Empowering Women Employees' Safety through Artificial Intelligence – An Empirical Study

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Abstract: *Now a day it is very common human collaboration with machine. Artificial Intelligence, Internet of Things and Business Analytics are the important terms in technology. Top business companies through the world have started concentrating on Artificial Intelligence and machines. In present era, machines have started to act like human. Artificial intelligence has been adopted in various sectors since this technology, improves productivity, decreases costs, and quickly resolves challenging issues. It has been predicted that one of the most promising technologies of the future will be artificial intelligence. As one of the latest modern technologies, AI is influencing developments throughout a number of industries and societal safety norms. In this paper has an attempt to know women employee safety level through Artificial Intelligence and to identify the factors which are influencing for women empowerment safety through AI. An online survey was conducted and circulated through emails to collected the data, to study the status and level of empowerment among women safety through Artificial Intelligence. The status of women empowerment was evaluated using questionnaire. The information like age, educational qualification, occupation, marital status, work experience, city of residence was collected and analysed with five-point Likert scale. The questionnaire was administrated and circulated on a sample of 120 women associated with various email groups. The questionnaire was response rate was 42%, as 50 women respondents retuned fully filled, usable questionnaire. Data collected for this study were evaluated using Multiple Regression and ANOVA in SPSS statistical package. Empowering women employees' safety through AI involved a combination of technology, regulations, policies and a supportive working environment. It is very essential to implement AI systems that respect privacy and maintain ethical standards while enhancing safety*

Keywords: Women Empowerment, Women Safety, Artificial Intelligence

I. INTRODUCTION

The term artificial intelligence describes a machine's capacity to think and behave like a human being. John McCarthy, one of the "founding fathers" of artificial intelligence, first coined the term "artificial intelligence" in 1955. The term "artificial intelligence" refers to a group of related technologies that include language translators, fuzzy logic, speech recognition systems, facial recognition systems, robotics, neural networks, and intelligent agents.

India is currently involved in the "Learning Phase of Artificial Intelligence." The National Institution for Transforming India, or NITIAayog, has developed the National AI Strategy and significance of AI. The government's main objective is to use AI to address societal issues, and it has suggested a two-tier strategy for developing AI research in India. The first level, called CORE (Centre of Research Excellence), will focus on the knowledge side of artificial intelligence, while ICTAI (International Centre of Transformational AI) will work with industry partners to create and implement application-based research. Experts predict that India will have an AI ecosystem in three to five years, and that the National Association of Software and Services Companies (NASSCOM) has already established a Centre of Excellence (COE) for data science and AI in Bengaluru. Hyderabad is gradually becoming the centre for AI/Data Science training. AI applications are currently being focused on three areas in India: education, healthcare, and agriculture.

Up to 2016, companies concentrated on automating and digitising as much of their business processes as they possible. The purpose of robots and machinery is to automate repetitive tasks. However, the way people view the corporate environment has changed throughout time. "Machines with the intelligence to understand and learn on their own" are

given the highest priority, while "machines performing repetitive tasks" are not thought to be providing value to the organisation. Artificial intelligence (AI) technologies and products are in high demand because they offer value to businesses, increase productivity, and lower costs. Innovations in a number of different business sectors are being driven by AI. Given the current corporate climate, this study explores how AI can strengthen women's safety.

Technology has given women the ability to take control of their own life and make decisions in an effort to achieve gender equality. Because of cultural limitations and restricted access to resources, women in advanced nations tend to be more independent than their counterparts in rural and low-income countries. Because of technology, it is now possible to access learning resources and break down gender barriers. Through educational resources, technology helps to empower women. Despite the development of research showing how women can be empowered with technology, it is unclear to what extent women were empowered across geographical or industrial areas, what forms of technology were deployed, and what benefits they developed. Thus, the goal of this research is to perform a systematic evaluation in order to obtain a consensus regarding the ways in which technology is being utilized to empower women.

Empowering Women

Women can realise their identity, position, and authority in all areas of life through the active, multidimensional process of empowerment. Increased knowledge and resource availability, increased decision-making autonomy, increased life planning capacity, more control over life-influencing events, and freedom from traditions, beliefs, and practises are all benefits of empowerment. A fundamental and radical overhaul of the marriage and family structure, the husband-and-wife dynamic, and the mindset surrounding remarriage and socialisation is necessary for empowerment. Giving someone the ability to make their own decisions is the process of empowerment. Empowering women is not a Northern concept. Since the beginning of decades, women have been fighting and transforming gender inequality everywhere they have lived, especially in Southern nations. Many men who have been incensed at injustices against women and the ensuing societal repercussions have also supported these struggles. Saying that none of these women and men had free will would be yet another instance of imperialism.

The ability of women to make decisions, participate actively in their communities, and grow is a key component of empowering women in the development of society. In 1970 as gender equality gained traction, the phrase "women's empowerment" made its appearance in academic writing. Empowering Women has been referred to as anaim in the pursuit of gender equity in recent years. The term has been usedto describe the women as having opportunity to control over their decisions in research conducted over the past ten years.According to this study, women are empowered when they acquire the agency, resources, and/or capacity to decide on significant issues by using the knowledge they acquire through using technology to access information. Women may now access information, study, and make decisions that transcend societal, political, and economic barriers because of technological opportunities. Women's equity challenges are more common in low-income nations. Because of societal conventions, religious beliefs, and attitudes, women are frequently denied availability to health educational and financial systems, which hinders their ability to enter the official labour market.However, information from the World Development database indicator (International Telecommunications Union, 2020) shows that female labour force participation rates have been marginally rising since the 1990s. In worldwide the labour participation rate of females (15+) has increased by 1.4 percent, 10.5 percent, and 2.8 percent between 1990 and 2019.

