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Sr. No	Title & Author Name	Page No
1	Gender based comparative study of environmental awareness among the youth in Bikaner, India <i>Leela Kaur & Sumeet Khatri</i>	1-5
2	From Myth to Modernity: Resonating Echoes of Feminine Empowerment <i>Rajwee Wable, Ketaki Nanaware, Dr. R. R. Itkarkar & Dr. V. N. Patil</i>	6-8
3	Unveiling The Mysteries: Investigating The Facts <i>Dr. S. M. Jagtap, Ms.T.S. Deshmukh, Ms. Sakshi Musale, Ms. Ankita Ozha, Ms. Sneha Chaudhari & Ms. Medha Bankar</i>	9-17
4	Woman In Decision Making <i>Vani H Y, Pooja Bhushan & Anusuya M A</i>	18-25
5	Human resource analytics on women workforce in corporate leadership roles <i>Akshay Rana & Dr. Geeta Sachdeva</i>	26-31
6	Importance of Women's Participation in Rural Marketing: Focusing on Yashaswini Samajik Abhiyan <i>Asst. Prof. Swapnali Alok Pawar</i>	32-41
7	Comparative Analysis of Remote Work and Office-Based Work: Investigating the Preferred Work Environment Among Female Employees in the IT Industry in Mysore <i>Mr. Shivabeerappa. M, Dr. Divya. L & Priya. K</i>	42-51
8	A study of Challenges and Promoting Factors for Girls in Cybersecurity <i>Kavya R & Dr. Veerabhadrappe Algur</i>	52-57
9	Comprehensive Technical Approach for Women Empowerment and Safety in the Digital Landscape <i>Priya Rakibe, Rimzim Chark, Jayesh Gavali, Jai Shah, Sakshi Pawar & Parimal Thakre</i>	58-70
10	A Study on Role of Women Educationalist, Researcher and Achievers in the Society Worldwide <i>Sindhuja G Michael & R. Sajuntha</i>	71-75

11	Gender Equality and Gender Sensitization <i>Dr. Alka Agarwal</i>	76-86
12	From Strain to Success: Empowering Women through Effective Stress Management <i>Dr Gayatri Phade, Dr Sarika Patil & Dr Sharda Ohatkar</i>	87-93
13	Empowering Women in STEM Education and Research: Overcoming Barriers and Promoting Inclusivity <i>Naziya Khanum</i>	94-102
14	Enhancing Women's Empowerment: The Role of Technology in Self-Defense and Safety in India <i>Dr. B. M. Shashikala & Dr. Vanishri Arun</i>	103-114
15	Role of Women in Indian knowledge system <i>Prof. Ravindra K. Patil</i>	115-118
16	Gender-based violence in the Video Games <i>Pratul Deshpande</i>	119-124
17	The Voice for Empowerment: The Meaning of Male Dominance <i>Dr. S.M. Jagtap, Ms. T.S. Deshmukh, Ms. Bhoomi Ahire, Ms. Disha More, Ms.Sejal More & Mr. Atharva Dhanait</i>	125-132
18	Unveiling the Landscape of Women Entrepreneurship: Challenges and Opportunities in Nigeria and India <i>Mr. Aliyu Mohammed & Dr. Shanmugam Sundararajan</i>	133-151
19	Women Empowerment through Spirituality at Brahma Kumaris <i>Dr. Ravindra Edlabadkar, Shahanara Khatun, Dr. Naresh Jaiswal, Anand Najan & ES Rama</i>	152-157
20	Opportunities For Women Empowerment <i>Laxmi D Sapkal & Prasanna G Shete</i>	158-169



Gender based comparative study of environmental awareness among the youth in Bikaner, India

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Abstract—The aim of the study is to investigate the level of awareness and knowledge about environmental issues by males and females. A questionnaire was prepared and managed through online google form. Total 110 participants are included in the study of age group of 15-24. After completion of the survey, data was collected. The study shows that female youth is more aware and connected to environment as compared to male youth. The age group 21-24 years were found more active about environmental issues. Overall, youth are aware about the quality of air, water and importance of plantation. However, taking care of plants need more concern. The study provides a useful tool for evaluation of environmental awareness.

Keywords—Gender; Youth; Environmental issues; Environmental awareness; Bikaner

I. Introduction

Our planet 'Earth' is striving to the global warming, climate change, pollution, and wastes. The environmental quality is deteriorating day by day with increase in population and urbanization. Every component of the environment (i.e., air, water, soil and living organisms) is weakening. The harmful effects are seen in plants, animals, and humans. Hence, it is crucial to improve the environment. The solution of all environmental problems lies at the base of the problem i.e., human especially the young people. As they have the potential to change the future of the planet through their determination, energy, and spirit and they are considered as the backbone of the nation. According to the United Nations, youth are people aged from 15 to 24. Currently, there are 1.2 billion young people which is 16% of the global population and are expected to nearly 1.3 billion by 2030 [1]. In India, more than 50% of the population is under the age of 25 [2]. Youth can play an active role in protecting and improving the environment. They can change their attitude and behaviour towards environment. They can take green initiatives at household level to community level by adopting environment-friendly practices such as managing waste by reducing, reusing, and recycling alternatives, use of public transport or clean fuel options of transport, etc. Development of green skills in youth would provide job security simultaneously contribute in environmental protection [3].

Young people have capability to promote environmental awareness. Young people receive environmentally relevant information from environmental education at the school or college level and from the media too. They can work at grassroot awareness movements among the communities with active role in policy making and decision making. However, participation of youth in environmental protection needs to be strengthened [4]. Dissemination of environmental awareness by young people is the best solution to combat climate change and other environmental issues.

In 2018, Greta Thunberg a Swedish teenager founded 'School strike for climate' movement at her city to generate awareness about the destructive impacts of climate change which became a global mass movement. She has been nominated for Nobel Peace prize for her contribution [5].

Several studies have been done worldwide to examine environmental awareness among youth [6-9].

The aim of the current study is to investigate and analyse the awareness and knowledge levels of young people based on their gender in Bikaner city of Rajasthan (India).

II. METHODOLOGY

A. Questionnaire survey

A questionnaire was prepared and managed through online google form for the current survey. The form is circulated among the young people of Bikaner city. The form includes, age group, gender, academic qualification, and profession.

Under the student category, only those youth are selected who are currently in any academic streams either in school, college or university (as a regular, private and distance learning mode), coaching institute, ITI and diploma institute.

Working professional category includes the youth (15-24 age) who are working in any manner to earn money presently.

The selected five parameters for the survey are environmental education, plantation, air, water and current environmental issues and efforts.

1. Environmental studies/ education: In this section, the questions asked to youth about the learning or studying of environment. Are the youth studying environment as a subject in their institutions.
2. Plantation: The questions are do they like plantation? if yes, then how many plants they have at home and how do they take care of them.
3. Air: The questions asked to youth about air and its compositions, air pollution issues, health issues due to air quality in the surrounding and its solutions.
4. Water: The questions asked to youth about their knowledge related to water. For example, do they reuse used water? If yes, how? Which water do they use for plants at home? and do they use R.O. water for drinking purpose?
5. Current issues and efforts: In this category, the questions are related to observations and inspection of the major threat and problems of environment with current and future aspects. Such as which problem do they consider as major threat for environment? How do they see future environment? On which level more efforts are needed? Youth's opinions about current environmental issues and possible efforts to combat it.

Questions selected for the study are as follows:

- Have you ever read and learn 'Environment' as a subject?
- What do you understand by the word 'Environment'?
- Have you ever planted a plant or tree in any area?
- Do you still take care of plant and the plant is alive?
- Do you think quality of air is important for us?
- What do you understand by air pollution?
- What type of water are you using for drinking purpose?

B. Data analysis

After completion of the survey, data was collected and analyzed in Microsoft Excel 2019 version. The total responses are 116. Out of which, 6 responses are rejected due to incomplete details. Hence, total 110 participants are included in the study. After the survey, it was found that 80% participants are of the age group of 20-24 years. 55% participants are students and approximately 57% participants are females. As per academic qualification criteria, participants pursuing graduation and post-graduation are 40% and 29 % respectively. However, 14% participants are studying in 10th to 12th standard.

III. RESULTS AND DISCUSSIONS

A. Have you ever read and learn 'Environment' as a subject?

The response of the question is shown in Fig. 1. 91 participants read the environment as a subject (82.7%). However, the number of participants who never read environment as a subject is 19 (17.3%). Fig. 2. represents age and gender wise response of this question. 53 female youth read environment as a subject while 38 male youth read

environment as a subject. Females in 15-20 years age group (13) have read environment as a subject. Maximum response of yes is given by graduates and postgraduates which is 40 and 24 respectively.

B. What do you understand by the word 'Environment'?

Fig. 3 depicts the response of the above question. 59.1% respond with a very superficial answer (option 1). Despite, 45 participants choose the second option which is well defined.

Fig. 4 denotes age and gender wise response of the question. 28 female youth elected option 2 as compared to 17 male responses. Females in 20-24 years age group responded more as compared to 15-20 years age group. Graduate participants choose the option 1 mostly. While this trend is reversed in postgraduate in which 18 participants choose option 2 to show their defining of environment.

C. Have you ever planted a plant or tree in any area?

Fig. 5 illustrates the respond of plantation question. 98 participants (89.1%) accept that they have done plantation whereas only 10.9% participants have never planted a plant. Plantation is done by 49 female and 39 male participants. While it is not done by 4 female youth and 8 male youth as demonstrated in Fig. 6. Based on academic qualifications of participants, it was found that 42 graduates and 31 post graduate participants give positive responds for plantation.

D. Do you still take care of plant and the plant is alive?

Fig. 7 depicts response of youth on taking care of plant. 88 participants are continuing to take care of plant and their plants are still alive. 13.6% participants lost their plant due to lack of care and the remaining 4.6% participants do not aware about their plant's aliveness. 56 females and 32 males are taking care of their plants whereas 4 females and 11 males did not care of plant. 3 females and 4 males are not sure for the aliveness of the plant (Fig. 8). 38 graduate and 29 post-graduate participants take care of plant.

E. Do you think quality of air is important for us?

The response received on the importance of air quality is shown in Fig. 9. 103 participants show their concern, understanding and importance of air quality (93.6%). Only 3 participants showed that air quality is not important. 61 females and 42 males are clearly aware about the importance of air quality (Fig. 10). All participants of graduate and post-graduate levels are conscious about it too.

F. What do you understand by air pollution?

According to Fig. 11, option 1 represents shallow answer while option 2 details air pollution definition. Option 3 is given to participants who are not ambiguous on above both points. 81.1% participants choose the option 2 (90 participants). The remaining two options are taken equally by the rest 20 participants. Fig. 12 depicts age and gender wise responses of participants. 46 and 09 responds are recorded for option 2 from females of 20-24 years and 15-20 years age group respectively. Though, 31 and 04 responds are recorded for option 2 from male youth of 20-24 years and 15-20 years age group respectively. 42 graduate and 28 post-graduate participants defined air pollution accurately.

G. What type of water are you using for drinking purpose?

The respond received for type of drinking water used by the participants is displayed in Fig. 13. Tap water for drinking purpose is chosen by 52 participants (47.3%). Where 30% participants use RO (Reverse Osmosis) water and 20.9 % respond as other filtered clean water for drinking. Bottled or packaged water is opted by 2 participants.

Out of 52 person who choose tap water for drinking purpose, 28 females and 24 males responded. Total 23 participants use RO water for drinking purpose and out of them, 21 are females and 12 are males. Only 1 male and 1 female use packaged water for drinking purpose.

Overall, the study shows the high level of awareness in the female youth in comparison to the male youth. Defining and understanding of environment and pollution in females are found more affirmative as compared to male youth. Participation in the current study is also more weighted by females. Age group 21-24 years were found more active about environmental concerns. While comparing based on academic qualification, below 10th standard segment seems low understanding and concerning of environmental issues. The uppermost awareness of environment is shown by graduate participants. In general, youth were aware about the quality of air, water, and the importance of plantation. However, more concern is needed for taking care of plants. Age group, gender, qualification, and profession-wise classification of participants make this survey meaningful and well-categorized which frames the study a valuable tool for the evaluation of environmental awareness.

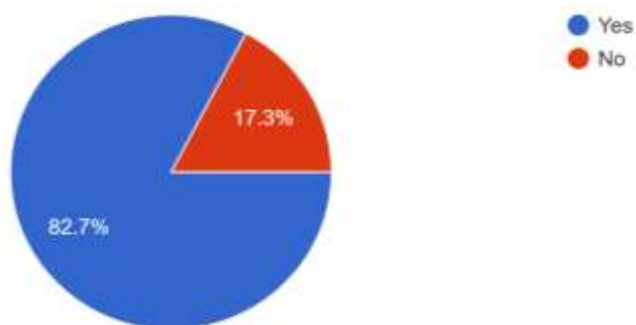


Fig. 1. Response of participants on question 'have you ever read and learn environment as a subject'.

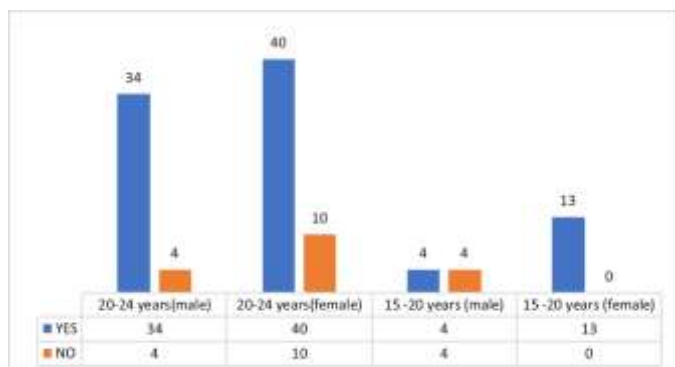


Fig. 2. Age and gender wise response on question 'have you ever read and learn environment as a subject'.

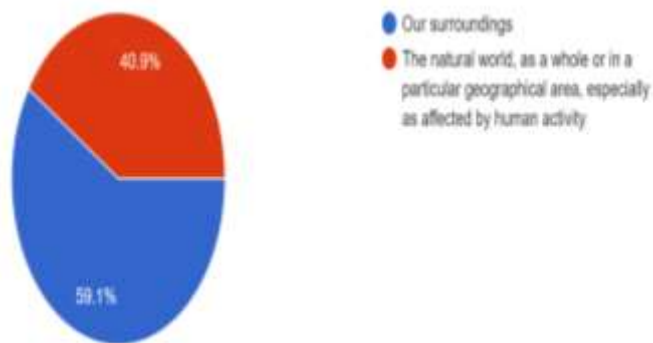


Fig. 3. Response of participants on question - What do you understand by the word 'Environment'.

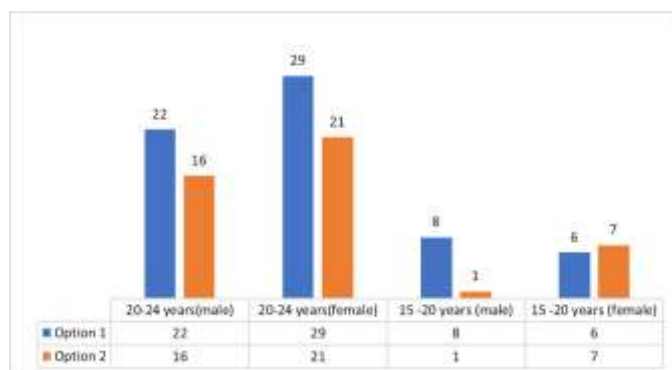


Fig. 4. Age and gender wise response on question - 'What do you understand by the word 'Environment'.

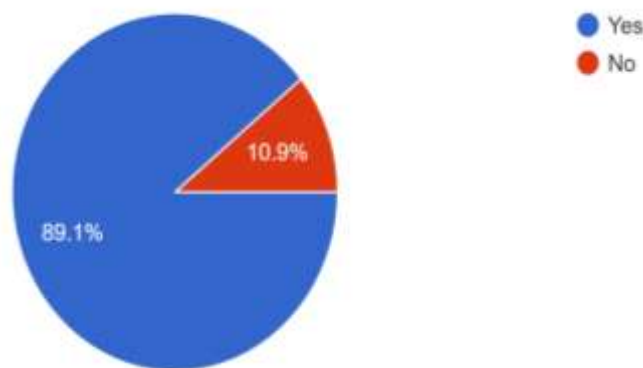


Fig. 5. Response of participants on question - 'Have you ever planted a plant/tree in any area'.

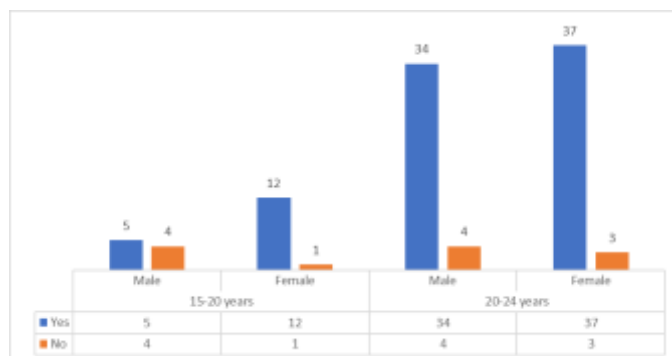


Fig. 6. Age and gender wise response on plantation question.

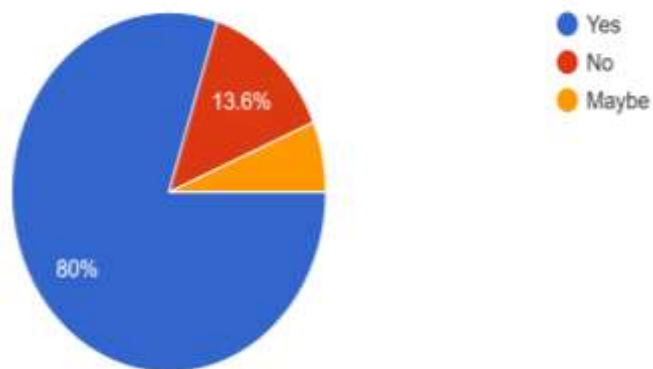


Fig. 7. Response of participants on question - Do you still take care of plant and the plant is alive.

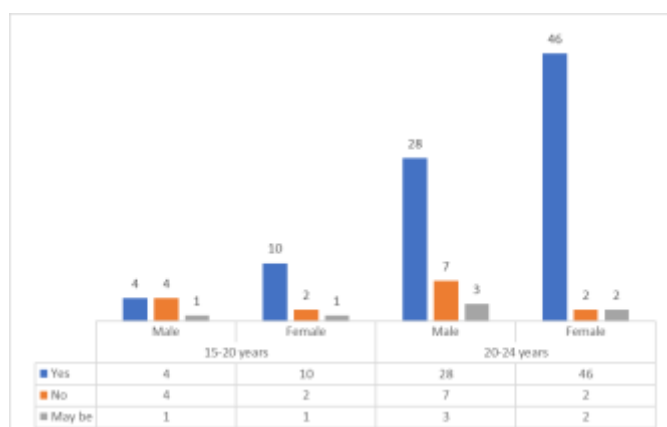


Fig. 8. Age and gender wise response on taking care of plant.

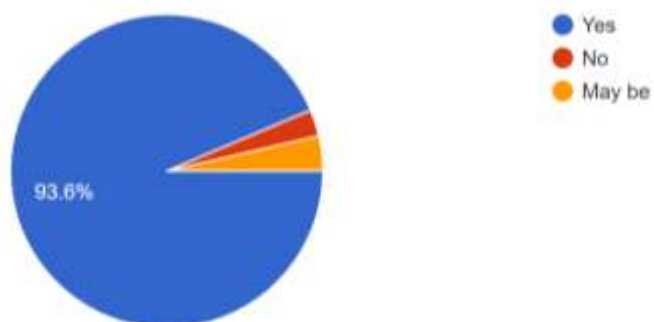


Fig. 9. Response of participants on question - Do you think quality of air is important for us.

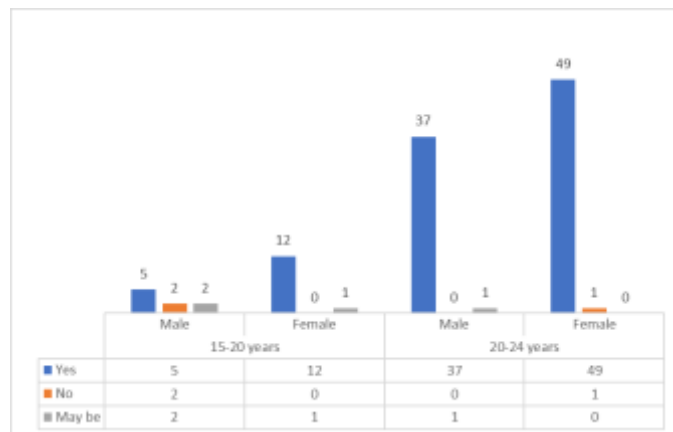


Fig. 10. Age and gender wise response on importance of air quality.

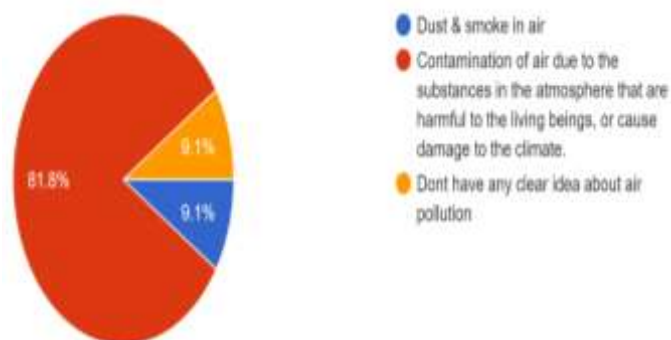


Fig. 11. Response of participants on-What do you understand by air pollution.

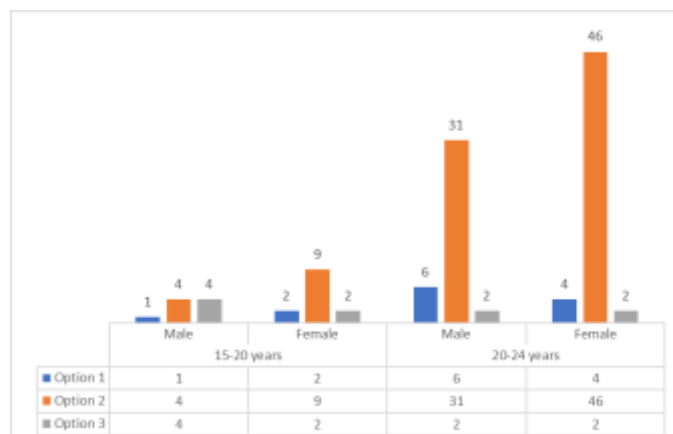


Fig. 12. Age and gender wise response on air pollution.

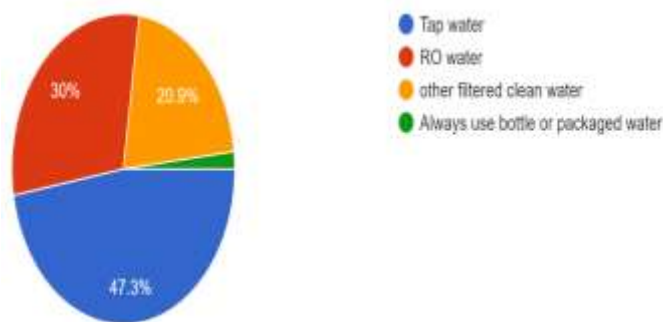


Fig. 13. Response of participants on question - What type of water are you using for drinking purpose.

