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Impact Of Ai On Employee Performance In Textile Industries.

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ABSTRACT

The textile industry is experiencing a significant shift in operations with the integration of Artificial Intelligence (AI) in production, quality and supply chain processes. AI-driven automation improves operation efficiency, decreases errors, and helps organizations to become more efficient, but it also can impact employee performance, job roles, and skill. This research studies the impact of AI on employees in the textile industry in relation to changes in productivity, job satisfaction, and workforce adjustment. An exhaustive literature review was carried out to assess previous research on AI in textiles. This research identifies primary challenges such as job loss, skill misalignment, and employee apprehension to AI integration, but has also found AI changes to improve productivity, work-life balance, and collaboration. The findings of this research underscore organizational needs for targeted reskilling initiatives, employee engagement programs, and human-AI integration models to maintain a sustainable workforce in textiles. This research delivers valuable contribution to textile industry employers, human resource professionals, and public policy developers to help develop AI integration models which balance operational efficiency and employee satisfaction. The research concludes that AI integration in textiles can be optimized by putting in place proactive workforce planning initiatives and employee training, alongside developing a positive approach to technological adoption in the workplace.

KEYWORDS:

Artificial Intelligence, Employee Performance, Textile Industry, Automation, Job Roles, Workforce Adaptation, Skill Development, AI Integration.

INTRODUCTION:**BACKGROUND OF THE STUDY:**

The textile sector has been an industry that has predominantly been associated with manual labour for all aspects of producing textiles, controlling quality and supply chain management. However, with recent rapid advancements in Artificial Intelligence (AI), the industry is changing shape. AI-based technologies such as automation, machine learning and predictive analytics are providing improvements to efficiency, growth of product quality and production processes. The implementation of AI in the textile sector is driven by the necessity of improved productivity, extraction of costs and competitiveness in the market. AI-based applications such as computer vision in defect detection, sewing machines automatically, robotic process automation (RPA) as well as AI-based supply chain management, have begun to displace traditional processes and ways of working within roles and responsibilities of jobs. As AI is introduced into the dispensing of low-skill, manual labour, employees in the textile industry will need to train and adapt economically to new roles and improved skills and craftsmanship. The change in working processes have a range of positive and negative effects on employees, as AI conserves human error and also produces better efficiency and provides opportunity for employees to concentrate on higher-value work. However, the development of AI also exposes challenges to employees, including job displacement, increased skill gaps, higher workloads, and hesitancy to acceptance of recent technology. It is worthwhile to investigate the effects of technologic acceptance on employee performance and productivity, job satisfaction, and skill acquisition in textile industries. This would enable organizations to devise strategies in terms of retraining, reskilling, and better collaboration between humans and AI for sustainable growth and stable employment in the sector.

PROBLEM STATEMENT OF THE STUDY:

The textile industry is one of the world's largest industries and the most labour-intensive, employing millions of workers worldwide. However, with the emergence of Artificial Intelligence (AI), traditional manufacturing processes are changing, producing significant implications on employee performance, skill requirements, and job designs. While AI-enabled automation has positively affected efficiency, quality control, predictive maintenance, and supply chain management, it has also created challenges for employees. Most employees have faced job displacement, skills gaps, and challenges to learning new technologies. Organizations must address the challenges of providing efficient training and reskilling, which leads to potential productivity challenges and employee dissatisfaction. This study aims to explore how AI technology impacts employee performance in the textile industry and study key areas affecting employee performance such as: 1. AI-enabled automation efficiencies and productivity shifts. 2. Skill training and development challenges adapting to AI technology. 3. Job transitions and engagement in an AI-enabled workplace. 4. Workforce resistance and organizational strategies to support seamless AI integration. The study will identify the various ways employees and organizations can thrive while working within this advancing technology, and will provide useful recommendations for textile business leaders and human resource professionals to develop a deliberate workforce strategy with AI, learn how to design

training programs to adapt, and optimize employee engagement, so that sustained business outcomes can be achieved.

OBJECTIVES OF THE STUDY:

1. To examine the impact of AI implementation on employee productivity in the textile industry.
2. To identify the Challenges and Opportunities of AI Adoption in the Workforce.
3. To study employee perceptions and attitudes toward AI implementation.

LITRETURE RIVIEW

Sharma et al. (2020)

Artificial intelligence is driving a major transformation in the textile manufacturing process through the automation of production processes, which increases operational efficiency. AI tools automate workflows, reduce human error, and monitor production lines in real-time. This allows manufacturers to increase output while simultaneously providing quality control. Likewise, Kumar and Singh (2021) stated that integrating artificial intelligence into production greatly enhances productivity while helping reduce production time and operational cost. AI enabled, predictive maintenance tools helps manufacturers avoid equipment downtime and lost production time to ensure continuous workflow.

Patel et al. (2019)

The rise of artificial intelligence is transforming job roles in textiles. They note that automation will replace some traditional jobs that were labor-intensive but will also create new jobs for technology-minded workers, including operator roles for the AI system and data analyst roles. Along with displaced jobs, it will be necessary to invest in workforce skill development to address the workforce changes noted above. Gupta (2022) points out that businesses will need to continuously train employees to operate effectively in an AI- influenced environment. Upskilling programs will be essential for workers to learn how to interface with AI systems, ultimately progressing the workforce to be more technically knowledgeable.

Jain and Verma (2021)

Quality control in textiles is significantly enhanced by AI. They state that AI-based computer vision, incorporated with machine learning algorithms, can always detect fabric defects faster and more accurately than human inspectors. AI-based quality Assurance systems allow manufacturers to ensure product quality that is consistent, eliminating waste and reducing production costs. In addition, automated defect detection results in fewer defective products being sold, thus improving customer satisfaction.

Mehta (2020)

Companies that invest in training programs to apply AI will see substantial improvements to performance. According to Mehta (2020), companies that place an emphasis on training and education in AI will see enhanced productivity. Training employees in AI applications will increase their adaptability to technological advancements and build a culture of life- long learning. Future research should address the relative effectiveness of different training methods for various workforce segments in the textile sector.