Empowering Women Through Technology

Women's have greater opportunities and accessibility to education in the financial and other domains of life because of part of technology Research has shown that women's learning through access to finance, mobile money, inclusive characteristics of finance or microfinance, digitally based health, and agriculture has allowed increased female engagement in the formal economy and production and service sectors. Women now get involved with science at higher rates, and technology has given them more institutional and political influence. Technology is the tool of empowerment because it allows a variety of ways to complete tasks at any time and location. If necessary, the activities can be completed fully online without ever leaving the house. Technology also presents chances to improve learning in every subject area, with a multitude of teachers offering text and video instructions in many languages. The term

"technology" in this study refers to digital devices that require electricity, such as desktop, laptop, and mobile computers (Crompton, 2014), as well as the Internet, apps, and programmes that are utilised on those devices.

Empowering Women Through Artificial Intelligence

Traditionally gender roles cannot define who women are. It's true that we live in 2022, presently considering how safe women should feel raises some questions. How powerful are they in today's world? Women need protection, and in order to feel safe, they require some sort of survival help that would keep them secure when they are on their own. We cannot ignore this truth. And here's when developing apps for women's protection comes in handy. Reliable solutions for women's safety allow them to be independent and push limits without having to constantly respond to questions from others. When they have a girls' safety software solution in their hands, they can avoid having to respond to queries like "Where am I? How much longer till I get home?" Educating the poor to become more self-sufficient, empowering women, and providing constant security are some of the most popular safety measures for women. It is your duty as an industrial expert to be cautious and inclusive while coming up with a solution that will benefit everyone you are working with. We'll assist you in creating a mobile application in this section that will be useful to the majority of women. They will have the best protection possible from this app against any illegal activities, including abusive or harassing situations. They will receive prompt resolutions on their women safety app. This market analysis will examine the apps' dependability, safety features, and other requirements before we can provide women with the appropriate technology for daily use. The market for developing women's safety apps has expanded recently, and there has also been an increase in mishaps and molestation. Better answers will probably come from the current sector adding new features to make development better for women. As we've seen, 5G and AI are significantly contributing to the rollout of new safety solutions, particularly in the areas of text messaging and GPS. We predict a 20% growth rate in this industry this year. With just a single button push on your phone, our software for women's security can send the person you choose an email or sound a loud tone as special notifications. It has many capabilities, such as email notifications and rapid text messaging.

II. CHALLENGES FACED BY WOMEN IN INDIA

In terms of education, the country has moved forward rapidly since obtaining its independence, however there is still a significant gender inequality. In India, 82.14% of adult men and 65.46% of girls respectively are known to be educated. Ignorant women are not only at the discretion of their husbands or fathers, but they also lack awareness that this is not normal for women worldwide. Cultural traditions that dictate the man of the house should make all of the decisions for the family are also gradually ruining the country's society.

National Poverty the majority of people in the whole country make less than $1.25 per day. The country's wealth distribution disparity is rising, as evidenced by the GINI index, which has been gradually rising over time and is currently sitting around 33.9. Since poverty is seen as the biggest threat to global peace, eliminating it should be a top priority for the country, right up there with eliminating illiteracy. Women are exploited as domestic helpers and wives whose husbands usurp their earnings because of extreme poverty. The girl kid would be free to pursue her aspirations without worrying about being sexually exploited, subjected to domestic abuse, or lacking literacy if poverty were not an issue.

Safety & Health: Women's health and safety concerns are essential to the welfare of a country and playedaimportant role in measuring the degree to which women are able to exercise political influence in that country. But when it comes to maternity healthcare, there are grave worries. UNICEF revealed startling statistics about the condition of new mothers in India in its 2013 report. India's maternal mortality rate is 350 per 1000, indicating that up to 83,000 women there lost their lives due to problems during delivering that year. Given the country's population explosion, that number has undoubtedly increased significantly in the present. Even with the numerous initiatives that the country's government and NGOs have taken, there is still a significant divide between those who are protected and those who are not. Ensuring the health and safety of women is the first step towards their empowerment.

III. LITERATURE

Mohd Noved *et al. (*2022)mentioned and observed that worldwide, there is a great deal of unethical domestic violence against women. This is made worse by the lack of a reliable tracking mechanism. This study concentrated on a based on artificial intelligence safety system that provides security to women who are vulnerable. In critical situations, this system can respond appropriately both automatically and manually. The proposed device includes a speech recognition device, a GSM modem, and several other detectors, including pulse detectors and an accelerometer, to accurately track the victim's and Raspberry Pi's condition. Avoidance or safety measures will be implemented based on the severity of the issue. This paper introduces the SWMS mobile application, which serves a crucial purpose of offering emergency support. Additionally, we use a single programme together with a number of displays and collar chain artefacts that are commonly used. The device is the same as a collar monitor that has a button that activates the electric shock device, the monitor, contact location information, and the nearest police station when the yelling warning is activated for self-defense purposes. They were believed that function as digital technological tools, like electric shock video cameras and live streaming, can also affect women's lives.

