

The Impact of AI in Employment Opportunities Among Undergraduate With Special Reference To Coimbatore City

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ABSTRACT

AI's rapid evolution presents both challenges and prospects. While automation and AI-powered tools may replace certain routine jobs, they also generate demand for specialized skills in areas like machine learning, data analysis, and AI application development. The integration of AI into various sectors, such as healthcare, finance, and manufacturing, has created a dynamic environment where students must adapt to changing skill requirements. The type of sampling method used for the study is Simple Random Sampling. The response has been collected from the students of Coimbatore city. Primary as well as secondary data were used for this research. The Primary data was gathered from questionnaire. The Secondary data was collected from books, magazines and etc. We received a response from 120 respondents and employed SPSS software.

Keywords: AI employment opportunities, machine learning.

INTRODUCTION

Artificial Intelligence (AI) has emerged as a transformative force across industries, reshaping traditional job markets and creating new opportunities. For undergraduate students, AI's rapid evolution presents both challenges and prospects. The advent of Artificial Intelligence (AI) has transformed the job market, bringing about both opportunities and challenges. As AI assumes routine, repetitive, and predictable tasks, there is a growing concern about the future of employment for undergraduate students. Undergraduate students, who are about to enter the workforce, are particularly vulnerable to the impact of AI on employment opportunities. As AI continues to advance and automate jobs, it is essential to investigate the impact of AI on employment opportunities for undergraduate students. This study aims to explore the challenges and opportunities that arise from automation and job displacement, as well as the skills and competencies that are most valuable for undergraduate students to develop in an AI-driven job market.

OBJECTIVES

- To explore AI transformative effects on employment opportunities.
- To know impact of AI employment trends over time
- To understand the satisfaction level of AI changing the skills needed for jobs

STATEMENT OF THE PROBLEM

The rapid advancement of Artificial Intelligence (AI) has transformed the job market, bringing about both opportunities and challenges. Undergraduate students, who are about to enter the workforce, are particularly vulnerable to the impact of AI on employment opportunities. The increasing adoption of AI technologies in various industries has raised concerns about the future of employment for undergraduate students. As AI assumes routine, repetitive, and predictable tasks, there is a growing fear that many entry-level jobs will become obsolete, leaving undergraduate students with limited employment opportunities. This study aims to provide insights into the impact of AI on employment opportunities for undergraduate students, highlighting the challenges and opportunities that arise from automation and job displacement.

SCOPE OF THE STUDY

This study will focus on the impact of AI on employment opportunities for undergraduate students in various fields, including business, engineering, computer science, and humanities. The study will explore the challenges and opportunities that arise from automation and job displacement, as well as the skills and competencies that are most valuable for undergraduate students to develop in an AI-driven job market. The findings of this study will inform educators, policymakers, and industry leaders on strategies to support undergraduate students in developing the skills and competencies needed to succeed in an AI-driven job market.

RESEARCH METHODOLOGY

Research methodology is simply a plan for study. It is also called a blue print for the collection, measurement and analysis of data. In fact it is a conceptual structure in which research is carried out. It specifies the objectives of the study and techniques to be adopted to achieve the stated objectives. It specifies the objectives that are framed to fill the gap that is discovered after a review of literature that has already been completed in the area of impact of AI in employment opportunities of under graduate students with special reference to Coimbatore city.

AREA OF THE STUDY

The area of the study on impact of artificial intelligence in employment opportunities would generally focus to understand the satisfaction level of AI changing the skills needed for jobs in Coimbatore city.

SAMPLE SIZE

In order to conduct the study, 50 questionnaires were gathered.

PRIMARY DATA

The data was collected from respondents through questionnaire.

SECONDARY DATA

The secondary data was collected from journal publications, academic research findings, reference were taken into consideration for this study.

