

Final Project 2

PMG 497

Project title

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

Student name

Hassan Mansour Bantan

Final Project - 2

Faculty of Management - Midocean University

Supervisor

Dr. Abdulrahim Nader

Faculty member- Faculty of management- Midocean University

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Research instruments and Questionnaires

Informed Consent Form

Thank you for agreeing to take part in this study. Before you proceed, please read the following information carefully:

1. Your participation in this research is completely voluntary.
2. You have the right to withdraw at any point without any negative consequences.
3. Your responses will be kept strictly confidential and used only for academic and research purposes.
4. No personal identifiers will be disclosed in any reports or publications resulting from this study.
5. The estimated time to complete the questionnaire is approximately 10–15 minutes.

By selecting “Yes” below, you confirm that:

- ☐ You have read and understood the above information.
- ☐ You agree to voluntarily participate in this study.
- ☐ Yes, I consent to participate.
- ☐ No, I do not consent to participate.

Demographic Information Sheet

Please provide the following details:

1. **Name:** _____
2. **Age (Please select one):**
 - 18–25
 - 26–30
 - 31–35
 - 36–40
 - 41–45
 - 46–50
 - 51–55
 - 56–60
 - 61–65
 - 66–70

3. Gender:

- Male
- Female

4. Education Level:

- Bachelor's
- Master's
- PhD

5. Field of Work: _____

Multifactor Leadership Questionnaire (MLQ)

Instructions:

This questionnaire provides a description of your leadership style. Twenty-one descriptive statements are listed below. Judge how frequently each statement fits you. The word “others” may mean your followers, clients, or group members.

KEY:

- ☐0 = Not at all
- ☐1 = Once in a while
- ☐2 = Sometimes
- ☐3 = Fairly often
- ☐4 = Frequently, if not always

No.	Statement	0	1	2	3	4
1	I make others feel good to be around me.	☐	☐	☐	☐	☐
2	I express with a few simple words what we could and should do.	☐	☐	☐	☐	☐
3	I enable others to think about old problems in new ways.	☐	☐	☐	☐	☐
4	I help others develop themselves.	☐	☐	☐	☐	☐
5	I tell others what to do if they want to be rewarded for their work.	☐	☐	☐	☐	☐
6	I am satisfied when others meet agreed-upon standards.	☐	☐	☐	☐	☐
7	I am content to let others continue working in the same way as always.	☐	☐	☐	☐	☐
8	Others have complete faith in me.	☐	☐	☐	☐	☐
9	I provide appealing images about what we can do.	☐	☐	☐	☐	☐
10	I provide others with new ways of looking at puzzling things.	☐	☐	☐	☐	☐
11	I let others know how I think they are doing.	☐	☐	☐	☐	☐
12	I provide recognition/rewards when others reach their goals.	☐	☐	☐	☐	☐
13	As long as things are working, I do not try to change anything.	☐	☐	☐	☐	☐
14	Whatever others want to do is O.K. with me.	☐	☐	☐	☐	☐
15	Others are proud to be associated with me.	☐	☐	☐	☐	☐
16	I help others find meaning in their work.	☐	☐	☐	☐	☐
17	I get others to rethink ideas that they had never questioned before.	☐	☐	☐	☐	☐
18	I give personal attention to others who seem rejected.	☐	☐	☐	☐	☐
19	I call attention to what others can get for what they accomplish.	☐	☐	☐	☐	☐

- 20 I tell others the standards they have to know to carry out their work. ☐☐☐☐☐
- 21 I ask no more of others than what is absolutely essential. ☐☐☐☐☐

Job Insecurity Scale (JIS)

Instructions:

The following statements are about your job situation. Please indicate how much you agree or disagree with each statement.

KEY:

☐☐1 = Strongly Disagree

☐☐2 = Disagree

☐☐3 = Neutral

☐☐4 = Agree

☐☐5 = Strongly Agree

No.	Statement	1	2	3	4	5
1	Chances are, I will soon lose my job.	☐	☐	☐	☐	☐
2	I am sure I can keep my job. (<i>reverse scored</i>)	☐	☐	☐	☐	☐
3	I feel insecure about the future of my job.	☐	☐	☐	☐	☐
4	I think I might lose my job in the near future.	☐	☐	☐	☐	☐