Singh et al. (2020)

They propose that AI streamlines supply chain operations in textile manufacturing. By leveraging AI-driven predictive analytics, manufacturers can predict trends in demand, manage appropriate inventory, and eliminate inefficiencies throughout the supply chain. AI can alleviate many of the areas of inefficiency in logistics, allowing textile manufacturers to fulfill orders more successfully, shorten delays, and streamline overall operations. Moreover, tracking systems powered by AI provide transparency for manufacturers in real-time regarding input and output materials while facilitating oversight of inventory.

Sharma and Kumar (2022)

In textile factories, AI-based safety monitoring systems develop the safety culture of the workplace. They suggest that AI-based IoT sensors and computer vision can be used to monitor environmental conditions whereby workplace environmental conditions including temperature, humidity, and air quality can be measured. The systems then forewarn employees of the safety risk, thereby discouraging workplace safety incidents and ensuring safety compliance. Moreover, the adoption of safety monitoring technologies has been shown to play an overall role in enhancing employee job satisfaction.

RESEARCH GAP AND AREAS FOR FURTHER RESEARCH

- There are few empirical studies that examine the long-term consequences of AI adoption on workforce dynamics, particularly in developing countries where labor- intensive manufacturing activities are concentrated. More research is needed to analyze the effects of AI-enabled changes to their jobs on job outcomes, wage distribution, and workforce reskilling.
- The textile industry faces ethical worries about AI. We need to look into problems like keeping data safe, being fair when hiring, and watching workers too much. To make sure we use AI the right way, we need clear rules and plans.
- Although companies are putting money towards AI training and upskilling programs, we still do not know which methods are effective for different groups of workers. More research should be directed at exploring and determining the most effective training for employees—especially for employees transitioning into

AI-enabled positions from traditional manufacturing roles.

RESEARCH METHODOLOGY RESEARCH DESIGN:

The research design of this research will be descriptive and analytical to examine how Artificial Intelligence (AI) influences the performance of employees in the textile sector. The research will utilize a mixed-method (qualitative and quantitative) approach to examine in detail how adopting AI impacts workers' productivity, satisfaction at work, and skill acquisition.

DATA COLLECTION METHOD:

For data collection, we have used Google Forms, an online survey tool. Participants will access and complete a structured questionnaire at their convenience through this user-friendly platform. This method will ensure data standardization, security, and efficiency, with responses automatically organized for analysis. Participants will be informed, and their privacy will be maintained throughout the process.

POPULATION:

The study's population consists of **250** employees currently employed in various positions within an organization. These employees collectively represent the subjects of interest for our research, serving as the source of data for our investigation into training, employee productivity, job satisfaction etc.

SAMPLING METHOD:

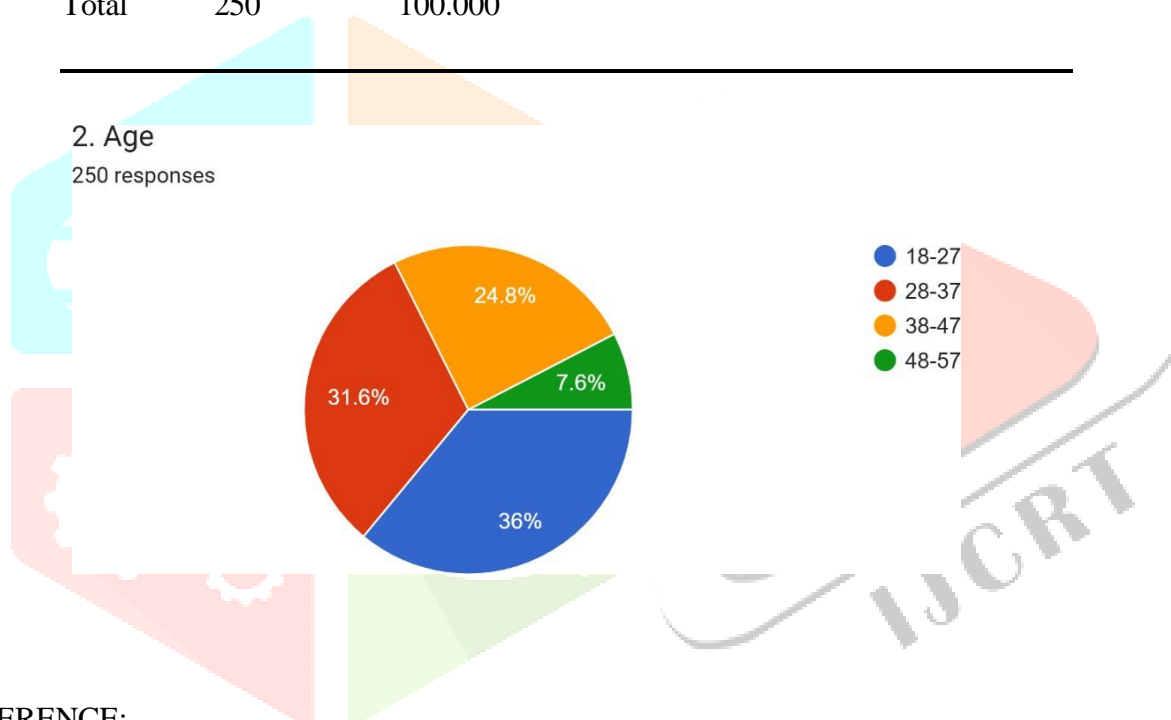
The sampling method employed in this survey is convenience sampling, a non-probabilistic approach where participants are chosen based on their accessibility and willingness to participate, rather than through random or structured selection. This method is chosen for its practicality and ease of data collection.

