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**Exploring the Impact of AI Adoption on Job Insecurity:
The Mediating Role of Leadership Support in Saudi
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Introduction

Artificial Intelligence (AI) is one of the most talked-about technologies in the modern world. It is being used in many different areas such as healthcare, education, business and even in homes. AI refers to machines or computer systems that can do tasks that usually need human intelligence. These tasks can include understanding language, making decisions, solving problems and learning from data (Frey & Osborne, 2017). As technology continues to grow, AI is also becoming more advanced and more common in everyday life.

In recent years, businesses around the world have started using AI to make their work easier and more efficient. Companies use AI to help them make better decisions, understand their customers and save time. For example, AI can help in hiring new employees, managing customer service or even predicting market trends. In many ways, AI is helping businesses grow faster and become more competitive. It is also making it easier for companies to reduce costs and improve their services. According to Bughin et al. (2018), companies that use AI in the right way can increase their profit margins and improve productivity.

In Saudi Arabia, the use of AI is growing fast. The Saudi government has made AI a part of its Vision 2030 strategy. This shows how serious the country is about using technology to improve its economy and services. The goal is to use AI to bring innovation in sectors like healthcare, education, energy and transportation. The government has also created the Saudi Data and Artificial Intelligence Authority (SDAIA) to lead the efforts in AI development. According to Almarashdeh (2022), Saudi Arabia is investing heavily in AI and is planning to be one of the world leaders in this area. Many private companies in Saudi Arabia are also adopting AI in their operations. As a result, employees are starting to feel the impact of this change in their work environments.

While AI brings many benefits to organizations, it also creates some challenges. One of the major issues is the fear among employees that their jobs may be taken over by machines. This fear is known as job insecurity. Job insecurity means that workers feel unsafe about the future of their job. They may worry that they will lose their job or that their role will change in a way that makes them feel less important. When AI is introduced in a workplace, some employees may feel that machines can do their work better or faster. As a result, they might feel scared, anxious or unmotivated. According to Frey and Osborne (2017), many jobs that involve repetitive or routine tasks are more likely to be replaced by AI. This makes employees in such roles feel insecure about their future.

In Saudi Arabia, job insecurity due to AI is becoming a growing concern. As more businesses adopt smart systems, employees are starting to think about how this will affect them. Some workers feel that they will need new skills to stay relevant. Others feel unsure about how their roles will change. This feeling of uncertainty can affect their mental health, job satisfaction and performance. According to Alshehri (2021), many employees in Saudi Arabia feel they are not ready for the changes brought by digital transformation. They also feel that their organizations are not doing enough to help them prepare. This makes it even harder for them to deal with the stress of job insecurity.

Another important factor in this situation is leadership support. When leaders in an organization are supportive, they can help employees feel safe and confident during times of change. Leadership support means that managers or supervisors are open, understanding and willing to guide their teams. They communicate clearly, listen to concerns and offer help when needed. In times of technological change, such as the adoption of AI, strong leadership can make a big difference. According to Bass and Riggio (2006), transformational leaders who inspire and support their employees can reduce fear and increase trust. This kind of leadership can help employees see AI not as a threat but as an opportunity to learn and grow.

In the context of AI adoption, leadership support can act as a bridge between the new technology and the people who are affected by it. Leaders can help employees understand why AI is being used and how it will improve their work. They can also

provide training and development programs to help employees learn new skills. When employees feel that their leaders care about their growth and well-being, they are more likely to accept change positively. According to Zhou and George (2001), supportive leadership not only reduces stress but also encourages creativity and innovation. This is especially important in a time when many workers are worried about losing their jobs. In Saudi Arabia, leadership plays an important role in how employees respond to AI adoption. Since many organizations are going through digital transformation, leaders need to guide their teams through this process. A lack of support can increase feelings of job insecurity and resistance to change. On the other hand, good leadership can reduce fear and help employees adapt. According to Alhazmi and Alzahrani(2020), leadership behavior in Saudi companies greatly influences how employees deal with changes in technology. Leaders who communicate well and show empathy can make their teams feel more secure and motivated.

