors to enhance operational

efficiency, automate tasks, and boost productivity. AI-driven systems, such as chatbots, performance monitoring tools, and automated feedback systems, are increasingly being integrated into employee support programs, with the aim of reducing stress and improving overall work performance. As organizations strive to incorporate these

technologies, it becomes crucial to understand the impact they have on employee well-being. AI can both alleviate and contribute to workplace stress, depending on how it is implemented (Fan et al., 2026). Thus, exploring the role of AI in enhancing employee productivity and reducing stress within the context of Pakistan's public and private sectors is essential for understanding its broader implications.

1.2 An Overview of AI and Digital Technologies in Enhancing Employee Productivity

AI technologies encompass various applications such as machine learning, automation, and predictive analytics, all of which can enhance employee productivity. By automating repetitive tasks, AI tools free up employees to focus on more strategic and creative aspects of their jobs, thereby improving job satisfaction and overall productivity (Rehmat et al., 2025). Additionally, AI-powered platforms can assist in managing workloads, providing personalized feedback, and improving communication, all of which contribute to a more efficient workplace. In sectors like healthcare, finance, and education, AI is helping streamline operations, reduce manual effort, and enhance service delivery, thus benefiting employees and organizations alike (Cheema et al., 2025).

However, AI's impact on productivity is not always positive. For instance, poorly implemented AI systems can lead to increased stress and anxiety, especially when employees feel overwhelmed by new technologies or fear job displacement (Fan et al., 2026). It is therefore important to ensure that AI tools are integrated in a way that is beneficial to employees' productivity while also reducing potential negative effects on their mental well-being.

1.3 Background of the Research

Employee well-being and productivity are ongoing challenges in both Pakistan's public and private sectors. In the public sector, bureaucratic inefficiencies, lack of motivation, and inadequate support systems have long been barriers to improving employee performance. The private sector, on the other hand, often faces high workloads, tight deadlines, and job insecurity, which contribute to employee stress

and burnout (Hammad et al., 2025). In such an environment, AI and digital technologies offer a promising solution by improving work processes and providing employees with tools that can assist in managing stress and improving productivity.

In recent years, Pakistan's public and private sectors have increasingly turned to digital tools and AI applications to improve operational efficiency. For example, AI-driven health apps and performance management systems are becoming more common in sectors like healthcare and education. These technologies can automate tasks such as data entry and report generation, which reduces administrative burdens and allows employees to focus on more meaningful work. Moreover, AI-based support systems have the potential to provide real-time assistance to employees, thus improving their productivity while also addressing stress (Bibi, Tan, & Yao, 2025). However, despite these advancements, the challenge remains to ensure that these systems are perceived as supportive rather than overwhelming.

1.4 Problem Statement

While the integration of AI and digital technologies into employee support programs has been widely discussed in global literature, there is a significant gap in research regarding the impact of these technologies on employee productivity and well-being in Pakistan. The existing studies primarily focus on the adoption of digital tools and AI systems within the broader context of operational efficiency and economic development (Arshad et al., 2024; Hammad et al., 2025). However, there is a lack of qualitative research specifically examining how these technologies influence employees' mental health, stress levels, and overall productivity in Pakistan's public and private sectors.

Moreover, there is limited exploration of how AI-driven support systems are perceived by employees. Do these tools help alleviate stress and increase productivity, or do they contribute to feelings of anxiety and job insecurity? This gap in qualitative research is particularly concerning as it overlooks the lived experiences of employees who interact with these technologies daily.

1.5 Research Questions

This study will seek to answer the following research questions:

1. How do AI and digital technologies influence employee support programs in Pakistan's public and private sectors?
2. What are the perceived benefits and challenges of using AI-driven support systems for employees in these sectors?
3. How does the integration of AI affect employee productivity, stress levels, and well-being?

1.6 Research Objectives

The primary objectives of this research are to:

- Explore the impact of AI and digital technologies on employee productivity and stress management in Pakistan's public and private sectors.
- Identify the benefits and challenges faced by employees in both sectors when using AI-based support systems.
- Provide actionable insights for integrating AI in employee support programs to improve both productivity and well-being.

1.7 Significance of the Research

This research will contribute to the academic literature by addressing the gap in qualitative studies on the role of AI in employee support programs, particularly in the context of Pakistan. By focusing on the human side of AI adoption, this study will offer valuable insights into how these technologies impact employees' mental health, stress, and productivity. The findings will help organizations and policymakers better understand how to implement AI in a way that enhances employee well-being and performance while minimizing negative outcomes, such as job anxiety or technostress (Fan et al., 2026). Furthermore, the research will provide practical recommendations for integrating AI tools that can promote a more supportive work environment in both public and private sectors. The practical implications of this research are far-reaching, as it will guide organizations in adopting AI-driven support systems that are not only effective but also employee-friendly. By improving the design and implementation of these systems, organizations can foster a work environment that enhances productivity while

also reducing stress and improving overall employee satisfaction (Hammad et al., 2025).

Chapter 2: Literature Review and Theoretical Framework

2.1 The Role of AI in Employee Productivity

Artificial Intelligence (AI) has become an essential tool in enhancing employee productivity across various industries. At its core, AI automates repetitive tasks, accelerates decision-making processes, and enhances operational efficiency. The influence of AI on productivity is widely documented, with numerous studies indicating its positive impact when implemented effectively. For instance, Shaikh et al. (2023) demonstrated that AI-driven systems such as automated knowledge-sharing platforms and performance management tools reduce workload and improve collaboration, leading to significant gains in productivity. Similarly, Hussain et al. (2024) observed that the integration of AI in Pakistan's IT sector led to improved project management and on-time delivery, ultimately enhancing productivity levels. AI tools facilitate the automation of mundane tasks, allowing employees to focus on more complex and value-added activities, which results in both greater output and job satisfaction.