Micheni *et al.* (2021) clearly stated about that the fourth industrial revolution provides society enormous chances to integrate cutting-edge technological and creative breakthroughs as well as tactics for the empowerment of women and young people. In order to 1) identify the fourth industrial revolution technologies available for youth and women's empowerment, this research uses content analysis. 2) Examining the potential of 4IR technologies to empower women and young people. 3) Looking at the challenges that women and young people have while utilising these (4IR) technologies 4) Looking into strategies that could motivate women and young people to adopt these (4IR) innovations. Reports, academic journal articles, and conference proceedings were all included in the literature review. Women, youth, and the Fourth Industrial Revolution were the terms that were used. According to the study's findings, the fourth industrial revolution advances social transformation, increases service accessibility, raises income levels globally, raises the standard of life for women and young people, and strengthens the fairness of the digital economy.

Young people and women can effectively develop their confidence, increase their economic strength and freedom, make better-informed decisions, connect with online collaborators, share information and foster unity, and motivate policymakers to address issues that affect them if they are aware of and use new and evolving digital technology. There are numerous chances driven by emerging AI, quantum computing, robotics, biotechnology, process automation, and 3D printing, as well as the increased connection of people and the availability of expertise. That could lead to the loss of several middle-class and low-skill employment. The fourth industrial revolution will boost global wealth by enticing entrepreneurs to seek new ideas and improving the standard of living for women and young people. Technical advancements in the 4IR need to be grounded in real social and political shifts that are based in contemporary economic, social, and political structures if they are to fulfil their revolutionary promise. These new developments could provide public services that help women and young people overcome numerous technical challenges. These could be things like the physical separation or limitations that families or communities place on them (Cummings & O'Neil, 2015). With the help of contemporary and developing digital technology, women and young people can successfully increase their economic power, independence, and sense of self-worth. In addition, they can discuss issues online with friends, pool expertise, forge solidarity, and educate decision-makers about issues they care about.

As a result of growing human connectivity and information availability, evolving technologies have created numerous opportunities. These cover AI, robotics, process engineering, 3 D printing, biotech, and quantum computing, which can displace many workplaces in low and medium-skill jobs. The Fourth Industrial Revolution will raise global wealth by incentivizing businesses to adopt innovative ideas and improve the standard of living for women and young people. Technological breakthroughs are being heralded by the fast growing usage of robotics, process automation, big data, and artificial intelligence (AI) in the sector to create better supply chains and decision-making. As a result, the working environment is changing as a result of these, giving rise to a new gig economy of independent contractors who are redefining the boundaries between formal and informal employment as well as the where and when of work is done (Brown, Lloyd, &Souto-Otero, 2018).

The Internet of Things, according to **Patel & Patel (2016)**, is a network that links everything to the web for particular purposes by utilising information resources to encourage information sharing and teamwork in order to assist with object identification, positioning, mapping, control, and handling. The Internet of Things (IoT) is a continuously

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expanding network of devices and computers that are linked to the internet. The items are included into everyday household and office electronics. They are integrated into various pieces of machinery, including cars and portable gadgets. They work together to complete particular tasks in various settings.

Ikmal (2021)studied and observed in their study, theirprimary objective of empowering women in the private and public sectors is gender inequality remains a hot topic today. The modern era's changes to human civilization have also had an impact on how society is built, favouring gender equality. To improve the position of women development, gender equality is also a major focus. In the 4.0 era—an era of artificial intelligence, supercomputers, genetic engineering, innovation, and rapid changes that have a significant impact on the economy, industry, government, and politics—this study seeks to ascertain the women role to achieving gender equality and women's empowerment. The ability of women to take on significant positions in development is an excellent advancement. In addition, developments in the fields of economics and education have an impact on women's ability to assume transitional positions as workers, members of the community, and development beings in order to demonstrate their presence. Government regulations pertaining to a thirty percent female representation rate, opportunities for women to pursue higher education, and opportunities for women to become entrepreneurs and regional leaders are just a few of the many ways that women can participate in the 4.0 era and contribute to society. The modern era's changes to human civilization have also had an impact on how society is built, favouring gender equality.

Talpur *et al.*(2021)found in their study, in the present era of vast, bustling cities, everyone is preoccupied with their jobs and has no idea what is going on in society. Numerous hooligans attempt to harass ladies in such a busy setting by using unethical tactics. As everyone is aware, women are employed in every aspect of contemporary tech-related sectors. Women maintain their living by working day and night. These women are really concerned about their protection and safety because they are easily attacked and mistreated. Because the country's patriarchal society disregards women's rights, the number of crimes against women is alarmingly high. Globally, as well as in the country's cities and villages, violence against women is rampant and ubiquitous. Government departments always manipulate official statistics to cover up their shortcomings and ineptitudes. A recent poll revealed that 84% of the women who reported being harassed at work belonged to the 25–35 age range, with the majority of them being students and full-time employees. Because there have been so many notable examples of harassment and rape, these women's anxieties about their safety are growing. The Internet of Things (IoT) is a relatively new subject in information technology that deals with digital machines, or computing accessories and devices, as well as a variety of other items including smart sandals, glasses, wristwatches, and soil moisture sensors. With the aid of sensors, circuits, and the Internet of Things, we may create the gadgets we want, and monitoring and assessment are made easy. The Internet of Things is a demand-driven concept that will completely transform how information technology is used. The Smart Sandal is the name of this planned technology. This smart sandal's main objective is to give women a device for their security. It will benefit the family and is quite comfortable to wear. The moment the button is pressed, a jolt is felt, a notification is transmitted via GSM to the designated stored number, and the Global Positioning System (GPS) is used to track down the women.