SAMPLING FRAME:

The sampling frame includes employees, HR professionals, and workers from AI-integrated textile industries, ensuring a diverse and well-represented sample for the study. This structured approach will help analyze how AI is transforming employee performance, job roles, and skill requirements in the textile sector.

DATA ANALYSIS AND INTERPRETATION*Frequencies for 2. Age*

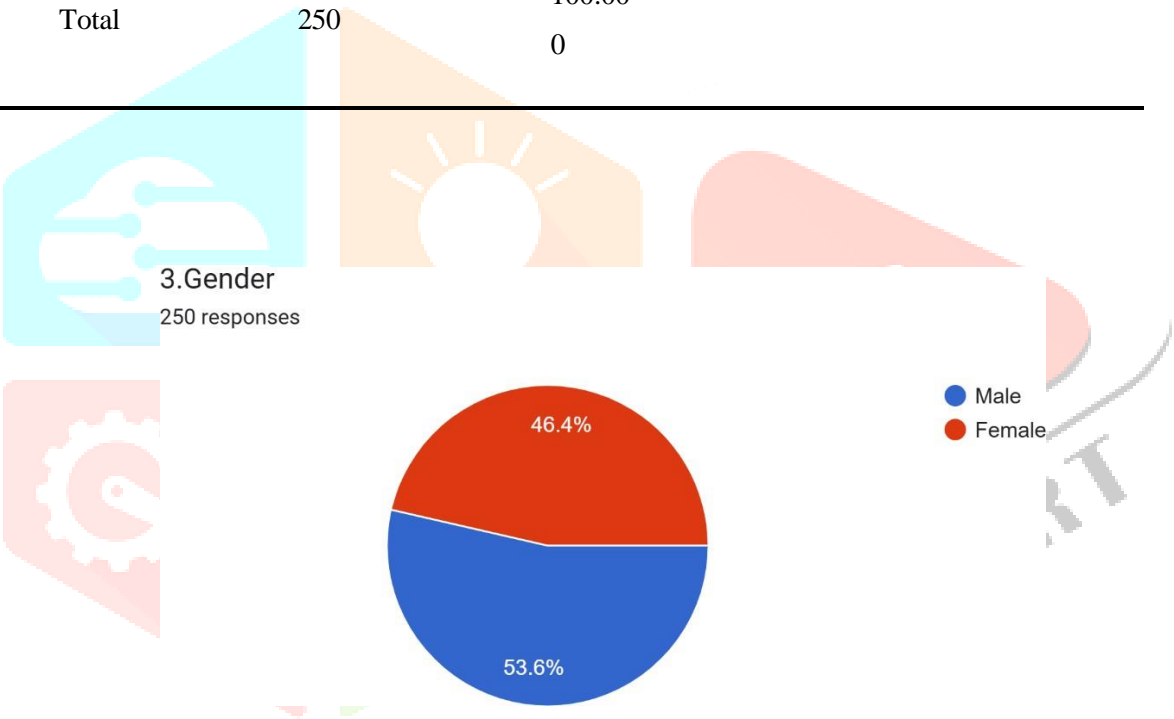
2. Age	Frequency	Percent	Valid Percent	Cumulative Percent
18-27	90	36.000	36.000	36.000
28-37	79	31.600	31.600	67.600
38-47	62	24.800	24.800	92.400
48-57	19	7.600	7.600	100.000
Missing	0	0.000		
Total	250	100.000		

**INFERENCE:**

- 18-27 years: The largest cohort consisting of 90 individuals (36%).
- 28-37 years: Next largest cohort, 79 individuals (31.6%), represents two-thirds of give- or- take 2%.
- 38-47 years: 62 individuals (24.8%), 92.4% of individuals are under 48.
- 48-57 years: This the smallest coterie consisting of 19 individuals (7.6%).
- Concluding Thoughts: The majority of individuals are young 67.6% (less than 38 years of age). A significant majority are individuals between the ages of late 30 and 40. They represented 24.8%. There are very few individuals (7.6%) that sought services that were between the ages of 48. The majority of individuals might have grown older. This data could lend itself well to looking at trends in the eyebrow business or even what ages of customers are interested.

Frequencies for 3.Gender

3.Gender	Frequen cy	Percen t	Valid Perce nt	Cumulati ve Percent
Female	116	46.400	46.400	46.400
Male	134	53.600	53.600	100.000
Missin g	0	0.000		
Total	250	100.000		



INFERENCE:

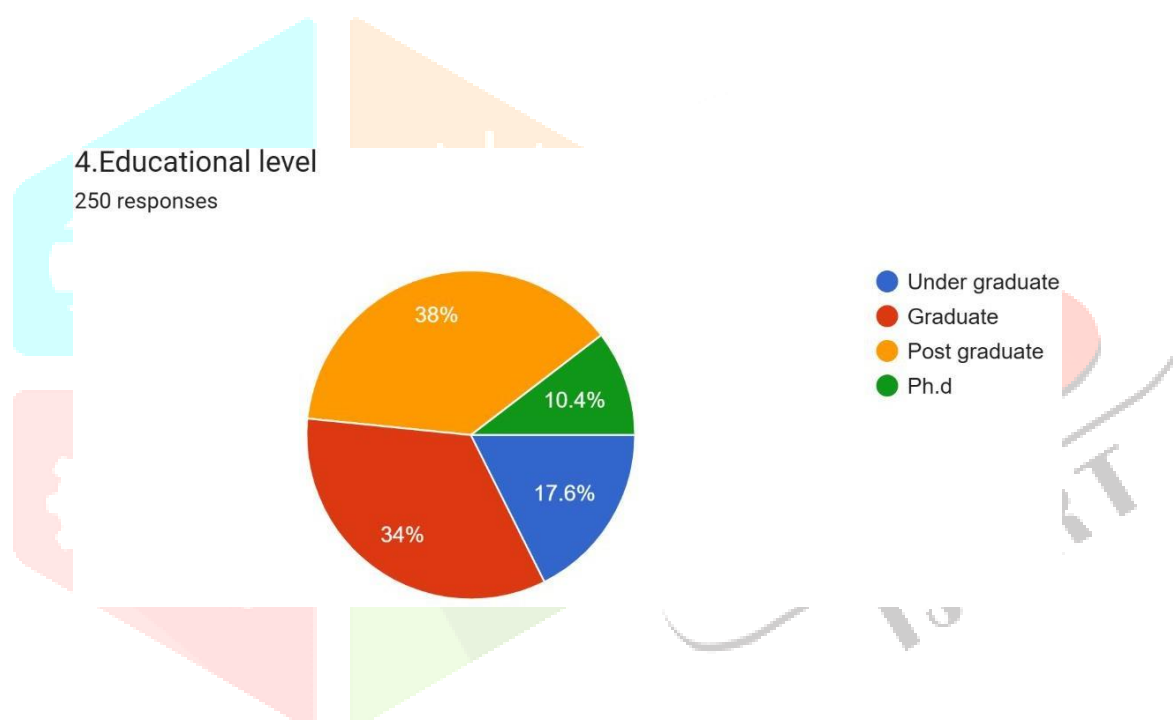
In a sample of **250 people** from the textile industry:

Men: 134 individuals (53.60%) Women: 116 individuals (46.40%)

The sample representation could imply a wide range of job roles in the industry:Men could be more often reflected in roles that are management, logistics, or technical jobs.Women could be more often represented in design, production, and sales.This information about gender representation is critical to human resources initiatives specific to future workforce planning such as ideas related to recruitment, diversity initiatives, and workplace policies.

Frequencies for 4.Educational level

4.Educational level	Frequency	Percent	Valid Percent	Cumulative Percent
Graduate	85	34.000	34.000	34.000
Ph.d	26	10.400	10.400	44.400
Post graduate	95	38.000	38.000	82.400
Under graduate	44	17.600	17.600	100.000
Missing	0	0.000		
Total	250	100.000		

**INFERENCE:**

In a sample of **250 people** from the textile industry:

Most employees (72%) have a graduate or postgraduate degree, demonstrating that employees with higher education levels are the norm in this workplace.

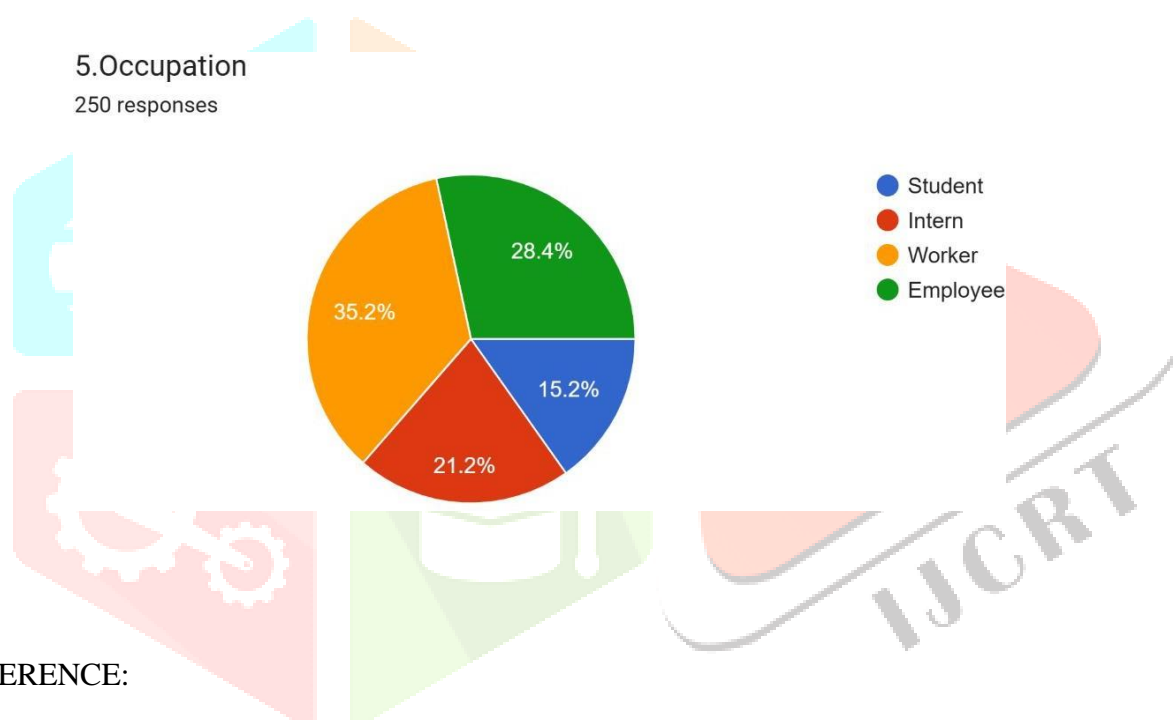
A small segment of employees hold a Ph.D. (10.4%) and are probably engaged in research positions, leadership roles, or more specialized work.

Undergraduates (17.6%) may be working as interns or are less experienced employees in entry level positions.

The information guides decisions about training, hiring, and to understand employee qualifications. The fact there was no missing data makes results reliable.