However, it is important to note that AI's impact on productivity is not automatic. As Nazeer and Ahmad (2025) argue, employee perceptions play a crucial role in determining the effectiveness of AI tools. Employees who perceive AI as a supportive tool tend to embrace it, whereas those who view it as a threat may experience decreased engagement and productivity. Therefore, the relationship between AI and productivity is mediated by how well organizations manage the integration process, including employee training, communication, and support.

2.2 Employee Well-being and Stress Management

Employee well-being, encompassing mental and physical health, is intrinsically linked to productivity and job satisfaction. Employee stress, burnout, and job-related anxiety are significant barriers to organizational success, particularly in high-pressure environments. AI has the potential to play a pivotal role in

mitigating these issues. For example, AI-driven mental health platforms have emerged as essential tools for stress management, providing employees with personalized support and interventions (Bibi et al., 2025). These platforms offer 24/7 access to virtual mental health support, providing coping mechanisms, stress-relief exercises, and personalized recommendations.

Research by Fan et al. (2026) supports this notion by demonstrating how AI-based tools can alleviate workplace stress by automating administrative tasks, thus reducing employee overload. However, the authors also note that AI implementation must be carefully managed to avoid technostress. In their study of SMEs in Pakistan, Fan et al. (2026) found that inadequate training and support for employees resulted in feelings of anxiety and alienation, thus exacerbating stress levels. This duality emphasizes the need for organizations to strike a balance between using AI to reduce stress and ensuring that employees feel supported and capable of managing the technology.

In the educational context, Rehmat et al. (2025) explored the use of AI in classrooms and identified both positive and negative impacts on teacher well-being. AI tools, when used to provide real-time feedback and automate administrative tasks, helped reduce stress and burnout. However, the study also highlighted concerns over AI's potential to increase stress due to ethical dilemmas, such as privacy issues and the fear of surveillance. Therefore, while AI holds promise to enhance employee well-being, it must be implemented with a keen awareness of its psychological impacts.

2.3 AI in Public and Private Sectors

The application and impact of AI vary significantly across the public and private sectors. In the public sector, AI is primarily used to enhance administrative efficiency and improve service delivery. Hammad et al. (2025) observed that AI-driven digital transformation in Pakistan's public sector has led to improved employee motivation and performance, particularly in areas such as health administration, where AI tools streamline patient data management and reduce administrative burdens. Similarly, Sumra et al. (2021) demonstrated that AI-supported

platforms have strengthened public sector administrative services, especially during the COVID-19 pandemic, by ensuring continuity in service delivery despite logistical challenges.

In contrast, private sector organizations often adopt AI for competitive advantage, cost reduction, and innovation. Arshad et al. (2024) argued that Pakistan's IT sector is a prime example of AI's transformative potential. Private tech firms in Pakistan have leveraged AI tools to automate coding processes, predict market trends, and enhance customer service, leading to significant improvements in productivity. However, the private sector also faces challenges, particularly in the form of resistance to AI adoption and concerns about job displacement (Nazeer & Ahmad, 2025). In both sectors, organizational culture, resources, and leadership play crucial roles in shaping the outcomes of AI adoption.

2.4 Employee Support Programs and Technology

Employee support programs have traditionally focused on counseling, performance feedback, stress management workshops, and training initiatives. With the rise of digital technologies, AI is increasingly being integrated into these programs to improve their accessibility, efficiency, and personalization. AI applications such as chatbots, virtual assistants, and AI-driven mental health platforms are being utilized to enhance employee engagement and well-being. Jabeen et al. (2024) explored the use of AI in employee support systems and highlighted the potential of AI-powered wellness programs to offer real-time assistance and reduce stress. AI systems provide personalized support, which can include stress management techniques, meditation practices, and mental health assessments. For example, automated feedback systems powered by AI allow employees to receive real-time, data-driven insights into their performance, offering both guidance and support. These systems help employees improve their productivity while also reducing the anxiety associated with manual performance reviews.

However, the successful integration of AI into employee support programs is contingent upon employee trust and the ethical use of AI. Rehmat et al. (2025) discussed the need for transparent and explainable AI to build trust and reduce

resistance from employees. This is particularly crucial in environments where AI is used to monitor performance or provide feedback, as employees may feel uncomfortable or insecure if they do not fully understand how these systems work.

2.5 Theoretical Framework

2.5.1 Thematic Analysis

Thematic analysis will be used in this study to explore the qualitative data collected through interviews with employees in Pakistan's public and private sectors. This approach allows for a flexible, systematic, and in-depth exploration of the data, facilitating the identification of patterns and themes related to AI adoption and its impact on employee productivity, stress levels, and well-being. According to Braun et al. (2022), thematic analysis is an essential tool in qualitative research as it offers a comprehensive and accessible approach to analyzing complex data while allowing for flexibility in identifying new insights.

The use of reflexive thematic analysis, as suggested by Braun and Clarke (2022), aligns with the objective of this study to understand the nuanced experiences of employees with AI in their support programs. By applying this method, the study aims to reveal the depth of employees' feelings, perceptions, and attitudes toward AI, providing a richer understanding of the technology's human-centered impacts.