STATISTICAL TOOLS

- Percentage analysis
- ANOVA

REVIEW OF LITERATURE

Adel Ismail Al-Alawi, Misbah Naureen, Ebtesam Ismaeel AlAlawi, Ahmed Abdulla Naser Al-Hadad (2021)-“The Role of Artificial Intelligence in Recruitment Process Decision-Making”: Excellence in the hiring process can be facilitated by artificial intelligence (AI), which can be a key component of the process. This study looks into the difficulties artificial intelligence (AI) has when used in the employment process as well as the effects it has. The advantages of incorporating AI into the hiring process include locating AI suppliers and companies that have done so, assessing the state of AI at the moment to help with hiring, and evaluating the results of doing so. Using publications from 1988 to 2020, this study presents many viewpoints, theories, concepts, and opinions to modify the usage of AI in human resource management. The results show that major or high-tech companies are the main ones that employ AI.

Srishti Bhatia, Prof. Ajay Kr. Singh, (2019)-“Development in artificial intelligence: A global perspective-AI's influence on Industry 4.0 is profound”. Experts foresee job and societal shifts. Human intuition may be replicated by robots in the future. The transition won't happen overnight but could occur in our lifetimes. Economic, legal, and regulatory challenges may hinder full automation. Factors like

minimum wages affect the pace of robot integration. Employers may opt for automation if labour costs rise. Questions arise on liability in cases like driverless vehicle accidents. The future with AI is exciting and full of possibilities.

Nicholas Chen, Lau Christensen, Kevin Gallagher, Rosamond Mate, Greg Rafert1, (2015)- "Global Economic Impacts Associated with Artificial Intelligence" AI's economic impacts are diverse and can affect various industries. It has the potential to boost productivity, create new job opportunities, and enhance decision-making processes. However, there are concerns about AI replacing human jobs and widening economic inequalities. Governments and businesses need to adapt to these changes to ensure a smooth transition. AI's impact on the economy will depend on how it is implemented and regulated. Overall, AI has the potential to revolutionize the economy, but it also poses challenges that need to be addressed.

DATA ANALYSIS & INTERPRETATION

1. PERCENTAGE ANALYSIS

Gender Wise Respondents

Table 4.1

Gender	No. of. Respondents	Percentage
Male	43	55.8%
Female	34	44.2%
Total	77	100%

(Source– Primary data)

INTERPRETATION:

The above table indicates that 55.8% of Respondents are male, and 44.2% were female. The Majority of Respondents who attended the survey were male.

Student opinion about impact of AI

Table 4.2

Opinion	No. of. Respondents	Percentage
Strongly agree	19	24.7%
Agree	19	24.7%
Neutral	20	26%
Disagree	9	11.7%
Strongly disagree	10	13%
Total	77	100%

(Source– Primary data)

INTERPRETATION:

It can be seen from the above table that 20 respondents are selected neutral. So, the majority of the respondents have neutral opinion towards impact of AI.

Most likely benefit from AI adoption

Table 4.3

Sectors	No. of. Respondents	Percentage
Health care	12	15.6%
Finance	9	11.7%
IT/software	24	31.2%
Education	15	19.5%
Manufacturing	17	22.1%
Total	77	100%

(Source– Primary data)

INTERPRETATION:

The above table highlights that the IT/software is the sector where they have most benefit from AI adoption (31.2%). The less sector was finance sector (11.7%)