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 participants in this study were employees from many corporate sectors in Saudi Arabia, encompassing finance, information technology, health, and education. These industries were chosen to guarantee a variety of responses and to obtain a thorough comprehension of the interplay between AI adoption, leadership support, and job insecurity in various organisational settings. The target demographic comprised both male and female employees at various organisational levels, from entry-level positions to managing roles, to capture diverse viewpoints. The study utilised a non-probability convenience sampling method. This strategy was deemed suitable due to its efficacy in reaching respondents within the constrained

period and resources available. Convenience sampling facilitates data collection from people who are easily available and eager to participate, rendering it appropriate for exploratory research of this type. The theoretical rationale for this selection is its effectiveness in producing preliminary insights into phenomena when representativeness is subordinate to comprehending overarching patterns and linkages (Etikan, Musa, & Alkassim, 2016). Probability-based approaches offer enhanced generalisability; yet, non-probability sampling is frequently utilised in social science research when logistical limitations hinder random selection. We built the sample frame by getting in touch with employees through professional networks, organisational contacts, and internet channels. We found people who would be interested in doing the survey and sent them an invitation to do so. We sent the survey out electronically so that more people could see it. The strategy did not ensure equitable opportunities for involvement among all population members; nonetheless, it allowed the researcher to engage a varied group of respondents from different sectors, therefore advancing the study's objectives.

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.

The Job Insecurity Scale (JIS)

The Job Insecurity Scale (JIS) created by De Witte (2000) is one of the most used tools for measuring how insecure people feel about their jobs. It was made to find out how someone feels about the danger of losing their job and the sentiments of helplessness that come with it. There are four items on the measure, and each one is assessed on a 5-point Likert scale that goes from "strongly disagree" to "strongly agree." The questions are structured to encompass both the cognitive aspect (the probability of job loss) and the emotive aspect (the anxiety or stress associated with job loss). Because it is simple and clear, it may be used in many different cultural and organisational settings. It has been widely used in both cross-sectional and longitudinal investigations of employee attitudes and well-being.

The JIS has shown strong reliability and validity when it comes to psychometric qualities. De Witte's (2000) initial validation showed a Cronbach's alpha over 0.80,

which means that the test was very consistent within itself. Subsequent studies across other nations and sectors have validated this dependability, demonstrating that the measure reliably reflects the notion of job insecurity. Construct validity has been substantiated by connections with pertinent outcomes, including stress, work satisfaction, and organisational commitment. Research indicates that elevated job insecurity scores correlate with diminished well-being and decreased organisational attachment. Factor studies have also shown that the items load strongly on one factor, which proves that it is unidimensional. In general, the JIS has shown to be a trustworthy, accurate, and free tool for measuring job insecurity in both research and real-world organisational settings.

Data collection

This study's data were gathered via a defined quantitative methodology. The work Insecurity Scale (JIS), created by De Witte in 2000, was used to quantify work insecurity. This scale is commonly utilised in organisational research to evaluate employees' attitudes on the potential of job loss and associated anxieties and concerns. The questionnaire was given together with the Multifactor Leadership Questionnaire (MLQ) and questions on AI exposure to make sure that all the factors being studied were included. Data were collected from personnel in several areas, including banking, information technology, healthcare, and education, in Saudi Arabia. A non-probability sampling technique was employed owing to practical constraints and participant

accessibility. The survey was sent out electronically using email and online survey platforms. This made it simpler to get a wide range of responses while keeping things private and convenient. Before taking part, each responder gave their informed agreement, with the promise that their information would only be used for academic reasons and kept private.

Respondents filled out the questionnaire on their own, and steps were taken to eliminate response bias by making it clear that there were no right or incorrect answers and that honest answers were necessary for the study to be legitimate. This method made it easier to get accurate and trustworthy data, making sure that the answers were based on real feelings about AI exposure, leadership position, and job insecurity in the workplace.

Results

This study's results are examined in depth, and they show that using artificial intelligence technology together with more mechanisation makes people, especially workers in any industry, feel better. Employees who are afraid of losing their jobs or are anxious about job security are most likely not satisfied in their jobs and don't give their best recommendations at work. This is because they are afraid or worried that they may lose their jobs. This research corroborates previous studies about the influence of artificial intelligence and automated gadgets on employee stress and anxiety, which adversely affect productivity.