Pishgar (2021) revealed that Artificial intelligence (AI) is a fast-growing field that finds frequent applications in the education, healthcare, and business sectors, as well as in the workplace more and more. While there is increasing evidence that artificial intelligence (AI) is being used in workplaces across many industries to streamline and/or automate operations, little is known about how AI can help with issues related to occupational safety and health (OSH). This research highlights the significance of artificial intelligence (AI) in anticipating and managing exposure risks in a worker's immediate surroundings by introducing a new framework called Risk Evolution, Detection, Evaluation, and Control of Accidents (REDECA). Using the REDECA framework, 260 AI papers from five different sectors—oil and gas, mining, transportation, construction, and agriculture—were examined to identify current applications and areas of need in the disciplines of OSH and AI. Each of the five industrial sectors' unique features and areas of interest for research were emphasised by the REDECA framework. Most of the AI evidence found in OSH research in the transportation and oil and gas industries concentrated on creating sensors that might identify dangerous conditions. The application of sensors to incident detection was the main focus in construction. The agricultural industry's research concentrated on sensors and actuators that took workers out of dangerous situations. The REDECA framework's application revealed AI/OSH opportunities and strengths across a range of industries, as well as possible areas of

cooperation. As AI applications spread across industries, further research on the advantages and difficulties of AI applications in OSH is required to best safeguard employee health, safety, and wellbeing.

Julianne and Karen Miki Behr (2023) They thought about women's participation in the labour force may increase and that the AI revolution may make it easier for them to balance work and personal obligations. Regardless of industry or job, we seek out businesses that are committed to closing gender opportunity disparities across their entire organisation. They believe that by drawing in and keeping a varied talent pool, AI can help businesses increase their profits. According to a study by Irrational Capital, businesses that promote environments where men and women feel encouraged and treated equally outperform those that do not. As investors, They think that encouraging women to enter the workforce could lead to a stronger economy, which in turn produces better financial results.

Dantas *et al.* (2021) examined the use of mobile health applications (apps) by women to control urine incontinence. The results of their study suggest that the applications have the potential to help women manage their illnesses. But the survey doesn't seem to care about revealing the advantages that women have while utilising applications. Rather, the utility of the apps themselves is the main emphasis of their research.

Samoocha *et al.* (2010) They conducted a comprehensive analysis that examines the ways in which medical practitioners use technology to give women information about cancer follow-up. Although these existing systematic evaluations are valuable and provide a clearer knowledge of women's technology use, they only address the ways in which women's connections to health empower them. The majority of systematic studies discuss women's health and technology, providing crucial analytical links that illustrate how technology empowered women.

Tabasum Niroo and Helen Crompton (2022) observed that Globally, technology has influenced people's lifestyles. With the vast array of educational resources at their disposal, technology is becoming the primary means of assistance for most people on the planet. Technology gives women access to education in both rich and developing nations, but the academic community lacks a current understanding of how technology is being used to deliver learning resources that will empower women globally. As a result, an aggregated and qualitative synthesis covering the five years from 2017 to 2021 was included in this systematic study. Forty articles from 80 countries were included in the final analysis after a strict PRISMA selection process. The results show that Sub-Saharan Africa covered 60% of the study's sites. Five industries emerged from the grounded coding as areas that offered empowerment through the educational materials: communication, entrepreneurship, entrepreneurship, agriculture, and health. Learning in three key areas—health, communication, and entrepreneurship—empowered women. Information from this study is useful for women, advocates, legislators, and funders. Future research is needed in several areas identified by this study, including academic papers published in non-English language journals and additional systematic reviews to investigate grey literature not published in scholarly channels.

Mohd Ishaq Bhat (2019) proposed the objective of the article is to examine the relationship between women's empowerment and technology, as the latter has changed how individuals behave, think, and work in various professional settings. The world has changed as a result of technology, which is especially thought to be a game-changer for women who face significant obstacles when trying to acquire, use, and possess technology. Although digital and mobile technologies make it easier to trade and access local and international markets, they also present a significant opportunity to build the high-tech sectors that support and generate skilled jobs. Thus, the issue that needs to be answered is: Can technology actually help empower women? Secondly, how does it affect their professional lives? This means that, in terms of women's empowerment, offering protection at work in addition to other necessities has become law these days. Such measures are undoubtedly purely cosmetic and insignificant. Laws including the Minimum Wage Act, the Factory Act, the Labour Welfare Regularisation Act, and the Contract Labour (Regularisation and Abolition) Act control the organised sector. Technology nowadays, as a key tool, plays a crucial part in women's growth and offers prospects for their empowerment in this post-modern period. ICTs have the capacity to facilitate information sharing and provide the underprivileged sections of society more power. The article examines the variables influencing women's participation in technology and the concerns surrounding women's empowerment and technology.

Crabtree K & Petronille Geara(2018) mentioned that women and girls can benefit in a number of ways, both little and large, when mobile technology is used appropriately for data collecting, empowerment campaigns, service delivery, and information sharing in humanitarian circumstances. Benefits include enhanced self-worth, equal access to knowledge to aid in decision-making, and, in general, gender equality through balancing access for men and women.