2. ANOVA

Satisfaction level of students towards AI employment

Table 2.1

ANOVA						
		Sum of Squares	Df	Mean Square	F	Sig.
I think industries are most affected by AI in terms of employment growth	Between Groups	2.804	2	1.402	.885	.420
	Within Groups	74.476	47	1.585		
	Total	77.280	49			
I think AI influenced the demand for specific skills in the job market	Between Groups	3.606	2	1.803	1.774	.181
	Within Groups	47.774	47	1.016		
	Total	51.380	49			
Can AI opportunities for fresher's /newly graduates	Between Groups	1.854	2	.927	.745	.480
	Within Groups	58.466	47	1.244		
	Total	60.320	49			
I think that AI's impact on employment between developed and developing economies	Between Groups	1.689	2	.844	.472	.627
	Within Groups	84.091	47	1.789		
	Total	85.780	49			
I believe that AI advancements shifted the employment trends over decade	Between Groups	1.788	2	.894	.380	.686
	Within Groups	110.712	47	2.356		
	Total	112.500	49			
I think that the integration of AI affect employment in traditional in contrast technology driven employment changes	Between Groups	3.180	2	1.590	1.079	.348
	Within Groups	69.240	47	1.473		
	Total	72.420	49			
The govts or organisations addressed the challenges posed by AI driven employment changes	Between Groups	.529	2	.265	.162	.851
	Within Groups	76.851	47	1.635		
	Total	77.380	49			
According to my opinion the AI created new job opportunities that did not exist before	Between Groups	1.434	2	.717	.375	.689
	Within Groups	89.846	47	1.912		
	Total	91.280	49			
I think implementation of AI in IT/Software or in manufacturing sector is necessary	Between Groups	2.608	2	1.304	.789	.460
	Within Groups	77.712	47	1.653		
	Total	80.320	49			

AI is harmful for traditional employment	Between Groups	6.816	2	3.408	2.275	.114
	Within Groups	70.404	47	1.498		
	Total	77.220	49			

(Source– Primary data)

INTERPRETATION:

This is the table that shows the output of the ANOVA analysis and whether there is a statically significant difference between our group means. We can see that the significant value is 0.420(i.e. $p=0.420$), which is above 0.05.

Therefore there is no relationship between age and satisfaction level of students.

FINDINGS

- It indicates that 55.8% of Respondents are male, and 44.2% were female. The Majority of Respondents who attended the survey were male.
- It can be seen from the above table that 20 respondents are selected neutral. So, the majority of the respondents have neutral opinion towards impact of AI.
- The table highlights that the IT/software is the sector where they have most benefit from AI adoption (31.2%). The less sector was finance sector (11.7%)
- This is the table that shows the output of the ANOVA analysis and whether there is a statically significant difference between our group means. We can see that the significant value is 0.420(i.e. $p=0.420$), which is above 0.05.

SUGGESTION

- Develop and continuously refine your expertise to ensure long term success and adoptability in the ever evolving field of AI related careers.
- Public and private companies should develop policies to manage job displacement and provide social safety nets for affected workers.
- It is important to increase the skills like problem solving, adoptability and inter-personal communication to adopt the AI related jobs.

CONCLUSION

The impact of AI on employment opportunities is profound and multifaceted, presenting both significant challenges and transformative possibilities. While AI automates repetitive tasks and disrupts certain traditional roles, it simultaneously creates opportunities in emerging fields, fosters innovation, and enhances productivity. Success in this evolving landscape depends on proactive measures, including investment in up skilling, fostering human-AI collaboration, and implementing ethical frameworks to address inequality and bias. By embracing adaptability and continuous learning, individuals, organizations, and societies can harness AI's potential to create a more dynamic and inclusive workforce.

WEBSITE

- <https://www.innopharmaeducation.com/our-blog/the-impact-of-ai-on-job-roles-workforce-and-employment-what-you-need-to-know>
- <https://www.nature.com/articles/s41599-024-02647-9>
- <https://ijetms.in/Vol-7-issue-4/Vol-7-Issue-4-67.html>
- <https://sageuniversity.edu.in/blogs/impact-of-artificial-intelligence-on-employment#:~:text=AI%20acts%20as%20a%20force,more%20dynamic%20and%20productive%2>

Workforce

REFERENCE

- Adel Ismail Al-Alawi, Misbah Naureen, Ebtessam Ismaeel AlAlawi, Ahmed Abdulla Naser Al-Hadad (2021)-“The Role of Artificial Intelligence in Recruitment Process Decision-Making”
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