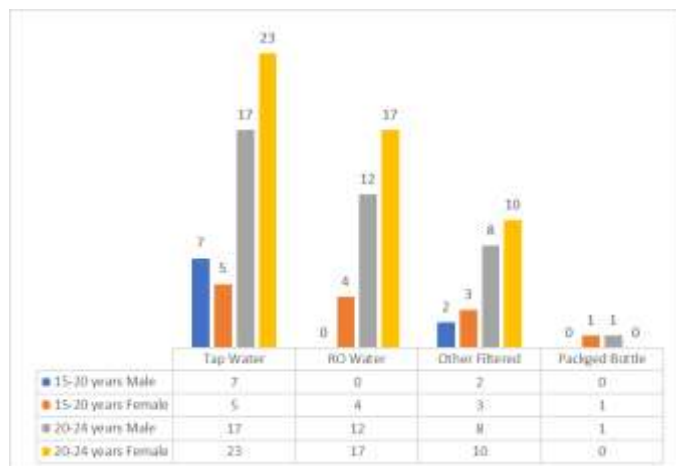


Fig. 14. Age and gender wise response on type of water for drinking purpose.

IV. CONCLUSION

The study shows that the female youth is more aware and connected to environment as compared to the male youth. The age group 21-24 years are more active about environmental issues.

Youth's involvement especially females in environmental solutions, policy making and decision-making would certainly

sustain the environment for future. Educated and empowered female youth could play a major role as the change maker. The study would lay down the foundation towards improving awareness among the female youth. It would be helpful to achieve very crucial sustainable development goals (SDGs) for human and environment sustainability.

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From Myth to Modernity: Resonating Echoes of Feminine Empowerment

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Abstract —The concept of the "New Woman" emerges as a beacon of defiance against the traditional constraints imposed by patriarchal societies. This paper delves into the exploration of female characters from Indian mythology who exemplify the essence of the New Woman, characterized by their courage, assertiveness, and resilience against oppressive norms. By examining these mythological figures, the study seeks to highlight the timeless relevance of their traits in challenging societal norms and empowering women. Additionally, the paper delves into the multifaceted concept of Shakti within Hindu cosmology, where it symbolizes the dynamic energy responsible for creation, maintenance, and destruction. The paper highlights the profound influence of feminine power in shaping both the metaphysical and human realms. This interdisciplinary inquiry intertwines mythological narratives with philosophical insights to illuminate the enduring significance of the New Woman archetype and the omnipresent force of Shakti in Indian culture and society.

Keywords—New Woman, Indian mythology, divine power, feminine archetype

I. INTRODUCTION

The concept of Shakti in Hinduism is like recognizing the heartbeat of the universe, where feminine energy pulsates through all existence, from the tiniest leaf to the vast expanse of galaxies. It's not just about power; it's about the very essence of life itself, the driving force behind creation and sustenance.

In Hindu texts and teachings, goddesses are not just characters in stories; they are embodiments of this cosmic energy, revered as the life force that animates the world. Whether it is the nurturing care of Parvati or the fierce strength of Durga, each goddess represents a facet of Shakti, showing that power comes in many forms. And it's not just about the goddesses; it's about the dance of divine energies, where masculine and feminine forces intertwine in

a cosmic embrace. Ardhanarishvara beautifully captures this balance, reminding us that true harmony comes from embracing both aspects of our nature. But Shakti isn't just something out there; it's within each and every one of us. In every woman,

there's a spark of divine energy waiting to be ignited, a reservoir of power and potential waiting to be tapped into. Practices like Kundalini yoga show us how to awaken this inner Shakti, guiding us on a journey of self-discovery and spiritual growth. Throughout history, Hindu society has recognized and honored the sacred feminine, with women playing vital roles as leaders, scholars, and spiritual guides. It's a tradition that celebrates the inherent strength and wisdom of women, offering a stark contrast to societies where women have been marginalized or restricted.

And in today's world, as we strive for greater equality and inclusivity, the wisdom of Shakti offers a powerful reminder of the importance of embracing feminine values and perspectives. It's a call to honor the divine within ourselves and others, recognizing that true power comes not from domination, but from unity and balance.

II. SATI

Sati Savitri's narrative intertwines with feminist interpretations, showcasing themes of agency, resilience, and the assertion of feminine power. While her story might initially appear to reinforce traditional gender roles with its emphasis on wifely devotion, a deeper look reveals elements of feminist agency and empowerment.

Savitri's choice to marry Satyavan despite knowing his impending death challenges societal expectations and demonstrates her autonomy in choosing her life partner. Instead of succumbing to fate or patriarchal pressure, she exercises her agency by following her heart's desire. This act of self-determination aligns with feminist ideals of women making their own choices, even in the face of

opposition. Furthermore, Savitri's relentless pursuit to save her husband reflects her refusal to accept the passive role often assigned to women. Rather than resigning herself to grief or helplessness, she confronts the god of death himself, engaging him in a battle of intellect and willpower. In doing so, Savitri asserts her right to challenge authority and shape her own destiny, a stance emblematic of feminist resistance against oppression. Additionally, Savitri's clever negotiation with Yama for the restoration of Satyavan's life showcases her strategic thinking and resourcefulness, qualities traditionally associated with masculine heroism. By leveraging her intelligence and wit, Savitri not only secures her husband's survival but also demonstrates her capacity for leadership and problem-solving, challenging gender stereotypes that limit women's roles to passive nurturers.

In essence, Sati Savitri's story exemplifies feminist themes of autonomy, resilience, and agency, offering a nuanced portrayal of female strength and empowerment within the framework of Hindu mythology. Through her courage and determination, Savitri emerges as a timeless symbol of feminine power, inspiring generations of women to assert their rights and shape their own destinies.

III. DRAUPADI

Draupadi's character in the Hindu epic Mahabharata offers rich insights into feminist discourse, portraying a complex blend of vulnerability, resilience, and assertiveness within a patriarchal society.

Her swayamvara, where she chooses her own husband, initially appears to empower her, reflecting agency in selecting her life partner. However, Draupadi's subsequent polyandrous marriage to the five Pandava brothers raises questions about her agency and autonomy, as it is more a result of political alliance and familial duty than personal choice. Despite this, Draupadi's acceptance and adaptation to her unique marital situation showcase her resilience and ability to navigate complex social structures. Draupadi's defining moment comes during the infamous dice game where she is humiliated and disrobed in front of the entire court. Her public humiliation symbolizes the objectification and subjugation of women in a patriarchal society, yet her response challenges traditional notions of female passivity. Instead of silently accepting her fate, Draupadi vehemently protests, questioning the legitimacy of the patriarchal order and asserting her dignity and rights as a woman. Following this incident, Draupadi's vow for vengeance against her oppressors highlights

her agency and determination to seek justice, even at a great personal cost. Her unwavering resolve to hold her perpetrators accountable defies societal expectations of female docility and obedience, embodying feminist ideals of resistance and empowerment. Moreover, Draupadi's role as a catalyst for the Kurukshetra war, where she becomes the rallying point for the Pandavas' struggle against injustice, underscores her significance as a symbol of resistance and liberation. Through her courage and resilience, Draupadi transcends the confines of her gendered role, emerging as a powerful force for change within the epic narrative.

To sum up, Draupadi's character epitomizes feminist themes of agency, resilience, and resistance, offering a nuanced portrayal of female strength and empowerment within the context of ancient Indian mythology. Her story serves as a timeless reminder of the ongoing struggle for gender equality and the enduring legacy of women who dare to challenge patriarchal norms and assert their rights.

IV. GARGI

Gargi is a revered figure in ancient Indian scriptures, particularly in the Upanishads, where she engages in philosophical debates challenging established norms and patriarchal structures, thus exemplifying feminist principles within Hindu mythology.

Gargi's prominence is most notably seen in the Brihadaranyaka Upanishad, where she participates in a philosophical dialogue with the sage Yajnavalkya. In this exchange, Gargi fearlessly questions Yajnavalkya on metaphysical matters, demonstrating her intellectual prowess and confidence in engaging with male scholars in a traditionally male-dominated sphere. Her participation in these intellectual discourses signifies her refusal to be confined to traditional gender roles, challenging the notion that women are intellectually inferior or incapable of philosophical inquiry. By actively participating in debates and questioning established wisdom, Gargi asserts her right to knowledge and challenges patriarchal hierarchies within the Vedic society. Moreover, Gargi's boldness is further highlighted in her exchange with King Janaka, where she poses probing questions about the nature of reality and existence. Her fearless pursuit of truth and knowledge, even in the presence of royalty, underscores her unwavering commitment to philosophical inquiry and intellectual autonomy. Gargi's portrayal in the Upanishads as a learned and assertive woman challenges stereotypical

representations of women as passive and submissive. Instead, she emerges as a feminist icon, advocating for women's intellectual empowerment and asserting the importance of gender equality within spiritual and philosophical discourses.

At its core, Gargi's character embodies feminist ideals of intellectual autonomy, courage, and resilience, serving as a timeless inspiration for women's empowerment and challenging patriarchal norms within Hindu mythology. Her legacy underscores the enduring importance of women's voices in the pursuit of knowledge and truth, transcending the limitations imposed by gendered expectations and societal conventions.

V. Some Other Characters

Isis, with her multifaceted roles as a nurturing mother and powerful sorceress, can be seen as embodying aspects of the New Woman archetype. In her quest to resurrect her husband Osiris and protect her son Horus, Isis displays resilience, resourcefulness, and unwavering devotion. These qualities resonate with the New Woman's defiance against societal norms and her pursuit of independence and agency.

Similarly, Athena, the goddess of wisdom and strategic warfare, embodies qualities often associated with the New Woman, such as intellect, courage, and assertiveness. As a patroness of heroes and artisans, Athena champions skill and ingenuity, challenging traditional gender roles and expectations. Her role as a protector of cities and civilization further underscores her association with the ideals of progress and empowerment.

Freya, the Norse goddess of love, beauty, and war, represents a fusion of seemingly contrasting qualities that align with the complexity of the New Woman. As a figure associated with both love and battle, Freya challenges traditional dichotomies and embraces the full spectrum of human experience. Her fierce independence and autonomy reflect the aspirations of the New Woman to assert her identity and pursue her desires on her own terms.

In parallel with Hindu mythological counterparts such as Sati, Draupadi, and Gargi, these figures exemplify the enduring significance of feminine power and agency across diverse cultural contexts. Through their stories, they inspire women to embrace their strength, intellect, and resilience, transcending limitations imposed by patriarchal societies. As symbols of empowerment and liberation, they

illuminate the universal quest for self-realization and equality that unites women across time and cultures.

VI. CONCLUSION

In conclusion, the journey through Indian mythology and the exploration of the New Woman archetype alongside the concept of Shakti reveal timeless truths about female empowerment and resilience. Through the narratives of Sati, Draupadi, and Gargi, we witness the embodiment of courage, agency, and defiance against societal norms. These mythological figures serve as beacons of inspiration, reminding us of the enduring significance of feminine power in challenging patriarchal structures and fostering societal change. Moreover, the inclusion of goddesses like Isis, Athena, and Freya from other cultural contexts underscores the universality of the quest for female autonomy and empowerment. As symbols of empowerment and liberation, these mythological figures illuminate the universal struggle for gender equality and the timeless pursuit of self-realization and freedom that unites women across cultures and generations. Through their stories, we are reminded of the importance of embracing feminine values and perspectives, and the ongoing journey towards a more inclusive and equitable society.

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Unveiling The Mysteries: Investigating The Facts

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Abstract:-

This study investigates the complex interplay between religious and traditional practises in India and similar civilizations, focusing on how these factors contribute to the many obstacles that women encounter. It takes a look at how these problems are exacerbated by patriarchal social structures and long-held beliefs that refuse to budge from their established ways of doing things. Finding the complex mechanisms that keep gender-based concerns alive is the goal of this project, which will use both qualitative and quantitative methods. Examining the ways in which religion, tradition, and social standards interact, it reveals how these elements work together to obstruct women's advancement and welfare.

Keywords: Religious Customs, Traditional Practices, Gender Issues, Women's Challenges, Patriarchy, Societal Mindset, Gender-Based Discrimination, Cultural Influences, Women's Rights

I. INTRODUCTION

Exploring the cultural diversity of India and beyond, "Unveiling the Secrets: Investigating the Facts" goes on a world tour, investigating the obstacles women have when trying to solve cultural mysteries. Women in India face cultural

expectations that obfuscate their varied stories as they walk the fine line between modernity and tradition. This study seeks to provide light on the unique practises and obstacles encountered by Indian women, revealing how cultural subtleties influenced their journeys of self-discovery.

Beyond women from varied cultural backgrounds in India, the article broadens its scope to include women from all over the globe. It takes a look at the cultural traditions, gender prejudices, and social expectations that women face while trying to solve mysteries. The project aims to contribute to a better understanding of how women, cultural settings, and the obstacles they face on their journeys to discovery interact with each other.

Unveiling secrets is a universal goal inside the complex web of human communities across the world. Within the culturally complex landscapes of India and beyond, this research article seeks to explore the varied issues encountered by women. The difficulties women have in deciphering secrets specific to their lives while navigating cultural

conventions and conventions are at the heart of this investigation.

Embracing the intricacies of women's experiences in delving into mysteries, this study aims to provide significant insights that go beyond boundaries, encouraging a more nuanced and inclusive conversation on the obstacles women encounter as they attempt to understand the realities that impact their lives. In "Unveiling the Mysteries: Investigating the Facts," the author takes the reader on a quest to better comprehend life's mysteries and the connectivity of women's experiences across civilizations.

1.1 MOTIVATION:

The intricate web of traditional practises and religious beliefs influences the lives of innumerable women across. Cultural practises have the dual benefit of uniting people and strengthening communities, but they also have the potential to severely restrict women's freedoms and health. I am really driven to grasp these difficulties and make a good impact, which is why I am writing this research paper.

To better understand gender inequality and its roots, as well as to equip others to fight for effective solutions, it is necessary to examine the complex problems that women experience, not just in India but worldwide.

It is possible that the study will lead to:

Bring these concerns to light: By doing so, we may start vital debates and combat damaging preconceptions.

The results may educate lawmakers and policymakers on the need of enacting legislation and implementing initiatives to safeguard women's rights.

As a result, women and communities may feel more empowered to stand up for what they believe in and to combat discrimination.

Chapter Three: Aims

1.To educate the public about women's rights, gender equality, women's peace, and their participation in peacebuilding processes at the national and international levels via various legislation and conferences.

Strengthening the abilities of girls and women to create peace, lead, develop their talents, advocate for women's rights, and take part in and make decisions in politics.

3.Promoting equality for women via addressing their concerns, including them in strategic planning, and drafting legislation and regulations that support them.

4.Protection of women and girls from all sorts of discrimination and violence in society and society.

Learn how patriarchal regimes restrict women by limiting their opportunities for education, healthcare, economic independence, and personal freedoms via the use of religious norms and practises.

III. LITERATURE REVIEW

Jayshree K Kuniyath, Dr. K.C.Sankarnarayanan[1] In the paper analyzes how Hindu mythology, through its narratives and characterizations of women, reinforces patriarchal norms and constructs that legitimize gender discrimination. Explore existing scholarship on the portrayal of female deities like Sita, Draupadi, and Kali, highlighting how these portrayals shape societal perceptions of women's roles and expectations.

Dr. Niharika Subhash[2] Highlighted how specific customary practices prevalent among tribal

communities impact women's health. Examine studies that analyse the influence of factors like female genital mutilation, child marriage, and restricted access to menstrual hygiene on maternal health, reproductive rights, and overall well-being.

Melissa Withers PhD, Nina Kharazmi, Esther Lim[3] Highlights the cultural beliefs can influence women's use of formal maternal health care services the traditional beliefs and practices in pregnancy and childbirth are prevalent in Asia also that women's fear of unnecessary medical interventions is a barrier to institutional births.

Alba González-Timoneda, Marta González-Timoneda, Antonio Cano Sánchez, RCID and Vicente Ruiz Ros[4] Investigated the well-documented physical and psychological consequences of Female Genital Mutilation, including obstetric complications, sexual dysfunction, pain, and trauma. Cite studies like those by the World Health Organization (WHO) and regional health authorities that quantify the prevalence and impact of these consequences.

Gabriela Baechler [5] In the article highlights the persistence of harmful customs against women around the world, despite advancements in the 21st century. It criticizes traditions that exploit women physically, mentally, and sexually, emphasizing the courage required for women to endure them. The author calls for acknowledging the ongoing struggle for gender equality and the need to address these discriminatory practices.

Himisha Jain[6] Investigated how despite the legal protections, numerous studies document persistent challenges, including rape, women trafficking, and other forms of gender-based violence. The author delves into the complex interplay of discriminatory social norms, patriarchal structures, and inadequate

implementation of laws that hinder true gender equality in India.

IV. KEY FINDINGS

4.1 Menstruation: A Taboo -

During menstruation, women encounter several cultural taboos and limitations that greatly affect their everyday lives. Females in rural regions are often barred from entering the kitchen, whereas girls in urban areas are asked to stay out of the "puja" chamber. Due to beliefs in the impurity connected with menstruation, some meals are off-limits, and these prohibitions even extend to touching sacred texts and praying. Religious and cultural taboos also play a role in these restrictions; for example, some cultures believe that menstruation brings bad luck and perform rituals like burying old clothes to protect themselves. Even though there is no rational or scientific basis for these beliefs, they continue to be held in places like Surinam and several areas of Asia, including India. Addressing menstrual health concerns requires cultural sensitivity and open conversation, particularly in areas where these practices are more common. These obstacles underscore the importance of these factors.

Some Nepalese groups still follow the ancient ritual of Chhaupadi. This means that girls and women who have periods should be confined to mud huts or sheds for the whole time, or even longer if necessary. Keeping in mind that they wind up there without any means of personal hygiene, supplies, or even water to wash with. This is a threat since they are often confined to their huts and left alone, which increases their vulnerability to diseases like asphyxia and animal assaults.



Figure 1 :Menstruation: A Taboo

4.2 Silenced Women –

There has been some success in educating Indian women, but the nation still has a shockingly high rate of sexual harassment and assault. India had 31,677 rape cases in 2021, with an average of 86 per day and almost 49 reports of violence against women each hour, according to the most recent official statistics. A 28-year-old lady from Ludhiana was raped by her father-in-law after he drugged her drink; shockingly, many women endure violence inside their own families. The ongoing difficulties are highlighted by the notorious 2012 Nirbhaya case in Delhi, in which a 22-year-old woman was gang-raped and killed. Despite the fact that justice was delivered seven years later, women often remain silent because of cultural anxieties. As a result of structural biases, women from low-income families may face educational neglect, exacerbating an already difficult situation. Some people still think it's pointless to put money into a girl's education, even if there are programmes that provide free education to kids from low-income households. Notwithstanding these obstacles, free education programmes provide a glimmer of hope that attitudes will change over time, allowing more girls to seek education and ultimately ending the vicious cycle of gender-based violence. There has to be immediate, far-reaching social reform and improved protections for women since the ratio of

recorded rape incidents in 2021 is very concerning, with an average of 86 instances per day.

Assaults against a spouse, ex-spouse, or present or past partner that lead to sexual actions with a third party without consent are also referred to as marital rape. Research suggests that 14% of married women have been victims of marital rape; however, this figure is probably low. Rather of being driven by an overwhelming desire, the offender's view of sex as a marital entitlement or a problem-solving tool is a common motivator. Although physical abuse is a common symptom of domestic violence, marital rape may happen on its own. Additionally, there is disturbing evidence that indicates a correlation between sexual abuse in childhood and susceptibility to marital rape in later years. It is critical to bring attention to the issue and break down the cultural norms that contribute to the hidden epidemic of sexual assaults involving spouses or ex-husbands, which accounts for 10% of recorded attacks.



Figure 2 :Silenced Women

4.3 Dowry Dilemma –

"The Dowry: A custom that ties people down, enslaves them, and sells love itself."

Legal restrictions and awareness initiatives have not been able to eradicate the dowry system, which is strongly ingrained in states in Northern India such as Uttar Pradesh, Bihar, Haryana, and Punjab. According to several studies and publications, dowry exchanges are common in many locations, but it is difficult to determine the precise numbers

because of underreporting. Research shows that many families are struggling to meet the financial demands of dowry expectations, which puts a heavy financial load on the bride's family. Noncompliance with dowry demands may have serious implications, including exploitation, violence, and even fatalities caused by dowry. By perpetuating old gender norms and seeing women as objects, this repressive behaviour worsens gender inequity. Families may put off investing in their daughters' futures in favour of saving for dowries, which has a negative effect on women's access to higher education and employment opportunities. Unmet dowry expectations are a societal black eye for women and their families, adding insult to injury and reinforcing the prejudice and marginalisation they already endure. Abolition of the dowry system and promotion of gender equality in the area need immediate action, which should include changes to the law, campaigns to raise public awareness, and a change in cultural views on marriage and gender roles.



Figure 3 :Dowry Dilemma

4.4: Beyond Borders -

One of the most susceptible demographics to human trafficking is women. Slavery, the enslavement of women and girls for sexual or economic exploitation, is a global problem that affects almost every nation.

Ancient cultures placed a great value on female slaves for their sexual prowess, fertility, and

potential as concubines or prostitutes. The prostitute trade is a major driver of modern-day human trafficking of women.

Girls and women from Bangladesh and Nepal are also taken to India by traffickers for the aim of sexual exploitation for profit. The Middle East is a notorious hub for the commercial sexual exploitation of Indian women.

The Suppression of Immoral Traffic in Women and Girls Act of 1956 (SITA) and the Immoral Traffic (Prevention) Act of 1986 (ITPA), a modification to SITA, are the two main laws in India that deal with trafficking and prostitution specifically.

The results of a recent study show that women from all across India are freely trafficked and bought and sold. They come from various parts of India, including Tamil Nadu (Dindigal, Madurai, Tiruchirapalli, and Chengalpattu), Bihar (Gaya, Kishanganj, Patna, Katihar, Purnea, Araria, and Madhubani), West Bengal (Murshidabad and 24 Parganas), Maharajgunj (UP), Dholpur, Alwar, Tonk (Rajasthan), Mangalore, and Karnataka (Gulbarga and Raichur). Countries in the Middle East such as Bahrain, Dubai, Oman, South Korea, the Philippines, and Thailand get these girls and women, while South Africa, Kenya, and Thailand also receive them. As sex workers, they are subjected to horrific abuse and exploitation. In terms of risk of HIV infection, these women rank first.

The percentage of human trafficking cases that resulted in a conviction during the last five years is 23%. There were up to 45,375 arrests and 10,134 convictions. Fines and jail time are among the possible punishments.



Figure 4 :: Beyond Borders

Human trafficking in India is most prevalent in West Bengal. In 2013, out of all the Indian states, it had the highest number of human trafficking instances (669). The next highest were in Tamil Nadu, Andhra Pradesh, Karnataka, and Maharashtra.

4.5 :Beyond Aesthetics –

Women of several Ethiopian tribes, including the Mursi and Surma, engage in lip plating, an old ritual with many cultural functions. At the start of puberty, usually around the ages of 15 or 16, adolescent girls go through a metamorphosis when they gradually thin and expand their lower lips until they can fit big, round discs made of clay or wood. Although it is undeniably a reflection of societal beauty standards, this practise goes beyond just looks. As a visible sign of tribal membership, the decorated lip discs symbolise a woman's devotion to her husband, which is especially noticeable when she serves him food. In many societies, a lengthy lip is a sign of cultural identity and femininity. Lip plating is a complicated cultural practise that expresses beauty, marital devotion, and tribal membership; nonetheless, there is minimal actual evidence on its prevalence. This highlights the delicate tapestry of activities inside these indigenous

civilizations.



Figure 5 :Beyond Aesthetics

4.6 :Tradition to Tragedy –

Traditional circumcisers would often use rudimentary instruments like homemade blades and razors to remove some or all of a girl's external genitalia as part of the deeply ingrained practise of Female Genital Mutilation (FGM), which is prevalent across many parts of Asia, Africa, and the Middle East. Without anaesthetic and in an unclean environment, the operation is very dangerous and might lead to infections, significant bleeding, and even death. The flawed assumption that lowering a woman's libido would make her seem less promiscuous is the foundational justification for this destructive practise. The unimaginable hardships endured by women as a result of these cruel traditions must be recognised and their strength celebrated. This is a rallying cry for people all throughout the globe to keep fighting against harmful practises and discrimination based on gender that threaten women's safety and independence. Persistent lobbying and international cooperation are crucial in the ongoing fight to abolish female genital mutilation (FGM). The critical need to confront this human rights violation and work towards a future free of such destructive practises is underscored by credible data statistics on the prevalence of female genital mutilation

(FGM).