This study is important because it focuses on the human side of technology. While many studies talk about how AI helps companies grow, fewer studies explore how it affects the people working inside these companies. In particular, the feelings of job insecurity and the role of leadership support are often not given enough attention. By focusing on organizations in Saudi Arabia, this study will provide insights into how AI adoption is shaping the workforce in the region. It will also help us understand what employees are going through and how leaders can make a positive difference.

The goal of this research is to explore how the use of AI in organizations affects employees' feelings of job insecurity and how leadership support can help manage those feelings. Since this is a qualitative study, it will focus on collecting real stories and experiences from people who are working in Saudi organizations. The research will look into how employees feel about AI, how it is changing their roles and what kind of support they are receiving from their leaders. It will also explore how different leadership styles affect employees' ability to cope with change. This approach will help in understanding the full picture rather than just looking at numbers.

This study is also timely. As AI continues to spread across all types of industries, the need to understand its impact on employees is more important than ever. If organizations want to use AI successfully, they must also take care of their employees. Ignoring the human aspect can lead to problems such as low morale, high turnover and poor performance. Leadership plays a key role in balancing technology with human needs. Leaders who are aware of their team's concerns and who take action to support them can help make AI adoption smoother and more successful.

Research problem

The use of artificial intelligence in organizations is growing quickly. Many companies are using AI tools to improve their services and make faster decisions. This change is happening in many parts of the world including Saudi Arabia. While AI helps businesses work more efficiently it also brings new challenges. One of the biggest

concerns is how employees feel about their job security. Many workers are worried that AI might replace them or change their roles in ways they cannot control. This fear can lead to stress low motivation and poor performance at work.

At the same time leadership in organizations plays a very important role in how employees react to changes. When leaders communicate clearly offer support and help their teams learn new skills employees may feel more confident and less afraid. But when there is little support from leaders workers may feel lost or unsure about the future. In Saudi Arabia many companies are still learning how to manage digital changes. There is not enough understanding of how AI is affecting employees and what leaders can do to help them during this shift.

There is also limited research that connects all three ideas together in the Saudi context. While there are studies on AI and some on job insecurity few have looked at how leadership support may reduce the negative effects of AI on workers. This creates a gap in knowledge. Without knowing how these factors connect organizations may fail to handle change in a way that protects their people. This study will try to explore how AI affects job insecurity and whether leadership support can make that experience easier for employees in Saudi organizations.

Significance of the study

This study is important because it looks at how technology affects real people in the workplace. AI is becoming a big part of many businesses but its impact on workers is still not fully understood. By focusing on job insecurity this study will help us learn how employees are feeling during a time of fast change. It will give a voice to workers who may be worried about their future. Understanding their experience can help companies make better decisions when bringing new technology into the workplace. The study also shows the role of leadership during digital transformation. When companies introduce AI the way leaders support their teams can shape how successful the change will be. If leaders provide guidance training and open communication workers may feel more positive and willing to adapt. This research will explore what kind of leadership behavior helps reduce fear and makes employees feel more secure. In the context of Saudi Arabia this study is especially meaningful. The country is moving quickly toward digital innovation under its Vision 2030 goals. Many Saudi companies are introducing AI but they may not be fully aware of how it affects their employees. This research will provide useful insights for business owners managers and policy makers. It can help them create better strategies to support their teams during change and make sure the use of AI benefits both the company and the people working in it. Finally this study can help future researchers who want to understand the human side of AI. It adds to the limited research on AI job insecurity and leadership support in the Saudi workforce. It may also be useful for other countries going through similar

changes. By sharing the experiences of workers and leaders in Saudi Arabia this study hopes to support a more balanced and thoughtful approach to using AI in business.