Technology can help service providers increase their reach and access points. These benefits must be weighed against two important obstacles, though: (1) the particular obstacles that women and girls face when trying to access and use technology, and (2) the possibility that technology could inadvertently or intentionally enhance damage or gender-based violence. Gender-based disparities exist in the application of technology in humanitarian contexts, meaning that women and girls encounter greater barriers than men. Socioeconomic and cultural constraints have a negative impact on women and girls' access and utilisation. This covers both individual and environmental reasons, such as the exorbitant cost of gadgets, perceptions of how women and girls use phones and the Internet, concerns about harassment and security, and confidence and technological literacy. Caution is required even though the current humanitarian context begs for more mobile technology to be used for the benefit of women and girls. Safety is an important factor to take into account when deciding how women and girls can use information and communications technology, and how humanitarian service providers should be accountable for granting them access to it. An estimated 35% of women worldwide have experienced physical or sexual violence at some point in their lives. The possibility of gender-based violence has an effect on how women use technology. First and foremost, service providers must plan for safety. When considering the introduction of information and communications technology, it is important to take into account the barriers to access and usage that are both locally and globally specific, the service precautions that must be taken prior to implementation, and the important chances to strengthen safety measures. The latter contains, among other suggestions, intended safety precautions for shared or borrowed devices, beneficiary-specific communications, and mobile data gathering protocols. The objective of this essay is to offer service providers useful suggestions on how to securely include ICT into programming for women and girls.

Alves and Steiner (2017) analysed in their study about what are the principal effects of modern ICTs—information and communication technologies—and globalisation on the empowerment of women? This paper's first section examines the two main points of contention around this matter by reviewing the literature and looking into the causal mechanisms that connect the two aspects. One school of thought emphasises the drawbacks of globalisation. It makes the case that labour rights became more flexible and welfare measures were weaker as a result of market liberalisation. Another vein of writing underscores the part civil society movements and international organisations like the World Bank played in enabling women to achieve a significant position in their societies as a result of globalisation. The premise that ICTs provide women different chances is something this study tries to incorporate into these studies. Which of the paper's arguments are most consistent with actual data is confirmed in the second section. We examine how female economic empowerment—defined as women's engagement in the labour force—and political representation—defined as women's participation in the labour force and national parliaments—may have been impacted by globalisation in a panel analysis conducted from 2000 to 2014. There is evidence to suggest that enhancing women's empowerment may require access to ICTs.

IV. METHODOLOGY

A online survey was conducted and uploaded over Internet to collected the data, to study the status and level of empowerment among women safety through Artificial Intelligence. The status of women empowerment was evaluated using questionnaire. The information like age, educational qualification, occupation, marital status, work experience, city of residence was collected and analysed with five-point Likert scale. The questionnaire was administrated and uploaded on a sample of 120 women associated with various email groups. The questionnaire was response rate was 42%, as 50 women respondents retuned fully filled, usable questionnaire. Data collected for this study were evaluated using Multiple Regression and ANOVA in SPSS statistical package.

Type of Research
The study is descriptive in nature.
Primary Source of Data: The data was collected using a structured questionnaire given to women in different in group of employees and students through email.
Secondary Source of Data: The present study also used secondary data. The required data was collected from the published in related books and journals for relevant articles related to the study.

Statement of the Problem

Combination of women empowerment and their development are foreseeable for the country development. The role of women empowerment and safety of a country was emphasized by the world. Empowerment and safety enable the women to face any problem and to involve in the country's development. Women are motivated and given necessary safety to help become empowered through Artificial Intelligence. The empowering women employee safety through AI may be influenced by many factors. None of the study were conducted in this field. However, this study an attempt to examine the level of women empowerment and safety through Artificial Intelligence technology.

V. SAMPLING DESIGN

- **Sampling Size:** For the purpose of this study, the questionnaire was given to women in online. Thus, the total sample size for the study was from Fifty respondents.
- **Sampling Technique:** Convenience sampling technique was used in collection of data using structured questionnaire which was sent to the members through online.
- **Statistical tool analysis**: The data was tabulated using percentages and the data was presented in the form of simple analytical tables for ease of analysis. In order to get a visual and clear understanding of certain data they were represented in the form of figures. SPSS was used for tabulations and conducting the various tests. Multiple Regression and ANOVA were used to test the hypothesis.

Research Questions:

- How does Artificial Intelligence influence women empowerment?
- How Artificial Intelligence can help in women Empowerment?
- How to empower women with safe in Artificial Intelligence?

Research Objectives:

- RO1: To identify the Artificial Intelligence factors influencing for Empowering women
- RO2: To know the women empowerment safety level in Artificial Intelligence

Hypothesis

- H0: There is no significant relationship between Artificial Intelligence and Women Empowerment
- H1a: There is a significant relationship between Artificial Intelligence and Women Empowerment
- H0: There is no significant difference between the Artificial Intelligence and Women Safety
- H1b: There is a significant difference between the Artificial Intelligence and Women Safety
- H0: There is no significant difference between the Women Occupation and Using Artificial Intelligence
- H1c: There is a significant difference between the Women Occupation and Using Artificial Intelligence