Figure 6: Tradition to Tragedy

V. OBSERVATIONS

Gender inequality, menstrual taboos, rapes, and genital mutilation are still disturbing aspects of women's existence in many countries, as seen in the landscape, especially in India and similar places. Patriarchal systems and long-established cultural norms keep women exploited, even if people all across the world are trying to fix this. Women continue to face a vicious cycle of disadvantage due to the pervasive gender gap in healthcare, educational prospects, and economic status. Period shame, prejudice, and a lack of period hygiene products are all made worse by the taboo around menstruation.

A culture of silence and victim-blaming is often fostered by cultural beliefs, which in turn contribute to the pervasiveness of rape as a horrific crime against women. Furthermore, genital mutilation is still practised today, which shows that detrimental cultural practises that limit women's control over their bodies are still around. Legislative changes, educational programmes, and cultural shifts are all necessary components of a holistic response to these complex problems. Dismantling the deeply ingrained systems that sustain women's exploitation requires a radical change in social attitudes, supported by strict legal enforcement and improved educational initiatives. Furthermore, by encouraging open discussions on

these matters and giving survivors a platform to share their stories, we can help create a space that is receptive to change.

VI. CONCLUSION:

A complex picture develops from the rich tapestry of cultural practises examined, which includes topics such as the dowry system, the sad history of female genital mutilation, the aesthetic symbolism of lip plating, the disturbing problem of women's trafficking, and the taboos surrounding menstruation and child marriage. Discovering the answers to these questions highlights the need for a worldwide movement to combat damaging norms and promote a new storey of gender equality. It is becoming more apparent that breaking down long-standing conventions calls for persistent dedication, conversation, education, and activism as we face the ugly truths embedded in these traditions. The fight to change people's minds is long and difficult; we must all work together to create a society that respects and protects the inherent worth and dignity of every person. By systematically eliminating these behaviours, we may create a world where everyone is treated with greater fairness, compassion, and equity.

VII :FUTURE SCOPE :

Addressing issues such as menstruation taboo, women trafficking, rape cases, lip plating, and genital mutilation requires a multifaceted approach involving government support, strict enforcement of laws, educational initiatives, and cultural sensitization. Here's a breakdown of potential strategies and their future scope:

1. Holistic Government Action:

The future calls for governments to not only prioritize women's issues but to allocate substantial resources for prevention, intervention, and support services. Strengthening and enacting laws that

protect women's rights and establishing specialized law enforcement units are essential steps toward dismantling patriarchal structures and ensuring justice. Governments must take a proactive role in fostering a legal environment that protects women from gender-based violence and discrimination.

2. Comprehensive Education Initiatives:

To address the root causes of issues such as gender inequality, menstruation taboos, and genital mutilation, a comprehensive approach to education is vital. Integrating sex education in school curricula, coupled with community awareness campaigns, challenges harmful beliefs and promotes gender equality. Engaging religious and community leaders as advocates for change is crucial in transforming social norms and fostering a more inclusive and respectful society.

3. Media Influence for Positive Change:

Media and entertainment can be powerful tools for fostering empathy and understanding. Collaborating with creators to produce content that challenges stereotypes and promotes positive role models is pivotal. Leveraging social media platforms to amplify voices advocating for change creates a sense of solidarity among activists and supporters. Media representation plays a significant role in shaping societal attitudes, making it imperative to use these platforms to drive positive narratives and contribute to cultural shifts.

4. NGO and Social Work Empowerment:

Non-governmental organizations and social workers play a vital role in directly supporting affected communities. Empowering women through skill-building programs, economic opportunities, and leadership development initiatives is essential for sustainable change. Building partnerships with local stakeholders

ensures culturally sensitive interventions and contributes to long-term solutions.

5. Global Collaboration for Transcendent Impact:

Addressing transnational issues requires global collaboration. Fostering international cooperation, sharing best practices, and advocating

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Woman In Decision Making

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Introduction

Gender differences in IT carriers appear to be affecting the competitiveness of companies and Academic performance. A Model of barriers faced by women in the fields of information technology arises in many versions. There may be at the stage of carrier choices sustainability and advancement in the applications and analysis. At each stages the effects of social, family and structural factors act as barriers. Social factors like social expectations, work, family conflicts hinders the performance and growing of women. By overcoming all these factors and she has grown to the greatest height in all the fields especially in Information technology area. Hence it results in a turnover of women in IT.

In IT field we could see many research articles, CEO's at industries, Executing Engineers, Architects women have grabbed all the equal positions and continued to be sustained constantly for a long time. In this paper authors Mental Illness

detection through speech data conceptualization is identified, applied and experimented by the female authors. This is an example shows still women researchers are propelling their ideas to the field of information processing and technology. Next sections of the paper will discuss the concepts related to technology and application to Mental Illness Detection using Speech data.

Changes in emotion, thinking and behavior or a combination of both thinking and behavior are symptoms of mental illness. Distress and difficulty coping with daily tasks at work, in the family, and in social situations can be the symptoms of mental illness. All mental disorders that may be diagnosed are collectively referred to as mental illness.

Communication, thinking, learning, hope, self-esteem, resilience and emotions depends one person's good mental health. Personal well-being, relationship, emotional and giving back to the society and the community all depends on good mental health condition. Overall well-being

includes both mental health and physical health and mental illness is influenced by the physical health condition.

Speech is an important factor for mental health. It is the physical expression of the mental state of mind. The Mental illness detection systems have evolved for the need of systems that operates with speech input. It is seen that most of the illness detection systems have been designed to work in controlled environments using clean audio data. Such systems suffer from performance degradation under noisy environment. The known problems like background noise, speaker variation and continuous feature identification of audio data etc.

Using recorded audio samples, we developed a model for automatically detecting mental illness based on speech expressions. For feature extraction, this mental illness detection system employs methods like MFCC. The most widely used and dominating technique for extracting spectral information from speech is called Mel-Frequency Cepstral Coefficients (MFCC), which uses perceptually based Mel spaced filter bank processing of the Fourier Transformed speech data. The model is taught to create its own assumptions about their commonalities based on the fewest number of examples using one-shot learning classification techniques. By assuming similar things and categorizing unknown objects into their appropriate categories, it generalizes the knowledge it has gained via experience with tasks of the same kind.

2. System Design

Before creating architecture or designing a system, every developer in the world has to go through the

concept of system design. The process of creating a system's components, including its architecture, modules, and components, as well as its interfaces and the data it processes, is known as system design.

To enable the execution of architectural entities as defined in models and views of the system architecture, the System Design process aims to offer enough specific data and information about the system and its system component.

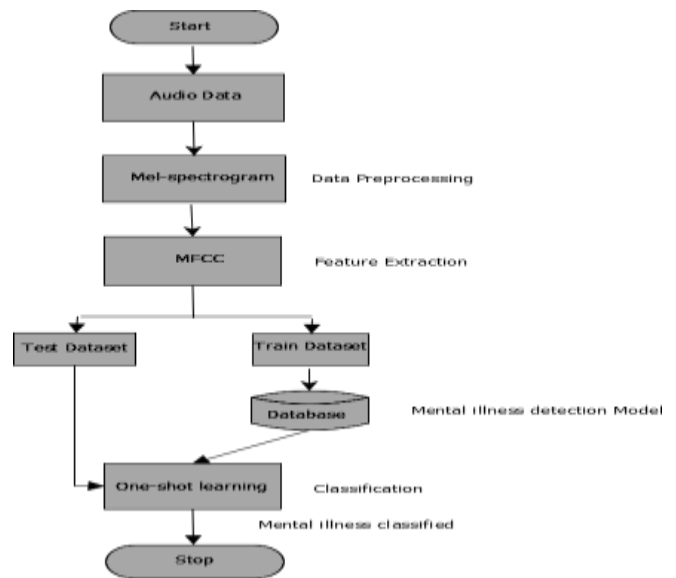


Fig.1. Planning of work

Dataset

The DAIC-WOZ dataset is a larger version of the DAIC (Distress Analysis Interview Corpus), which contains a number of interview datasets to help research on a variety of mental illness problems, including stress, anxiety, and depression. The University of Southern California has supplied this dataset, which includes 189 voice recording samples from 154 different participants. Interviews with the participants were conducted virtually in order to get the data. The information gathered includes audio recordings of the participants' facial expressions together with questionnaire answers.

Using PHQ-8 scores as the criterion, subjects were classified as having a single value for each recording of anxiety, depression, and stress. People with PHQ-8 values under 10 were classified as having anxiety, those with scores over 10 as having depression, and those with scores that fluctuated frequently were classified as having stress. Of the 250 participants, 78 were classified as anxious, 87 as depressive, and the remaining 85 as stressed. Each participant responded between 12 and 48 times during the interview. Each response lasts between one and twenty one minutes. All voice samples were down-sampled to 8,000 Hz. Short-term voice recordings may include very little information that can be used to identify stress, depression and anxiety.

Data preprocessing

Data cleaning

According to the dataset, all samples range between 1 and 3 seconds in length. The threshold is set to at least 1 second each record, and any residual data below that point is removed.

Step1: Mel-Spectrograms as data preprocessing technique

Techniques for data preprocessing is the Mel-Spectrograms are extensively used in the field of mental illness detection systems. A non-linear frequency transformation known as a mel spectrogram is based on the waveform of audio samples. Mel-spectrograms are computed using logarithmic frequency spacing and frequency amplitude.

(i) Divide the speech data into frames that last 20 to 40 ms. Whereas, 25 ms is the norm. According to this, a 16 kHz signal's frame length is 400 samples,

or 0.025 times 16 000. A frame step of about 10 milliseconds and 160 samples allows for some frame overlap, ensuring that no information is lost. The second 400 sample frame begins at sample 160 after the first 400 sample frame at sample 0. until the speech dataset's end is reached. We must add zeros to the audio file if it is not split into an even number of frames in order to make it so.

This step is applied for all the frame, a set of 12 coefficients is been extracted for each frame. we call our time domain signal $P(n)$. After it is framed we have $P_i(n)$ where n ranges from 1-400

and i ranges over the number of frames. Then calculate the complex DFT, we get $P_i(a)$ where

the i denotes the frame number corresponding to the time-domain frame.

(ii) Calculate the Fast Fourier Transform of the frame, by using:

$$P_i(a) = \sum_{n=1}^N P_i(n)h(n)e^{-j2\pi an/N} \quad 1 \leq a \leq A$$

where $h(n)$ is an N sample long analysis window, and a is the length of FFT.

(iii) Compute the Mel-spaced filter bank. The set of 20-40 (26 standard) triangular filters applied to periodogram power spectral estimate at step ii). The filter bank comes in the form of 26 vectors of length 257. Most of all vectors are zero, but non-zero for certain parts of the spectrum. To calculate filter bank energies are multiplied to each filter bank with the power spectrum, then add up the coefficients.

Step2: Convert spectrogram to decibel scale

To be more accurate about the features, we convert amplitude on Mel-Spectrograms to decibel scale. Decibel scale shows the waveform levels in decibels and relative to digital full scale. After applying the decibel scale, distribution in each Mel-Spectrogram row becomes more pronounced hence, once we input them into the model, so that the system will be capable of identifying key features more easily.

Step3: Resize the spectrogram to the target shape

The process of resizing involves determining what portion of the FFT length will actually be used for computation (zero-padding). In this case, a low value will produce a higher temporal resolution together with a lower frequency resolution.

Step4: Normalize the spectrogram to the range

Here, we normalize the values in a dataset to be between 0 and 1

By using the following equation:

$$\text{Spectrogram_normalized} = (\text{spectrogram_resized} - \text{np.min(spectrogram_resized)}) / (\text{np.max(spectrogram_resized)} - \text{np.min(spectrogram_resized)})$$

Feature Extraction

Better features for modeling the audio dataset are provided by feature extraction techniques. By extracting significant data from the audio signal, feature extraction algorithms are created to provide a meaningful representation of the audio signal. Audio signals are represented by parameters like Peak, Energy, Zero crossing, and Fundamental frequencies. Techniques for diagnosing illnesses rely on frequency components. The usage of frequency domain techniques has grown

significantly in popularity. The methods for extracting features in the frequency domain that are most often and conspicuously employed are covered in this section. MFCC procedures a often used parametric techniques for a clear speech signal feature extraction. Given that it is based on the Fourier transform, MFCC offers a wide range of applications in ASR. RASTA, RASTA-PLP, Spectral subtraction, Cepstral mean normalization, and Cepstral variance normalizing techniques are available to extract characteristics from the noisy speech data. Conventional Feature Extraction methods:

MFCC

Mel Frequency Cepstral Co-efficient (MFCC)

In speech technology, MFCC is one of the parametric method commonly used by researchers for speech recognition, speaker identification and speech signal encryption. This method is adopted for many speech applications because it can capture important characteristics of the speech signal. It uses both cepstrum analysis and critical bands based on perceptual frequency scale. Hence, it is used as a common feature extraction procedure for speech signal processing application

(i)Pre-emphasis:

Pre emphasis uses the technique such as normalization, segmentation, and encoding. In this phase low frequencies in a speech signal are amplified to increase the effectiveness. It is used to

- Improve the frequency spectrum
- Improve the Signal-to-Noise Ratio (SNR) of a signal.

(ii) Frame blocking:

By processing the very small time interval of the audio signal the frame blocking gains the characteristic features from it. This process splits the signal into frames of 'J' samples separated by 'K' where 'K<J'. The 'J' samples constitute first frame. After 'K' samples the second frame begins and overlapped by 'J-K' samples. The process is repeated to accommodate all the samples. Here J = 256 samples (which is approximately equal to 25 ms) and K = 100 samples for overlapping are considered.

(iii) Windowing:

Process of dividing audio signal into continuous time stamps at particular length and overlapping of windows are occurred to look up there is no loss in information.

To reduce the signal discontinuities at the beginning and end of each frame windowing is used. It reduces the spectral distortion at the beginning and end of the frame i.e. tapering the signal to zero. The hamming window is computed using the eqn.

$$W(j)=0.54-0.46 \cos(2\pi j/J -1)$$

(iv) Discrete Fourier Transform:

Fourier Transform is applied to the waveform for each chunk. Each frame is converted into frequency domain. DFT works better for boundary in audio signals. The frames with 'J' samples are converted to frequency domain and find the power spectrum of the signal. The power spectrum is computed using the following eqn. x_i is the i^{th} frame of signal x and $N=256$ samples.

$$P=\frac{|FFT(x)|}{N}$$

(v) Mel-frequency warping:

Mel-frequency warping is performed by using filter bank. The Mel scale is opted since it is related to human auditory system. It follows linear spacing for frequency i.e. less than 1000 Hz and for above 1000 Hz it uses logarithmic spacing. Mel frequency computation is given by following eqn.

$$\text{Mel} (F) = 2595 * \log (1+ f/700)$$

In Mel-frequency wrapping, the FFT outputs are grouped into triangular filter. Each group contains signal energy weight. The process of wrapping the signal in the frequency domain is computed by eqn.

$$V_i = \log_{10} \sum_{l=0}^{N-1} v(l)|H(l)$$

(vi) Cepstrum:

To represent spectral properties in a better way, DCT is used and 12 co-efficients are calculated.

Classification

One-shot learning is a machine learning (ML)-based object categorization system that compares and contrasts two audio recordings. Based on the smallest possible train audio collection, the model can establish its own hypotheses about their commonalities. The term "few-shot learning" is frequently used when there is only one clip or a small number of clips. These examples are used to create a model that can forecast the outcomes of more unidentified audio snippets. Not many instances of the same category are necessary. By assuming similar items, it extrapolates the knowledge it has gained via experience with tasks of the same kind.

We concentrate on detecting mental illness in our system. We employ siamese convolutional neural networks for this domain because they are a) simple to train using optimization techniques on pairs sampled from the train data; b) able to learn general speech features useful for making predictions and class distributions even with very few examples; and c) offer a method that does not rely on domain-specific knowledge by utilizing deep learning techniques. In order to create a model for one-shot mental illness detection, we first plan to build a neural network that can differentiate between the test data and model pairs, which will be the verification task for mental illness detection systems. By determining whether input pairings are more likely to come from the same class or from other classes, the verification model is given the capacity to differentiate between them. This model can then be used to compare the train model to the test speech, one for each novel class. Then, for the one-shot task, the pairing with the greatest score according to the verification network is given the highest likelihood. If the verification model's learned features are sufficient to confirm or refute the identity of features from a single set of test data, and the model has access to a variety of test datasets to encourage variation among the learned features, the model should be suitable for learning additional features.

Phase1: Training

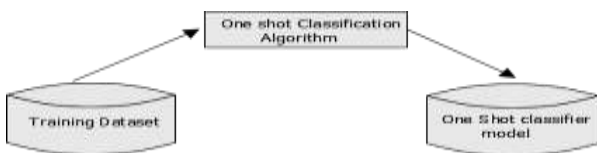


Fig.2. Training one shot classification model

A "learning step" or "training phase" in this context refers to the learning of a mapping that predicts the associated class label of a given train dataset. To separate the data classes in this view, we need to find a mapping. Usually, this mapping is represented by classification rules. One-shot classification models are widely used to describe this function or mapping. The function is learned, the relevant rule is placed in the classifier model, and training is done using a classification technique called one shot. It is possible to tell if someone has a mental illness using this criteria.

Phase2: Classification



Fig.3. Classification of mental illness class

It is used to classify data using this model. In order to forecast the class label of each data instance using the model's learned information, the model is tested against the test data set. The model's suitability for classifying the test data is determined by comparing the findings to the test data's real classes. If the model is satisfactory, it can be used to categorize data with unidentified classes in the future. In order to forecast the outcome of an unknown class, the classifier model tests it over a single learned class.

Results

• Data Preprocessing: Mel-Spectrograms

For our dataset, mel-spectrogram is employed as a data preparation method. The mel spectrogram uses a perceptual scale of pitches that listeners perceive

to be equally separated from one another rather than a linear scale. The reference point between this scale and traditional frequency measurement is produced by 1000 Hz that is 40 dB beyond the listener's threshold and has a perceived pitch of 1000 mel.

Feature extraction: Mel Frequency Cepstral Co-efficient (MFCC)

Mel-frequency cepstral coefficients (MFCC), a method for extracting audio data that consists of 39 features, are one of the most widely used techniques.

One –Shot Classification model

Siamese neural networks (SNNs), a subset of convolutional neural networks (CNNs), are used to generate the response. In order for the algorithms to do 0 or 1 verifications, training these models includes a generalization and verification stage.

Similar to Siamese, two identical networks are used to process two identical instances, and a dense layer's output function uses one Sigmoid score to provide a similarity score between 0 and 1.

Verification and generalization stages are involved in the training of an SNN model. When the model is given a train dataset during the generalization phase, a triplet loss function is employed for one-shot learning.

The mental illness detection model is evaluated against the test data set in order to predict the class of each instance of test data using the one shot classification model learning knowledge. By comparing the results to whether or not the test data falls into the category of mental illness. The following table provides the prediction of mental illness with DIAC dataset.

Sno	Ratio	Test Accuracy	Train Accuracy
1	80:20	50	88
2	60:40	40	75
3	50:50	40	75

Table 1: Classification accuracy for One-shot algorithm

Conclusion

Speaking is the best medium for gauging mental health. A healthy mind is also crucial to our daily lives since mental imbalance can lead to serious issues that are challenging to detect and even more so to treat. Using the vocal expressions in speech dataset, The DAIC dataset, offered by the University of Southern California, we are creating an artificial intelligence-based model for automated mental illness diagnosis. Data pre-processing was implemented where data analysis program separates a time-domain signal into equal-length segments to produce a spectrogram. The data is then converted from the time domain to the frequency domain by using the fast Fourier transform (FFT) on each segment. The FFT of each segment is displayed in the spectrogram. Process of identifying mental illness by extracting features from MFCC. Its stability makes it a candidate for automatic feature extraction in the field of speech. One-shot learning for classification educates the model how to form its own similarity about the features based on the smallest possible train dataset. Pairs the one short classification model with a test data and creates a new class. Similarity threshold is set 0.5, all the test data greater the threshold belongs to mental illness

class. The detection model for mental illness achieves the overall accuracy of 77.5%.

Future Scope

- Although this study focuses on speech, numerous other studies have created multimodal models that were trained on audio and video records. In comparison to unimodal models, some of these multimodal models claimed to perform better. These kinds of traits have been taken into account further.
- Although models are effective for one set of data, it is unknown if they will generalize to other samples or samples with a comparable recording setup or task. Performance evaluation when training and testing on various datasets from various languages and accents. Comparisons of performance at various levels of clipping, loudness, and noise are crucial for achieving predictions. Measured the impact of noise and reverberation variations between the train and test sets on the capability of mental illness detection.
- In light of potential existing limitations, machine learning may enhance diagnostic criteria given personalized treatment and continuing, real-time monitoring. By linking behavioral and biological characteristics to symptoms rather than diagnoses, we could better understand the mental illness and endopheno types that result in the configuration of symptoms and reduce the need for conventional disorders.

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Human resource analytics on women workforce in corporate leadership roles

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Abstract— This research paper focuses on the role of women in corporate leadership spotlighting their roles in board positions, committee chairs and executive offices such as chief executive officer and chief financial officer. Utilizing the secondary data derived from the Egon Zehnder (A global management consulting and executive search firm) 2022/23 Global Board Diversity Tracker, this research analyzes the human resource analytics of the female representation in the high-level roles in the corporate during the years 2018,2020 and 2022 in the top ten global economies as per the Forbes India report 2024. By analyzing the overall landscape of women's leadership, this research aims to show what progress has been made towards having more women in company leadership roles and what obstacles still need to be overcome. By examining the trends and patterns of female leadership in the corporate sector, this research contributes to the deeper understanding of the challenges and opportunities that lie ahead in the journey towards achieving gender equality.

Keywords—*Gender equality; Women executives; Corporate Leadership; Global Trends;*

I INTRODUCTION

In recent years, the conversation about gender equality in corporate leadership has gained significant momentum. It refers to achieving a fair representation of both men and women in the decision-making processes. It aims to eliminate the gender discrimination and ensure equal opportunities for everyone to access leadership positions in the corporate. Corporate encompasses individuals and teams responsible for guiding and directing the overall strategies, operations and decision-making of an

organization. Research suggests that companies with gender diverse boards are more inclined to prioritize sustainability concerns and ethical governance.[1] As the corporate world continuous to transform acknowledging the pivot role of women playing in organizational success becomes imperative. The study draws on the Global Board Diversity tracker, a comprehensive repository of data capturing the details of board and executive leadership across different locations and the industries. By focusing on the top ten largest economies of the world 2024 as per the report of Forbes[2]this paper aims to provide a detailed examination on the status of women in top leadership and corporate roles. Human resource analytics emerges as a powerful tool to unlock the data driven insights into the female workforce with corporations.Encouraging women and enhancing their involvement in making economic decisions are crucial of achieving and sustaining economies. [3]One of the key aspects is to study the representation of women in board position which includes committee positions, committee chair positions, board positions, Women CEO, s and Women CFO, s. In the subsequent sections of this research paper there is industry wise breakdown of women leadership positions. In the context of gender equality in corporate leadership, the focus is all about on breaking down the old traditional barriers that have historically women access to the leadership roles. Achieving gender equality is not all about the fairness but it is also recognized as a driver for improved organizational performance, innovation and success.

II LITERATURE REVIEW

Gender diversity in the corporate leadership has gained significant attention in the academic research. The literature review aims to provide the key findings and the overall themes in the field examining studies that investigate the representation of women in top leadership positions the impact on corporate decision making and the relationship between gender diversity and organizational outcomes. Numerous studies have been conducted on gender diversity on corporate boards and in executive roles. Researchers [4] highlights that diverse leadership teams are contributing more in organizational success. It further enhances the financial performance of the organization. "According to a report released by Credit Suisse Research Institute, companies with at least one woman on the board have outperformed in terms of share price performance those with no women on the board over the course of the past six years. Companies with at least one woman on the board also exhibit higher return on equity, lower leverage and higher valuations." [5] Research also delves into the various barriers and the challenges hindering the women progression in the leadership roles. The glass ceiling metaphor [6] continuous to be relevant unseen obstacles that hinder women progress in high-ranking roles. Studies investigating the impact of gender diversity on decision making and governance highlights the value of diverse practices in strategic process. The research [7] studies that companies with women occupying the senior roles have experienced advantages due to their transformative and participative leadership approaches. The innovative and positive influential characteristics of female leaders contribute positively to the engagement of employees towards their work. Hence this literature review provides the more comprehensive overview of the existing research landscape on gender diversity in corporate leadership. The identified themes and the insights set the foundation of the current study, that further aims to contribute to this body of knowledge by examining the status of women in leadership roles across the top ten global economies and industry specific context.