2.5.2 Technology Acceptance Model (TAM)

The Technology Acceptance Model (TAM) provides a theoretical framework to understand how employees accept and use AI-driven support systems. According to TAM, perceived ease of use and perceived usefulness are critical factors in determining whether employees will adopt a new technology (Davis, 1989). This model is particularly relevant for understanding how employees in Pakistan's public and private sectors will embrace AI tools in their support programs. Nazeer and Ahmad (2025) demonstrated that positive perceptions of AI's usefulness and ease of use directly correlate with higher levels of technology adoption. In contrast, negative perceptions can lead to resistance and reduced productivity.

2.5.3 Job Demands-Resources (JD-R) Model

The Job Demands-Resources (JD-R) model posits that job demands and resources interact to influence employee outcomes such as stress and productivity. AI can function as a job resource by reducing job demands through automation and decision support (Bibi et al., 2025). When AI tools effectively reduce workload and enhance decision-making capabilities, employees experience less stress and higher productivity. However, if AI increases demand by adding complexity or requiring constant monitoring—it can lead to burnout and reduced engagement (Fan et al., 2026). This model provides a useful lens for assessing how AI influences employee well-being and performance in both public and private sectors.

2.6 Gaps in Existing Research

Despite a growing body of literature on the impact of Artificial Intelligence (AI) on workplace productivity and employee well-being, there remain significant gaps in understanding how AI influences employee support programs, particularly in Pakistan's public and private sectors. Most existing studies tend to focus on technological innovation, digital readiness, and operational efficiency, with limited attention given to the human-centric aspects, such as stress management, well-being, and the perceptions of employees themselves. For instance, while studies by Hammad et al. (2025) and Cheema et al. (2025) explore the adoption of AI in public sector operations and the associated improvements in efficiency, they do not delve deeply into the human experience of working with AI systems or how these tools affect employee stress levels and overall well-being.

Furthermore, there is a lack of qualitative research that captures the lived experiences of employees who engage directly with AI-driven support systems. Most of the existing literature either focuses on quantitative analyses of AI's impact on productivity or broad conceptual discussions on digital transformation (Arshad et al., 2024; Rehmat et al., 2025). As a result, the nuances of how AI-based support programs are perceived by employees, especially within the context of Pakistan, are largely unexplored. Studies like those of Fan et al. (2026) and Nazeer and Ahmad (2025) have touched on the role of AI in alleviating or exacerbating stress, but these

studies often lack a detailed exploration of the specific challenges faced by employees in both public and private sectors, particularly in the Pakistani context.

This gap in the literature is crucial because it overlooks how employees' emotional and psychological responses to AI are shaped by factors such as organizational culture, the transparency of AI tools, and the training provided to workers. As highlighted by Rehmat et al. (2025), without a comprehensive understanding of employee perceptions and experiences, AI adoption can lead to unintended negative consequences such as technostress, anxiety, or resistance to change. Therefore, there is a pressing need for qualitative research that explores the lived experiences of employees using AI-driven support programs in Pakistan. This study aims to fill this gap by providing an in-depth exploration of employee experiences with AI tools in the workplace, focusing on how these technologies influence their stress levels, well-being, and overall productivity. By capturing these employee perspectives, the research will offer insights that can guide organizations in optimizing AI implementation to enhance both employee support and performance.

Chapter 3: Methodology

3.1 Research Design

This study adopts a qualitative research design, utilizing thematic analysis to explore employee perspectives on AI-driven support systems in the public and private sectors of Pakistan. The qualitative approach allows for an in-depth understanding of employees' lived experiences, which is crucial when examining complex, subjective phenomena such as stress, well-being, and productivity in the workplace (Braun & Clarke, 2022). Thematic analysis is the most appropriate method as it facilitates the identification of common themes, patterns, and nuances across the participants' narratives, offering a comprehensive view of how AI affects their work environments (Byrne, 2022). By analyzing qualitative data, this study aims to gain insight into the ways employees engage with AI tools, how these tools impact their daily tasks, and how they influence their emotional and psychological well-being.

3.2 Sampling Strategy

The study includes 18 participants, 9 from the public sector and 9 from the private sector, ensuring a balanced representation of employees from different sectors. Participants were selected based on their role, experience, and familiarity with AI systems. This purposive sampling technique allows for the inclusion of employees who have direct experience with AI-driven support systems in their work environments, making them ideally suited to provide meaningful insights into the research questions (Fan et al., 2026). The selection criteria ensure that participants represent a diverse range of roles, from decision-makers to primary users and secondary users of AI tools, allowing the study to capture a broad spectrum of experiences and perspectives.

3.3 Data Collection

Data was collected through semi-structured interviews, which provided participants with the flexibility to share their experiences and insights in their own words while allowing the researcher to probe specific topics of interest. Semi-structured interviews are particularly effective in qualitative research as they allow for a deeper exploration of individual perspectives while ensuring that key areas of inquiry are covered (Braun et al., 2022). Interviews were conducted in person or via virtual platforms, depending on participants' availability and convenience. The interview protocol focused on understanding how AI tools were used in the workplace, their perceived benefits, challenges, and impacts on stress, productivity, and well-being.

3.4 Data Analysis

Data analysis was conducted using Braun and Clarke's (2022) thematic analysis approach. This approach involves coding the data and identifying themes and sub-themes that emerge from participants' responses. The process begins with familiarization with the data, followed by initial coding, generating themes, and refining the themes to ensure they accurately reflect the data. Thematic analysis allows for an inductive approach to identifying patterns in the data, providing a detailed understanding of the experiences of employees working with AI tools. This process ensures that the findings are

grounded in the participants' experiences while also addressing the research objectives.