VI. ANALYSIS AND INTERPRETATION
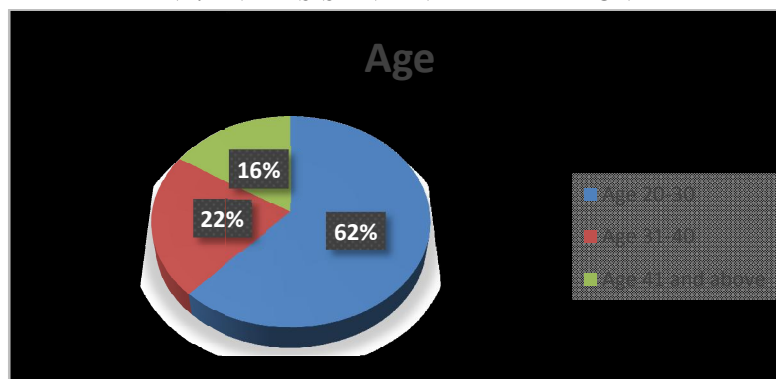
From the analysis of the data collected, it was observed that 62 % of respondents fall in the age group of 20-30 of age. 22 % of respondents fall in the age group of 31 – 40 of women. Another sixteen % of the women fall in the age group of above 41 years of age. The above chart represents that majority of the women are young girls and wanting to be the part of the Artificial Intelligence.
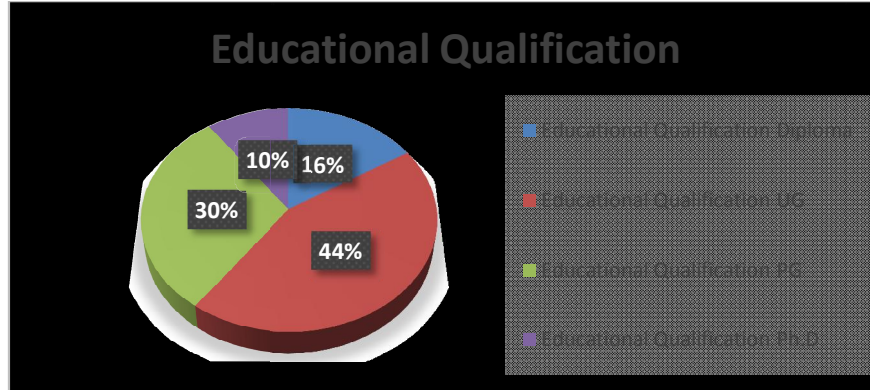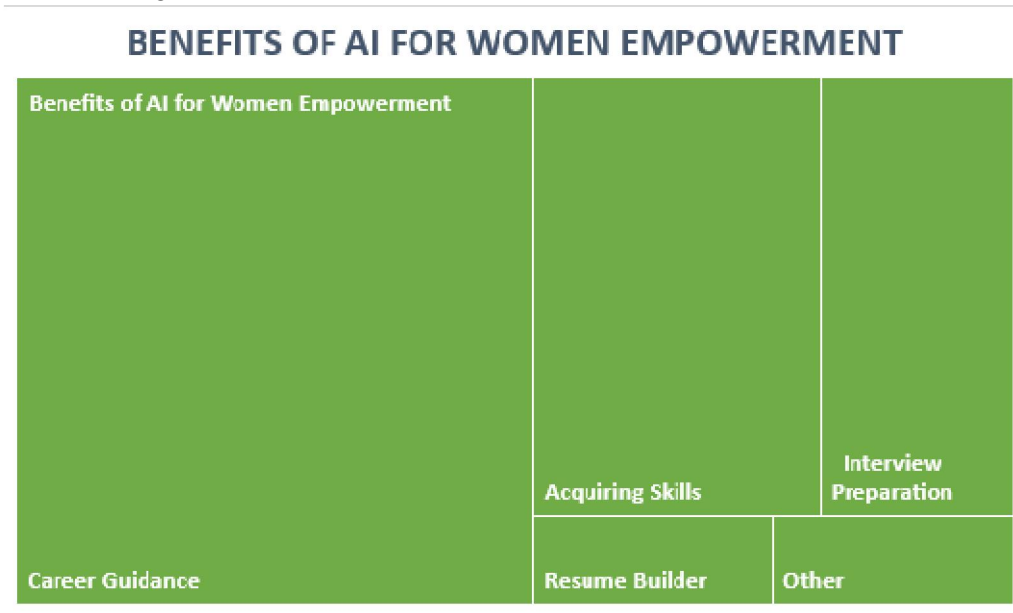