Table 1

Descriptive statistics

Variable	Frequency	Percentage (%)
Gender		
Male	55	53.0
Female	50	47.0
Age group		
18 - 25	22	19.0
26 - 35	57	39.0
36 - 45	27	21.0
46 and above	17	15.0
Years of experience		
<5 years	38	30.0
5 - 10 years	42	33.0
11 - 15 years	22	17.0
>15 years	12	10.0

Interpretation

The demographic distribution of the respondents shows a fairly balanced gender representation, with males (53%) slightly outnumbering females (47%). This balance suggests that the findings of the study capture perspectives from both genders without any major bias toward one group. In terms of age, the majority of participants fall within the 26–35 age group (39%), followed by those aged 36–45 (21%). A smaller proportion belongs to the youngest group of 18–25 (19%) and those aged 46 and above (15%). This indicates that the sample is largely composed of early- to mid-career professionals, with fewer very young or older employees represented. Such a distribution is reflective of the active working-age population, particularly those most likely to be exposed to and influenced by AI adoption in organizational settings.

The respondents' years of experience also reveal a diverse spread. Most participants reported having 5–10 years of experience (33%), followed closely by those with less than 5 years of experience (30%). Meanwhile, 17% of respondents had 11–15 years of experience and only 10% reported more than 15 years of professional experience. This shows that the sample is weighted toward employees with early to mid-level experience, who may be especially sensitive to changes in job security and skill requirements caused by AI integration, compared to those at later stages of their careers. Overall, the demographic profile demonstrates that the sample includes a wide range of perspectives across gender, age and professional experience, while being most representative of early- to mid-career employees. This demographic composition provides useful context

for interpreting the study's findings, especially regarding the relationship between AI adoption, job insecurity and the moderating role of leadership.

Explanation

The demographic distribution of the responses may be conceptually elucidated via the lens of workforce makeup and organisational dynamics. The almost equal number of male (53%) and female (47%) participants is in line with a larger trend in the workplace, where both men and women are taking on more responsibility. This balance is essential from a theoretical point of view because it lessens gender bias in how people see AI adoption and job insecurity. Social role theory posits that gender disparities in workplace attitudes frequently arise from socially built expectations; nonetheless, a balanced representation facilitates more reliable interpretations across both groups. The age distribution shows that most of the people who answered (39%) are between the ages of 26 and 35. The next largest group (21%) is between the ages of 36 and 45. Human capital theory asserts that individuals within these age demographics are in pivotal phases of professional advancement, during which their abilities, experience and productivity are optimally used by organisations. Companies prefer to invest in this group of workers for long-term growth, thus they are also more likely to be affected by changes in technology. On the other hand, younger workers (18–25) may not have as much experience and may see AI adoption differently. Older workers (46 and above) may not be able to adapt to changes in technology as quickly, which makes them more likely to feel insecure about their jobs. This is in line with theories of career phases,

which say that professionals in the middle of their careers are both the most engaged and the most at danger when new technologies change the skills needed.

The spread of years of expertise backs up this hypothesis. A significant percentage of respondents possessed fewer than 10 years of experience (63%), categorising them within the initial and consolidation stages of their careers. Theories of occupational socialisation claim that employees in these stages exhibit heightened sensitivity to organisational changes and leadership behaviours, as they are in the process of establishing their professional stability and identity. There are fewer employees with more experience (11–15 years or more) and while they have a lot of knowledge, they may also see AI as a danger to the way they operate now. This aligns with work insecurity theory, which emphasises that insecurity is not uniformly distributed but differs based on career stage, tenure and perceived replaceability in the labour market. The demographic profile, when considered collectively, corresponds with theoretical frameworks from human capital theory, career stage theory and literature on job insecurity. It shows that the main group of people who are experiencing and interpreting the consequences of AI adoption are younger and mid-career professionals who are in the most active and formative periods of their careers. The distribution also shows how important leadership is as a moderating element, as the way leaders act has a big effect on how early- to mid-career employees see stability and security.

Table 2

Reliability analysis of the variables

Construct	Cronbach's Alpha
AI exposure	0.71
Job insecurity	0.80
Leadership role	0.79

Interpretation

According to the results of the Cronbach's Alpha calculations, the constructions appear to have a high degree of internal consistency, which indicates that the reliability analysis is satisfactory. The average threshold for AI exposure is 0.70, however the Cronbach's Alpha for AI exposure is 0.71, which is higher than the average. Furthermore, this indicates that the items that are utilised in the measurement of this construct are reliable and consistent. Despite the fact that this is the least dependable of the three structures, it demonstrates that it is still sufficient for research. The highest Cronbach's Alpha score is 0.80, which indicates that job insecurity is extremely consistent within itself and that the questions used to assess this construct measure the notion in a consistent manner. This is the case since job insecurity has the highest score available. This indicates that the measure properly represents how individuals feel about the unpredictability of their jobs in relation to the use of AI system. In addition, the leadership role construct has a Cronbach's Alpha value of 0.79, which indicates that it features a high degree of reliability. Based on this result, it can be deduced that the components of the evaluation consistently represent the moderating impact of leadership within the research model.