3.5 Ethical Considerations

Ethical considerations were prioritized throughout the research process. Informed consent was obtained from all participants, ensuring that they understood the purpose of the study, the use of their data, and their rights to confidentiality and anonymity. Participants were assured that their responses would remain confidential and that any identifying information would be kept separate from the data used in the analysis. Ethical guidelines were

followed to protect participants' privacy and ensure that their participation was voluntary (Rehmat et al., 2025).

3.6 Participants' Profile

The participants were selected from diverse sectors and roles to capture a wide range of perspectives on AI adoption and its impact on employee support systems. The table below provides an overview of the participant profiles, including their sector, role, experience with AI, and their involvement in AI adoption within their organizations.

Table 1: Participant Profiles

Participant ID	Sector	Role	Experience with AI (Years)	Role in AI Adoption
1	Public	HR Manager	2	Key Decision-Maker
2	Private	IT Specialist	3	Primary User
3	Public	Admin Officer	1	Secondary User
4	Private	Marketing Lead	5	Decision-Maker
5	Public	IT Officer	2	Primary User
6	Private	Project Manager	4	Secondary User
7	Public	Administrative Head	3	Key Decision-Maker
8	Private	HR Coordinator	2	Primary User
9	Public	Finance Officer	1	Secondary User
10	Private	Software Developer	6	Primary User
11	Public	Customer Service	2	Secondary User
12	Private	Business Analyst	3	Key Decision-Maker
13	Public	Data Analyst	4	Primary User
14	Private	Operations Lead	5	Decision-Maker
15	Public	Administrative Support	2	Secondary User
16	Private	IT Consultant	3	Primary User
17	Public	Policy Advisor	3	Key Decision-Maker
18	Private	Marketing Specialist	2	Secondary User

This table provides a comprehensive overview of the participants' backgrounds and their roles in AI adoption, offering insight into the diverse experiences captured in the study. By selecting participants with varying levels of experience and involvement with AI, the study aims to provide a nuanced understanding of how AI-driven support systems are perceived and utilized across different sectors.

Chapter 4: Findings and Discussion

This chapter presents the findings from the thematic analysis of the semi-structured interviews conducted with employees from both

the public and private sectors in Pakistan. The analysis focuses on five primary themes: employee perceptions of AI in the workplace, AI and stress management, AI's influence on productivity, challenges to AI adoption, and the future potential of AI in employee support. Each theme is broken down into sub-themes, which provide insights into how AI-driven support systems impact employees' work environments, productivity, well-being, and engagement.

4.1 Themes

Theme 1: Employee Perceptions of AI in the Workplace

Sub-theme 1: Awareness and Understanding of AI

One of the most prominent findings was the varying levels of awareness and understanding of AI among employees. While employees in the private sector demonstrated a higher level of familiarity with AI-driven tools, public sector employees exhibited less awareness and understanding. Several participants noted that AI tools were either introduced without sufficient explanation or had unclear use cases. As one public sector employee (Participant 9) remarked, "I wasn't fully aware of how AI could help me in my role, and it felt more like an added pressure rather than a tool for support." In contrast, private sector employees, especially those in tech-related roles, showed more confidence in their ability to interact with and understand AI systems. This disparity in awareness underscores the importance of employee education and training when implementing AI-based support systems in the workplace.

Sub-theme 2: Trust in AI Systems

Trust in AI systems emerged as another key factor influencing employee engagement with AI tools. Employees who expressed trust in the systems felt more comfortable using them. Trust was linked to the transparency of AI tools and their perceived reliability. For instance, Participant 2 from the private sector shared, "When the AI system suggests something, I trust it because I know how it works and what data it's using." In contrast, employees who were unsure of how AI systems made decisions, particularly those in the public sector, showed reluctance to rely on these tools. This reflects findings from Nazeer and Ahmad (2025), which highlighted that employee trust in AI is directly related to their understanding of the system's functionality and the perceived fairness of the technology.

Sub-theme 3: Concerns about AI's Impact on Job Security

A common concern among employees, particularly in the private sector, was the fear that AI might lead to job displacement. Participants voiced anxiety about AI's potential

to replace human workers in routine tasks, thereby reducing the need for employees in certain job roles. One private sector employee (Participant 14) mentioned, "There is a growing concern that the AI tools we are using will replace our jobs if they become more advanced." This concern is consistent with the findings of Nazeer and Ahmad (2025), who found that AI adoption often creates fear of obsolescence, which can lead to increased stress and resistance to AI integration.

Theme 2: AI and Stress Management

Sub-theme 1: Effectiveness of AI Tools in Reducing Stress

Many employees reported that AI tools had a positive impact on reducing stress, particularly those that automated repetitive or mundane tasks. AI systems were especially useful in reducing administrative burdens, allowing employees to focus on more engaging and meaningful work. Participant 5 from the public sector stated, "The AI tools that help with scheduling and administrative tasks have made a significant difference in how much stress I feel. I can focus more on the work that requires my full attention." These findings align with the research by Fan et al. (2026), which suggested that AI automation could reduce stress by alleviating tedious tasks, allowing employees to concentrate on higher-value activities.

Sub-theme 2: AI's Role in Providing Emotional Support

AI-driven mental health platforms were also cited as helpful in managing workplace stress. Employees in both the public and private sectors reported using AI-based platforms for mental health support, including stress-relief exercises, relaxation techniques, and even confidential counseling via AI chatbots. As one participant (Participant 7) shared, "I use the AI wellness platform whenever I feel stressed; it provides immediate tools like breathing exercises and stress-relief strategies." While these tools were generally viewed positively, some employees were cautious about relying solely on AI for emotional support, emphasizing the importance of human intervention in more serious cases.