From the above analysis of data collected, it was observed that majority of the women are educated and literate at least completed the Diploma. In this study we have taken literate women only. Women respondents who have completed 16% of Diploma, 74 % of the women education qualification are Under Graduate and Post Graduate. The above chart represents the level of educational qualification of the women selected for the study.
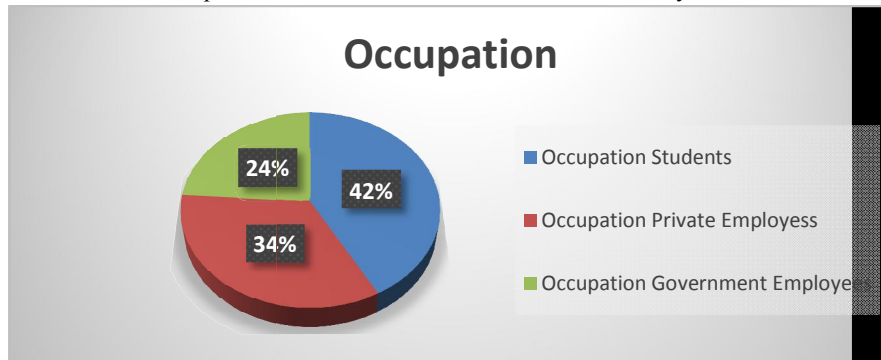
From the above analysis of data collected, it was observed that majority of the women occupation. 42% of the women students were responded 34% of the private employees participated in this study. The remaining 24% of the Government employees were participated in the study. The above chart represents the level of occupation status of the women for the study.
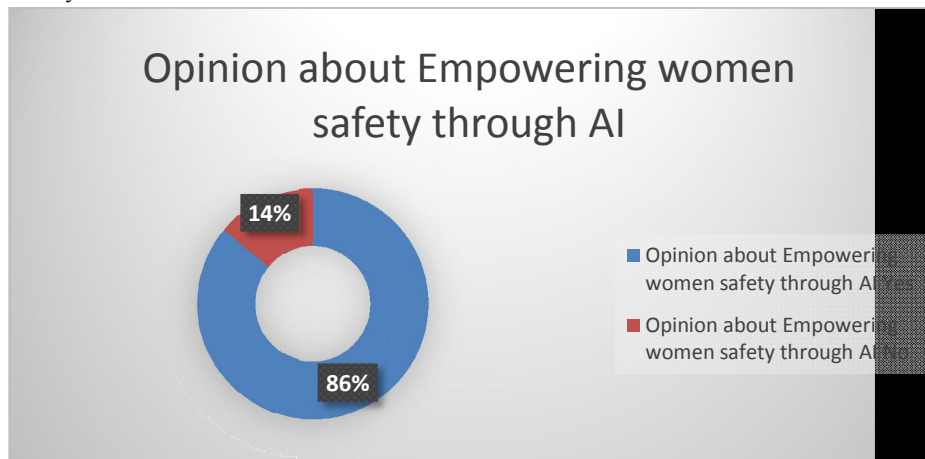
From the above analysis of data collected, it was observed that 86% of women accepted and given their opinion about Artificial Intelligence for safety and empowerment. The remaining 14% of women were not ready to accept Artificial Intelligence for safety and Empowerment. The above chart represents the level of opinion about empowering safety through Artificial Intelligence.

From the above analysis of data collected, it was observed that 52% of women were believed Artificial Intelligence helping for Career Guidance, 24% of women were belivied for Acquiring Skills, 16% of women were believed that AI is helping for Interview preparation and the remaining 4% of women were believed that helping or Resume building and other activity. The above chart represents the benefits of AI in Women Empowerment.

H0: There is no significant relationship between Artificial Intelligenceand Women Empowerment
H1a: There is a significant relationship between Artificial Intelligence and Women Empowerment

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.999a	.999	.998	336.22947

R is the correlation, its value is 0.999 and R square is degree of determination, its value is 0.999.The degree of determination shows the extent to which Accountability, Reliability, Safety, Transparency, Privacy and Security influences the Artificial Intelligence in Women Empowerment.

ANOVA						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	6.86	4	8.6	4.38	.001a
	Residual	8.02	4	.20		
	Total	14.88	8			

ANOVA table shows that the significant value is less than 0.05, which means dependent variable that is Artificial Intelligence in Women Empowerment is significantly predicted by independent variables namely Accountability, Reliability, Safety, Transparency, Privacy and Security at 95 % of confidence level.

Coefficients					
	Unstandardized Coefficients		Standardized Coefficients		
Model	B	Std. Error	Beta	t	Sig.
1 (Constant)	912.61	296.21		1.54	.16
Accountability	9.27	1.727	.82	6.6	.001
Reliability	-38.46	86.602	-.35	-4.44	.007
Safety	11.438	97.35	-.41	-.50	.000
Transparency	-29.94	24.24	-.02	-1.5	.23
Privacy	10.210	.702	.42	13.0	.000
Security	-62.850	52.963	-.08	-1.16	.25
a. Dependent Variable: AI in Women Empowerment					

The above table shows the influencing factors of the selected variables with respect to the Artificial Intelligence in Women Empowerment. The B Value of regression coefficient indicated that, which variable was highlyinfluencing the Artificial Intelligence in Women Empowerment. The most influencing factors are Reliability, Safety and Privacy.

H0: There is no significant difference between the Artificial Intelligence and Women Safety

H1b: There is a significant difference between the Artificial Intelligence and Women Safety

ANOVA					
Artificial Intelligence Awareness					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	3.6149	4	7.0598	24.49	.000
Within Groups	1.4210	47	3.007		
Total	5.0359	51			

A one-way ANOVA was conducted to find the level of awareness of Artificial Intelligence functioning for women safety. The calculated P-value is 0.000 which is less than the standard P-value of 0.05. Hence the null hypothesis is rejected and alternative hypothesis is accepted stating that there is a significant level of awareness among the women safety about the functioning and existence of Artificial Intelligence.

H0: There is no significant difference between the Women Occupation and Using Artificial Intelligence

H1c: There is a significant difference between the Women Occupation and Using Artificial Intelligence

ANOVA					
Using Artificial Intelligence					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	2.8232	4	5.3698	27.53	.000
Within Groups	2.2653	47	4.6254		
Total	5.0885	51			

A one-way ANOVA was conducted to find the level of women occupation and using Artificial Intelligence. The calculated P-value is 0.000 which is less than the standard P-value of 0.05. Hence the null hypothesis is rejected and alternative hypothesis is accepted stating that there is a significant women occupation level of awareness among the women using of Artificial Intelligence.