III THE STUDY

A. Research Questions

1. How has the representation of women (according to the EgonZehnder Global Board Diversity Tracker) in board positions evolved across industries from 2018-2022 in the top ten economies in the world?
2. Which industries have shown significant improvement and challenges in achieving gender diversity in board positions?

3. How has the representation of women in Chief executive officer (CEO) and chief financial officer (CFO) evolved across the top ten economies globally?

B. About EgonZehnder Global Board Diversity Tracker

EgonZehnder is a global management consulting and executive search firm. It is the world largest privately held executive search firm and talent strategy firm globally headquartered in Zurich, Switzerland.

C. About top ten countries

The top ten countries as per the Forbes India 2024 report (As per the data from IMF), ranked by Gross Domestic Product (GDP), in USB dollars include the United States of America, China, Germany, Japan, India, United Kingdom, France, Italy, Brazil, and Canada.

D. Methodology:

This study involves a thorough analysis of the data extracted from the EgonZehnder 2022/23 Global Board Diversity Tracker. The secondary source of information includes some data insights from the year of 2018, 2020 and 2022. The data related to percentage of women in board positions, percentage of women in chair positions and in executive positions (CFO, s and CEO, s). Statistical analysis has been conducted to understand the overall trends over the specified years. Industry wise analysis has been conducted to identified the sectors with a notable progress.

IV FINDINGS

TABLE 1% BOARD POSITIONS HELD BY WOMEN IN THE YEAR 2018, 2020 AND 2022

Industry	2018	2020	2022
Global - All Sectors	20.4%	23.3%	26.3%
Banks	21.6%	24.0%	27.4%
Consumer Discretionary	21.8%	24.3%	29.2%
Consumer Staples	22.4%	24.9%	23.7%
Energy	17.5%	19.6%	27.2%
Financials, Except Banks	20.6%	22.9%	28.8%
Healthcare	22.4%	25.8%	26.2%
Industrial	19.5%	22.6%	25.8%
Information Technology	19.0%	22.4%	24.4%
Materials	18.1%	21.3%	29.5%
Utilities	20.7%	24.6%	26.9%

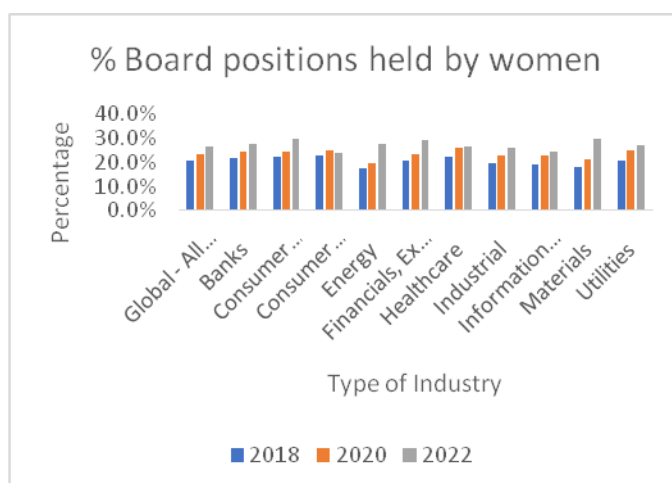


Figure 1% Board positions held by women in the year 2018,2020 and 2022

Table-1 & Fig.1 shows the percentage of board positions held by women across 11 different industries in the years 2018, 2020 and 2022. Overall, it shows a positive trend of increasing representation of women on boards. In 2018, the average percentage of board positions held by women across all industries was 20.4%. This number increased from 23.3% in 2020 to 26.9% in 2022. The Materials and Consumer Discretionary sectors saw the largest increases in female board representation, with a growth of 11.4% and 7.4% respectively, from 2018 to 2022. The Energy and Healthcare sectors also saw significant growth, with increases of 9.7% and 3.8% respectively. The Information Technology sector had the lowest percentage of female board representation in 2018, at 19.0%. However, it also saw one of the largest increases, reaching 24.4% in 2022. It is important to note that there is still a long way to go to achieve gender parity on corporate boards. However, the data in this table suggests that progress is being made.

TABLE 2% COMMITTEE POSITIONS HELD BY WOMEN IN THE YEAR 2018,2020 AND 2022

Country	2018	2020	2022
France	44.5%	47.3%	50.0%
Germany	20.8%	24.7%	26.7%
Italy	37.7%	41.4%	49.4%
United Kingdom	33.6%	38.0%	43.5%
Canada	30.0%	36.3%	39.6%
United States	23.5%	28.5%	33.0%
Brazil	5.6%	17.1%	13.7%
China	8.8%	13.0%	12.0%
India	11.4%	14.7%	16.9%
Japan	13.2%	16.0%	18.2%

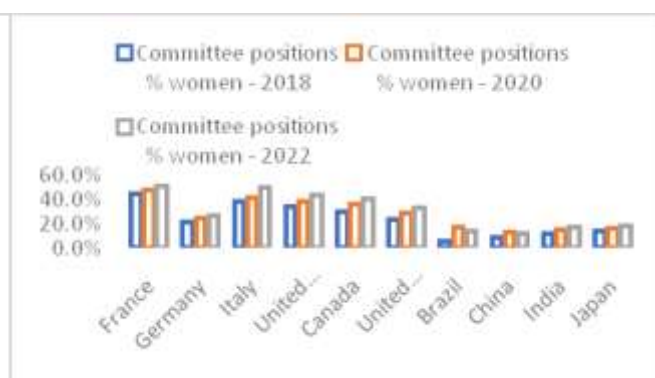


Figure 2Committee positions held by women in the year 2018,2020 and 2022

Table-2 & Fig.2 shows a positive trend of increasing representation of women in committee positions. In 2018, the average percentage of committee positions held by women across all countries was 22.9%. This number increased from 27.7% in 2020 to 30.3% in 2022. The countries with the highest percentage of female committee members in 2022 are France (50.0%), Italy (49.4%), and the United Kingdom (43.5%). The countries with the lowest percentage of female committee members in 2022 are China (12.0%), Brazil (13.7%), and Germany (26.7%).

TABLE 3COMMITTEE CHAIR POSITIONS % WOMEN

Committee Chair positions % women	Committee Chair positions % women - 2018	Committee Chair positions % women 2020	Committee Chair positions % women - 2022
Country			
France	41.3%	47.3%	48.6%
Germany	7.3%	12.9%	16.3%
Italy	31.6%	40.0%	47.8%
United Kingdom	25.5%	28.9%	34.6%
Canada	27.2%	28.4%	34.8%
United States	19.7%	23.8%	29.2%
Brazil	5.3%	11.9%	10.0%
China	6.1%	9.9%	10.2%
India	9.1%	11.0%	16.3%
Japan	8.9%	11.6%	13.3%

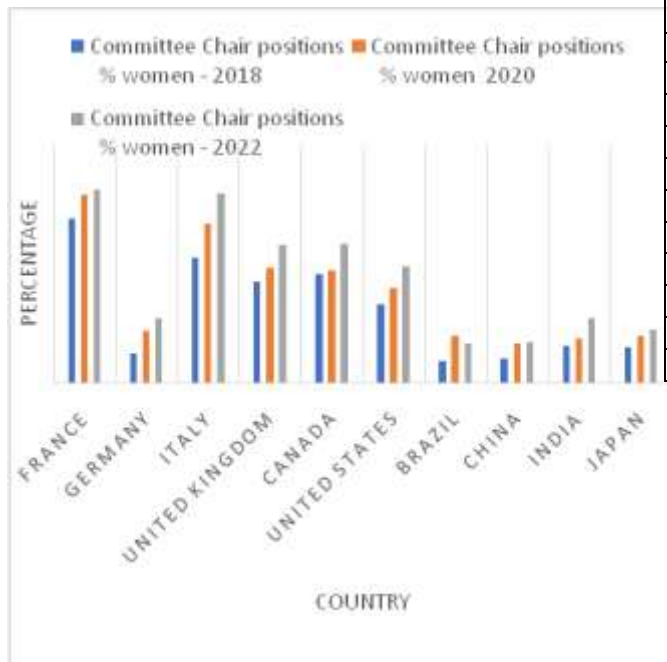


Figure 3 Committee Chair positions % women

Table-3 & Fig.3 suggests a positive trend, with an increase in the percentage of women holding committee chair positions across all the listed countries. In 2018, the average percentage of committee chair positions held by women was 18.2%. This increased to 22.6% in 2020 to 26.1% in 2022. The countries with the highest percentage of female committee chairs in 2022 are France (48.6%), Canada (34.8%), and the United Kingdom (34.6%). The countries with the lowest percentage of female committee chairs in 2022 are Germany (16.3%), China (10.2%), and Brazil (10.0%). It is important to note that there is still a significant gap between the number of men and women holding committee chair positions.

TABLE 4% NEW HIRES OF BOARD POSITIONS HELD BY WOMEN

<i>% New hires of board positions held by women</i>	<i>% New hires of board positions held by women</i>	<i>% New hires of board positions held by women</i>	<i>% New hires of board positions held by women</i>
<i>Country</i>	<i>2018</i>	<i>- 2020</i>	<i>- 2022</i>
France	12.5%	9.5%	12.0%
Germany	12.0%	20.4%	17.0%
Italy	17.6%	27.2%	7.0%
United Kingdom	14.8%	15.6%	21.5%
Canada	11.8%	13.4%	15.7%
United States	14.5%	16.1%	13.8%
Brazil	23.1%	35.5%	33.3%
China	21.7%	20.6%	21.4%
India	22.1%	14.4%	20.8%
Japan	13.9%	27.6%	21.0%

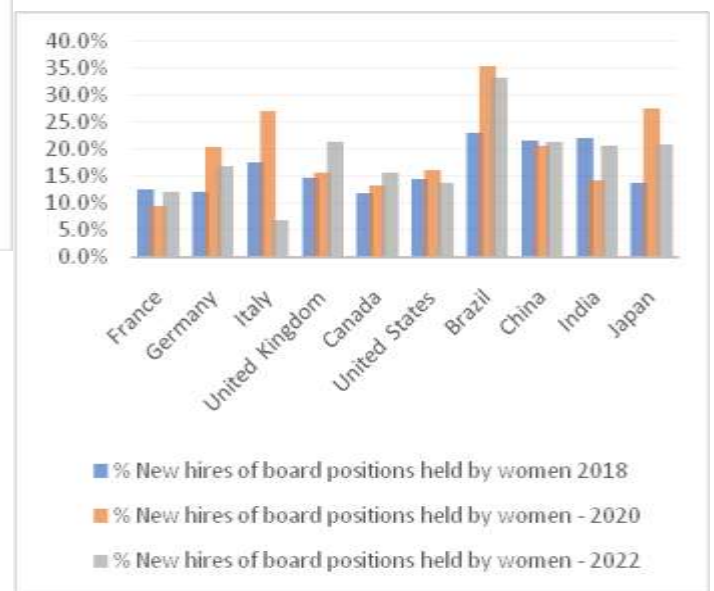


Figure 4 % New hires of board positions held by women

Table 4 & Fig.4 shows a mixed picture, with some countries making progress towards gender parity in new board hires, while others have regressed. In 2018, the average percentage of new hires for board positions held by women across all countries was 16.4%. This number increased slightly to 20% in 2020, but then decreased to 18.3% in 2022. The countries with the highest percentage of female new board hires in 2022 are Brazil (33.3%), United Kingdom (21.5%), and the Canada (15.7%). The countries with the lowest percentage of female new board hires in 2022 are in Italy (7.0%)

TABLE 5NON-NATIONAL WOMEN CEOs

<i>Non-national women CEOs</i>	<i>Non-national women CEOs - 2018</i>	<i>Non-national women CEOs - 2020</i>	<i>Non-national women CEOs - 2022</i>
<i>Country</i>			
France	0.00%	0.00%	0.00%
Germany	0.00%	0.00%	1.79%
Italy	0.00%	0.00%	0.00%
United Kingdom	3.70%	1.40%	1.47%
Canada	0.00%	0.00%	1.69%
United States	0.50%	0.30%	1.34%
Brazil	0.00%	0.00%	0.00%
China	1.50%	0.00%	0.99%
India	0.00%	0.00%	0.00%
Japan	0.00%	0.60%	0.00%



Figure 5 Non-national women CEOs

Table-5 & Fig.5 shows the percentage of non-national women CEOs in the top ten economies by GDP in the years 2018, 2020 and 2022. Overall, it shows a very low and stagnant level of representation of non-national women CEOs across all the listed countries. In 2018, there were no non-national women CEOs in the top seven economies. This number increased to three in 2020 and five in 2022, but this still represents a tiny fraction of the total number of CEOs in these countries.

TABLE 6NON-NATIONAL WOMEN CFOs

<i>Non-national women CFOs</i>	<i>Non-national women CFOs - 2018</i>	<i>Non-national women CFOs - 2020</i>	<i>Non-national women CFOs - 2022</i>
<i>Country</i>			
France	3.4%	3.60%	2.04%
Germany	1.7%	7.30%	9.26%
Italy	0.0%	0.00%	0.00%
United Kingdom	5.1%	2.90%	5.88%
Canada	5.5%	5.70%	5.08%
Brazil	0.0%	4.80%	0.00%
UAE	0.0%	0.00%	0.00%
China	1.7%	0.00%	1.23%
India	0.0%	0.00%	0.00%
Japan	0.0%	0.00%	0.00%

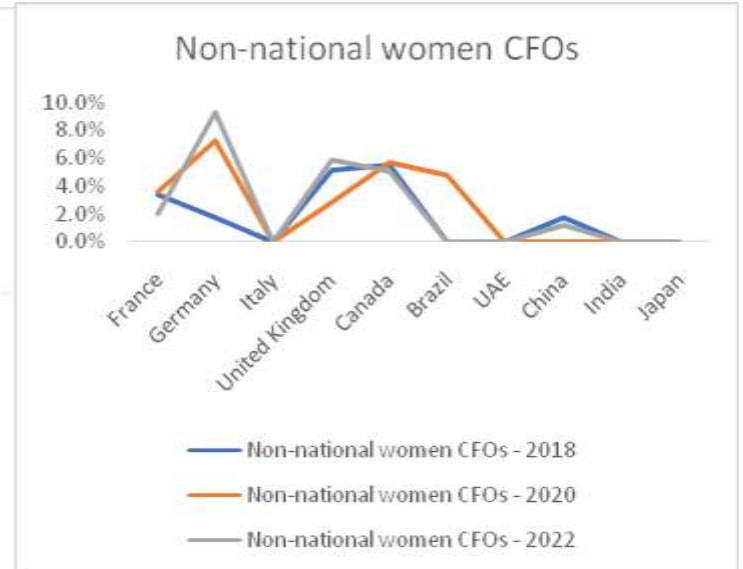


Figure 6 Non-national women CFOs

Table-6 & Fig-6shows a concerning lack of progress in terms of gender diversity among non-national CFOs across the ten countries. While there is a slight increase from 2018 to 2022, the overall numbers remain low, ranging from 0% to 9.26%. Germany holds the highest percentage with 9.26% in 2022, followed by the UK at 5.88% and Canada at 5.08%. Conversely, Italy, Brazil, UAE, Japan, and India show no representation or a decline in non-national women CFOs. The data suggests a persistent underrepresentation of non-national women in senior financial leadership positions, despite the growing focus on diversity and inclusion.

V DISCUSSION AND CONCLUSION

Women are not adequately represented in decision-making roles globally; however, gender and diversity are recognized to have a beneficial impact on various corporations worldwide.[8]Data analysis reveals a gradual increase in female board members across all industries and countries, with an average climb from 20.4% in 2018 to 26.9% in 2022. Similar there are positive trends in female committee members, rising from 22.9% in 2018 to 30.3% projected in 2022. Further there is an upward trajectory in the percentage of female committee chairs, increasing from 18.2% in 2018 to 26.1% in 2022. There is a mixed picture with some countries progressing (Canada) and others regressing (China, Italy) in the new board hiring. Overall, the average dipped from 20% in 2020 to 18.3% in 2022. There is very low and stagnant representation across the top 5 economies, suggesting systemic barriers in non-national women CEOs. Concerning lack of progress, with representation ranging from 0% to 9.26% in 2022 across ten countries for non-national CFO's. Germany leads with 9.26%, but others show no improvement or decline. Despite progress in some areas, significant gender gaps persist across various leadership positions. Systemic biases, lack of access to networks and mentorship, and potentially less inclusive work cultures are likely hindering progress for women, particularly non-nationals. Work-life balance challenges may disproportionately impact women's advancement in demanding leadership roles. While positive trends are evident in some areas, achieving gender parity in leadership positions necessitates concerted efforts. Companies must address systemic biases, provide targeted support for women's career development, and foster inclusive work environments.

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“IMPORTANCE OF WOMEN’S PARTICIPATION IN RURAL MARKETING: FOCUSING ON *YASHASWINI SAMAJIK ABHIYAN*”

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Abstract

India's rural economy plays a pivotal role in the nation's economic landscape, contributing significantly to its GDP and employing a large portion of the workforce. Despite the prominence of rural areas in economic terms, rural women encounter various social and patriarchal barriers that hinder their access to market opportunities and rights. This paper explores the role of social organizations in empowering rural women, focusing on the case of Yashaswini Samajik Abhiyan (YSA) in Maharashtra. Through a detailed analysis of YSA's initiatives and narratives from women beneficiaries, the paper examines how the organization facilitates marketing opportunities and empowerment for rural women. The stories of women entrepreneurs from diverse backgrounds in rural Maharashtra underscore the transformative

impact of collective action and empowerment facilitated by YSA.

Key words: rural marketing, rural women, economy of India, women empowerment, YSA.

Introduction

India is called the ‘country of villages. India’s rural economy is growing large and steady. The rural economy and market are contributing half of the GDP of the nation and 68% of the total workforce is from rural areas. (Jain, 2022) Women do have a major market opportunity and they play a very important role in all decisions in marketing. Rural women are coming from different class, caste, religions, and educational backgrounds. They face many social and patriarchal obstacles. Though women workers are in large numbers in rural areas; most of them are not united and are deprived

of their rights. Here some social organizations are playing a crucial role. They give the platform to rural women not only to do marketing of their products or services but also to make them empowered in a different manner. '*Yashaswini Samajik Abhiyan*' (YSA) in Maharashtra is also one of the significant examples of a social organization working for rural women.

This research paper is going to take a detailed review of the activities conducted by the same organization and analyze how it helps women to do marketing in rural areas. This chapter also includes narrations of many women who are now part of *Yashaswini Samajik Abhiyan* and their stories of struggle. These women belong to different regions of rural Maharashtra and run different businesses in groups. They are financially providing their share of the family and also feel empowered by joining *Yashaswini Samajik Abhiyan*.

Rural Marketing

Plans or strategies for marketing goods or services in rural areas are called 'rural marketing'. 'Rural marketing' is the process of developing, pricing, promoting, and distributing specific rural goods and services, enabling rural consumers to meet their needs and meet organizational

objectives. (Bishnoi, V.K.) Rural marketing in India is mainly about agricultural as well as non-agricultural products. Rural marketing needs to be understood as a general rural development process for socio-economic changes in rural areas. Women as major labor force in rural India play important role in the production of products and services as well as domestic responsibilities. Still, their contribution is neglected for many decades. To underline their contribution; this research paper focuses on the participation of women in rural marketing. With help of education, training, and knowledge of technology women also participate in the marketing process.

Women in Rural Market& Marketing

C. K. Prahalad (Management Guru) argues that "The future lies with those companies who see the poor as their customers." With changing global economy the consumer from rural area is also changed. Today the rural market is very large as well as challenging for marketers. Earlier men were taking the decision of selling, purchasing, marketing and all. But today women are not only the most powerful consumers but also playing important role in purchasing, marketing and selling as well. (Kar,

Sudhanshu, Dhananjay Kumar, 2008) Here researcher discusses the rural women's role in rural marketing in different contexts as following. Women in rural India are always considered in this category of major workforces. Though they are more in numbers they are marginal workers. As mention in earlier chapter; women work as cultivators, agricultural laborers, in mines, manufacturing, storage, households and many other fields. Majority of rural women are working in the unorganized sector in rural areas.

Marketing as Stimulation for rural women

Women entrepreneurs in rural areas need to be promoted for employment, empowerment and gender equality. Rural women need to learn the marketing skills. It is beneficiary for their growth in the business. Knowledge of marketing gives information of new market and opportunities to enter into it. Effective marketing gives sustainability to the business. It is very important for rural women entrepreneurs for their sustainable development. Marketing also gives a particular perspective in the context of economical capital, social status, literacy ratio and development of women as well as nation. In this context to overcome the

socio-economic barriers for women; social organizations play important role.

Yashaswini Samajik Abhiyan (YSA)

In this research paper, the researcher is focusing on the '*Yashaswini Samajik Abhiyan*' (YSA) and take an overview of what kind of work has been done through it that is helping rural women in marketing. '*Yashaswini Samajik Abhiyan*' literally means the social campaign of successful women. As the name indicates this project was designed and implemented to support women entrepreneurs in different businesses. Before going into the details one needs to understand the beginning of YSA. Mrs. Supriya Sule is one of the Hon. Members of the Indian Parliament belong to the Nationalist Congress Party (NCP). She is one of the prominent political and social figures in Maharashtra and India as well. YSA is a Non-Governmental Organization (NGO) established on 3rd December 2008.

This NGO considers women as '*Yashaswini*' which means successful in every field by arguing that they have the capacity to change their situation by taking efforts. Therefore they need to get proper guidelines also. YSA has a clear vision and mission statement.

1. Start from small; rather than everything at once
2. Choose a few activities or projects and do them well
3. Start small but effective programs that would benefit
4. Strategies of planning and accomplishment

The logo of YSA is also convey its objective. It contains three women in sari looks like almost rural attire of women. The tag line is '*Milun Sarya Jani, Ghalu Gaganala Gavasani..!*' It literally means when women come together, they can explore the sky. The original thought behind YSA is to gather women together and let them make empower themselves with help of each other. Historically it is proved that when women come together, they have the potential to change the whole scenario. Especially women in rural areas are still bound by patriarchal social regulations to some extent. Activities like YSA provide them a space to come together and explore new things. This will make them not only financially stable but also increase their self-confidence.



(Logo of Yashaswini Samajik Abhiyan)

Considering the socio-economical situation of women in rural areas; they need some support and directions to make their own space in the market. NGOs like YSA here play an important role. Training programs by experts are organized for production and marketing strategies in the small-scale businesses of women. Festivals like '*Gavaran Khadya Mohostav*' (Rural Food Festival) are organized yearly in big towns and cities which is a large platform for rural women to do marketing and selling of their products on large scale. The researcher has broadly categorized the activities of *Yashaswini Samajik Abhiyan* through which women are marketing their business.

Gavaran Khadya Mohostav (Rural Food Festival)

Since 2018 *Gavaran Khadya Mohostav* is organized by YSA in Pune. Except for the Covid-19 pandemic years 2020 and 2021 this three to four days festival is

organized in Pune city at prime locations. Women belonging to different parts of rural Maharashtra are coming to prepare and serve their food specialties to people. Therefore people also visit this festival in large numbers. The name of this festival is to promote the food culture in rural Maharashtra.

Many women in rural areas produce different food products on daily basis. Especially through self-help groups women come together and raise the fund to start their businesses. These women produce daily useable products as per requirement and sell those in the market. For some years mostly women were not part of the marketing and selling, but as the times changed the scenario is also changing accordingly. Women are playing an active role in the whole process e.g. raising the funds, producing the product, marketing the product, and selling. They are also actively taking the decision of their income like using the profit as capital for the next production.