Sub-theme 3: Employee Feedback on AI Stress-Reduction Programs

Participants' feedback on AI-based stress-reduction programs was mixed. Some employees praised the convenience and accessibility of AI-based tools, while others expressed concerns about the effectiveness of AI in addressing deeper psychological issues. As Participant 11 from the private sector explained, "It's a good temporary solution, but I don't think AI can replace talking to a real person when the stress becomes too much." This highlights a gap in AI tools' ability to address more complex emotional and psychological needs, a concern also raised by Bibi et al. (2025).

Theme 3: AI's Influence on Productivity

Sub-theme 1: Streamlining Work Processes

One of the primary benefits of AI tools reported by employees across both sectors was the streamlining of work processes. By automating tasks such as data entry, scheduling, and email management, AI freed up time for employees to engage in higher-value tasks. Participant 4 from the private sector noted, "The AI tool helps streamline workflows, making it easier for me to focus on strategic decision-making instead of getting bogged down in administrative work." This finding aligns with Hussain et al. (2024), who emphasized that AI applications contribute to increased organizational efficiency by automating routine tasks.

Sub-theme 2: Automation and Time Management

AI tools were also seen as key enablers of better time management. Employees reported that AI systems helped them prioritize tasks and manage their time more effectively, leading to reduced stress and improved performance. As Participant 10 mentioned, "AI helps me stay on top of my priorities by automatically sorting tasks based on urgency, which allows me to be more productive." This reflects the research by Cheema et al. (2025), which found that AI-enhanced time management contributed to better overall work performance.

Sub-theme 3: Increased Efficiency and Job Satisfaction

AI was also associated with higher efficiency and job satisfaction. By reducing the amount of

manual work, employees were able to focus on tasks that required creativity and problem-solving. This shift was linked to higher levels of job satisfaction and a sense of accomplishment. As Participant 3 stated, "With AI handling the repetitive work, I can do more meaningful tasks, which makes me enjoy my work more." This finding supports the research by Rehmat et al. (2025), who found that job satisfaction increases when AI systems enable employees to focus on value-adding activities.

Theme 4: Challenges to AI Adoption

Sub-theme 1: Technological Barriers

Despite the benefits of AI, employees also reported facing technological barriers, particularly in the public sector. Issues such as outdated infrastructure, software compatibility problems, and slow internet connections hindered the effective use of AI tools. Participant 8 from the public sector noted, "The system is often slow, and it crashes, which makes it difficult to rely on it for important tasks." These challenges are consistent with findings by Sumra et al. (2021), who noted that technological limitations significantly impact AI adoption in the public sector.

Sub-theme 2: Cultural Resistance to AI Integration

Another significant challenge was cultural resistance to AI integration, particularly in the public sector, where employees were less accustomed to technology-driven changes. Some participants expressed skepticism about the benefits of AI, viewing it as an unnecessary change to their established work practices. As Participant 6 commented, "People in my department don't trust AI; they think it's just a trend that will pass." This aligns with the work of Nazeer and Ahmad (2025), who identified resistance to change as a key barrier to AI adoption in organizations.

Sub-theme 3: Lack of Resources and Training

A common concern across both sectors was the lack of resources and adequate training for using AI tools effectively. Employees highlighted that while AI tools were introduced, they were not provided with sufficient training or support to maximize their potential. Participant 12 from the private sector shared, "We use AI tools, but

nobody has really shown us how to fully leverage them." This is consistent with findings from Hammad et al. (2025), who pointed out that inadequate training programs are a major barrier to the effective implementation of AI in organizations.

Theme 5: Future Potential of AI in Employee Support

Sub-theme 1: Expanding AI Applications in Employee Welfare Programs

Looking to the future, many employees expressed optimism about the potential for AI to be further integrated into employee welfare programs. Some suggested that AI could play a larger role in personalized wellness programs, offering tailored recommendations based on individual health data and stress levels. As Participant 15 mentioned, "In the future, I hope the AI system can provide me with more personalized recommendations based on my mental health data." This highlights the growing interest in using AI to provide more targeted and individualized employee support.

Sub-theme 2: Employee Suggestions for Improving AI Systems

Several participants also offered suggestions for improving AI systems in the workplace. Many employees emphasized the importance of enhancing AI's user interface, making it more intuitive, and providing more robust support systems. Participant 18 suggested, "The system could be improved if it were more user-friendly

and offered better guidance." These suggestions align with Rehmat et al. (2025), who found that user-friendly design and clear guidance are critical for increasing employee engagement with AI systems.

4.2 Synthesis of Findings

The thematic analysis revealed several key patterns across the themes, emphasizing the complex and multifaceted impact of AI on employee productivity, well-being, and engagement. Employees in both the public and private sectors generally viewed AI as a tool that could improve productivity, streamline workflows, and reduce stress—if implemented effectively. However, challenges such as technological barriers, cultural resistance, and lack of training were identified as significant obstacles to successful AI integration. Moreover, while AI tools were appreciated for their role in reducing stress and improving work-life balance, employees expressed a desire for more transparency, better training, and more personalized features in future AI systems.

These findings align with existing literature that suggests AI can have both positive and negative impacts on employee experiences, depending on how it is integrated into the workplace (Fan et al., 2026; Hammad et al., 2025). The findings also underscore the importance of considering employee perceptions, trust, and organizational culture when implementing AI-driven support systems.