Research Questions

- 1.How was AI adoption experienced by employees in terms of its impact on their sense of job security in Saudi organizations
- 2.What were the common concerns expressed by employees about AI replacing or changing their roles
- 3.How was leadership support perceived by employees during the digital transition caused by AI
- 4.In what ways did leadership behavior influence employees' ability to cope with AI-related job insecurity
- 5.How were employees' reactions to AI adoption shaped by the type and quality of support provided by their leaders

Research Objectives

- 1.To explore how employees working in Saudi private sector organizations experienced job insecurity due to the adoption of AI technologies
- 2.To identify what specific fears and emotional responses were triggered by the introduction of AI in the workplace

- 3.To understand how leadership support was provided during this period of change and how it was received by employees
- 4.To examine the relationship between perceived leadership behavior and employees' ability to adjust to new AI-related responsibilities
- 5.To generate insights that could help organizations manage digital transformation in a way that protects employee wellbeing and reduces fear about job loss

Research Hypotheses

Although this was a qualitative study and no statistical testing was planned some exploratory assumptions were made based on existing literature and the research direction

- H1: It was assumed that employees who experienced strong leadership support would report lower levels of job insecurity even when AI tools were being introduced
- H2: It was assumed that job roles involving routine or repetitive tasks would be more likely to cause fear of replacement by AI compared to creative or analytical roles
- H3: It was expected that organizations where leaders were more transparent and communicative about AI-related changes would see a more positive employee response
- H4: It was assumed that the lack of leadership support would increase employee anxiety resistance to change and overall dissatisfaction during digital transformation

Research Model

A conceptual model was used in this study to understand how AI adoption influenced job insecurity and how that relationship was shaped by leadership support. This model was based on the following structure:

- Independent Variable: AI Adoption in the organization
- Mediating Variable: Perceived Leadership Support
- Dependent Variable: Employee Job Insecurity

The model was used as a guide to understand how employees described their experiences and what factors made them feel secure or insecure about their roles during the shift to AI-based systems

Industry Analysis

The focus of this study was on private sector organizations in Saudi Arabia especially in industries that were actively undergoing digital transformation such as healthcare finance education telecommunications and retail. These sectors were chosen because they were directly impacted by Vision 2030 which placed a strong emphasis on modernizing the economy through smart technologies including artificial intelligence. Saudi Arabia was considered a fast-changing and ambitious market where AI was being seen as a key part of national progress. Organizations were being encouraged to adopt

digital systems and use data-driven tools to improve productivity reduce costs and make faster decisions. However while organizations were moving forward technologically many of them were still in the early stages of managing the human impact of these changes. Employees in these sectors were found to be facing uncertainty due to new technologies being introduced without enough preparation or communication. At the same time leadership styles across organizations were not always aligned with employee needs during such transitions. This situation made the Saudi market highly relevant for studying the connection between AI adoption job insecurity and the role of leadership support.

Methodology

Research Design

A qualitative research design was used in this study because it allowed for a deeper understanding of people's real thoughts feelings and reactions. Since the study focused on personal emotions like fear anxiety and trust a phenomenological approach was used so that lived experiences could be explored in detail. This approach helped in understanding the full story behind what employees were going through instead of relying on numbers or ratings.

Population and Sampling of the Study

The population for this study consisted of full-time employees working in private companies based in Saudi Arabia where AI tools had already been introduced. Participants were chosen from sectors like healthcare banking education and telecom because these were the areas where AI was rapidly changing job roles and employee tasks. Purposive sampling was used to select employees who had been exposed to AI and had developed some experience of change in their job roles. Around 15 to 20 interviews were planned and continued until no new themes were emerging from the responses.

Inclusion and Exclusion Criteria

Participants were included in the study if they had at least one year of work experience in a company where AI or intelligent digital systems were part of the workflow. They had to be full-time employees with regular job responsibilities and should have had a supervisor or leader to whom they reported. Only those who had experienced some sort of shift or adjustment due to AI were selected so that their responses could provide relevant insights.

Participants were excluded if they were freelancers, interns, or consultants as their employment status was not stable enough for long-term AI exposure. Those who were in senior leadership roles or were part of the teams that designed or implemented AI were also excluded because the study focused on the employee side, not the decision-maker side.