Frequencies for 5.Occupation

5.Occupation	Frequency	Percent	Valid Percent	Cumulative Percent
Employee	71	28.400	28.400	28.400
Intern	53	21.200	21.200	49.600
Student	38	15.200	15.200	64.800
Worker	88	35.200	35.200	100.000
Missing	0	0.000		
Total	250	100.000		

**INFERENCE:**

In a sample of **250 people** from the textile industry:

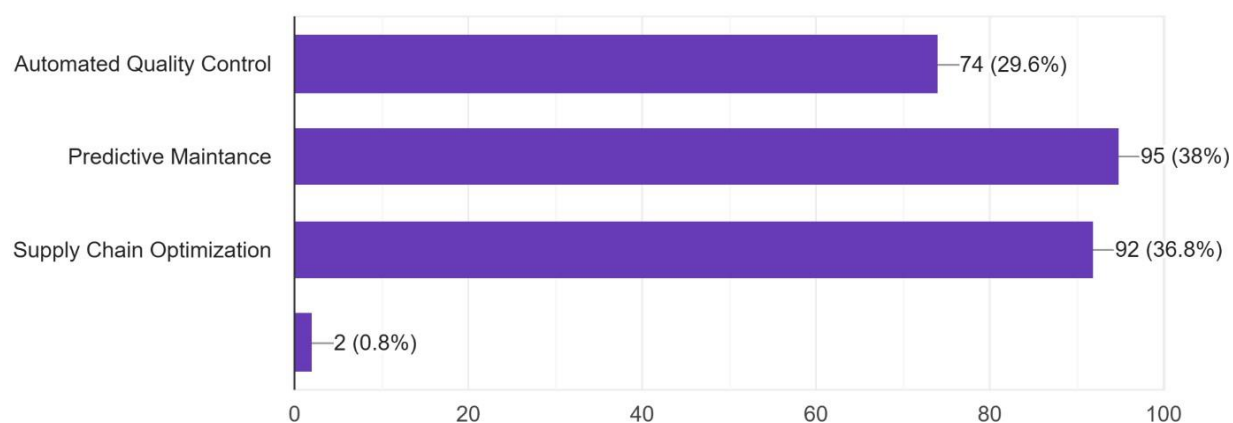
The majority (63.6%) fall within the worker or employee category, indicating a significant professional and work force. Workers, who make up the largest share (35.2%), most likely perform some manufacturing or production work. Employees, a close second (28.4%), are positioned to likely perform work in an office (administrative or management work) or a technology position. Interns at 21.2% and students at 15.2% combined are a very respectable share and considering the proportions are of concern, the research study supports increased interest from generations presumably to younger generations. The absence of missing data adds additional reliability to the analysis. This information can be used as supporting justification for workforce planning and training and assistance of understanding work roles in the industry.

Frequencies for 7.Which AI technologies are implemented in your workplace ?

7.Which AI technologies are implemented in your workplace ?	Frequency	Percent	Valid Percent	Cumulative Percent
Automated Quality Control	66	26.400	26.400	26.400
Automated Quality Control,	1	0.400	0.400	26.800
Automated Quality Control, Predictive Maintance	1	0.400	0.400	27.200
Automated Quality Control, Predictive Maintance, Supply Chain3 Optimization		1.200	1.200	28.400
Automated Quality Control, Supply Chain Optimization	3	1.200	1.200	29.600
Predictive Maintance	90	36.000	36.000	65.600
Predictive Maintance, Supply Chain Optimization	1	0.400	0.400	66.000
Supply Chain Optimization	84	33.600	33.600	99.600
Supply Chain Optimization, Missing	1 0	0.400 0.000	0.400	100.000
Total	250	100.000		

7.Which AI technologies are implemented in your workplace ?

250 responses



INFERENCE:

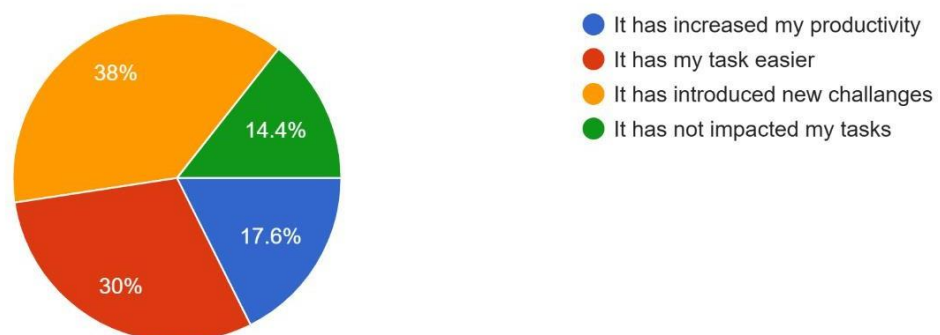
With a percentage of 36%, Predictive Maintenance is the most common type of AI technology adopted to help keep machines from failing and to minimize downtime. Supply Chain Optimization received a score of 33.6%. This area serves to enhance the management of inventories and the logistics of supplies. Automated Quality Control received a score of 26.4%. This technology uses automation to monitor the quality of a variety of products. Very few (1- 2%) of the responding workplaces adopt the use of multiple AI technologies with one another. All of the responses contained no missing data, which increases the confidence of the findings. AI provides textiles the opportunity to improve operational efficiency, product quality, and maintenance to the physical machinery/equipment.

Frequencies for 8. How AI impacted your daily tasks ?

8. How AI impacted your daily tasks ?	Frequency	Percent	Valid Percent	Cumulative Percent
It has increased my productivity	44	17.600	17.600	17.600
It has introduced new challenges	95	38.000	38.000	55.600
It has my task easier	75	30.000	30.000	85.600
It has not impacted my tasks	36	14.400	14.400	100.000
Missing	0	0.000		
Total	250	100.000		

8. How AI impacted your daily tasks ?

250 responses



INFERENCE:

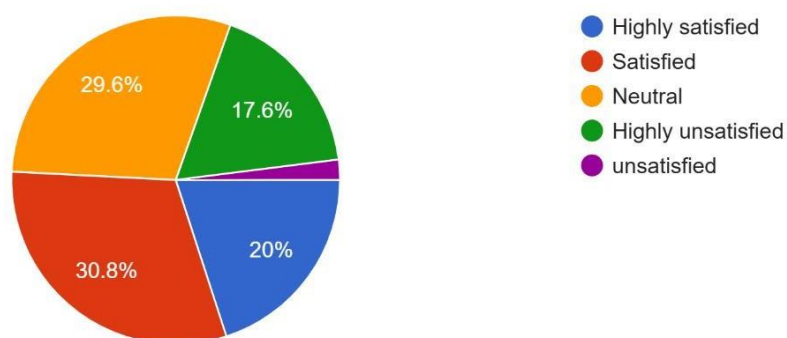
38% of individuals indicated that they believe AI is a new challenge, likely representing a learning curve or adaptation issues. 30% report that AI has made their work easier, evidencing the applications of AI which may help simplify workflow. 17.6% reported that productivity has improved if productivity is considered efficiency in a commercial practice. 14.4% said that AI did not impact their work and that AI does not have a universal effect on someone's work. There were no missing data and findings and therefore, reliable. AI is useful to many employees but also provides challenges that may be met by training and adaptation.