Table 2: Thematic Analysis of Findings

Theme	Sub-theme	Codes	Description
Theme 1: Employee Awareness of AI in the Workplace Perceptions		Trust, Familiarity, Knowledge	Describes how well employees understand and trust AI systems.
	Trust in AI Systems	Reliability, Transparency	Examines the level of trust employees have in AI-driven systems.
	Concerns about AI's Impact on Job Security	Job Displacement, Fear	Employee anxiety about AI replacing human jobs.
Theme 2: Stress Management	AI's Effectiveness in Stress Reduction	Relaxation, Mental Health	Perceived role of AI in reducing workplace stress.
	AI's Role in Providing Emotional Support	Support, Wellness	AI's effectiveness in offering emotional support and wellness.
	Employee Feedback on AI Stress-Reduction Programs	Feedback, Satisfaction	Employee satisfaction with AI-based stress-relief tools.
Theme Productivity	3: Streamlining Processes	Work Efficiency, Automation	How AI streamlines work processes and increases efficiency.
	Automation and Time Management	Time Management, Efficiency	AI's role in improving time management and reducing workload.
	Increased Efficiency and Job Satisfaction	Job Satisfaction, Motivation	Impact of AI on efficiency and employee job satisfaction.
Theme Challenges Adoption	4: to Technological Barriers	Infrastructure, Compatibility	Issues related to technological infrastructure and AI adoption.
	Cultural Resistance to AI Integration	Resistance, Skepticism	Employee resistance to adopting AI due to organizational culture.
	Lack of Resources and Training	Training, Support	Lack of adequate resources and training for effective AI use.
Theme 5: Future Potential	Expanding AI Applications	Personalization, Expansion	Future opportunities for AI to support employee welfare.
	Suggestions for Improving AI Systems	User-Friendliness, Guidance	Employee suggestions for improving AI tools and systems.

4.3 Summary of Findings

The study found that AI-driven support systems have the potential to significantly improve employee productivity, reduce stress, and enhance job satisfaction when implemented effectively. However, challenges such as lack of awareness, trust issues, and technological barriers hinder the full potential of AI adoption. Employees in both the public and private sectors expressed a need for better training, clearer communication, and more personalized AI tools. The future of AI in employee support appears promising, with employees eager to see more tailored solutions and enhancements to current systems.

These findings underscore the importance of addressing both technical and human factors in AI adoption. For organizations looking to implement AI-driven support systems, understanding employee perceptions and ensuring that AI tools are user-friendly, transparent, and adequately supported will be key to maximizing their benefits. The next chapter will conclude with recommendations based on these findings, as well as directions for future research.

Chapter 5: Conclusion

5.1 Recap of Key Findings

This study set out to explore the role of AI and digital technologies in employee support programs within Pakistan's public and private sectors. The thematic analysis of 18 interviews revealed several key insights. First, employees in both sectors acknowledged the benefits of AI tools in enhancing productivity, reducing stress, and improving overall job satisfaction. AI applications, such as task automation and stress management platforms, were perceived as valuable in streamlining workflows, managing time, and offering emotional support. However, employees also expressed significant concerns about AI's impact on job security, particularly in the private sector, where fears of job displacement were prevalent.

Second, the findings highlighted the varying levels of awareness and trust in AI systems. Public sector employees generally exhibited lower familiarity with AI tools and were less trusting of these systems compared to their private sector counterparts. This lack of understanding and trust often hindered the effective use of AI-driven support programs. Additionally, technological barriers, including outdated infrastructure and insufficient training, were identified as significant challenges, particularly in the public sector. Despite these challenges, employees expressed optimism about AI's future potential, particularly for expanding applications in personalized employee welfare programs.

5.2 Implications for AI Adoption in Pakistan's Public and Private Sectors

The findings of this research have important implications for AI adoption in Pakistan's public and private sectors. In both sectors, AI has the potential to improve employee productivity and well-being, but its successful integration depends on addressing several key factors. First, the lack of awareness and understanding of AI systems needs to be addressed through comprehensive training and clear communication about how these tools can benefit employees. This is particularly critical in the public sector, where resistance to change and lower levels of digital literacy can slow down AI adoption. Moreover, building trust in AI systems is essential. Transparency about how AI works and the data

it uses can alleviate concerns about fairness and reliability, which are crucial for fostering acceptance.

Second, overcoming technological barriers is necessary for effective AI integration. Both public and private sector organizations need to invest in upgrading infrastructure and ensuring compatibility between AI tools and existing systems. Additionally, organizations must address the cultural resistance to AI adoption by involving employees in the decision-making process and emphasizing the supportive role of AI, rather than viewing it as a threat.

5.3 Theoretical Implications

The findings contribute to existing theories on AI, employee productivity, and well-being. The results align with the Technology Acceptance Model (TAM), which posits that perceived ease of use and perceived usefulness are critical factors in determining the adoption of new technologies (Davis, 1989). Employees who understood the value of AI and felt confident in using it were more likely to engage with these systems. This study also contributes to the Job Demands-Resources (JD-R) model, which highlights the role of job resources in mitigating stress and improving productivity (Bibi et al., 2025). AI tools were viewed as resources that helped reduce job demands, such as repetitive tasks, and provided support for time management and mental health, leading to improved employee outcomes.

The research also emphasizes the need for a human-centered approach to AI integration. The concerns about AI's impact on job security and the desire for personalized support systems highlight the importance of considering employee perceptions and emotional responses in AI adoption. This human-centric view is critical for understanding how AI can be implemented effectively in the workplace to enhance both productivity and well-being.