Data Collection Method

Semi structured interviews were used to collect the data. This method was chosen because it helped in guiding the discussion toward job insecurity and leadership while still giving the participants freedom to talk about their own experiences in their own way. Interviews were either conducted in person or over video calls depending on what was comfortable and feasible for the participants. Each interview lasted around 30 to 45 minutes and all sessions were audio recorded with the permission of the participant.

The interview questions focused on how participants felt about AI being introduced into their work what fears or doubts they had and how their leaders communicated with or supported them during this time. These conversations were later transcribed and used for thematic analysis so that common patterns and experiences could be identified.

Literature review

One of the main drivers of innovation nowadays is artificial intelligence (AI), which is the human-like intellect exhibited by a machine. AI has spread quickly throughout a number of service industries (Mahroof, 2019). AI is a branch of computer science that uses machines to carry out human-like tasks in order to increase company productivity. According to Aghaei et al. (2012), AI happens when systems distribute extensive, complex databases. Artificial intelligence (AI) uses algorithms to try to address human-related issues by combining human traits and machine efficiency (Lu et al., 2019). Accordingly, AI allows companies across a range of industries to offer their clients distinctive experiences through the use of deep-learning algorithms that learn and retain clients' requirements and preferences without the need for human intervention (Lu et al., 2019).

Literature defines artificial intelligence (AI) adoption as the process by which businesses use AI technologies to make their operations more efficient, help them make better decisions, and come up with new ideas. It's not just about putting AI systems into action technically; it's also about getting organisations ready to use data-driven processes (Dwivedi et al., 2021). Scholars point out that adopting AI is a change in both technology and organisation. To fully utilise AI's potential, companies must realign their resources, processes, and skills (Jöhnk et al., 2021). Saudi Arabia's Vision

2030 includes plans to digitally change government, healthcare, and financial services. One of the main parts of this plan is the use of AI. These improvements look like they will help the economy grow, but they also make people worry about losing their jobs and having to learn new skills. Research shows that Saudi workers are becoming more aware of changes caused by AI. Some have said that they feel less secure in their jobs because they don't know what will happen with automation and the skills that are needed are changing (Alghamdi & Reimers, 2021). On the other hand, research on job insecurity in Saudi Arabia shows that it has a bad effect on employee morale, motivation, and loyalty to the company, especially in fields that are changing quickly (Al-Otaibi, 2020).

A lot of people are worried about their job stability these days because artificial intelligence (AI) and automation are becoming more common in the workplace. Frey and Osborne's (2013) important study says that automation could put about half of the working population in developed countries out of work. This prediction makes cognitive job insecurity a lot worse because people are afraid that smart robots will take their jobs. Furthermore, Brougham and Haar(2017) provide more evidence for this claim by showing that employees' worry about job security is linked to how well they understand the AI functions that are important to their industry. In a similar way, Arntz et al. (2019) say that workers may feel very insecure about their jobs just by thinking about the chance of automation, even if it doesn't

happen. Being sceptical about cognitive jobs is especially strong in fields that are more likely to be automated. This shows that there is a clear link between advances in AI and job risk in cognitive fields. But there are a lot of different ways that work uncertainty and AI identity danger are connected. Personal characteristics like age, skill level, and flexibility have a big effect on how this relationship is mediated, as Sverke et al. (2002) point out. People who are more flexible and have a wide range of skills are more likely to see advances in artificial intelligence as a way to make their jobs less unstable.

Because AI can mimic human thought processes and reasoning abilities, it is undeniable that it could threaten human jobs even though it is becoming an inevitable aspect of innovation in the business sector. As a result, there is a chance that AI will eventually handle large amounts of data and replace humans in the workplace (McClure, 2018). Experts and researchers have focused on the business sector's adoption of AI since it is anticipated to have both positive and negative effects on both customers and staff (Lu et al., 2019). For instance, Huang and Rust (2018) clarified that while mechanical and analytical intelligence may be replaced by AI in the service industry, intuitive and sympathetic intelligence would continue to be a crucial component of human workers.