This business they are doing throughout the year. Different products are made available in these food festivals; e.g. special vegetarian and non-vegetarian cuisines like Chicken, Mutton, Fish, dry fish dishes from different regions of Maharashtra, varieties of

sweets from rural areas, homemade products like various spices, pickles, *Papads*, *Chutannies*, etc. Women are selling their homemade products in these food festivals. Different cuisines are prepared by women and fresh dishes are served to customers.

But these food festivals are not just to serve the dishes and earn income out of that. Rather women from rural areas are getting different opportunities. Women not only sell their products on large scale but also do effective marketing of their products. Women get their own stalls in the food festival. Women use different marketing strategies like printing flexes, posters, pamphlets, visiting cards to distribute among visitors, projecting some audio-visuals of their products, giving some small samples of products for free testing, etc. Ultimately customers who visited the festival many of them either purchase different products or give orders home-made products for long-term use. By participating in such festivals they also learn many things regarding marketing strategies as well as selling. The main benefit of these food festivals is that women in rural areas get customers in urban areas. With the help of good marketing strategies, they can increase the number of customers in different regions.



(YSA's Rural Food Festival, 2018)

(YSA's Rural Food Festival, 2019)

(Source -

<https://www.facebook.com/YashaswiniSamajikAbhiyan>)

Self Help Groups (SHGs)

In rural areas in Maharashtra and India, self-help groups are playing a very important role to empower the women. SHGs are small voluntary associations of rural women who work together for the purpose of solving their problems through self-help and mutual help. (Beevi & Devi, 2011) In India, SHG Scheme was introduced by NABARD mainly for rural development. This scheme emphasizes the self-employment of women who belong to rural as well as semi-rural areas. (Lokhande, M.A., 2013) According to

NABARD; it is an informal group of 10 to 20 people belonging to different socio-economical backgrounds. They come together voluntarily to promote the habit of savings and raise different resources for the benefit of group members. The members of SHGs are mainly women who come together for livelihood and being independent. Through SHGs, women get knowledge of income, education, mass media, and marketing. Women learn different skills like leadership, teamwork, managerial skills, knowledge of working capital, etc. In the era of globalization and privatization, it is necessary that women entrepreneurs will empower themselves and become part of the economic development. (Reji D.R., 2013)

In the context of *Yashaswini Samajik Abhiyan*; many women who are part of it, are also members of local SHGs. The SHG provides women entrepreneurs the financial support to start a business. Women take the production of their products but they also take the help of SHGs to do marketing of the products. SHGs are the micro-enterprises in rural India mainly led by women. Therefore economically empowered women can promote and do the marketing of products or services in proper ways. Marketing strategies may differ according to the situation of the individual. They do not take

mass production due to the lack of assurance of selling and profit gaining. Women mainly focus on the local level market e.g. they paste posters and pamphlets in shops in the local market. Some women also do door-to-door marketing of their products. One needs to understand that considering the limitations of resources and capital of women in SHGs; it is difficult for them to invest too much in marketing. But organizations like *Yashaswini Samajik Abhiyan* provides a platform for these women entrepreneurs to do marketing and selling of their products. Food festivals and exhibitions are organized by *Yashaswini Samajik Abhiyan* where women from different SHGs take part in large numbers. Sometimes training workshops are also organized for women in SHGs as well as others who are not part of SHGs. Trainers in their specialized areas conduct the workshops and give training to women on how to do the production and marketing of their products in the market as well.

Further in this chapter, the researcher is going to give some examples of women entrepreneurs who become successful after being part of *Yashaswini Samajik Abhiyan*.

2.3.1 *Yashaswini Udyojika Sanman* (Successful Female Entrepreneur Award)

For the first time, *Yashaswini Samajik Abhiyan* has jointly organized an award function with Yashvantrao Chavan Center, Mumbai called '*Yashaswini Sanman*'. This award function is planned to happen on 22nd June 2022. In this award function, women belonging to different fields are going to be awarded; e.g. business, agriculture, literature, sports trainers, social work, and journalism. In the context of this research; efficient women who have given their best performance, introduce innovations, and empowered other women also, are nominated and will be awarded by '*Yashaswini Udyojika Sanman*' (Female Entrepreneur Award). This kind of award can become a milestone for future women entrepreneurs to get motivated and give the best performance in the socio-economic development of India. Experiences of women especially from rural Maharashtra will contribute at a large level in fields like production, marketing, etc. Women who are going to be awarded will become ideal for others. Researchers think this is very important because marketing or any business field is still male-dominated in developing countries like India; where

women are an important part of the business but are not given enough recognition and representation. Such awards will underline the significant role of women in the country's economic development.



(Announcement of Successful Female Entrepreneur Award)

(Source -

<https://www.facebook.com/YashaswiniSamajikAbhiyan>)

2.4 Women in *Yashaswini Samajik Abhiyan* and Rural Marketing

In this section of this chapter, the researcher gives some representative examples of

women entrepreneurs who are part of *Yashaswini Samajik Abhiyan*. These women are from different rural parts of Maharashtra and belong to different socio-economic backgrounds. They do different kinds of business and everyone has different strategies of marketing. It needs to remember that because of the circumstances these women have fewer resources for production as well as marketing but with their motivation and being part of *Yashaswini Samajik Abhiyan*; they try to give their best to be part of rural marketing and market economy as well.

Conclusion

In conclusion, India's rural economy stands as a pillar of the nation's economic growth, contributing significantly to its GDP and providing employment to a large portion of the workforce. However, despite the vital role played by rural women in marketing decisions and their substantial presence in the workforce, they continue to face numerous social and patriarchal barriers. These obstacles hinder their access to market opportunities and deprive them of their rights, despite their significant numbers in rural areas.

Nevertheless, the emergence of social organizations, such as *Yashaswini Samajik*

Abhiyan (YSA) in Maharashtra, has provided a beacon of hope for rural women. By offering platforms for marketing their products and services, along with avenues for empowerment, these organizations are instrumental in uplifting rural women and enabling them to overcome societal constraints. YSA, in particular, stands out as a significant example of such an organization, with its efforts aimed at not only fostering economic independence but also promoting social cohesion and empowerment among rural women.

Through the narratives of women entrepreneurs affiliated with YSA, this research paper sheds light on the transformative impact of collective action and empowerment initiatives. These women, representing diverse backgrounds and regions of rural Maharashtra, illustrate the power of solidarity in overcoming challenges and achieving financial independence. By providing for their families and asserting their agency in economic endeavors, these women exemplify the potential for positive change facilitated by social organizations like YSA.

In essence, the success stories and empowerment narratives presented in this research highlight the importance of

continued support for rural women's entrepreneurship and empowerment initiatives. By addressing the systemic barriers and promoting inclusive development, India can further harness the potential of its rural economy while ensuring equitable opportunities for all its citizens. Through collaborative efforts between government agencies, civil society, and grassroots organizations, the journey towards gender equality and rural prosperity can be accelerated, leading to a more inclusive and sustainable future for India.

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"Comparative Analysis of Remote Work and Office-Based Work: Investigating the Preferred Work Environment Among Female Employees in the IT Industry in Mysore"

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Abstract:

There has been a notable paradigm shift in the modern workplace, particularly with the rise of remote work possibilities. This study explores the complex desires of female workers in the Mysore Information Technology (IT) sector, exploring the conflict between traditional office-based labor and remote work. The purpose of the study is to identify the variables that affect women professionals' decisions to work in offices or remotely. The study takes into account factors including work-life balance, professional development, job satisfaction, and how technology improvements affect these choices through a thorough investigation. Utilizing a mixed-

methods approach, the research employs surveys and interviews to gather data from women employees across various IT organizations in Mysore. The collected insights will be analyzed to discern patterns, trends, and correlations, shedding light on the intricate dynamics that influence their workplace preferences. Ultimately, this study aspires to provide a comprehensive understanding of the factors guiding women employees in the IT sector in Mysore when choosing between remote and office-based work arrangements. The findings have the potential to inform organizational policies and practices, contributing to a more inclusive and adaptive work environment for women in the ever-evolving IT industry.

Keywords: Remote work, Office-based work, Women employees, IT industry, Work references, Job satisfaction.

Introduction:

In actuality, IT technologies are used by every industry. The term "Information technology" (IT) is used to describe it on a daily basis. The process of creating content on computers involves computer technology, which processes, stores, retrieves, and communicates a variety of electronic data and information kinds. Information technology is constantly used in business contexts, although it is rejected by staff or entertainment. It consists of both hardware and communication technologies. Stated differently, the IT system is the computer system. It is overseen by an expert from the IT team and consists of both hardware and software components. A communication and information technology system would be ideal. Information technology provides a range of hardware and software choices that allow organizations to gather, organize, and analyse data in order to support their goals. The four urgent challenges that demand the attention of IT staff are network security, database management, business software development administration, and computer tech support. Additionally, covers technological workflow-based processes

that improve an organization's potential to provide revenue-generating services. IT women: There will be For almost a decade, gender diversity has been a contentious topic in the IT industry. Given that women have contributed significantly to the development of information technology from its inception 300 years ago, it is simple to overlook. Men controlled the IT and technology industries for a longer time. A number of the pioneering women held positions as computer programmers. Due to their perception of ongoing obstacles, recognition and widespread use were ensured.

Edith Clarke, who joined the U.S. government as the first female electrical engineer in 1922, is one of the nearly notable women in the computer industry's IT sector (**Mochetti, 2019**). She was called a "computer" because, even in the pre-computer era, she was calculating difficult problems by hand and performing mathematical calculations. More study is necessary because there is currently no definitive solution for these kinds of issues. It's commonly known on the internet that: More renowned businesses are selecting female CEOs. Businesses show that there are more women in the globe today, and their representation in leadership positions is beginning to take off. Modellez International, GM, and IBM are a few examples.

It's evident from recent high-profile reports that the UKBC used successful female entrepreneurs as instances of employing a questionable guy for credibility that discrimination against women is still a major problem in business. Women are drawn to management teams by a more collaborative leadership style and a deeper social sense of civic participation. The effect of women results in increased motivation and better performance in corporate enterprises with specific Analyzing gender findings exposes organizational and functional characteristics. One benefit of having more women in leadership roles is

that efforts to foster harmony will rise, which is crucial for improving family living conditions and advancing national development.

Review of literature:

(David, 2021) examines the opinions of IT staff members regarding Work From Home (WFO) and Remote Work (WFH) during the Corona in Bangalore. Employing a descriptive and empirical survey methodology, the study focused on respondents' preferences for WFH over WFO as well as demographic data, present work circumstances, and workplace difficulties. The objective was to determine the average employee choice ratings as well as the benefits and downsides of WFO and WFO. (Mochetti, 2019) The impact of

flexible work schedules on work-life balance in Finland's educational sector is examined in this study. It examines systems and methods for achieving work-life balance with an emphasis on teaching and teacher workload. A comprehensive analysis of the relationship between flexible work schedules and work-life balance is provided by a qualitative research study. For a business to succeed overall, staff performance is positively impacted by employee well-being, which makes employee well-being critical. This research looks into. Flexible work arrangements and their relationship to 31 psychological, social, The findings indicated a positive association between flexible work schedules and psychological well-being, but a negative correlation was discovered between flexible work schedules and stress levels related to physical and social well-being. The social support moderating effect was not statistically significant (Bijsterveld, 2018). India is a traditional nation with a wide range of cultures, religions, and customs. In India, women's duties are primarily domestic, while there are some career prospects for nurses, doctors, and teachers. Even highly qualified women, though, could find that men with comparable qualifications are preferred. The purpose of this study is to determine the obstacles that working women experience and the things

that keep women from reaching higher positions **(Ruwali, 2018)** It also seeks to address the primary issues that working women in India face and to clarify the actual situation of these women.

(Kaur & Sharma, 2020) The new corona virus has caused a change in the workplace from traditional office to remote work, which makes it challenging for working women to manage their obligations to their families and their careers. Many women, particularly married ones, depend on maids or servants to take care of domestic tasks; but, because of lockdowns, only vital services like police officers and health professionals are accessible. For working women, juggling work in the office and at home has grown more and more difficult. The purpose of this study is to examine the difficulties that working women encountered during the epidemic and the expenses that they incurred. The study had 44 respondents and employed a structured questionnaire with descriptive research methods.

(Raj et al., 2023) An investigation of the impact of remote work (WFH) on Indian employees' HRQoL and expectations of the company was undertaken. A sample of 81 employees, with a mean age of $36 \pm$ years, 35% female, 86% married, and 82% with WFH choices, participated in the study using the WHOQOL-BREF scale. Higher scores were seen in the physical,

psychological, social, and environmental components, resulting in an overall HRQoL score of 3.16 ± 0.88 . Female respondents reported greater QoL, however married respondents reported lower HRQoL. **(Omar et al., 2015)** The expectations of the workforce included matters of money, internet expenses, and mental well-being. Using role conflict theory, this study investigates the relationship between flexible work hours and work- life balance in Malaysian manufacturing. Flexible work arrangements and work-life balance were found to have a reasonably high positive link, according to data gathered from manufacturing sector employees. This study focuses on the effects of flexible work arrangements on employees' work-life balance in the manufacturing sector. Previous research has concentrated on workplace characteristics and flexible work arrangements in the banking and services industries. **(Al-Marzooqi & Al-Aamer, 2020)** This study offers empirical information addressing workers' perceptions of remote work in the midst of the COVID- 19 outbreak. Employees reported feeling more productive and recommended reaching a condition of work-life integration despite the unpleasant emotions caused by the pandemic. **(Kanade et al., 2019)** Employees in the IT field experienced difficulties and

opportunities with remote work during the Covid epidemic, which had an impact on their physical and mental well-being. With an emphasis on variables influencing employees' physical and mental health, this study attempts to investigate how workers handle remote work and work-life balance.

Research gap:

- More data on demographics, including marital status, yearly wage, and total work experience, should be collected.
- Since there aren't many research on how the pandemic has affected working women, the information in this study comes from journals, newspapers, magazines, online print media, polls, and other sources.
- The analysis or measurement of additional factors, such as organizational culture, organizational structure, and technology, that affect work-life balance.
- The examination or quantification of other variables that affect work-life balance, such as technology, organizational structure, and culture. Objectives of the study :
 - The study's goal is to ascertain respondents' preferences for in-person and remote work.
 - To ascertain how safety considerations influence people's

choice of employment.

- To look into the connection between respondents' preferred form of work and their demographic profile.

Hypothesis:

H1: There is a connection between preferred working method and stress level. H2: The preferred method of work and social well-being are related. H3: Preference for a particular form of work and travel expenses are related. H4: Support from family and coworkers and chosen working style are related. H5: There is a connection between the favored form of work and travel safety concerns.

Analysis and Interpretation

The importance of research is found in the thorough explanation and understanding it offers. This uses primary and secondary knowledge or data to help resolve problems. Studying and researching facilitates the organization of the proposal and evaluation of the research findings, enabling the analysis of goals and clear communication of the significance of the work. A sample questionnaire with an emphasis on the goals and approach was

given to the staff members of several IT organizations in Mysore. The purpose of the questionnaire was to identify the factors that might have a major impact on a person's preference between in-person and remote employment. The questionnaire was then given out to the staff members.

Particulars	Frequency	Percentage
Above 35 years	3	1.9
30-35 years	6	3.8
25-25 years	50	31.4
20-25 years	100	62.9
Total	159	100

As a result, according to the graph above, 1.9% of the population is older than 35, 3.8% is between 30 and 35, 31.4% is between 25 and 30, and 62.9% is between 20 and 25. As a result, the age range with the highest percentage, at 62.9%, is 20 to

Regression: Model

summary:

Model	R	R-square	Adjusted R square	Std. Error of the Estimate
1	.911	.830	.824	.2851

Predictors: (Continuous), Travel expenses, Safety concerns when traveling, Coworker social well-being, Support from family, Stress degree.

Interpretation: The model mentioned above yields a "R" value of 0.911 and an

25 years old.

Reliability test

	N	%
Valid	159	100
Excluded	0	0
Total	159	100

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.871	.871	16

For the reliability test, Cronbach's Alpha was utilized, and a value of greater than 0.50 was required. The study mentioned above indicates that the alpha coefficient was 0.87, indicating a good degree of accuracy.

R-square of 0.83, or 83%. The model is often well-fitting, as indicated by the R square value of (0.763), which shows that a sizable portion of the variance in the dependent variable can be explained by the interaction of the predictors.

ANOVA

Model	Sum of squares	df	Mean square	F	Sig
Regression	60.534	5	12.107	148.89	.000
Residual	12.440	153	.081		
Total	72.975	158			

Dependent variable

(a):DV

b. Predictors: (Continuous), Travel expenses, Social well-being at work, Family support, Stress level, and Safety concerns while traveling.

Interpretation: Since the significance

level in the previous table is 0.00, which is smaller than the p value of 0.000.05., the regression is deemed acceptable. When the F-ratio is 148.89, it indicates that the regression model accounts for a much larger percentage of the variation.

Co-efficients

Model	Unstandardized coefficients		Standardized coefficients	T	Sig
	B	Std.Error	Beta		
Constant	.337	.179		1.886	0.61
Social well-being at work place	-.018	.034	-.019	-.527	0.599
Stress level	.114	.043	.124	2.627	0.009
Family supports	.013	.041	.014	0.309	0.758
Travelling cost	.553	.027	.740	20.155	0.00
Safety concern while travelling	.250	.032	.291	7.735	0.00

Hypothesis	Result
H0: There is no connection between preferred working mode and stress level.	Rejected
H1: There is a connection between preferred work mode and stress level.	Accepted

Hypothesis	Result
H0: There is no connection between preferred work style and social well-being.	Accepted
H2: Preference for a work mode and social well-being are related.	Rejected

Hypothesis	Result
H0: The preferred manner of employment and travel expenses are unrelated.	Rejected

H3: The preferred form of employment and travel expenses are related.	Accepted
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Hypothesis	Result
H0: There is no connection between the preferred method of employment and family supports.	Accepted
H4: There is a connection between family support and preferred working mode.	Rejected

Hypothesis	Result
H0: There is no connection between preferred working mode and safety concerns.	Rejected
H5: Preference for a particular work mode and safety concerns are related.	Accepted

Findings:

51.6% of the female respondents agreed to work remotely rather than in an office, according to the analysis. The majority of female participants consented to working remotely in order to fulfill deadlines. Based on the reliability test, we discovered that the result is 0.87, indicating high accuracy since it is greater than 0.50. Regression analysis revealed that their preferred manner of work is influenced by two variables: stress level and travel expenses.

Regression analysis revealed that their preferred manner of work is influenced by two variables: stress level and travel expenses.

Recommendations:

Considering that the majority of participants select remote work, I advise firms to adopt a hybrid way of work by providing more flexible options for remote work. This can enhance productivity and the work-life balance while also making them feel more satisfied with their jobs. Given that the results indicate that stress levels and the cost of travel influence employees' preferences, businesses should consider ways to reduce travel expenses for staff members, such as offering transportation. Stress-related issues can be lessened at work by encouraging stress management programs and positivism.

Since they get along well with their coworkers, employers should keep cultivating

a collaborative and supportive work environment. They may also deepen connections by encouraging team building and open communication. Companies ought to routinely ask for input on their preferences and experiences with working remotely. This will assist in pinpointing areas that require enhancement and guarantee that regulations regarding remote work stay adaptive and flexible in response to evolving situations.

—Organizations that offer remote workers assistance and training may see greater results.

Conclusion:

In summary The primary goals of the study are to determine respondents' preferences for working remotely vs in an office, to ascertain the role that safety concerns play in respondents' preference for remote work, and to look at the relationship between participants' demographic profile and preferred mode of work. According to the analysis, a significant number of respondents strongly preferred working remotely, highlighting the value of flexibility and remote work possibilities in contemporary work contexts. Still, there are still some people and roles that value working in an office. A more engaged and contented workforce can eventually improve the performance and success of the company by implementing a hybrid work paradigm that prioritizes employee well-being while accommodating both desires.

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A study of Challenges and Promoting Factors for Girls in Cybersecurity

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Abstract:

Today, a significant gender gap exists in cyberspace, with numerous barriers hindering the advancement of women in cybersecurity. Many studies highlight Information Technology as a predominantly male-oriented domain, contributing to the low number of women pursuing careers in cybersecurity. This paper aims to explore the challenges and potential reasons for this gap while suggesting solutions to address it. Encouraging girls in cybersecurity will not only contribute to developing a robust cybersecurity workforce but also one capable of offering more comprehensive cybersecurity solutions. Through this

paper, various stakeholders will gain a better understanding of their roles, duties, responsibilities, and the benefits of reducing the gender gap. The only way to address technological challenges is by educating and raising awareness among young women. Our idea is to provide a roadmap for cybersecurity awareness and training for young girls in developing countries. Our goal is to increase awareness of the opportunities offered, which would help boost the participation of girls and women in STEM (Science, Technology, Engineering, and Mathematics) in the long term. Overall, this paper aims to identify the challenges in encouraging young girls to pursue careers related to cybersecurity.

Keywords: Cybersecurity, Educations, Girls, Mentoring, Training

1. Introduction:

Women have played integral roles in cybersecurity since World War II, breaking codes and contributing to the early days of computing. Despite historical challenges, women have made significant strides, advocating for diversity and inclusion. In recent years, efforts to empower women in cybersecurity have intensified, resulting in many attaining leadership positions. Recognition of women's expertise is increasing, promoting equality within the field. While underrepresentation persists, ongoing initiatives and mentorship programs aim to bridge the gender gap, ensuring diverse perspectives in addressing cybersecurity challenges and fostering innovation. Women's roles in the digital age are pivotal for shaping the industry's future.

One of the most significant challenges faced by IT security decision-makers today is the lack of cybersecurity staff (25%) and staff with the appropriate cybersecurity skills (22%) (Higgins, K.). However, organizations can mitigate the cybersecurity talent gap by adopting best practices and recruiting more women in cyberspace. Despite comprising half of all IT users, women remain largely

underrepresented in the technology business world. In this new era, it is imperative for women to become actively involved in the technology sector.

In recent years, cybersecurity has emerged as a critical domain safeguarding our digital infrastructure against threats. However, despite its growing importance, the field still grapples with gender disparities, with women significantly underrepresented. Recognizing and addressing the challenges faced by girls and women in cybersecurity is crucial for fostering diversity, innovation, and inclusivity in the field.

Given the importance of education and certification, women with cybersecurity education and skills should have a clear path to career advancement, enabling them to acquire the necessary qualifications for assuming leadership roles. With leadership comes increased responsibility, credibility, and salary benefits. These gains are not only significant for current women in cybersecurity but also for future generations in India.

The primary objective of this manuscript is to raise awareness about cybersecurity as a career path and identify the main factors encouraging girls to pursue cybersecurity. This paper provides insights into the

current representation of women in the STEM field, particularly in cybersecurity.

2. Literature review

In this section, a literature review will be presented to synthesize relevant literature on factors encouraging women in the cybersecurity field.

Peacock et al. conducted a study examining the impact of gender on the global cybersecurity industry. Through a survey, they aimed to identify the gender gap within the cybersecurity field. Their findings underscored the necessity of encouraging girls and young women to pursue cybersecurity education and careers.

Rowland et al. introduced the Cyber model, which focuses on engaging and supporting young women in cybersecurity while fostering their commitment to the field. Through five distinct interventions, Cyber seeks to empower, motivate, educate, and anchor girls in cybersecurity.

Pinchot et al. addressed the gender gap in cybersecurity by investigating students' perceptions within cybersecurity programs regarding gender-based challenges and the role of mentorship in attracting and retaining professionals in the field. One significant finding indicated that while stereotypes of a male-dominated field and gender-related obstacles persist, students did not report or observe gender differences or biases in their classes or workplace internships. Additionally,

peer mentorship emerged as a highly valuable aspect of cybersecurity programs for students aspiring to careers in the field.

3. Challenges Hindering Girls in Cybersecurity

The challenges hindering girls in cybersecurity can be categorized into four main areas:

A. Gender Stereotypes and Bias

Societal stereotypes depict cybersecurity as male-dominated, dissuading girls from pursuing careers. Gender biases in education and workplaces affect girls' interest, confidence, and opportunities. Strategies are needed to challenge these biases and create inclusive pathways for girls.