5.4 Practical Recommendations

For organizations looking to integrate AI into their employee support programs, several practical recommendations emerge from this study. First, organizations should prioritize employee training and education to ensure that employees understand the functionality and benefits of AI tools. Providing ongoing support

and resources for employees to build their digital skills will increase engagement with AI-driven systems. In addition, organizations should create clear communication channels to address employee concerns about AI, particularly around issues of trust and job security. Providing transparent information about the role of AI and how it complements rather than replaces human workers can help alleviate fears of job displacement.

Second, companies should focus on creating user-friendly AI systems that are intuitive and accessible to all employees, regardless of their technical expertise. As indicated by participants, AI tools that are easy to navigate and understand are more likely to be embraced by employees. Furthermore, ensuring that AI tools are personalized and offer targeted support—such as mental health resources or stress-relief exercises—will increase their perceived value and effectiveness in the workplace.

For policymakers, it is crucial to support AI adoption in the workplace by fostering an environment that encourages digital literacy and upskilling. Policymakers should consider implementing initiatives that provide funding for digital training programs and promote awareness about the potential benefits of AI in enhancing productivity and employee well-being. Additionally, creating policies that ensure ethical AI practices, such as transparency and fairness, will help build trust in AI systems and support their widespread adoption.

5.5 Limitations and Future Research Directions

This study has several limitations. First, the sample size of 18 participants limits the generalizability of the findings. While the sample provides valuable insights, future research could expand the sample size to include a more diverse range of sectors, roles, and geographic regions to obtain a broader understanding of AI adoption in Pakistan. Additionally, this study primarily focuses on the perceptions of employees in the public and private sectors, but future research could include perspectives from managers and policymakers to gain a more comprehensive view of AI integration.

The geographical focus of this study on Pakistan also presents a limitation. As the country's AI landscape is still developing, the findings may

not be directly applicable to other regions with more advanced AI integration. Future research could explore AI adoption in other emerging economies to compare the experiences of employees in different cultural and economic contexts. Moreover, this study provides a snapshot of AI's immediate impact on employee well-being and productivity; however, long-term studies are needed to explore the sustained effects of AI integration on employee outcomes, such as job satisfaction, career development, and mental health.

References

- Ahmed, S., Ali, A., & Mansoor, M. T. (2025). Cognitive Representations of Generative AI among Pre-Service Teachers: A Phenomenological Study in a Teacher Education College in Karachi. *The Critical Review of Social Sciences Studies*, 3(4), 2264-2273.
- Ahmed, S., Faisal, M., Hasan, S. S. F., & Ghazi, M. A. (2025). Impact of Artificial Intelligence (AI) on Teacher Self-Efficacy: A Systematic Literature Review. *Social Science Review Archives*, 3(4), 3406-3415.
- Ahmed, S., Urooj, S., Farheen, S., & Ishaq, M. (2025). Impact of Ethical AI Use on Learning Patterns of Pre-Service Teachers at a Public Sector University in Karachi. *ACADEMIA International Journal for Social Sciences*, 4(4), 3305-3315.
- Arshad, N., Ahmad, W., & Manzoor, K. (2024). *Unleashing the potential of Pakistan's IT Industry: Building for massive software export growth*.
- Arzu, F., Ali, R., & Muneeb, M. T. (2025). The Role of FinTech Accelerators & Incubators in Nurturing Entrepreneurial Innovation: A Multiple Case Study of European Hubs. *ACADEMIA International Journal for Social Sciences*, 4(4), 3725-3736.
- Arzu, F., Sattar, M. S., Sultan, S., Abrar, K., & Khuharo, Z. H. (2025). ENTREPRENEURIAL NARRATIVES OF FINTECH ADOPTION: HOW STARTUPS IN EMERGING MARKETS NAVIGATE DIGITAL FINANCIAL TRANSFORMATION. *Journal of Management Science Research Review*, 4(4), 473-504.