As a result, workers may feel insecure about their jobs as a result of the AI revolution and worries about human job replacement. This is due to the fact that job

uncertainty is the main source of stress for present workers amid this AI-driven environmental shift. This stress is linked to both the continuation of the role itself and the quantity of openings for a specific job title (Nam, 2019). Workers have been put in danger by these events, which has affected the effectiveness of the organisation (Greenhalgh and Rosenblatt, 2010). To put it another way, controlling employees' perceived job insecurity is crucial because it influences how they will react to the company in terms of attitude and affect (e.g., job engagement, job satisfaction, job commitment and intention to leave) (Shoss, 2017). Positive attitudes and feelings are experienced at work by people who are engaged, claim Schaufeli and Bakker (2004). Put another way, workers who are highly engaged at work are more likely to stay with the company and give exceptional customer service to clients (Lee, 2015). However, because they are consumed with their work performance and ultimately give in to negative feelings like dissatisfaction and worry, workers who suffer job insecurity are unable to completely engage in their work (Kiefer, 2005). As a result, the degree of job engagement among employees is directly tied to their work behaviour and plays a significant role in their intention to leave (Saks, 2006).

According to Müceldili et al. (2023), job insecurity is a set of negative feelings that people feel before, during, and after making a career choice or doing their job. That feeling of worry about what you want to do with your life after school. It is projected that there will be a high unemployment rate (Müceldili et al., 2023) because AI will

cause big changes and uncertainty in the job market. Studies in the past have shown that AI can cause a lot of worry. The integration of AI in workplaces is linked to increased job insecurity, stress, and AI anxiety as workers fear AI might replace their work (Gull et al., 2023). According to Presbitero and Teng-Calleja (2023), when employees think that AI will take over their jobs, they feel insecure about their jobs and suffer from mental discomfort. Brougham and Haar (2021) found that people who are more worried about the threat of AI are less satisfied with their jobs. Anxiety is seen in jobs that are more likely to be automated, like office work, where workers are afraid that AI will make their jobs less important (Ali et al., 2024). According to Bankins et al. (2024), employees are worried about losing their jobs because of changes in technology like AI. Cheng and McCarthy (2018) say that adding AI to an organisation could change situational characteristics (like Task Demands and Organisational Demands) and job characteristics (like Job Demands and Job Types). The process of adopting AI is very complicated, and workers may not like it when it's used in the workplace. People will be affected by it when they don't know much about AI and how it affects their jobs.

Support from leaders has been shown to be very important in lowering the stress that comes with not knowing if you will have a job next week. Leaders who are supportive can lessen the bad effects by communicating clearly, encouraging training, and comforting workers about their part in the future of work (Schumacher et al., 2020). Transformational and participative leadership styles, in particular, help

employees see AI adoption as a chance to grow rather than a danger by putting an emphasis on learning new skills, being recognised, and being involved in making decisions (Amankwah-Amoah et al., 2021). Leadership support has been identified as a key factor in managing workforce transitions in Saudi Arabia. Open communication and employee growth programs have been shown to reduce fears of being replaced by technology (Alghamdi & Reimers, 2021).

References

- Aghaei, S., Nematbakhsh, M. A., & Farsani, H. K. (2012). Evolution of the world wide web: From WEB 1.0 TO WEB 4.0. *International Journal of Web & Semantic Technology*, 3(1), 1-10.
- Alhazmi, A. A., & Alzahrani, A. I. (2020). Digital transformation and its impact on leadership in the Kingdom of Saudi Arabia. *International Journal of Advanced Computer Science and Applications*, 11(10), 456–462.