B. Lack of Female Role Models

The scarcity of women in leadership and technical roles within cybersecurity influences girls' perceptions and aspirations negatively. Female role models are crucial for inspiring and mentoring girls, providing support and representation. Efforts are required to increase visibility and accessibility of female role models in cybersecurity.

C. Educational Disparities

Gender disparities in STEM education and computer science programs limit girls' exposure to cybersecurity concepts and opportunities. Unequal access to resources like training and extracurricular activities affects girls' participation and advancement. Strategies must address these disparities and promote equitable access to cybersecurity education and careers.

D. Cultural and Societal Factors

Cultural norms and societal expectations shape girls' views of cybersecurity as a career and influence their educational and career choices. Family and community attitudes play a significant role in determining girls' opportunities in cybersecurity. Awareness-raising, challenging norms, and fostering supportive environments are essential to address these factors.

4. Women in Cybersecurity

Statistics and Figures

Despite these challenges, there has been a gradual increase in the representation of women in cybersecurity roles globally, including India. According to recent studies, women comprise only around 20-25% of the cybersecurity workforce worldwide. In India specifically, the percentage of women working in cybersecurity remains relatively low, with only about 15-20% of cybersecurity professionals being female.

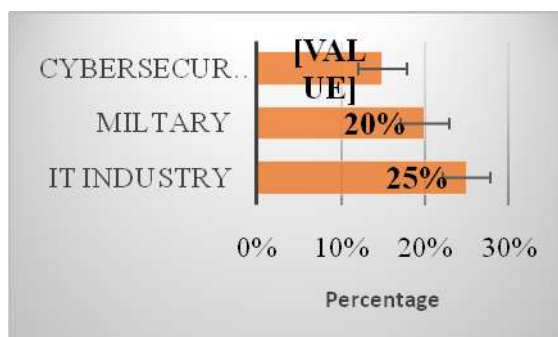


Fig.1. Percentage of women working in different sectors

5. Factors Encouraging Girls in Cybersecurity

Reed et al. (2017) noted historical trends where girls and young women were frequently excluded from educational opportunities. Various issues plague education systems, including funding shortages, lack of strategic direction, and a dearth of genuine expertise among decision-makers. Developing countries face the primary challenge of providing opportunities for underrepresented students, particularly in STEM fields, where both rural and urban educators often lack essential laboratory equipment.

Societal perceptions ingrained in gender roles persistently depict cybersecurity as a male-dominated domain, potentially discouraging girls from pursuing it. Bias entrenched in educational and professional settings can erect barriers to entry and hinder progression. The scarcity of women in leadership and technical positions within cybersecurity contributes to the perception of limited opportunities. Female role models play a crucial role in inspiring and guiding girls in the field.

Gender disparities in STEM education constrain girls' exposure to cybersecurity concepts. Unequal access to resources impedes their development, while biased educational environments may deter their pursuit of cybersecurity careers. Cultural norms and familial attitudes may further dissuade girls from entering the field. Additionally, limited awareness of cybersecurity as a viable career option exacerbates these challenges.

6. Conclusion

The cybersecurity field is experiencing rapid growth, offering abundant opportunities for professionals looking to

advance their careers. Its significance spans across various sectors, impacting governments, large corporations, small businesses, employees, and individuals alike. With the daily surge in cyberattacks, cybersecurity has become a critical concern for everyone.

However, the underrepresentation of women in cybersecurity poses significant challenges to the industry's growth, innovation, and effectiveness. Addressing these challenges necessitates collaborative efforts from policymakers, educators, industry leaders, and society as a whole. It requires dismantling barriers, promoting inclusivity, and creating avenues for girls and women to excel in cybersecurity.

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Comprehensive Technical Approach for Women Empowerment and Safety in the Digital Landscape

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Abstract— In today's digital era, ensuring the safety and empowerment of women has become increasingly paramount. This paper presents a comprehensive approach to addressing these critical concerns, harnessing state-of-the-art technology to develop an innovative solution. By amalgamating insights gleaned from scholarly research and direct input from female engineering students and faculties, the paper delineates a spectrum of challenges confronting women, spanning gender-based discrimination, cyberbullying, violence, and digital fraud. In response, the paper advocates for the creation of a groundbreaking one-stop application poised to serve as a centralized platform for combatting these multifaceted threats, while concurrently furnishing educational resources. Anchored in an exhaustive review of extant literature encompassing cybersecurity, access control, content moderation, and digital payment systems, the paper lays the groundwork for judiciously selecting and implementing pivotal algorithms. These algorithms, meticulously expounded upon to address tasks like fake SMS/ UPI ID/ Email/ call detection, Deep fake video identification, and mobile cloning detection, underscore a steadfast commitment to safeguarding user privacy and upholding ethical standards. The application is also determined to educate all its users about the laws made for women safety and empowerment, emergency

contact numbers, helpline numbers, self defence videos, and many more such features. Through rigorous testing and an unwavering dedication to inclusivity, the proposed solution endeavors to foster a digital landscape wherein women can navigate with assurance, realizing their full potential in an environment characterized by true equity.

Keywords— Women empowerment, Cybersecurity, one-stop application, innovation

I. INTRODUCTION

The societal issue of women's empowerment is perceived to originate from the very act of discouraging the birth of female offspring. Research indicates a troubling trend: by 2030, India may witness an estimated shortfall of 6.8 million female births due to the widespread practice of selective abortions[26]. Furthermore, the access to education for girls remains limited, contributing to higher rates of illiteracy among them. Globally, approximately 129 million girls are out of school, with only 49 percent of countries achieving gender parity in primary education and even fewer achieving it at the secondary level[29].

In many parts of India, families still regard girl children as liabilities, often marrying them off at young ages, perpetuating the issue of child marriage. This prevalent practice underscores the urgent need for comprehensive efforts to safeguard the rights and well-being of young girls and women. Distressingly, nearly one in four young women in India are married or in a union before turning 18, leading to further complications such as domestic violence, with 1 in 3 women worldwide

experiencing physical or sexual violence from intimate partners in their lifetime[8].

This discourse also highlights the alarming occurrences of girl child trafficking, cyberbullying, and sexual abuse prevalent in the technology era. Cyberbullying, in particular, has escalated significantly, with over 1 in 3 children encountering various forms of online abuse as young as age 10. Shockingly, India witnessed over

24 lakh instances of online child sexual abuse between 2017 and 2020, with approximately 80 percent of the victims being girls under 14 years of age[7][11].

These pervasive issues often culminate in tragic outcomes like suicide. In 2022, female suicides in India exceeded 48 thousand, propelled by factors such as professional challenges, abuse, and violence[8]. Additionally, incidents like acid attacks and honor killings have gained prominence, with figures from the National Crime Record Bureau indicating a disturbing trend of acid violence predominantly targeting women, with a significant portion of cases going unreported[17].

The challenges for women extend into the corporate world as well, with issues such as the gender pay gap and unequal opportunities hindering progress. Moreover, sexual harassment and discrimination remain pervasive, creating hostile work environments that impede career advancement.

Introducing a groundbreaking app that serves as a comprehensive solution to the diverse challenges faced by women in today's digital age. This app has been meticulously designed as a one-stop destination, leveraging state-of-the-art algorithms to address a wide range of threats. From identifying fake SMS/email/URL to detecting Deepfakes, counterfeit UPI/Bitcoin addresses, online harassment, trolling, eavesdropping, and mobile cloning, this app provides a holistic approach to women's safety. No longer must individuals navigate through various applications for self-defense; this application integrates all necessary functionalities into a single platform, streamlining the process. Beyond safety measures, the app also functions as an educational resource, offering self-defense videos and showcasing inspiring stories of women from around the world. By equipping women with knowledge and tools

for protection, the app aims not only to reduce crime rates but also to promote gender equality. It operates under the belief that genuine gender parity is achieved not through the establishment of separate committees for women, but by eliminating the need for such distinctions altogether. The app strives to level the playing field, ensuring that women can navigate the digital realm without fear or discrimination, thereby fostering a society where every individual has equal opportunities and access to resources.

II. LITERATURE REVIEW

In the realm of cybersecurity, various threats persist, including the escalating issue of deepfake content creation. Advanced technologies like Generative Adversarial Networks (GANs) and Stable Diffusion-based methods facilitate the creation of convincing Deep Fake content, posing significant challenges in detection and mitigation. Deepfake detection systems, such as Vision Transformers (ViTs), are being developed to combat this threat. These systems employ innovative approaches, framing the deepfake problem as a multiclass task and leveraging ViTs' effectiveness in detecting manipulated content. This research not only contributes to enhancing understanding and capabilities in combating deepfake challenges but also highlights the importance of aligning computational solutions with platform moderation goals.[7].

In the domain of access control for safety, the implementation of effective face recognition systems stands as a crucial measure to mitigate unauthorized substitutions. There is a study that presents a face recognition system designed for an exam access control system, addressing unauthorized substitutions during examinations. The system employs a Haar cascade classifier and Hog-based Dlib face detection, extracting facial features with the Dlib deep metric learning library, and utilizing the k-NN algorithm for classification. Tested on the Orl_Face dataset, the system achieves up to 90% accuracy. Face photographs captured during registration serve as reference points for comparison during examinations, ensuring the candidate in the examination room matches the registered individual. The HOG method is integrated to operate under various ambient conditions. The paper compares the proposed system with other face recognition methods, discussing its streamlined approach and adaptability to diverse exam environments. Common face recognition methods, including Eigenface, PCA, LDA, and deep metric

learning, are explored, emphasizing the system's comprehensive performance evaluation and potential in real-world exam settings[10].

The challenge of harmful content proliferation on online platforms is also one of the concerning issues, addressing the disconnect between platform moderation goals and research efforts in content detection. Surveying computational solutions and platform policies, it emphasizes the need for alignment between research and platform needs while navigating the delicate balance between harm prevention and free expression. Focusing on diverse topics like hate speech, offensive language, and cyberbullying, the study analyzes arXiv publications, noting a shift towards addressing hate speech and misinformation. It delves into various detection tasks, highlighting datasets and approaches involving pre-trained transformers, CNNs, RNNs, and lexica. The survey aims to bridge gaps, assessing the alignment between computational solutions and content moderation policies in combating online harms[13].

Another crucial aspect of cybersecurity involves protecting sensitive information from email-based security breaches and spam within academic institutions and beyond. The rise of digital technologies has increased the risk of information security breaches, necessitating robust spam filtering and prevention systems tailored to various environments. Bayesian filters, known for distinguishing between legitimate emails and spam, have shown promise in mitigating risks posed by spam messages. Such systems contribute to enhancing email security within academic settings and beyond, emphasizing the need for proactive defense mechanisms against evolving cyber threats[10].

Moreover, the security concerns associated with cryptographic cloud storage systems have garnered attention. Existing systems are vulnerable to potential abuse by service providers, raising questions about user privacy and data access. Unique approaches, such as Cocks Identity-Based Encryption (IBE) and Advanced Encryption Standard (AES)-256 Cipher Block Chaining (CBC), are proposed to enhance user privacy and notify users of any file inspections. This highlights the need for improved security

measures in cloud computing and storage services to address evolving threats effectively[3].

Furthermore, the critical issue of information security in data communication, focusing on the evaluation of symmetric (AES, DES, Blowfish) and asymmetric (RSA) cryptographic algorithms. The evaluation considers different file types, including binary, text, and image files, and employs parameters such as encryption time, decryption time, and throughput for comparison. Cryptography is essential for securing information, converting plaintext into indecipherable ciphertext to protect it from unauthorized access. The study recognizes the resource consumption challenges of cryptographic algorithms, emphasizing the need to assess their performance for efficient future use. The comparison and simulation results demonstrate the effectiveness of each algorithm, offering insights into their practical application in securing data transmission[12].

Additionally, cybersecurity extends to the realm of multimedia content, where the authenticity of videos is crucial. Digital video forgery detection systems are essential for maintaining the integrity of multimedia content, especially with the prevalence of deep fake videos. Active and passive video manipulation detection approaches, coupled with deep learning algorithms like Recurrent Neural Networks (RNN) and Deep Convolutional Neural Networks (DCNN), contribute to addressing challenges in detecting video forgeries. These efforts underscore the importance of comprehensive approaches to digital forensics and the continual development of detection tools to combat emerging threats effectively[7].

Spam messages, whether in the form of emails or SMS, continue to pose persistent challenges in modern communication landscapes and cybersecurity. Evaluating spam detection methods, the research focuses on emails, utilizing Support Vector Machine (SVM) and Naive Bayes algorithms. Bayesian Optimization and Grid Search Parameters are employed to maximize performance metrics such as accuracy, precision, recall, and F1 scores. Bayesian Optimization particularly excels in SVM parameter tuning, achieving high accuracy (98.56%), precision

(99.40%), and recall (89.55%). Meanwhile, the paper explores SMS spamming, emphasizing the growing problem of unwanted text messages due to the increasing use of smart devices and SMS services. Employing text classification techniques and machine learning algorithms, the study compares various classification methods, highlighting the necessity for effective filtering methods and addressing challenges posed by small-sized SMS spam datasets. By applying supervised learning to predict and classify SMS messages as spam or ham, the paper contributes to tackling the SMS spam issue and underscores the importance of efficient filtering systems in mobile communication landscapes[14][15].

Finally, the scams in the field of UPI are escalating which needs to be controlled on priority basis. A study evaluates two modern payment methods, UPI (Unified Payments Interface) and NFC (Near Field Communication), focusing on their adaptability in diverse markets. The paper explores the role of AI (Artificial Intelligence) in these payment systems and its impact on users. UPI facilitates real-time peer-to-peer transfers between bank accounts through a mobile application, streamlining the payment process. On the other hand, NFC enables contactless digital payments using devices like phones and smartwatches. AI plays a crucial role in enhancing security, detecting fraud, providing customer support, assessing transaction risks, and implementing biometric authentication in both UPI and NFC systems. The study incorporates factors influencing the adoption of these payment methods in India, combining secondary and primary data. It concludes with policy suggestions for secure and inclusive digital transformation in banking transactions. Keywords include NFC, UPI, RFID, AI technology, digital transformation, banking transactions, inclusivity, and security[16].

A thorough survey was conducted targeting female engineering students and lady faculties to gain insights into the challenges they encounter in today's digital landscape. With over 300 testimonials collected, the survey provided valuable perspectives on the various issues faced by this demographic.

Covering a broad spectrum of topics, the survey explored age group demographics, common problems encountered, actions taken to address these issues, and receptiveness to potential solutions. Participants shared experiences regarding online trolling, phone cloning, phishing attempts, deepfake image manipulation, sexual abuse, fraudulent communication (calls/emails/SMS), financial scams, and challenges related to dowry tradition.

Additionally, participants were questioned about their efforts to mitigate these issues, their willingness to utilize a single mobile application to tackle multiple problems, and any additional challenges not addressed in the survey. The survey findings will play a pivotal role in informing research aimed at developing effective solutions to combat the prevalent challenges faced by female engineering students and lady faculties in the digital sphere. The issue with current solutions is the abundance of different apps for different problems. This makes it difficult for users to protect themselves when they need to.

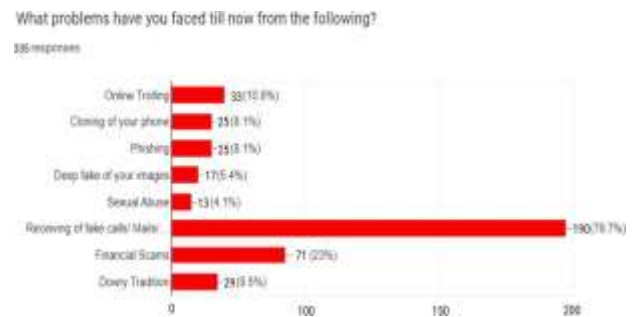


Fig 1: Analytics of problems faced

A notable revelation from the survey was that 78.4% of respondents expressed a lack of knowledge regarding proper solutions to these problems due to the scattered nature or dearth of available solutions/apps in the market.

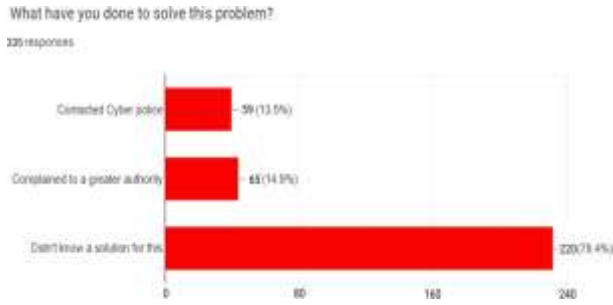


Fig 2: Majority of the surveyed people not knowing the potential solution to the problem faced.

When queried about their interest in a one-stop solution app to address these challenges, a significant majority of participants expressed agreement, highlighting the potential demand for such a comprehensive solution.

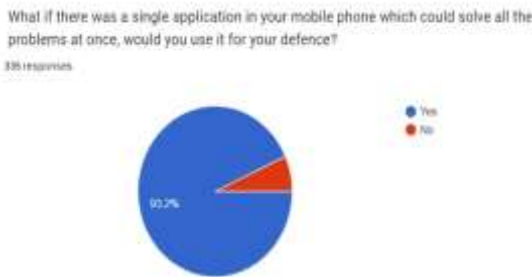


Fig 3: 93.2% of the people demanded a one stop solution app for their self-defense

III. METHODOLOGY

In the pursuit of elevating women's safety and security, a meticulously devised solution has been methodically crafted, employing a sophisticated methodology that seamlessly integrates specialized technical solutions to counteract a spectrum of potential threats. Each discerned feature has been judiciously paired with algorithms and data processing techniques, meticulously selected to optimize efficacy while upholding user privacy.

At the nucleus of this strategic approach lies a principled data collection process, meticulously guided by the tenets of informed consent and unwavering compliance with prevailing privacy regulations. A diverse array of data types, including text messages, emails, transaction details, and device identifiers, is assiduously amassed, forming the bedrock of a comprehensive strategy, all the while maintaining an unwavering commitment to utmost respect for user privacy.

After the meticulous data collection phase, a rigorous processing regimen is initiated, commencing with meticulous cleansing procedures to expunge extraneous noise and address any lacunae in the data. Feature engineering follows suit, extracting pertinent information from the dataset and aligning it meticulously with the exacting requirements of the chosen algorithms. Whether scrutinizing linguistic features for Natural Language Processing (NLP) algorithms or delving into transaction details for anomaly detection, this process remains steadfastly anchored in safeguarding user privacy.

Throughout this intricate procedure, privacy considerations persist as the paramount concern, with robust measures implemented to anonymize or pseudonymize sensitive information, fortifying user trust in the formidable capabilities of the application.

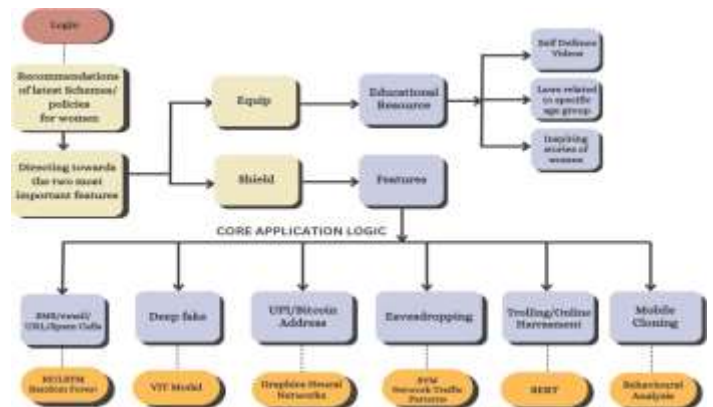


Fig 4: Overview of Proposed Solution

At the heart of this methodology lies the sagacious selection and meticulous implementation of algorithms, each tailored with precision to the unique requirements of the identified features:

1) Detection of fake SMS/ Spam Email/ Calls:

The solution for Fake SMS/Spam EMail/ Calls Detection employs two main algorithms: Ensemble Classifiers, specifically Random Forest, and Recurrent Neural Networks (RNNs) like Long Short-Term Memory (LSTM). For Ensemble Classifiers, relevant features are extracted from text data, including word frequencies and character n-grams. The Random Forest model is trained on labeled datasets of SMS or email messages, creating an ensemble of decision trees with a majority voting mechanism for final predictions. Its robustness against noise and overfitting makes it suitable for handling text data. On the other hand, LSTM, designed for sequence data, is employed for its capability to capture sequential dependencies in text. It addresses the vanishing gradient problem, allowing it to model long-term dependencies crucial for detecting patterns indicative of spam or legitimate messages. The LSTM network is trained on labeled datasets and excels at classifying new SMS or email messages based on learned patterns and contextual information encoded in the message sequence. Both algorithms contribute to effective Fake SMS/Spam Mail Detection, considering the contextual nuances and features of text data while upholding user privacy through careful data collection and processing methodologies[10][15].

2) Fake URL Detection:

To enhance Fake URL Detection, the methodology incorporates two primary techniques:

2.1 Ensemble Methods:

The process involves extracting features like domain name and keywords from URLs, training diverse base classifiers on a labeled dataset, constructing an ensemble model through methods like voting or averaging, ensuring diversity among base classifiers to improve generalization, and leveraging the robustness of ensemble methods to handle noisy data. This approach creates a strong classifier capable of accurately identifying suspicious URLs[16].

2.2 Pre-trained Neural Networks:

Incorporating pre-trained neural networks, specifically ResNet, entails transfer learning to leverage features learned from large datasets, utilizing ResNet as a feature extractor to capture high-level features indicative of fake or genuine URLs, fine-tuning the model on a task-specific dataset for adaptation, utilizing robust representations to discriminate between genuine and fake URLs, and enhancing generalization performance to accurately classify unseen URLs with similar characteristics to the training data. This approach complements ensemble methods, providing a comprehensive strategy for effective Fake URL Detection[2].

3) Detection of UPI and Bitcoin Address :

In the methodology outlined for UPI and Bitcoin address analysis, anomaly detection techniques are paramount for identifying potential fraud in transactions or suspicious addresses. Isolation Forest and LOF are key tools in this process. Isolation Forest segregates anomalies by randomly partitioning data, while LOF calculates local densities to spot outliers. These techniques enable real-time detection and scalability, crucial for dynamic environments. They contribute significantly to Fake UPI and Bitcoin Address Detection by pinpointing deviations from normal behavior. Graph Neural Networks (GNNs) offer

another layer of analysis, specifically tailored to the graph structure of blockchain networks. GNNs operate directly on the network, learning node embeddings that encapsulate structural and contextual data. They detect anomalies by identifying patterns indicative of fraudulent behavior, such as money laundering or transaction manipulation. GNNs exhibit adaptability and scalability, making them well-suited for the complex ecosystems of blockchain networks. They serve as a powerful tool for detecting suspicious activity, leveraging the inherent graph structure of transaction data[16].

4) Deep Fakes Detection:

The methodology for deepfake detection, Pre-trained Vision Transformers (ViT) models, originally designed for image classification, are applied by processing individual frames of Deep Fake videos to extract high-level representations (embeddings) capturing facial features crucial for manipulation detection. ViT models leverage pre-training on large-scale image datasets, incorporating self-supervised learning techniques for learning rich visual representations across diverse images. Through transfer learning and fine-tuning on a smaller dataset of Deep Fake and real videos, ViT models adapt their learned representations to the specific characteristics of Deep Fake videos, enhancing their performance on the detection task. The attention mechanism within ViT models allows them to focus on relevant image regions, aiding in the identification of subtle inconsistencies or artifacts indicative of deepfake manipulation. ViT models exhibit robustness to various image manipulations and provide interpretability through attention maps, highlighting regions contributing most to predictions. This comprehensive approach effectively identifies subtle visual cues indicative of manipulation in deep fake content[2].

5) Online Harassment and Trolling Identification:

5.1 Pre-trained Language Models (BERT) Fine-tuned on Harassment Detection Datasets:

Leveraging pre-trained language models like BERT involves initial pre-training on a diverse text corpus using unsupervised learning objectives. Subsequently, fine-tuning on a specific harassment detection dataset adapts BERT to recognize instances of online harassment or trolling. The model then effectively identifies abusive language in online content by considering contextual information and linguistic cues[22].