Frequencies for 9. How Satisfied you are from AI tools ?

9. How Satisfied you are from AI tools ?	Frequency	Percent	Valid Percent	Cumulative Percent
Highly satisfied	50	20.000	20.000	20.000
Highly unsatisfied	44	17.600	17.600	37.600
Neutral	74	29.600	29.600	67.200
Satisfied	77	30.800	30.800	98.000
unsatisfied	5	2.000	2.000	100.000
Missing	0	0.000		
Total	250	100.000		

9. How Satisfied you are from AI tools ?

250 responses



INFERENCE:

51% of people (those who are Satisfied + Highly Satisfied) have a positive outlook on AI tools. 29.6% feel Neutral, indicating they don't have strong feelings either way about AI tools.

19.6% fall into the Unsatisfied or Highly Unsatisfied category, which suggests they have some concerns or are not happy with these tools.

There's no missing data, so we can trust these findings.

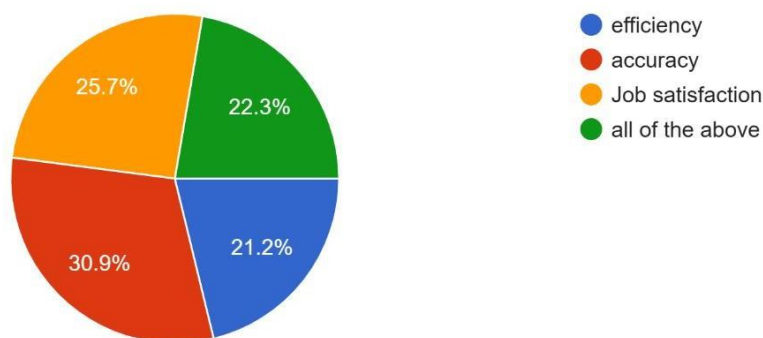
While a majority of employees see the value in AI tools, there are still some who encounter challenges or have mixed emotions about them.

Frequencies for 10. Select the aspects where it has a positive impact

10. Select the aspects where it has a positive impact	Frequency	Percent	Valid Percent	Cumulative Percent
Job satisfaction	59	23.600	23.600	23.600
Job satisfaction, all of the above	4	1.600	1.600	25.200
accuracy	75	30.000	30.000	55.200
accuracy, Job satisfaction	2	0.800	0.800	56.000
accuracy, all of the above	2	0.800	0.800	56.800
all of the above	51	20.400	20.400	77.200
efficiency	48	19.200	19.200	96.400
efficiency, Job satisfaction	3	1.200	1.200	97.600
efficiency, accuracy	3	1.200	1.200	98.800
efficiency, accuracy, Job satisfaction, all of the above	1	0.400	0.400	99.200
efficiency, all of the above	2	0.800	0.800	100.000
Missing	0	0.000		
Total	250	100.000		

10. Select the aspects where it has a positive impact

250 responses



INFERENCE:

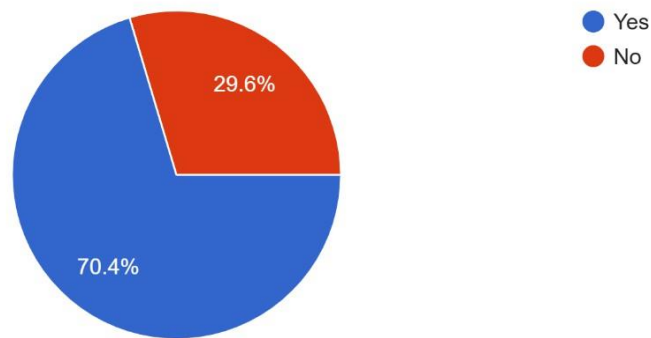
It turns out that 30% of people believe AI enhances accuracy, leading to more precise work. Meanwhile, 23.6% feel that AI increases job satisfaction, likely by lightening their workload or simplifying tasks. Additionally, 19.2% have noticed improvements in efficiency, indicating that AI helps speed things up. Around 20.4% think AI positively influences all areas, including accuracy, efficiency, and job satisfaction. A small group, about 1-2%, chose multiple benefits, suggesting that the advantages of AI can differ depending on the role.

Frequencies for 11. Have you recieved training on AI tools ?

11. Have you recieved training on AI tools ?	Frequency	Percent	Valid Percent	Cumulative Percent
No	74	29.600	29.600	29.600
Yes	176	70.400	70.400	100.000
Missing	0	0.000		
Total	250	100.000		

11. Have you recieved training on AI tools ?

250 responses



INFERENCE:

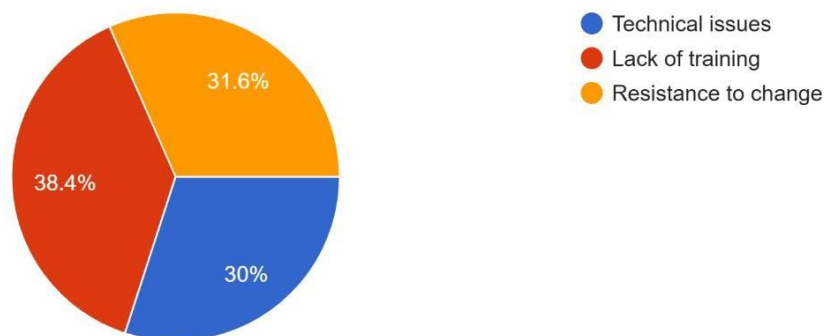
It turns out that 70.4% of employees have gone through some form of AI training, which means a good chunk of the workforce is familiar with AI tools. On the flip side, 29.6% haven't had any training, highlighting a potential gap in AI education. Thankfully, there's no missing data here, so we can be confident in these findings. While it's great that most employees are trained, offering additional training programs could really benefit those who haven't had the chance to learn about AI yet.