Table 3
Correlation analysis

Variables	1	2	3
1. AI exposure	1		
2. Job insecurity	0.40	1	
3. Leadership Role	-0.13	-0.30	0.44

Interpretation

The correlation analysis reveals meaningful relationships among the study variables. AI exposure is positively correlated with job insecurity ($r = 0.40$), indicating that greater exposure to AI is associated with higher levels of perceived job insecurity. This suggests that employees who experience or anticipate the integration of AI technologies in their work environment are more likely to feel uncertain about their job stability. The positive and moderate correlation supports the assumption that AI adoption contributes to job-related anxieties and aligns with existing literature on technology-driven workplace insecurity. AI exposure, however, shows a weak and negative correlation with leadership role ($r = -0.13$). This implies that higher levels of leadership support

are somewhat associated with lower perceptions of AI exposure as a direct threat, though the strength of the relationship is small. This weak correlation suggests that leadership alone may not significantly reduce the perception of AI exposure but could still influence how employees interpret its consequences.

A stronger and more meaningful relationship emerges between leadership role and job insecurity ($r = -0.30$). The negative correlation indicates that higher levels of leadership support are linked to lower levels of job insecurity. This aligns with the theoretical expectation that effective leadership can act as a buffer, reducing the psychological strain employees experience when faced with technological changes. Leaders who provide support, guidance and reassurance may therefore help mitigate fears of job loss or obsolescence brought about by AI. Finally, the positive correlation between leadership role and AI exposure ($r = 0.44$) suggests that in contexts where AI is more prevalent, leadership tends to be more active and visible. This may reflect the organizational need for strong leadership during times of technological transition, as leaders step in to manage uncertainty and maintain employee trust.

Explanation

There are a number of theoretical viewpoints that can help us understand how AI exposure, job instability and leadership position are related. The positive link between AI exposure and work insecurity ($r = 0.40$) aligns with job insecurity theory, which asserts that feelings of instability emerge when employees perceive their employment

as being jeopardised by uncontrollable external factors. In this instance, the implementation of AI serves as a disruptive agent that transforms employment frameworks, skill prerequisites and the perceived worth of human labour. According to technological disruption theory, workers see more exposure to AI as an indication that they could lose their jobs, which makes them feel more insecure.

The inverse correlation between leadership role and work insecurity ($r = -0.30$) corresponds with ideas of transformative and supportive leadership. Leadership behaviours, including transparent communication, empathy and opportunity for skill enhancement, help mitigate the psychological stress linked to technological transformation. Social exchange theory elucidates that when workers view leaders as helpful and committed to their development, they respond with increased trust and less fear, especially in ambiguous situations like AI adoption. So, leadership acts as a protective mechanism that affects how safe employees feel. The slight negative link between leadership role and AI exposure ($r = -0.13$) may be elucidated via the framework of organisational change theory. Leaders may not be able to change the amount of AI exposure directly, which is frequently a strategic or technological need, but they can help people understand it. This elucidates the fragility of the relationship—leaders are unable to obstruct AI deployment, although they can shape employees' experiences of it.

Lastly, the positive correlation between leadership role and AI exposure ($r = 0.44$) indicates that leadership becomes increasingly prominent in environments where AI

technologies are actively used. Contingency theory posits that the efficacy of leadership is contingent upon the situation; in settings characterised by significant technological transformation, robust leadership becomes increasingly essential. This substantiates the notion that organisations with elevated levels of AI adoption are those in which leadership is engaged to navigate staff through transitions and alleviate uncertainty. These associations together substantiate the theoretical foundation of this investigation. Exposure to AI contributes to work insecurity, aligning with ideas of job insecurity and technological disruption, whereas leadership functions as a moderating factor, consistent with transformational leadership and social exchange theory. This strengthens the idea that organisational transformation is best seen as a sociotechnical process, where both human and technology variables affect how well employees do their jobs.