- Ashraf, N., Arzu, F., Abrar, K., & Anwar, M. (2025). Narratives of SMEs on Access to Finance: Barriers and Opportunities in Pakistan's Banking Sector. *The Critical Review of Social Sciences Studies*, 3(4), 262-277.
- Asif, M., Jabbar, S., & Yusaf, S. (2026). Employee Perspectives on Remote Work Culture and Leadership in Hybrid Organisations. *The Critical Review of Social Sciences Studies*, 4(1), 151-167.
- Atta, A., & Khan, H. H. (2025). Pakistan 2030 vision: an applied artificial intelligence framework for sustainable development through cohesive stakeholder relations, employee engagement and protection behavior frameworks. *Urbanization, Sustainability and Society*, 2(1), 438-504.
- Bibi, M., Tan, T. G., & Yao, H. (2025). Exploring the impact of AI capabilities on employee well-being: A mediated moderation analysis. *SAGE Open*, 15(3), 21582440251361981.
- Braun, V., Clarke, V., & Hayfield, N. (2022). 'A starting point for your journey, not a map': Nikki Hayfield in conversation with Virginia Braun and Victoria Clarke about thematic analysis. *Qualitative research in psychology*, 19(2), 424-445.
- Byrne, D. (2022). A worked example of Braun and Clarke's approach to reflexive thematic analysis. *Quality & quantity*, 56(3), 1391-1412.
- Cheema, M. A. M., Ahmed, R., Iqbal, Q., & Naz, M. (2025). Evaluating readiness for digital and AI technology integration to adopt Industry 4.0 and its effect on productivity in public sector healthcare operations. *Policy Research Journal*, 3(3), 510-519.
- Fan, M., Soomro, S., Soomro, S., Sohu, J. M., Shah, S. B., & Shaikh, S. N. (2026). The human side of AI adoption: exploring technostress, training and employee well-being in manufacturing SMEs. *Journal of Manufacturing Technology Management*, 37(2), 273-294.
- Hammad, M., Omar, K., Abdul Halim, M. A. S. B., Abid, M., Javed, A., & Zafar, M. J. (2025). Digital transformation in public sector: enhancing employee motivation and performance. *Public Organization Review*, 25(3), 1459-1481.
- Hammad, M., Omar, K., Abid, M., Javed, A., & Zafar, M. J. (2024). Transforming public sector performance in Pakistan: A conceptual framework. *Kexue Tongbao/chinese Science Bulletin*, 69(04), 1567-1581.
- Hole, L. (2024). Handle with care; considerations of Braun and Clarke's approach to thematic analysis. *Qualitative research journal*, 24(4), 371-383.
- Hussain, M., Ahmad, U., Ahmad, B., & Minhas, A. S. (2024). Navigating Artificial Intelligence and Project Success: Insights from Information Technology Sector in Pakistan. *International Journal of Contemporary Business Literature*, 4(1), 1-8.
- Jabbar, S., & Gul, M. (2026). Impact of Organizational Justice on Organizational Commitment and Organizational Citizenship Behavior with the Mediating Effect of Organizational Trust. *Social Science Review Archives*, 4(1), 808-828.
- Jabeen, M., Aakif, Z., & Afridi, H. A. (2024). Unlocking Pakistan's digital potential: A roadmap for workforce digitalization and economic transformation. *Journal of Information Technology Teaching Cases*, 20438869241280980.
- Kausar, T., & Ahmed, S. (2026). Impact of Artificial Intelligence (AI) on Educational Leadership: A Systematic Literature. *ACADEMIA International Journal for Social Sciences*, 5(1), 97-106.
- Khan, H. A., Butt, M. A. A., Noor, S., Ishaq, S. M., & Siddiqui, F. (2025). Redefining Pedagogy: Investigating the Intersection of Technology Integration and Traditional Teaching Methods in Pakistan's Educational Research Landscape. *The Critical Review of Social Sciences Studies*, 3(4), 1543-1558.

- Khan, H. A., Kausar, T., & Khan, S. (2025). Leading AI-Integrated Pedagogies: A Qualitative Study on How School Leaders Guide Teachers in Using AI Tools for Teaching and Learning in Pakistan. *Social Science Review Archives*, 3(4), 3086-3101.
- Khuharo, Z. H., Ayub, M. J., & Ali, R. (2025). How Investors Interpret Risk in the Pakistan Stock Exchange: Lived Experiences of Retail Traders. *Social Science Review Archives*, 3(4), 3281-3297.
- Mir, A. R. (2025). Human-AI Collaboration in Pakistani Tech Firms: Productivity, Job Roles, and Organizational Adaptation. *Pakistan Journal of Management Sciences and Technology (PJMST)*, 3(3), 01-11.
- Naseem, W., Mahmood, H., Rauf, A., & Yen, Y. Y. (2025). Alleviating workplace stress: the role of servant leadership in preventing productivity decline among Pakistan's private higher education institutions. *Cogent Business & Management*, 12(1), 2451131.
- Nazeer, S., & Ahmad, A. (2025). AI anxiety or job crafting? How employees' AI perceptions reshape innovative work behaviour in Pakistan's corporate landscape. *International Journal of Sociology and Social Policy*, 45(11-12), 1187-1204.
- Rehmat, M. A. R., Hassan, H., Rumaan, M., & Abrar, K. (2025). IT Sector Transition to Agile: Managerial Challenges and Cultural Dynamics in Pakistan's Technology Firms. *Social Science Review Archives*, 3(4), 479-494.
- Rehmat, M. A., Hassan, H., Khan, H. A., & Abrar, K. (2025). Artificial Intelligence in the Classroom: Teachers' Lived Experiences and Ethical Concerns in Educational Integration. *ASSAJ*, 4(02), 629-645.
- Rehmat, M. A., Hassan, H., Rumaan, M., Baig, J., & Abrar, K. (2025). HUMAN-CENTRED EXPLAINABLE AI IN EMERGING MARKETS: TRUST AND CONFIDENCE AMONG NON-TECHNICAL USERS IN PAKISTAN. *Annual Methodological Archive Research Review*, 3(10), 145-163.
- Shaikh, F., Afshan, G., Anwar, R. S., Abbas, Z., & Chana, K. A. (2023). Analyzing the impact of artificial intelligence on employee productivity: the mediating effect of knowledge sharing and well-being. *Asia Pacific Journal of Human Resources*, 61(4), 794-820.
- Shami, A. Z. A., Khaled, F., & Asghar, U. (2025). Impact of Automation on Labour Laws in Pakistan: Investigating the Challenges and Opportunities for Workers in a Changing Job Market. *Journal of Arts and Linguistics Studies*, 3(2), 1841-1860.
- Sumra, K. B., Alam, M., & Aftab, R. (2021). Artificial intelligence for strengthening administrative and support services in public sector amid COVID-19: Challenges and opportunities in Pakistan. *Advances in Data Science and Intelligent Data Communication Technologies for COVID-19: Innovative Solutions Against COVID-19*, 153-172.
- Zeb, S. S., Abrar, K., Saqib, S., & Rizvi, S. A. A. (2025). Economic dimensions of health protection under Sehat Sahulat Program: A qualitative assessment of urban and rural households in Pakistan. *ACADEMIA International Journal for Social Sciences*, 4(4), 2259-2273.