Post Hoc:

Women Occupation Level				
Duncan				
Occupation	N	Subset of alpha = 0.05		
		1	2	3
Students	21	3.452		
Private Women Employees	17		3.154	
Public Women Employees	12			2.152
Sig.		1.000	1.000	1.000
Means for groups in homogeneous subsets are displayed.				

The above table represents Duncan method the using of Artificial Intelligence respondents is classified in into two groups based on their women occupation level.

VII. FINDINGS AND RESULTS

The findings and discussion are organized based on the three research questions that guided this study. The first question is essential information about the study How does Artificial Intelligence influence women empowerment. The following question How to empower women with safe in Artificial Intelligence, women use AI as a tool to empower themselves. The last question digs deeper into how AI technology allows women to use Artificial Intelligence for safety.

From the analysis of the data collected, it was observed that 62 % of respondents fall in the age group of 20-30 of age. 22 % of respondents fall in the age group of 31 – 40 of women. Another sixteen percentof the women fall in the age group of above 41 years of age.Majority of the women are educated and literate at least completed the Diploma in this study. In this research we have taken literate women only. Women respondents level of education is 16% of respondentsDiploma holders, 74 % of the women education qualification are Under Graduate and Post Graduate level. 42% of the women students were responded 34% of the private employees participated in this study. The remaining 24% of the Government employees were participated in the study.Regarding level of occupation status of the women for the study. 86% of women accepted and given their opinion about Artificial Intelligence for safety and empowerment. The remaining 14% of women were not ready to accept Artificial Intelligence for safety and Empowerment. 52% of women were believed Artificial Intelligence helping for Career Guidance, 24% of women were believed for Acquiring Skills, 16% of women were believed that AI is helping for Interview preparation and the remaining 4% of women were believed that helping or Resume building and other activity. ANOVA table shows that the significant value is less than 0.05, which means dependent variable that is Artificial Intelligence in Women Empowerment is significantly predicted by independent variables namely Accountability, Reliability, Safety, Transparency, Privacy and Security at 95 % of confidence level.

The influencing factors of the selected variables with respect to the Artificial Intelligence in Women Empowerment. The B Value of regression coefficient indicated that, which variable was highly influencing the Artificial Intelligence in Women Empowerment. The most influencing factors are Reliability, Safety and Privacy. A one-way ANOVA was conducted to find the level of awareness of Artificial Intelligence functioning for women safety. The calculated P-value is 0.000 which is less than the standard P-value of 0.05. Hence the null hypothesis is rejected and alternative hypothesis is accepted stating that there is a significant level of awareness among the women safety about the functioning and existence of Artificial Intelligence.

VIII. SUGGESTIONS

Artificial Intelligence can play an important role in enhance workplace safety. The following suggestions are AI can be used to empower women employees and improve their safety.

Personal Safety Apps
Smart Surveillance Systems
Virtual Assistance and Chat Box
Awareness and Training
Women Well Being Monitoring
Anonymized Reporting
Workforce Management

The above figure represents some of the suggestions were expected by the women for safety.

1. AI-powered personal safety apps can provide real-time monitoring and alerts. They can include features like location tracking, emergency notifications, and even predictive analysis of potential safety threats.
2. AI can be used to enhance surveillance systems with facial recognition and behavior analysis. This can help identifying potential threats or unusual behavior in the workplace.
3. AI chatbots and virtual assistants can be used to provide information and support to employees regarding safety protocols, reporting incidents, and seeking assistance.
4. AI can analyze historical data to predict potential safety issues and suggest preventive measures. This can be particularly useful in industries with higher safety risks.
5. AI can help in monitoring the well-being of employees, identifying signs of stress or harassment, and providing timely support.AI can be used to create personalized training programs for employees to educate them about safety measures, reporting procedures, and self-defence techniques.
6. AI can facilitate anonymous reporting of safety concerns, making it easier for employees to voice their concerns without fear of retaliation.
7. AI can optimize workforce management to ensure that employees are not put in situations that may compromise their safety.

IX. CONCLUSION

Women Empowerment is not an important economic one alone, it is a method contains individual preferences, financial, social technology and other features for women empowerment being the important for empowerment particularly for girls and women. Women involvement in Artificial Intelligence and technology has changed the lives of many of them, and these women can be shine in their live. With respect of this technology and Artificial intelligence at their working environment changes in their behaviour and decision making in their field. This study gives exclusive findings in one of the first and foremost systematic literature to analyse the collective knowledge on how Artificial Intelligence provides accessibility that are used to empower women and girls throughout the world. While there were many literatures extant a similarity, but this study collected a number of studies conducted and analysed related to Artificial Intelligence in different sectors like health, environment, agriculture, communication, entrepreneurship and education. Now a day several technologies were used; especially mobile devices play significant role in technology development among women. Theses mobile devices have high end features with a different application for Internet accessibility and portability. This study main aim how women were empowered in Artificial Intelligence with safety. This study helps and provides a depth of women support to gain gender equity at workplace and safety measures for women through Artificial Intelligence. Finally, this study concluded with women were ready to accept the Artificial

Intelligence for safety and given some suggestions to implement for women employee empowerment and safety through Artificial Intelligence like Safety apps, systematic surveillance, virtual assistance etc., This study is limited to conduct an online survey only in Tamil Nadu. It would be valuable for future researchers to conduct and systematic literatures in other sectors and other states in India. The results of this study also found three main areas: Artificial Intelligence, women empowerment and safety. While these are three significant areas, there may be many other areas to empower women that would be worth investigative in future research.

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