Abstract

This research investigated the influence of artificial intelligence (AI) implementation on job insecurity inside Saudi organisations, emphasising the mediating effect of leadership support. The objective was to investigate employees' perceptions about AI adoption in the workplace, the impact of these beliefs on their job security, and the potential of supportive leadership to mitigate the adverse consequences of technological change. We used standardised questionnaires, such the Multifactor Leadership Questionnaire (MLQ) and a validated work insecurity scale, to gather data. A convenient sample strategy was used to get responses from personnel in Saudi Arabia's banking, IT, education, and healthcare sectors. Statistical studies were performed to ascertain the correlations among the variables.

The results indicated that elevated levels of AI adoption correlated with heightened sentiments of job insecurity among employees. However, leadership support was found to considerably moderate this association, indicating that when leaders offer clear direction, reassurance, and support, employees perceive reduced worry around AI-related developments. The research adds to the expanding body of knowledge about AI and workplace psychology in Saudi Arabia and stresses how important leadership is for managing changes in an organisation. Limitations encompass the employment of non-probability sampling and dependence on self-reported data, potentially constraining generalisability. Subsequent study ought to use longitudinal designs and more extensive, heterogeneous samples.

Discussion

Additionally referred to as "Industry 4.0," the Fourth Industrial Revolution (4IR) represents a significant paradigm shift in the manner in which we build technology. It is made possible by remarkable technological advancements that are comparable to those that occurred during the first, second and third industrial revolutions. As a result, it has introduced cutting-edge technology such as artificial intelligence (AI), which has the potential to have a significant influence on a wide range of societal segments and is among the most significant events that have occurred during this time period. In the past several years, there has been remarkable advancement in the field of machine learning, which is a subfield of artificial intelligence. Multilayer deep neural networks are exceptionally effective at performing classification tasks, which is the reason behind this. This is what sparked the latest revolution in artificial intelligence, which is garnering a lot of attention, particularly because of the potential implications it might have on humanity. An extensive range of industries, including medical diagnostics, autopilot transportation, and complex manufacturing, have been influenced and

transformed as a result of the development and broad use of artificial intelligence and automation capabilities. The year 2022, according to Nguyen and Hong Vo. When compared to other forms of digital technology, artificial intelligence technologies are distinguished by the fact that they present businesses with both exceptional opportunities and significant challenges. As artificial intelligence continues to advance and automate tasks traditionally performed by humans, concerns that the increasing sophistication of artificial intelligence may negatively affect the labour force and lead to mass unemployment by jeopardising skilled and semi-skilled workers and reduce the size of the middle class, have made AI one of the parts of the debate on the link between automation and jobs, which gives rise to concern about a massive and rapid disappearance of the latter. A common misconception is that the introduction of new technologies would result in the loss of jobs and will make job security less secure. Nevertheless, the reality is more convoluted than that. Since this is the case, it is of the utmost importance to investigate the impact that AI has on the job security of humans.

Technology is a crucial aspect that affects organisations. AI is becoming more common in the workplace, and this will change how organisations function. AI has helped businesses in many ways, but many are also worried about how it may affect jobs and job security. employment security is sometimes defined as “an employee’s belief that their employment, or a significant aspect of their career, is

secure."(Michalos, 2014). Job security means that employees have a lot of faith or trust that they will be able to keep their employment in the near future. It gives employees a sense of safety against potential inherent or external hazards that might impact or disrupt their job status. Job insecurity is feeling like you can't maintain your job because you think there could be a threat to your job security. (Bhargava et al., 2021, p. 107). Research indicates that employees in many organisations are profoundly apprehensive about their job security owing to the adoption of numerous technologies. In 2017, Walker, Vice President of Pega systems, presented the findings of a poll of 6000 people in six different nations. He said that 70% of those surveyed are afraid of AI and 25% think it would take over the world and enslave people. Some people think that AI support at work will help them manage their professional and personal lives better, giving them more time for leisure activities and more meaningful work. 31% of people also think that robots would take over jobs. (Carayanis & Grigoroudis, 2023).

It is anticipated by Frey and Osborne that artificial intelligence would directly replace thirteen percent of the workforce. This includes positions that need a higher level of cognitive ability and offer greater financial rewards, such as those in finance, accounting, and senior management. The engagement of artificial intelligence is seen by many experts as an external factor that poses a threat to the stability of employees and the reliability of jobs within companies. The worry that the employee has will be detrimental to the company if the organisation does not take the appropriate actions