Frequencies for 12. What challenges have you faced with AI implemetation ?

12.What challanges have you faced with AI implemetation ?	Frequency	Percent	Valid Percent	Cumulative Percent
Lack of training	96	38.400	38.400	38.400
Resistance to change	79	31.600	31.600	70.000
Technical issues	75	30.000	30.000	100.000
Missing	0	0.000		
Total	250	100.000		

12.What challanges have you faced with AI implemetation ?

250 responses



INFERENCE:

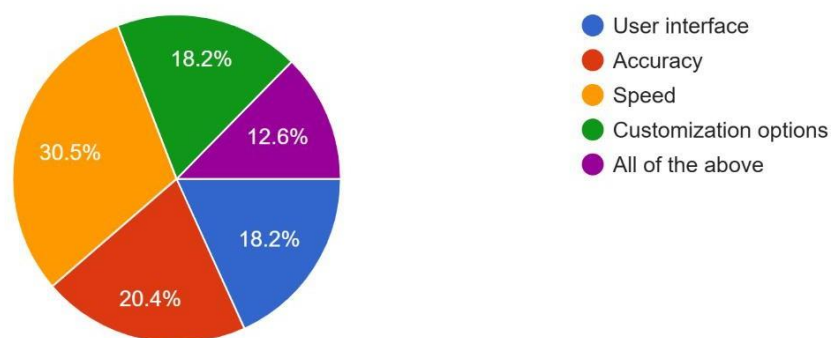
It turns out that 38.4% of people are facing a lack of training, highlighting the need for improved AI education. Meanwhile, 31.6% are grappling with resistance to change, indicating that some employees are having a tough time adapting. Additionally, 30% are dealing with technical issues, which could hinder the adoption of AI. There's no missing data here, so we can trust these findings. By tackling training gaps, managing change effectively, and providing solid technical support, we can enhance AI implementation.

Frequencies for 13.Select the important improvements for AI tools -

13.Select the important improvements for AI tools -	Frequency	Percent	Valid Percent	Cumulative Percent
Accuracy	47	18.800	18.800	18.800
Accuracy, All of the above	1	0.400	0.400	19.200
Accuracy, Customization options	2	0.800	0.800	20.000
Accuracy, Speed	2	0.800	0.800	20.800
Accuracy, Speed, Customization options	1	0.400	0.400	21.200
All of the above	30	12.000	12.000	33.200
Customization options	43	17.200	17.200	50.400
Speed	73	29.200	29.200	79.600

Speed, All of the above	1	0.400	0.400	80.000
Speed, Customization options	1	0.400	0.400	80.400
User interface	43	17.200	17.200	97.600
User interface, Accuracy, Speed	2	0.800	0.800	98.400
User interface, All of the above	1	0.400	0.400	98.800
User interface, Customization options	1	0.400	0.400	99.200
User interface, Speed, All of the above	1	0.400	0.400	99.600
User interface, Speed, Customization options	1	0.400	0.400	100.000
Missing Total	250	0.000	0.000	100.000

13. Select the important improvements for AI tools -
250 responses



INFERENCE:

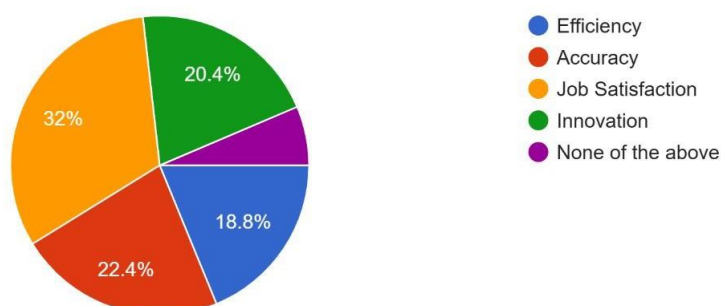
Speed (29.2%) tops the list of requested improvements, highlighting a strong desire for quicker AI tools. Accuracy (18.8%) is another significant concern, reflecting the need for more precise AI outputs. Customization options (17.2%) and user interface (17.2%) are equally valued, indicating that users are looking for greater control and a more user-friendly experience. 12% of respondents want enhancements across the board, emphasizing the importance of a comprehensive upgrade. With no missing data, these results are quite reliable. By focusing on speed, accuracy, customization, and user interface, we can boost AI adoption and enhance user satisfaction.

Frequencies for 14. Which aspects of employee performance are impacted by AI ?

14. Which aspects of employee performance are impacted by AI ?	Frequency	Percent	Valid Percent	Cumulative Percent
Accuracy	56	22.400	22.400	22.400
Efficiency	47	18.800	18.800	41.200
Innovation	51	20.400	20.400	61.600
Job Satisfaction	80	32.000	32.000	93.600
None of the above	16	6.400	6.400	100.000
Missing	0	0.000		
Total	250	100.000		

14. Which aspects of employee performance are impacted by AI ?

250 responses



INFERENCE:

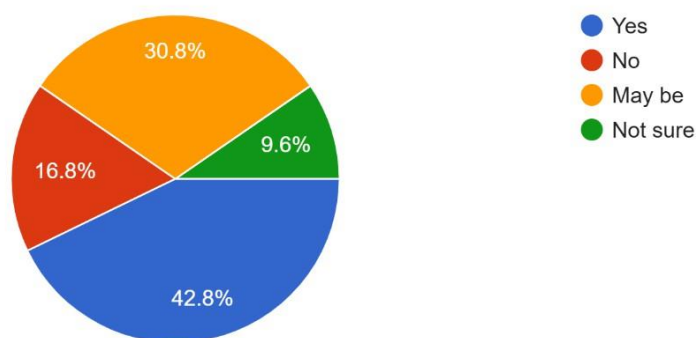
Job satisfaction takes the lead at 32%, indicating that AI is enhancing the work experience for a lot of employees. Accuracy follows closely at 22.4%, and innovation comes in at 20.4%, both showing that AI is

not just about getting things done but also about boosting creativity and precision in the workplace. Efficiency, at 18.8%, highlights how AI can really speed up tasks. Interestingly, 6.4% of people feel that AI doesn't impact their performance, suggesting that its effects can differ depending on the role. With no missing data, we can trust these findings. Overall, AI seems to have a positive effect on job satisfaction, accuracy, innovation, and efficiency, ultimately helping employees perform at their best.

Frequencies for 15.Do you believe AI will create more Job opportunities in future in the textile industry industry ?

15.Do you believe AI will create more Job opportunities in future in the textile industry industry ?	Frequency	Percent	Valid Percent	Cumulative Percent
May be	77	30.800	30.800	30.800
No	42	16.800	16.800	47.600
Not sure	24	9.600	9.600	57.200
Yes	107	42.800	42.800	100.000
Missing	0	0.000		
Total	250	100.000		

15.Do you believe AI will create more Job opportunities in future in the textile industry industry ?
250 responses



INFERENCE:

A recent survey reveals that 42.8% of people believe AI will actually lead to more job opportunities in the textile industry. Meanwhile, 30.8% are on the fence, saying "Maybe," which suggests there's some uncertainty but also a glimmer of hope for job growth. On the flip side, 16.8% are convinced that AI won't

create jobs, likely due to worries about automation taking over human roles. Additionally, 9.6% are still unsure, highlighting a need for greater awareness about how AI might affect employment. With no missing data, these results are quite reliable. In summary, while a majority of respondents view AI as a potential job creator, there are still some sceptics out there.

FINDINGS

AI Contribution to Employee Performance

Job Satisfaction (32%) was the strongest impact area, reflecting that AI has a positive effect on how employees perceive their jobs.

Following closely were Innovation (20.4%), Accuracy (22.4%), and Efficiency (18.8%), reflecting that AI not only assists productivity but also promotes innovative and accurate work. 6.4% of the respondents said that AI had no major impact, indicating that the impact of AI may differ based on the type of job roles.

AI Training & Implementation Challenges

Most, 70.4% of the employees, indicated that they received AI training, but 29.6% still have not had any exposure — a gap that may influence adoption and performance.

Main challenges in implementing AI are:

Lack of Training (38.4%) Resistance to Change (31.6%) Technical Issues (30%)

Employee Satisfaction with AI Tools

51% of respondents (Satisfied + Highly Satisfied) held a positive attitude towards AI tools.

29.6% were neutral, reflecting uncertainty or neutrality towards the technology. 19.6% were dissatisfied, which might be attributed to lack of training or implementation issues.

Advantages of AI Implementation

Accuracy (30%) was the best known advantage of AI tools, followed by: Job Satisfaction (23.6%)

Efficiency (19.2%)

Overall impact in all aspects was recognized by 20.4%.

Certain respondents picked combinations of more than one aspect, indicating the multifaceted utility of AI across jobs.

Opportunities for AI Tool Improvement

Most common areas where employees called for improvement:

Speed (29.2%)

Accuracy (18.8%)

Customization Options (17.2%)

User Interface (17.2%)

12% of the employees wanted the improvements in every aspect, signifying the demand for a general upgrade in AI tools.

Future of AI in the Textile Industry

42.8% think AI will generate more opportunities, reflecting an optimistic outlook. 30.8% are tentatively optimistic (perhaps), whereas 26.4% are uncertain or pessimistic, revealing residual skepticism.

This is indicative of an increased faith in the transformative power of AI, leaving scope for perception and trust building.

LIMITATIONS

1. Sample Size

- The study includes **250 participants**, which may not fully represent the entire textile industry.

2. Subjectivity in Responses

- Participants' views on AI are based on personal experiences, which may vary significantly.

3. Limited Industry Scope

- The study focuses on the textile industry and may not reflect AI's impact in other sectors.

4. AI Adoption Levels

- Since AI adoption is still evolving, its long-term effects on employee performance are yet to be fully observed.

5. Convenience Sampling Bias

- The study used a **convenience sampling method**, which may lead to biased results.

CONCLUSION

The study highlights that AI has a mixed impact on employee performance in the textile industry. While AI enhances job satisfaction, innovation, accuracy, and efficiency, challenges such as lack of training, resistance to change, and technical difficulties still exist. The majority of employees recognize AI's potential benefits, but many remain uncertain about its future impact on job opportunities. Key areas for improvement include speed, customization, and accuracy.

For AI to be successfully implemented in the textile industry, proper training, smooth transition strategies, and technical support are necessary. Companies must address employees' concerns and ensure AI tools

complement human skills rather than replace them.

SUGGESTIONS

1. Enhance AI Training Programs

- Companies should invest in regular AI training sessions to help employees adapt to new technologies.

2. Improve AI User Experience

- AI tools should be customizable, user-friendly, and efficient to encourage wider adoption.

3. Address Employee Concerns

- Management should communicate the benefits of AI and provide support systems for employees facing difficulties.

4. Focus on AI-Human Collaboration

- AI should be used to enhance productivity rather than replace jobs, ensuring a balanced work environment.

5. Continuous Innovation & Support

- Companies must continuously update AI systems and provide technical support to resolve implementation challenges.

6. Further Research & Data Collection

- Future studies should include a larger sample size, cover multiple industries, and analyse long-term AI impacts on the workforce.

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