5.2 Sentiment Analysis Techniques:

Sentiment analysis techniques, applied for Online Harassment and Trolling Identification, involve text preprocessing steps, such as tokenization and stop-word removal. These techniques classify text based on sentiment, focusing on negative sentiment cues associated with abusive language. Utilizing lexicon-based approaches or machine learning models, such as support vector machines or deep learning architectures, sentiment analysis aids in flagging content with negative sentiment indicative of harassment. Integration with other approaches enhances the system's capabilities to effectively detect and mitigate abusive content by analyzing both linguistic features and emotional tone[22].

6) Eavesdropping Detection:

6.1 Anomaly Detection Techniques Based on Audio Features:

To detect eavesdropping, anomaly detection techniques analyze audio features by extracting voice characteristics, background noise levels, and spectral properties. Algorithms like Isolation Forest or One-Class SVM are employed with a defined threshold, allowing real-time monitoring to trigger alerts for potential anomalies. Continuous adaptation to evolving eavesdropping

tactics enhances the proactive nature of this approach[7].

6.2 Anomaly Detection Based on Network Traffic Patterns:

For eavesdropping detection through network traffic, features like IP addresses, packet sizes, and communication patterns are extracted and analyzed. Anomaly detection algorithms, including statistical methods and machine learning, identify deviations, triggering alerts. Real-time monitoring, combined with integration into security infrastructure, enhances the system's effectiveness in identifying unauthorized access or malicious behavior in network traffic patterns[12].

7) Mobile Cloning Detection:

7.1 Device Fingerprinting:

Device fingerprinting for Mobile Cloning Detection involves collecting unique attributes of mobile devices, such as hardware specifications and behavioral patterns, to create digital fingerprints. Algorithms generate these fingerprints, allowing the comparison of original and cloned devices. Integration with security systems enhances detection capabilities, triggering alerts or security measures upon detecting discrepancies.

7.2 Anomaly Detection Based on Device Behavior:

Anomaly detection based on device behavior monitors patterns like usage history and network activity. Behavioral profiling establishes normal behavior, and anomaly detection algorithms continuously compare real-time behavior, triggering alerts for anomalies. Feature extraction from behavior data, coupled with automated responses, enables proactive detection and mitigation of suspicious activities associated with mobile cloning.

IV. RESULTS AND DISCUSSION

1) Detection of fake SMS/ Spam Email/ Calls:

The pioneering application, 'Suraksha Sangam: सड़मान से समानता तक' incorporates Ensemble Classifiers (specifically Random Forest) and Recurrent Neural Networks (LSTM) to bolster its Fake SMS/Spam Email Detection capabilities. By harnessing features such as word frequencies and character n-grams, it achieves robustness in identifying fraudulent messages. This amalgamation of algorithms ensures exceptional accuracy, as evidenced by its adeptness in mitigating noise, preventing overfitting, and discerning sequential dependencies for precise classification[4][6][15]. As shown in the figure below, the user can paste the message received in the interface and get notified if at all it is fake.

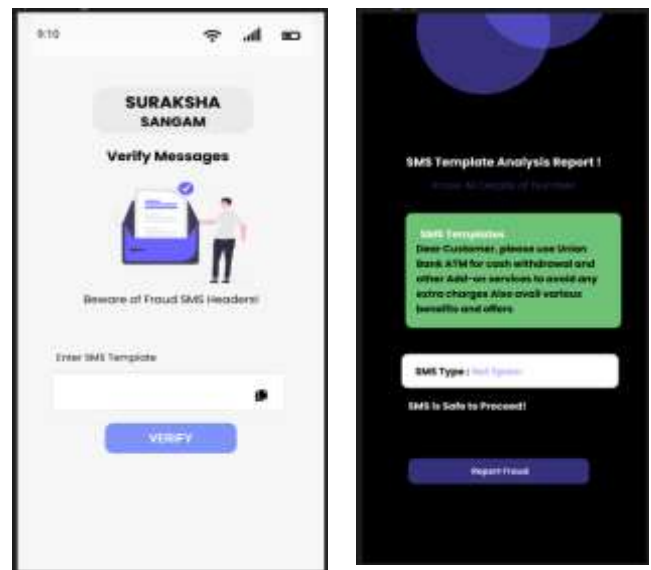


Fig 5: Interface and Notification of the SMS detection

2) Fake URL Detection:

Suraksha Sangam harnesses a potent fusion of Ensemble Methods to extract domain names and keywords, thereby ensuring robust Fake URL Detection. By employing diverse base classifiers and ensemble modeling, they guarantee accuracy

in discerning fraudulent URLs. Additionally, through the utilization of pre-trained Neural Networks, particularly ResNet, their app integrates transfer learning to capture high-level features indicative of fake or genuine URLs. This approach enhances generalization, leading to effective classification. Their app's interface highlights a state-of-the-art solution, seamlessly integrating Ensemble Methods and ResNet to offer a comprehensive strategy for accurate and efficient Fake URL Detection[16]. In Figure 6, the app aids in the detection of fraudulent URLs, providing users with a comprehensive report following verification of the URL ID's authenticity.

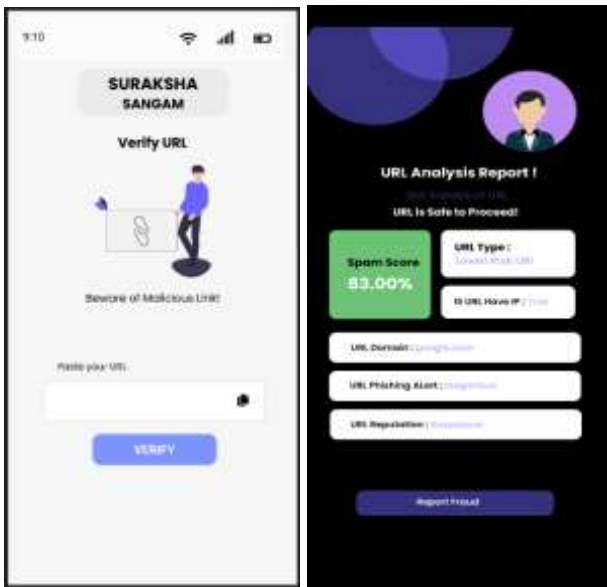


Fig 6: Interface and Notification of the fake URL detection

3) Detection of UPI and Bitcoin Address:

The app utilizes state-of-the-art Anomaly Detection techniques, such as Isolation Forest and LOF, to enable real-time and scalable detection of Fake UPI and Bitcoin Addresses. By precisely identifying deviations from normal behavior, they ensure accuracy in flagging suspicious activity. Moreover, their integration of Graph Neural Networks (GNNs) adds a specialized layer of analysis tailored to the unique graph structure of blockchain networks. This allows for the detection

of anomalies associated with fraudulent behavior, with adaptability and scalability. The app's interface prominently showcases its advanced capabilities, showcasing a seamless combination of Isolation Forest, LOF, and GNNs to offer a robust solution for identifying potential fraud in UPI and Bitcoin transactions, thereby enhancing security and reliability. As depicted in the figure below, users have the capability to verify UPI IDs prior to conducting transactions with counterparties. In the event of encountering a fake ID, users are empowered to report it as fraudulent.

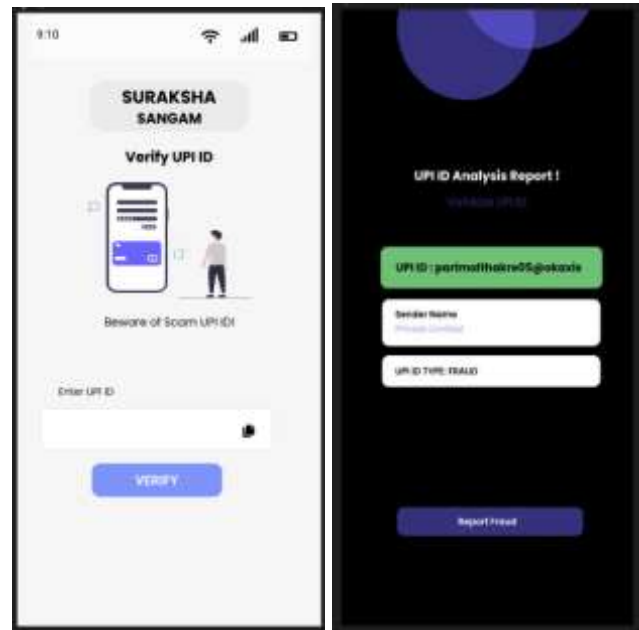


Fig 7: Interface and Notification of the fake UPI ID detection

4) Deep Fakes Detection:

The application integrates cutting-edge Pre-trained Vision Transformers (ViT) for Deep Fake Detection, meticulously processing individual frames of videos to extract high-level representations. This approach enables the app to adaptively identify subtle manipulations with remarkable robustness to various image alterations. Leveraging ViT models, originally devised for image classification, they showcase their adaptability through transfer learning and fine-tuning on a dataset comprising Deep Fake and authentic videos. This rigorous process

ensures the precise detection of facial feature manipulations. The app's interface prominently showcases its advanced ViT-based solution, offering interpretability through attention maps. By effectively focusing on nuanced visual cues, the app adeptly tackles the challenge of identifying deepfake content, thereby safeguarding content integrity[2]. As illustrated in Figure 8, the Suraksha Sangam app offers users an interface to upload videos suspected of being Deepfakes, subsequently generating a comprehensive report on the content of the video.

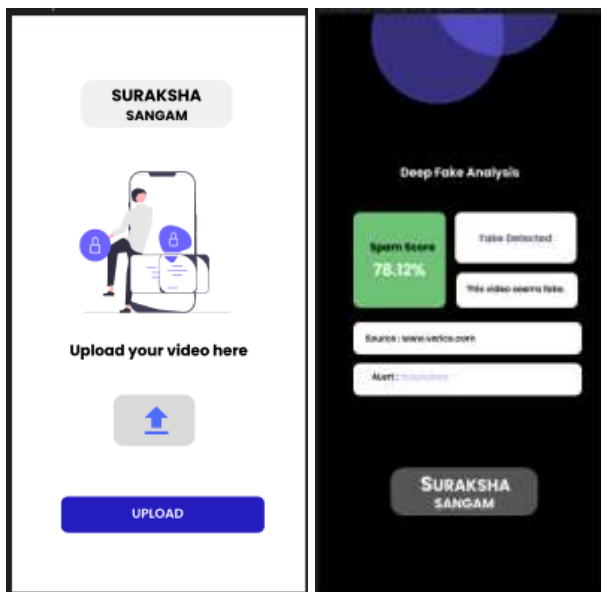


Fig 8: Interface and Notification of Deep fake Detection

5) Online Harassment and Trolling Identification:

Suraksha Sangam tackles Online Harassment and Trolling using advanced Pre-trained Language Models like BERT, finely-tuned on harassment detection datasets for precise identification of abusive language in online content. Sentiment Analysis techniques, including text preprocessing and machine learning models, enhance the app's capabilities in flagging negative sentiment cues associated with harassment, providing a comprehensive solution for content moderation. The app's photo underscores its innovative

approach, showcasing the integration of BERT and Sentiment Analysis for effective Online Harassment and Trolling Identification, ensuring a safer online environment[12][22]. As depicted in Figure 9, the application offers a feature for reporting fake social media IDs engaged in online trolling and harassment.

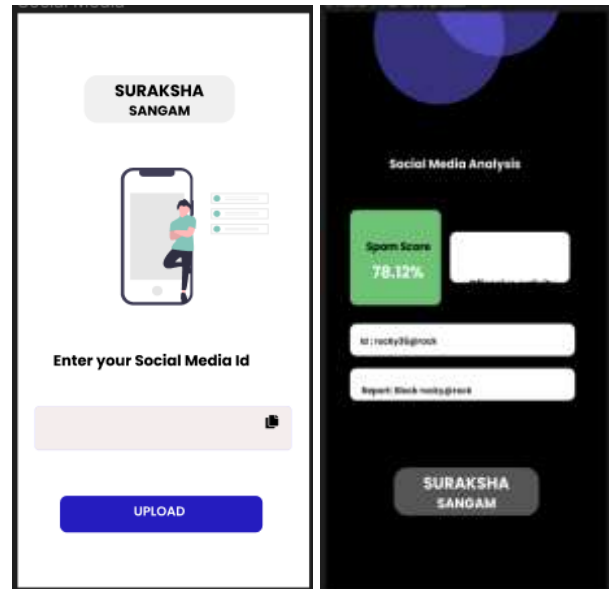


Fig 9: Interface and Notification of Fake Social Media Id Detection

6) Eavesdropping Detection:

The application utilizes Isolation Forest and One-Class SVM for proactive Eavesdropping Detection in audio, continuously adapting to evolving tactics and triggering real-time alerts. It meticulously scrutinizes network traffic using anomaly detection algorithms, seamlessly combining statistical methods and machine learning for real-time security enhancement. The app's interface prominently features its cutting-edge solution, ensuring robust Eavesdropping Detection with adaptability to emerging threats, thus enhancing security and privacy[1]. As depicted in Figure 10, the application provides users with alerts in the event that their phones are being eavesdropped. Upon detection, the offending ID is promptly blocked, thereby safeguarding the user's privacy.

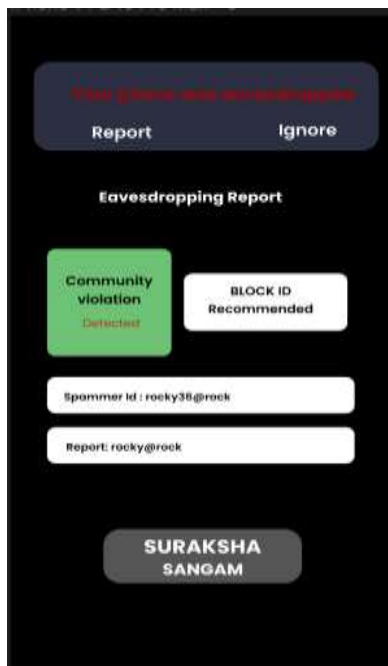


Fig 10: Eavesdropping Interface



Fig 11 : Cloning Detection Interface

7) Mobile Cloning Detection:

App employs Device Fingerprinting for advanced Mobile Cloning Detection, seamlessly integrating with security systems to trigger alerts upon detecting any discrepancies. Anomaly Detection based on device behavior further enhances its capabilities, proactively identifying and mitigating suspicious activities related to mobile cloning. The app's interface prominently showcases its innovative approach, seamlessly integrating algorithms for robust Mobile Cloning Detection and automated responses, thereby ensuring heightened security[28]. As depicted in Figure 11, within the Suraksha Sangam application, there exists functionality to determine whether a user's phone has undergone cloning. Should such a duplication be detected, an immediate alert is issued to the user.

V. CONCLUSION

In summary, this research paper has addressed the urgent concerns surrounding the safety and empowerment of women in the digital age and introduced a comprehensive solution in the form of a unified application. Drawing from a synthesis of scholarly research and direct feedback from female engineering students, the paper has illuminated the diverse challenges faced by women, including gender-based discrimination, cyberbullying, violence, and digital fraud. The proposed application stands as a centralized hub aimed at tackling these issues while providing educational resources to empower women.

Through an extensive review of existing literature spanning cybersecurity, access control, content moderation, and digital payment systems, the paper has laid the groundwork for the selection and deployment of essential algorithms. These algorithms, ranging from fake SMS/UPI ID/email detection to Deep fake video identification and mobile cloning detection, reflect a firm

commitment to preserving user privacy and upholding ethical standards.

By advocating for inclusivity and subjecting the proposed solution to rigorous testing, this research seeks to cultivate a digital environment where women can navigate with confidence and fulfill their potential in a landscape characterized by true equality. Ultimately, this paper emphasizes the imperative of harnessing technology to address societal issues and cultivate a safer and more empowering digital space for women.

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A Study on Role of Women Educationalist, Researcher and Achievers in the Society Worldwide

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Abstract— Women's crucial roles played in the development of all sectors of the economy and their skills, capabilities and the knack to successfully carry out reforms, have been accepted worldwide. This paper presents the achievements of women in all the fields of worldwide scenarios. Female literacy is considered to be a key factor in the rapid development of human resources as well as in improving the quality of life. Women play multiple roles as mothers from the conception of a baby throughout the life cycle of the child, care-takers of the entire families, guides, motivators, and decision makers, if educated. The education of women is the most powerful tool to change the world through the grassroots of families, societies and nations. Thus, everyone accepts that the hand that rocks the cradle determines a nation's development.

Keywords—*leadership; women education; achievement; reform*

I. INTRODUCTION

The study brings out the notable increase in the educational and professional opportunities for girls and the young women within a relatively short time span and shows how these changes have affected local perceptions of women's social roles. If a woman is educated and allowed to utilize their freedom, then only they will be able to face life with self-confidence. If a woman is bonded, how can we expect her children to be free? Only when a woman gets an opportunity to educate herself, she will be able to bring up her children with proper guidance and confidence. The status of a family depends on its reputation within its social network and can significantly change through the behavior of female family members. However various studies observe that educated women and their families gain a higher status in their community. Educated women are believed to have better saving habits, like making better investments in health and children's education and have better access to knowledge and information. In this study the impact to Education on women in Leadership, Management, Sports, Music, Research, Authorship, Medical, etc. is investigated. The research

addresses the part of women in the worldwide development of all the fields.

II. GENDER DIFFERENCES IN LEADERSHIP AND MANAGEMENT STYLES:

Naturally the leadership and management styles of women are in contrast with that of the men. It is found in reaches that women are able advocate democratic style in the corporate field with effective communication skills and interacting ability. Through another research, it is confirmed that women are more capable than men, of following 'transformational leadership', through which that can motivate their employees and workers by converting their own interest into the ways and means to achieve the goals of the group. The collaborative leadership style associated with women contrasts with the men's authoritarian style. The interactive leadership and management styles give opportunity for different perspective, multitasking, compassion, attention to detail and team spirit. Women have played more crucial roles at all levels of education than men. They exhibited courage and passion for reform.

III. WOMEN IN LEADERSHIP:

A. Indira Gandhi: a strong leader:

Indira Priyadarshini Gandhi's whole life was spent on the forefront of history. She went on to mark her tenure by strong leadership and a global presence.

- In 1921 she burned her 'made in England' doll in solidarity with the Swadeshi Movement when she was 5.
- When she was 12 she led the 'Vanar Sena' an army made up of children who helped in the freedom struggle.
- She became the third and only woman prime minister of India in 1966.
- She launched a war against Pakistan in 1971 to liberate Bangladesh and won.

- She implemented strong anti-poverty measures, ushered in the green revolution and clamped on a national emergency in 1975.

Her fight against terrorism in Punjab led to her untimely death on October 31, 1984. She refused to be intimidated by circumstances and changed history and geography as we know it. She was India's 'Iron Lady'!

B. Kamala Harris: one of the most influential women of our times:

Kamala Devi Harris graduated from Howard University and Hasting College of law is a politician, lawyer and author who has notched up several first to her name. She was elected -

- the first African- Asian female district attorney of San Francisco in 2003.
- the first Attorney General of California in 2010.
- the first African-Asian senator in US history in 2017.
- the first female vice president of the USA, the highest ranking female official in US history.

She was also named 'Time person of the year' in 2020.

C. Ursula von der Leyen: a global figure:

She is known as a physician and politician who graduated from Hannover Medical School in 1987 specializing in women's health.

- She obtained the first place as a woman to serve as the Defence Minister of Germany in 2013.
- She was the first woman President of the European Commission in 2019.
- She is a contender for the post of secretary-general of NATO.

She is included in Time Magazine's 100 most influential people of 2020.

D. Jacinda Ardern: a good leader:

Jacinda graduated from the University of Waikato in 2001 with a Bachelor of Communication Studies in International Relation and Professional Communication.

- She was first elected as a Member of Parliament to the House of Representation in 2008.
- In 2017, she became the Prime Minister of Newzeland.
- In 2018, she was short listed for Time's 2019 'Person of the Year' and in the year 2020.

She was listed by Prospect as the second- greatest thinker for the COVID-19 era.

E. Prathebha Patil: note worthy:

She has a double MA in political science and economics and a degree in Law from Government Law College, Bombay.

- She joined the Indian National Congress and won her first election in 1962 contesting from the Edlabad Constituency.
- She handled the public health and social welfare portfolio in the Government of Maharashtra.
- She was appointed Governor of Rajesthan in 2004.
- She became the President of India from 2007 to 2012.
- She commuted death sentences of 35 death penalty prisoners to 'life' which is a record.

While in office, she focused on improving women's rights in the country and in solving the agrarian crisis.

F. Queen Elizabeth II: a remarkable Woman:

Think of the word "Queen". Most likely Queen Elizabeth II comes in mind. She is the most popular recently visible representative of royalty in the world and has been so for well over half a century. She became Queen of the United Kingdom and 15 other Commonwealth realms including Canada, New Zealand and Australia on February 06, 1952. She was the longest reigning monarch in British history.

IV. WOMEN IN SPORTS:

A. Martina Navratilova: a tennis legend:

Martina Navratilova has been described as the greatest woman singles, doubles and mixed doubles player among those who have ever lived.

- She won the Czechoslovakia national tennis championship when she was only 15-year old.
- She won her first professional single title in Orlando, Florida, while she was 17.
- She won 18 Grand Slam singles titles, 31 major women's doubles titles and 10 major mixed doubles titles, and became the greatest among the women players of all the times.

This achievement marks the Open Era record for the most Grand Slam titles won by a single player. She opened an academy for young tennis player in her home country, the Czech Republic. She was inducted into the International Tennis Hall of Fame in 2000.

B. Serena Williams: consummate champion

Serena Jameka Williams is considered one of the most consummate champions in the history of women's tennis.

- She won a total of 39 Grand Slam titles placing her third on the all-time greats's list.
- She was ranked No.1 on eight different tournaments between the years 2002 and 2017, totalling an astounding 319 weeks at the top.
- She also won the 'Laureus Sportswoman of the year' awards in 2003, 2010, 2016 and 2018.

- Sports Illustrated Magazine honoured her in 2015 as the 'Sportsperson of the Year'.
- She was ranked the 28th on Forbes list to the 'Highest Paid Athletes'.

C. P T Usha: India's 'Golden Girl of track and field:

Payyoli Tevaraparampil Usha, P T Usha in easy form, who is known as the 'golden girl of India' was arguably India's first sports icon. This super fast sprinter notched up 23 medals of which 14 were gold at various international events in a career span of 24 years.

- At the age of 16, she won four Gold Medals in her first international event, Pakistan Open National Meet held in 1980.
- In the Jakarta Asian Championships of 1985, she won five gold medals and a bronze medal.
- She won 13 gold medals in the Asian Track and Field events between the years 1983 and 1989.
- She was awarded 'Padma Shri' in 1985.

She runs 'The Usha School of Athletics' at Koyilandy, near Kozhikode, Kerala to train the youngsters.

D. Sania Mirza: a remarkable sportsperson:

Sania started playing tennis at her tender age of six, and turned a professional player at her 17 after winning the Girls' Doubles title in 2003 at Wimbledon.

- As a junior player, she won ten Singles and 13 doubles titles. She won six Grand Slam titles and Women's Tennis Association ranked her India's No.1 player from 2003- 2013.
- Time Magazine added Mirza's name in its 'Heroes of Asia' list in 2005.
- In 2010 the Economic Times honoured Mirza as one of the 'Women who Made India Proud'.
- She was appointed UN Women's Goodwill Ambassador for south Asia in 2013.

She is responsible for single handedly putting Indian women's tennis on the global map.

E. Saina Nehwal and P V Sindhu: superstars of badminton:

Saina Nehwal is the first and only female player from India to be ranked world No.1.

- She won over 24 International titles at training the world No.1 ranking in 2005.
- She won the BWF world Junior Championship in 2008.
- She created history when she won the bronze medal at London 2012 Olympic Games.
- In 2016 the Government of India conferred the Padma Bhushan on her.
- She was also awarded the Major Dhyan Chand Khel Ratna and the Arjuna award.

It is she who made the sport of badminton popular in India.

Pusarala Venkata Sindhu, popularly known as P V Sindhu is a badminton world champion.