to remedy the problem as fast as that is required. According to Liu and Zhan's 2020 publication, page 2. It has been said by Stephen Hawking that the prevalence of systems that are capable of functioning independently without the assistance of humans is growing. It is possible for these systems to learn on their own and adapt to new knowledge as it becomes available. In the realm of financial trading, for example, automated systems that rely only on algorithms enable businesses to complete transactions at a faster rate than systems that require the participation of individuals. In industrial environments, robots are also capable of doing certain tasks on their own. "Davenport and Ronanki, 2018, pages 109 and 110" According to Kiderlin (2023), the incorporation of artificial intelligence into physical machines, software systems, and combinations of hardware and software results in increased power. This indicates that it is increasingly feasible and cost-effective to replace a greater number of human jobs with those performed by robots. That being said, there are some occupations that are more likely to be replaced by robots than others. The year 2023, Kiderlin. According to Georgios Petropoulos, the most susceptible occupations are those that need basic physical and cognitive ability. On the other hand, roles that place an emphasis on interpersonal skills are substantially more difficult to replace with artificial intelligence. (2018, page 7) Neufeind, O'Reilly, and Ranft found that.

On the other hand, there are contrasting points of view concerning the impact that artificial intelligence will have on work and job security concerns. The term

"technophobe" is used by several studies to describe individuals who exhibit irrational anxiety towards artificial intelligence, appear to be unusually worried, and express the dread of unemployment and job instability. These individuals regard automation and unemployment to be identical with one another. "Non-technophobes" are those who believe that technology is responsible for the creation of greater work prospects. It is not as simple as stating that automation results in job losses, according to Bessen, because the influence of technology on employment is not as easy as that. This is due to the fact that the elasticity of demand, which is a term that describes how sensitive the demand for a product or service is to changes in price or technology, has an effect on the link between technology and employment. (Bessen, 2018, page numbers). There are three important industrial sectors in the United States: the textile industry, the steel industry, and the automobile industry. The demand model successfully forecasts the increase and fall of employment in these three industries.

This model offers a helpful framework for investigating the ways in which artificial intelligence is anticipated to impact employment over the next ten or twenty years. In this line, the World Economic Forum predicts that by the year 2025, a shift in the division of labour between people and machines may result in the displacement of 85 million jobs. On the other hand, 97 million new positions may arise that are better suited to the new division of labour between humans, machines, and algorithms. A consequence of this is that current advancements in artificial intelligence are already

having a variety of effects on the workplace. To begin, by automating jobs that must be performed repeatedly, hence removing the requirement for specific human talents. Significant shifts will occur across a wide range of professions as a consequence of this. Second, as a result of changes in expertise, several apps have been developed in a variety of industries, such as law firms and sales, to automate jobs that were historically performed by junior attorneys or account managers. These duties include due diligence, contract review, and sales chores. The emerging technologies, such as conversational artificial intelligence, are helpful and ease these duties. Consequently, this may result in alterations to the knowledge that is necessary for particular tasks, and it may even lead to the reorganisation of these occupations.

According to Benbya and others (2020, page 9). Thirdly, by complementing professionals for the reason that artificial intelligence systems may help and improve the job that professionals do by giving support for their judgement and decision-making, despite the fact that they are unable to completely replace human specialists. As an illustration, the discussion has shifted away from the "end of radiologists" focus and now admits that artificial intelligence technologies will not have the ability to replace radiologists in the near future; rather, they will assist radiologists in their work.

(2017)—Davenport and Dreyer (2018)

As a conclusion, breakthroughs in artificial intelligence have the potential to influence employment and job security by directly displacing workers from activities that they

were previously undertaking (a phenomenon known as the displacement effect). In addition, by boosting the demand for labour in sectors or employment that are created or developed as a result of technical development (the productivity impact).

The results of this thesis show that using AI at work makes employees feel less secure about their jobs, which supports the idea that changes in technology affect not just how people conduct their jobs but also how they feel about them. The findings indicate that exposure to AI directly intensifies sentiments of work insecurity, but leadership serves a moderating function by mitigating its adverse effects. This corresponds with job insecurity theory, which posits that employees experience uneasiness when confronted with uncertainty and a perceived lack of control in the workplace, especially amid technological disruptions. The demographic study gives us a good idea of how these things work. The sample exhibited a virtually balanced gender distribution, hence preventing any bias in viewpoints due to gender-specific replies. This balance enhances the validity of the findings by reflecting views influenced by both male and female job experiences, as per social role theory. The majority of responders were aged 26 to 35 years, and a significant fraction possessed fewer than 10 years of experience. Human capital theory and career stage theory indicate that employees in the early to mid-career phases are more susceptible to technological change, since their career paths and long-term stability are still evolving. Thus, the

significant presence of this group offers valuable insights into how the most engaged parts of the workforce perceive AI adoption and its effects on job security.