- Almarashdeh, I. A. (2022). Artificial intelligence and its impact on the workforce in Saudi Arabia. *Journal of Artificial Intelligence and Data Science*, 2(1), 32–41.
- Alshehri, F. S. (2021). Digital transformation readiness in Saudi organizations: Employee perspectives. *Journal of Business and Management*, 27(2), 15–26.
- Arntz, M., Gregory, T., & Zierahn, U. (2016). The risk of automation for jobs in OECD countries: A comparative analysis. *OECD Social, Employment and Migration Working Papers*, (189).
- Bass, B. M., & Riggio, R. E. (2006). *Transformational leadership* (2nd ed.). Mahwah, NJ: Lawrence Erlbaum Associates.
- Bhargava, A., Bester, M., & Bolton, L. (2020). Employees' Perceptions of the Implementation of Robotics, Artificial Intelligence, and Automation (RAIA) on Job Satisfaction, Job Security, and Employability. *Journal of Technology in Behavioral Science*, 6(6).
- Blumberg, B., Cooper, D., & Schindler, P. (2014). *EBOOK: Business research methods*. McGraw Hill.
- Brougham, D., & Haar, J. (2018). Smart technology, artificial intelligence, robotics, and algorithms (STARA): Employees' perceptions of our future workplace. *Journal of Management & Organization*, 24(2), 239-257

Bughin, J., Hazan, E., Ramaswamy, S., Chui, M., Allas, T., Dahlström, P., ... & Trench, M. (2018). Notes from the AI frontier: Modeling the impact of AI on the world economy. *McKinsey Global Institute*.

Davenport, T. H., & Ronanki, R. (2018). Artificial intelligence for the real world. *Harvard Business Review*, 96(1), 108–116.

Frey, C. B., & Osborne, M. A. (2017). The future of employment: How susceptible are jobs to computerization? *Technological Forecasting and Social Change*, 114, 254–280.

Huang, M. H., & Rust, R. T. (2021). Artificial intelligence in service. *Journal of Service Research*, 24(1), 3–20.

Huang, M. H., & Rust, R. T. (2013). IT-related service: A multidisciplinary perspective. *Journal of Service Research*, 16(3), 251-258.

Huang, M. H., & Rust, R. T. (2018). Artificial intelligence in service. *Journal of service research*, 21(2), 155-172.

Koo, B., Curtis, C., & Ryan, B. (2021). Examining the impact of artificial intelligence on hotel employees through job insecurity perspectives. *International Journal of Hospitality Management*, 95, 102763.

Lu, L., Cai, R., & Gursoy, D. (2019). Developing and validating a service robot integration willingness scale. *International Journal of Hospitality Management*, 80, 36-51.

- Molla, Md. M. (2024). Artificial Intelligence (AI) and Fear of Job Displacement in Banks in Bangladesh. *International Journal of Science and Business*, 42(1), 1–18. <https://doi.org/10.58970/IJSB.248119>.
- Müceldili, B., Tatar, B., & Erdil, O. (2023a). Career anxiety as a barrier to life satisfaction among undergraduate students: the role of meaning in life and self-efficacy. *International Journal for Educational and Vocational Guidance*. <https://doi.org/10.1007/s10775-023-09617-820>.
- Müceldili, B., Tatar, B., & Erdil, O. (2023b). Career anxiety as a barrier to life satisfaction among undergraduate students: the role of meaning in life and self-efficacy. *International Journal for Educational and Vocational Guidance*. <https://doi.org/10.1007/s10775-023-09617-8>
- Mahroof, K. (2019). A human-centric perspective exploring the readiness towards smart warehousing: The case of a large retail distribution warehouse. *International Journal of Information Management*, 45, 176-190.
- Nam, T. (2019). Technology usage, expected job sustainability, and perceived job insecurity. *Technological Forecasting and Social Change*, 138, 155-165.
- Nemteanu, M. S., Dabija, D. C., & Tăchiciu, L. (2022). The influence of internal marketing and job satisfaction on task performance and counterproductive work behavior in the context of hybrid work. *Kybernetes*, 51(12), 3447–3466.

van der Voet, J., Kuipers, B. S., & Groeneveld, S. (2016). Held back and pushed forward: Leading change in a complex public sector environment. *Journal of Organizational Change Management*, 29(2), 290–309.

Zhou, J., & George, J. M. (2001). When job dissatisfaction leads to creativity: Encouraging the expression of voice. *Academy of Management Journal*, 44(4), 682–696.