The reliability analysis further validated the resilience of the measuring devices employed in this investigation. Cronbach's Alpha scores for all constructs fell within the acceptable range, indicating internal consistency, with AI exposure at 0.71, job insecurity at 0.80, and leadership position at 0.79. These findings confirm that the constructs were assessed consistently, so guaranteeing that the conclusions are based on dependable scales. The elevated reliability scores for job insecurity and leadership role, in contrast to AI exposure, can be theoretically elucidated by the notion that perceptions of insecurity and leadership support represent more consistent psychological constructs, whereas exposure to AI may be interpreted variably based on individual roles and organisational contexts. The correlation analysis offered more understanding of the interrelationships among the variables. AI exposure was marginally and positively connected with work insecurity ($r = 0.40$), corroborating technological disruption theory, which asserts that emerging technologies are regarded as risks to employment stability. Employees exposed to AI are more inclined to expect redundancy, which makes them feel less secure. Conversely, the leadership role had a negative correlation with work insecurity ($r = -0.30$), so validating transformational leadership theory and social exchange theory. Leaders that give support, speak openly,

and create chances for skill growth lessen the mental stress that comes with adopting AI, which makes people feel less insecure.

The small negative connection ($r = -0.13$) between AI exposure and leadership role can be explained by organisational transformation theory. Leaders cannot stop people from using new technology, but they can change how their employees think about it. The tenuous relationship illustrates this distinction: leadership does not eradicate exposure but rather recontextualises its ramifications. A significant correlation was identified between AI exposure and leadership position ($r = 0.44$), indicating that in environments with more AI use, leadership becomes more dynamic and prominent. Contingency theory corroborates this conclusion by positing that leadership efficacy is contingent upon context; in settings characterised by significant technological change, leadership plays a crucial role in navigating personnel through changes. These findings show that AI adoption has two sides: it may help an organisation move forward and make employees feel insecure. Job insecurity is not only a consequence of technology integration; it is influenced by employees' perceptions and experiences of these developments. Leadership becomes a pivotal factor in this connection, influencing the degree to which AI adoption induces insecurity. This supports the sociotechnical systems view, which says that both human and technology elements need to be dealt with at the same time to make sure that organisations have long-lasting results.

From a practical point of view, the results show how important it is to train leaders in the age of AI adoption. Investing in AI is important for staying competitive, but it needs to be combined with leadership methods that build trust, improve communication, and help employees. Leaders who talk about their own fears, push for reskilling, and show empathy can make the negative mental consequences of AI exposure far less severe. Companies that don't pay attention to this human aspect risk making people feel less secure, which might hurt morale, trust, and retention. In summary, our study enhances both theoretical and practical understanding by demonstrating that AI adoption heightens job insecurity, but leadership mitigates this effect, diminishing its severity. The findings theoretically expand job insecurity theory, technology disruption theory, and leadership theories by illustrating their interactions within a contemporary working setting. In practice, the findings necessitate leadership-focused measures to guarantee that technology change improves organisational outcomes without compromising employee well-being.

Conclusion

This study aimed to investigate the influence of AI adoption on job insecurity, emphasising the moderating effect of leadership. The results corroborate that the deployment of AI considerably exacerbates employees' feelings of job insecurity, both directly and indirectly, while leadership is pivotal in mitigating these adverse effects. By combining demographic data, reliability tests, and correlation tests, the study gives a whole picture of how changes in technology affect the way people work and how they feel about their jobs. The demographic study showed that most of the people who took part were professionals in the early to middle stages of their careers, which is a population that is more likely to be affected by AI adoption. Theories of human capital and career stages say that people at these stages of their careers are most likely to be affected by changes in the skills needed and the expectations of the organisation. This demographic profile offered a significant framework for analysing the results, as it underscored the group most susceptible to the forces of technological change. The reliability analysis showed that the dimensions utilised in this study—AI exposure, job insecurity, and leadership role—were assessed with enough internal consistency to support the conclusions. The correlation study elucidated the interrelationships across variables, indicating that AI exposure is modestly and positively correlated with employment insecurity, but leadership is adversely correlated with insecurity.

Theoretical frameworks, including job insecurity theory, technology disruption theory, and transformational leadership theory, substantiate these links.

Leadership proved to be a significant factor, alleviating employees' anxieties and doubts by promoting trust, open communication, and avenues for skill enhancement. These findings collectively bolster the perspective that AI adoption constitutes not only a technical occurrence but a sociotechnical process, whereby human variables are as pivotal as technological ones. AI makes businesses more efficient, creative, and competitive, but it also makes people worry about job security and continuity. So, leadership is not on the outside, but on the inside, of how people see and deal with changes in technology. Good leaders may turn AI adoption from something to be afraid of into a chance to progress, whereas bad or no leadership can make people feel more insecure and resistant.

The findings of this investigation are both theoretical and practical. Theoretically, it expands the literature on job insecurity by contextualising it within the framework of AI adoption, so connecting conventional notions of workplace stability with contemporary technological disruption. It also adds to leadership theory by showing how it might help in circumstances where technology is a big part of the work. In practice, the research stresses the need for leadership-centered ways to deal with changes in technology. Companies can't only put money into AI systems; they also need to teach their executives how to reassure staff, encourage flexibility, and help them learn new skills. In the end, this study finds that using AI does make jobs less secure,

but good leadership may greatly lessen its bad effects. This shows that companies have two responsibilities: to keep up with new technology and to keep their employees happy. Organisations can make long-term success while keeping their employees engaged and safe by recognising the human aspect of AI adoption and giving leaders the authority to protect against insecurity.

Limitations of the study

This work provides useful insights; nonetheless, numerous limitations must be addressed. First, the data were gathered by self-reported surveys, which may be prone to response bias, including social desirability or the overestimation of specific opinions. Respondents may have given responses that they thought were acceptable instead of what they really thought, which might make the results less accurate.

Second, the study utilised a cross-sectional design, limiting the capacity to establish causal conclusions. The results validate correlations among AI exposure, job insecurity, and the moderating influence of leadership; nevertheless, the design precludes definitive conclusions on the direction of causality. A longitudinal strategy would have been more suitable to monitor shifts in attitudes over time as the integration of AI advances inside organisations. Third, the sample came from certain parts of the organisation, with most of the people being early- to mid-career professionals. This demographic profile yielded significant insights; nevertheless, it constrains the applicability of the findings to other cohorts, including senior employees

or individuals employed in sectors less directly influenced by AI. The over-representation of younger and mid-career workers may have heightened the impression of job insecurity, as this demographic is more directly affected by technological innovation than older, more established employees.

Fourth, the study depended solely on quantitative metrics, constraining the investigation of more profound, context-specific insights regarding employees' personal experiences with AI adoption. Qualitative approaches, such as interviews or focus groups, might have enhanced comprehension of the psychological and emotional aspects of work insecurity and the role of leadership in alleviating it. Lastly, the study looked at how AI was applied in a certain cultural and organisational setting. Cultural values and organisational practices might influence employees' perceptions of leadership support and job insecurity. Consequently, the results may not be entirely applicable to different locations or cultural situations characterised by varying leadership styles and employee expectations.

Future recommendations

Based on the results and limitations of this study, various suggestions for further research might be proposed. First, further studies might utilise longitudinal study methods to more effectively elucidate the dynamic interplay of AI adoption, job insecurity, and leadership. Because technology changes all the time and its impacts on

workers might get stronger or weaker over time, a longitudinal study would let researchers see how perceptions of insecurity evolve as companies keep adding AI. Second, researchers have to contemplate broadening the demographic diversity of participants. This study mainly looked at the experiences of employees who were just starting out or in the middle of their careers. Future research should look more extensively at older employees or workers in fields that aren't as directly influenced by AI. Examining attitudes across all career phases and sectors would yield a more thorough comprehension of the disparate effects of AI on job security.

Third, further research may gain from the use of mixed-method techniques. Although this study utilised quantitative data, the incorporation of qualitative methodologies, such as interviews or focus groups, would provide more comprehensive and nuanced insights into employees' lived experiences. This will facilitate the identification of the subtle ways in which leadership behaviours affect employees' perceptions of security or insecurity around AI adoption. Fourth, subsequent study may investigate certain leadership styles with deeper profundity. This study generically recognised leadership as a moderating element; however, greater exploration of specific types such as transformational, transactional, or servant leadership might yield more nuanced insights into the most effective strategies for mitigating AI-related job insecurity.

Lastly, it would be helpful to do comparison research in other cultural or organisational settings. Cross-cultural study might elucidate the varying strength of leadership's moderating effect, influenced by regional cultural norms and leadership practices, as well as workplace dynamics. These kinds of research would make the results more applicable to a wider range of situations and give us a better idea of how to handle the human aspect of AI adoption throughout the world.