- She is the silver medallist at 2016 Rio Summer Olympics'.
- She is recipient of the Major Dhyan Chand Khel Ratna and the Padma Shri.
- She was awarded Padma Bhushan in 2020.

She is only the second individual athlete from India to win two consecutive medals at the Olympic Games.

V. WOMEN IN DEFENCE:

A. Seema Rao: a wonder woman

If you thought Wonder Woman a myth, think again! Wonder Woman is an Indian and her name is Seema Rao. She is an MD in conventional medicine and a world beauty pageant finalist.

- She is India's first and only woman commando trainer.
- She was one of the few instructors of 'Jeet Kune Do', a hybrid art inspired by Bruce Lee at her 51.
- She was an 8th degree black belt holder in martial arts and a specialist in Close Quarter Battle.
- She has been training commandos from the NSG, Black Cats, IAF Guards, Indian Navy MARCOS, BSF, Commando Wing and Army Paratroopers as well as Mumbai and Maharashtra Police since 1994.
- She received the 'Nari Shakti Puraskar' in 2019 for her indomitable spirit and serve to the nation.

She has trained the Indian Armed Forces for over two decades, waiving aside all compensation. Her deep patriotism stems from her father who was an Indian freedom fighter.

VI. WOMEN IN MEDICINE:

A. Anandibai Gopalrao Joshi and Kadambini Ganguly:

Anandibai Gopalrao Joshi graduated with MD from the Women's Medical College of Pennsylvania in Philadelphia in 1886.

- She was the first female physician of India.
- She was the first Indian woman to receive an education abroad.
- She served as the physician in-charge of the female ward of The Albert Edward Hospital in Kolhapur.
- Kadambini Ganguly graduated with a 'Graduate of Bengal Medical College in 1886.
- She became one of the first two female graduates in India with Chandramukhi Bose who graduated from Bethune College in 1882.

She became one of the first Indian physicians eligible to practice western medicine alongside Anandibai Gopalrao. She practiced medicine for 37 years.

B. Muthulakshmi Reddy : first women doctor in South India:

Muthulakshmi Reddy was an Indian medical practitioner, completed her medical course at Madras Medical College with many firsts to her name.

- The first female student to be admitted into a men's college.
- The first woman House Surgeon in the government Maternity and Ophthalmic Hospital.
- The first woman Legislator in British India.
- The first woman Chairperson of the State Social Welfare Association.
- She is the founder of The Cancer Institute at Adayar in 1954.
- She received the Padma Bhushan in 1956.

Her persisted efforts to improve the condition of women and children in all areas were widely recognized. She left a mark in the field of medicine, education, law and much more.

VII. WOMEN ACTIVIST:

A. Rani Lakshmi Bai: a brave fighter:

Rani Lakshmi Bai, Queen of Jhansi, was one of the great nationalist heroines of the First War of Indian Independence. She was determined not to give up Jhansi to the British. In 1858, when the British attacked Jhansi, Rani Lakshmi Bai fought bravely with her faithful army, did not surrender for two weeks. She was an inspirational leader and the people fought for her. She bravely proclaimed that her reign had begun.

B. Aung San Suu Kyi: renowned:

Aung San Suu Kyi is a politician, opposition leader and author. She graduated BA in politics from Lady Shri Ram College in Delhi and MA in politics from the University of Oxford in 1968.

- She became involved in a struggle for democracy and human rights in her country, Burma.
- She cofounded the National League for Democracy (NLD) in 1988 and rallied her people to protest in a non-violent manner against the military government.
- She was awarded the Nobel Peace Prize in 1991.
- In 2015, she led the NLD to victory in Myanmar's first openly contested election in 25 years.

Her struggle has captured worldwide attention since then and she has been awarded numerous prizes in recognition of her political work.

C. Malala Yousafzai: an inspiring life:

There are few remote areas in some parts of the world where children especially girls are threatened and even killed for attempting to study. In Pakistan's Swat valley, a repressive militant group called the Tehrik-I Taliban Pakistan (TTP)

declared a ban on women's education. However a young girl named Malala Yousafzai refused to give up on her dream.

- She defied the archaic laws set down by the Taliban as a child and began speaking about education rights in Sep.2008 at Peshawar Press club when she was 11 years old.
- She also blogged for the BBC about life under the rule of the Taliban and took part in Newyork Times documentary on the same,
- Malala has become a global figure, after the surviving the gun shot by a TTP and spearheading the fight for women's education and highlighting the plight of girls in Taliban controlled region.

She has been awarded the Nobel Peace Prize in 2014 in the most notable at the age of 17.

D. Medha Patkal: a renowned activist

Patkal completed her MA in social work from Tata Institute of social sciences. We heard of Medha Patkel in connection with the Normath Bachao Andolan (NBA)

- Patkal under took a 22-day fast that forced a review of the Sardar Sarovar Dam, one of the biggest projects of the NBA.
- She has involved in numerous other protects and movement as well such as fighter.

VIII. WOMEN IN THE 'FIRST':

A. Marissa Mayer: great contributor:

Marissa is an American software engineer, business woman and investor. She studied a B. Sc degree in symbolic systems and M.Sc degree in computer science.

- Mayer joined Google as the company's first female software engineer in 1999.
- She designed the search interface of Google's home page and was credited with increasing the number of daily searches from a few hundred thousand to more than a billion.
- The services and products which she contributed to were G mail, chrome, Google maps and Google earth.
- She became CEO and president of Yahoo! In 2012.
- She was listed in Forbes List of the world's 100 most powerful women in 2012, 2013, &2014.

She became the first women listed as No.1 on Fortune Magazine's annual list of top 40 business stars under 40 years old.

B. Kiran Bedi: a role model for Indian women

Kiran Bedi is the first Indian women join the Indian Police Service as an officer. She is a BA degree graduate in English, an MA in political science, a law degree and a PhD in social science from IIT Delhi.

- She became Inspector General of prisons in 1994.

- She turned two voluntary nongovernmental organizations, Navjyothi in 1988 and India Vision Foundation in 1994 which provide primary education and adult literacy programs, vocational training counseling services for women and drug rehabilitation for prisoners.
- In 2003, she became the first Indian to be appointed Police advisor to the Secretary – General of UN.
- She was appointed lieutenant governor of Pondicherry in 2016.

She served in a variety of roles including narcotics officer, anti-terrorist specialist and a administrator. She brought in several reforms and was instrumental in reducing the number of crimes against women.

C. Dr. Tessy Thomas: the Missile woman of India:

Dr. Tessy Thomas is the first woman scientist to head missile project in India. She has a B.Tech in electrical Engineering and M.E in Guided Missiles, MBA in operations management and PhD in Missile Guidance.

- Thomas joined DRDO in 1988 to the Agni Project.
- She is the first woman to lead a missile team in India.
- She was the project director of the Agni IV missile project tested in 2011 and for the Agni-V project tested in 2012.
- In 2018 she became the Director –General Aeronautical systems of DRDO.

She is a recipient of several awards for her work.

IX. CONCLUSION:

In view the study, it was observed that the notable women achievers had good education. In view of the crucial role of

quality education in development and higher education in particular, there is an urgent need to involve more women at administrative positions to reform the educational sector due to their courage and passion to drive reform. Leadership training is recommendable for more women to enhance their innate characteristics, multitasking, perseverance and willingness to share power or empower others. In addition, many more merit scholarships should be instituted by government and private organizations for women to pursue postgraduate studies to boost capacity for research and development.

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Gender Equality and Gender Sensitization

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I will start my paper by my self-written poem, 'Blessing or the Curse' on gender biasness observed in the society at every phase of life from life to death of a woman-

This was a blessing that she was to be born but she was cursed to be killed in the womb
Blessing was that she was the sister of five brothers

But she had to wait for food till all the five were fed

Blessing was that she was very sharp & intelligent

But unluckily she was not allowed to go to school

blessing was that she was a dedicated & smart worker

But she was harassed many times at workplace for it

Blessing was that she was so fair, beautiful & open

That's why she was victimized by horrible acid attack

Blessing was that she had enough courage to go alone

but as a curse for this she was raped again & again

Blessing was that she was married to a very rich guy

But the curse that she was expelled out for dowry

Blessing was that she was married to a strong fit boy

But the curse that she was beaten brutally every night

Blessing was that she had Father, brother, husband & son

But the curse was that her life was controlled by them

She was a blessing, a good mother & a good wife

but she yearned for a word of appreciation in her life

It was a curse that she could not live long & died

People are saying it, a blessing as her husband is alive.

Gender equality and gender sensitization are important topics that focus on promoting equal opportunities, rights, and treatment for all genders. Gender equality means to the idea of granting the similar rights, freedom, roles, and opportunities to individuals, regardless of their gender identity. It aims to eliminate discrimination and create a society where both men and women have equal access to education, employment, healthcare, and decision-making positions.

On the other hand, gender sensitization involves raising awareness and understanding about gender-related issues, stereotypes, biases, and inequalities. It aims to challenge and change traditional gender roles and norms that perpetuate discrimination and prejudice. Gender sensitization fosters empathy, respect, and inclusivity towards all genders, helping to create a more equitable and just society.

It requires collective efforts from individuals, Family, communities, institutions, and governments to foster a culture of respect, acceptance, and equal opportunities for all genders as raising awareness about gender sensitivity is really an important step towards promoting gender equality.

Here we will discuss some effective methods to raise this awareness:

As individuals, there are several ways to get involved in promoting gender equality:

1. Educate yourself: Learn about gender issues, feminist theories, and experiences of marginalized genders. Stay informed and updated on current discussions and debates related to gender equality.

2. Challenge stereotypes: Speak out against gender generalizations and biased behavior

when you encounter them. Encourage others to question and rethink traditional gender roles.

3. Support women's empowerment: Advocate for women's rights, equal pay, and access to education and health care. Support initiatives that empower women economically and politically.

4. Be an ally: Show support and solidarity towards marginalized genders. Hear their experiences, amplify their voices, and stand up against discrimination and oppression.

5. Join the conversation: Have open and honest discussions about gender equality with friends, family and colleagues. Share your knowledge, experiences and perspectives.

Remember, much more needs to be done to promote gender equality and raise awareness about gender sensitivity. Small actions and conversations can contribute to big social change.

As Family, there are several ways to get involved in promoting gender equality:

Family plays a vital role in the value development of a child's personality. It is believed that values are caught rather than taught. If a child gets an atmosphere of gender biasness at home, it will be difficult

for him to overcome this thought and admiring gender equality. Family can help developing gender sensitivity in children in following ways:

- Stop celebrating a boy's birth and regretting a girl's birth.
- By providing equal standards of upbringing.
- By providing a respectful and nonviolent relationship among parents.
- By providing equal opportunities for education and career.
- By providing freedom of expression.
- Teaching the children that both the genders are complimentary to each other none is higher or lower.

As community, there are several ways to get involved in promoting gender equality:

1. Education and training: Organize workshops, seminars and training programs to educate people about gender issues, stereotypes and biases. These sessions can provide insight on gender equality, patriarchy, intersectionality and the importance of inclusivity.

2. Media campaigns: Use different forms of media, such as social media, television, radio and print, to create impactful campaigns that

challenge gender discrepancies and promote equality. These campaigns can highlight the stories of gender equality champions, share success stories and educate the public about gender-related issues.

3 Community engagement: Engaging with local communities, NGOs and grassroots organizations to create awareness about gender sensitivity. Organize community dialogues, awareness campaigns and cultural events that promote discussion and engagement on gender equality.

4 Inclusive languages: Encourage the use of inclusive language that respects all genders. Promote the use of gender-neutral terms and challenge language that promotes stereotypes or discriminates against certain genders.

5. Collaboration and partnerships: Promote collaboration with organizations and platforms that focus on gender equality. Work together to create joint campaigns, programs and initiatives that amplify the message of gender sensitization.

As educational institutions, there are several ways to get involved in promoting gender equality:

It is important to include gender sensitivity in the curriculum of educational institutions to promote awareness and understanding of gender issues. Here are some ways educational institutions can do this effectively:

1. **Integrate gender studies:** Include gender studies and such courses as an integrated part of the curriculum at various levels of education. This can help students learn about historical perspective, gender theories, and the social impacts of gender inequality.
2. **Promote inclusive language:** Teach students the importance of using inclusive language that respects all genders. Encourage them to challenge and avoid using language that promotes stereotypes or discriminates against certain genders.
3. **Develop gender-inclusive policies:** Establish policies that promote gender equality within the organization. This includes developing protocols to address discrimination, harassment and unequal treatment on the basis of gender.
4. **Provide training for teachers:** Organize regular training and workshops for teachers

to increase their understanding of gender issues.

The Indian government has a pivot role in promoting gender equality and sensitization. Here are some key roles and initiatives:

1. **Legal Framework:** The Government of India has enacted several laws to protect women's rights and promote gender equality. These include the Protection of Women from Domestic Violence Act, Dowry Prohibition Act, Maternity Benefit Act and Sexual Harassment of Women at Workplace Act.
2. **Women Empowerment:** The government has implemented various schemes and programs aimed at empowering women economically, socially and politically. These initiatives include Beti Bachao Beti Padhao Abhiyan, Sukanya Samriddhi Yojana, Pradhan Mantri Matru Vandana Yojana and Mahila e-Haart platform to promote women entrepreneurs. Recently in September 2023, Amendment 106 called Nari Shakti Vandan Abhiyan is also called Constitution Bill. 2023 or Women's Reservation Bill 2023 has been passed by both the houses. According to this law, women will occupy 33 percent of the

directly elected seats in the Lok Sabha and State Legislative Assemblies.

3. Schemes by Government for Girls' Education and Skill Training: The Government has taken steps to ensure equal opportunities for education and skill training for girls and women. Programs like 'Sarva Shiksha Abhiyan', 'Rashtriya Madhyamik Shiksha Abhiyan' and Skill India aim to enhance educational opportunities and vocational skills for girls and women across the country. Besides above mentioned following are some major steps taken by the Government in this direction:

- Kasturba Gandhi Balika Vidyalaya (KGBV): to provide quality education to girls from disadvantaged backgrounds, particularly in rural areas.
- National Scheme of Incentive to Girls for Secondary Education (NSIGSE): This scheme provides financial incentives to encourage the enrollment and retention of girls in secondary education.
- Balika Samriddhi Yojana (BSY): BSY is a conditional cash transfer scheme that provides monetary assistance to families for promoting the enrollment and retention of the girl students in school. It also

emphasizes health and overall development.

- Udaan: Udaan is an initiative by the Ministry of Human Resource Development that aims to provide support and mentorship for girls from disadvantaged communities to pursue higher education and professional courses. It focuses on enhancing their employability and career prospects.
- Support for Tribal Education Program (STEP): STEP is a centrally-sponsored scheme that focuses on improving the quality of education among tribal children, including girls.
- Mahila Shakti Kendra (MSK): It is a scheme that focuses on capacity building, skill development, and empowerment of rural women, including young girls

4. Gender Sensitization: The government has launched campaigns and awareness programs to sensitize the society about gender issues. The "Beti Bachao, Beti Padhao" campaign, for example, focuses on addressing gender-biased sex selection, improving education opportunities for girls, and changing mindsets towards gender equality.

5. Reservation and Representation: The government has implemented reservation policies to ensure greater participation of

women in political and decision-making processes.

Here's an overview of the effectiveness of various Government schemes:

1. Increase in enrolment: Government programs such as Sarva Shiksha Abhiyan and Rashtriya Madhyamik Shiksha Abhiyan have contributed to a significant increase in the enrollment of girls in schools.

2. Literacy rates among women have improved over the years due to government intervention.

3. Vocational training given by government institutions is making girls financially independent.

4. The government has made efforts to increase access to higher education for girls through scholarships, reservation policies, and financial assistance programs. This has resulted in more women pursuing higher education and professional courses, contributing to their empowerment and career prospects.

Challenges and Gaps: Despite progress, challenges such as social barriers, cultural norms and economic barriers still create barriers to girls' education. Some remote areas lack adequate infrastructure, qualified teachers and safe learning environments for

girls. The school dropout rate of girls at secondary and tertiary levels is also a concern that needs attention.

Government efforts in ensuring equal access to education and skills training for girls and women in India have shown significant progress, but challenges still remain when it comes to women's safety or crimes against women.

The problem of gender-based violence is getting bad to worse every coming day. National Crime Record Bureau statistics records an increase by 7.1 percent in crimes against women since 2010 and almost similar condition is recorded for incidents of rape too.

Crimes like kidnapping and influencing increased by 19 percent. Many crimes such as "eve-teasing" or verbal and symbolic harassment and sexual remarks against women in public places such as streets, public transport, cinema halls and many rapes of minors and women in remote places and villages are often not recorded or are not recorded.

National Crime Records Bureau (NCRB) report 2022 indicates significant rise in crime against women in Nationwide.

Only 31% of the total cases are formally reported out of a dreadful rise of 40% in crimes against women and children.

Majority of the cases registered under cruelty by husband or in-laws (31.8%) followed by assault on women with an intention to disgrace her modesty (20.8%).

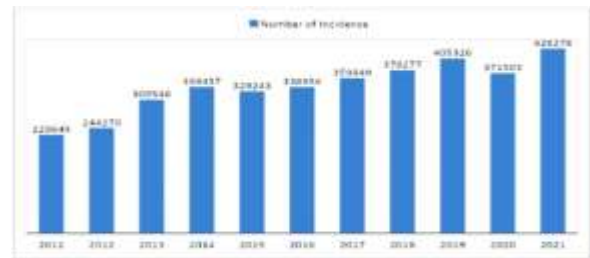
Uttar Pradesh with record 56083 registered cases of crimes against women seems least safe a place.

Delhi has been declared to be most unsafe Metro for women as for the third consecutive year it topped the list of crimes against women including domestic violence in all metropolitan cities.

In 2021, crimes against women rose by 40% over the previous year, with 1226 incidents of rape and 136 dowry deaths.

Whether in the mother's womb or in the world outside, the safety of women has always remained a topic of debate in the country. NCRB data of 2018 reveals, "3.78 lakh registered cases of crimes against women in India. Mathematically at least 43 such crimes per hour are being reported across the country."

Escalating Crimes against Women



Source: NCRB, 2021

However, the real situation is far worse because not every woman facing crime reports crimes owing to fear, pressure or social reasons.

As per NCRB report, "Although a decline of 4.8 % has been noticed in total of crime rate in 2022 but shamefully a total of 4,45,256 cases of crime were reported against women in 2022, marking a 4% increase from 2021."

Dominant categories of crime include 'Domestic violence by Husband or In-laws,' 'Kidnapping' 'Harassment at work place' and 'Assault or rape on Women.

Identifying the cause of the problem

In our society gender inequality is visible in many areas, including religion, media, politics, cultural norms and work place. This fundamental inequality creates a rationale for humiliation, control, abuse or anything more serious.

2. In this context, it becomes easier for a man to believe he has the right to be a master to control a woman, even if it requires violence.

3. Violence against woman is rooted in the belief that women deserve less social power and it is therefore acceptable to exert power over them. This mindset also derives many other forms of violence too.

4. There is no evidence that alcohol or mental illness causes men to be violent against women, because under this condition too men not misbehave with his boss.

In a book entitled “India Dishonored: Behind a Nation’s War on Women,” Sunny Hundal discusses various features of Indian culture that foster violence against women. He writes that India’s brand of religiosity and ingrained ideas about the “Honor of women” make it particularly difficult to secure the change in attitudes required to address violence against women.

Traditional Hindu beliefs hold that girls should be brought up to be good daughters and later serve as good wives. If women deviate from social norms they bring shame not only upon themselves but upon their family and community who respond by stigmatizing and punishing the deviant, often

employing violence as a means of social control.

88.9 percent of honor killings are perpetrated by family members. The culturally imposed obligation to keep her family together means that a woman is generally expected to put up with violence from family members.

Sex, in particular, is a topic whose cultural presence is marked by disturbing contradictions. Rashmee Roshan Lall writes, “Sex is on display everywhere from Bollywood films and TV advertisements to seedy roadside graffiti,” and the same time, “a powerful conservative morality limits acknowledgment to innuendo and suggestive word pictures created by Hindi film songs.”

As per author and activist Arundhati Roy violence against women- particularly rape- is a means of asserting power, particularly from the men’s perspective who feel that they lack power in other dimensions of their life such as their socioeconomic situation. “There is an anger and psychosis building up and women at the top, middle and the bottom are going to pay the price for it.”

“If you’re a woman in distress, the last thing you want to do is go to the police,” said

Vrinda Grover, a human rights lawyer based in New Delhi.

Actress and feminist Shabana Azmi said: "In the name of investigation the woman is verbally and mentally tortured all over again in this country."

What can be done?

At a fundamental and general level, what is needed, is a 'social revolution' for empowering women which must seek to reform "the mind-set and old thoughts of our society." Such change cannot be achieved in a courtroom or through mass protest. It requires instilling particular values to boys and girls, at home, at school and in the public sphere. Conceptions of defining genders and gender specific behaviors must be readjusted to place emphasis upon respect for the self and for others.

This change in mind-set must be accompanied by institutional reform. Antara Dev Sen, columnist for the Asian Age, points out that most victims of violent crimes are brutalized not just by their attacker but thereafter by the system they appeal to or live with. Women in India tend not to appeal to the legal and criminal system because, far from being a source of protection and

empowerment, they find that this system makes them even more vulnerable to abuse.

Despite these deep-rooted structures of patriarchy, there is plenty within the rich and historical culture of India that not only affirms the value and dignity of women but portrays them as leaders and warriors. Women can be found at the highest levels of almost every area of public life in India, from politics to academia to cinema.

The Govt. of India declared 2001 as the year of women empowerment.

Police and Administration need to be more sensitive

1. By creating and maintaining a feeling of security in the community, and as far as possible prevent conflicts and promote amity;
2. By aiding individual, who are in danger of physical harm to their person or property, and to provide necessary help and afford relief to people in distress situations;
3. By training, motivating and ensuring police personnel for gender sensitivity.
4. By guiding and assisting members of the public, particularly senior citizen and women.

5. By providing all requisite assistance to victims of crime ensure that they are given prompt medical aid if required, irrespective of medico-legal formalities, and facilities their compensation and other legal claims.
6. By preventing harassment of women in public places and public transport, including stalking, making objectionable gestures, signs, remarks or harassment caused in any way.

Even though India has gone through an economic turmoil that has affected millions of people

Women moving out of home and going to urban workplaces, deep attachment towards women

Sexual virtue is deeply ingrained in the Indian psyche. The foundational texts of Indian culture — the Ramayana and the Mahabharata, ancient Sanskrit epics — both revolve around the communal outrage that results from insults to a good woman's modesty.

Delays are endemic and courts are backlogged. More than 1204 rapes reported in New Delhi in year 2022 — far below the real number of such attacks.

Police needs to be sympathetic as common experience is that the personnel are rude, indifferent, abusive, threatening and extortionist.”

“It is an unfortunate reality that police are not trusted in this country,” said Nirmal K. Singh, a former joint director of the Central Bureau of Investigation.

Strict law enforcement, prompt action and justice without delay are some of the steps that need immediate attention and simultaneous efforts at social level are also expected to be done at the to achieve gender equality. “Sex ratio at birth in India is 898 females per 1000 males, 32% of the labour force is women, India still has a long way to go to achieve gender equality as per the latest NITI Aayog SDG Index.”

It is said that ‘Delay in justice is injustice.’

I will end up with a little poem pointing out loop holes of the system.

There was a quiet man

Married a quiet woman

Every evening at home

The man beat his wife

Hello, Hello, police

My husband beats me

Lady don't worry

Take your time to adjust

She went to her sister's home the man came
and beat her

Both women were afraid of

Hello, Hello, police

I am a woman

And I am afraid of

My husband means to kill me

Lady there is nothing we can do

Until he really hurts you

She decided to divorce

Settled into a new house

The man came there

Beat her badly

Hello, Hello, police I am a woman alone

And I am afraid

My ex-husband will kill me

Fear not lady he will be caught

But it was too late

When he was caught

The day before man

shot his quiet wife.

Conclusion:

In summary, this research paper has explored the gender equality and gender sensitization. It is important topics that focus on promoting equal opportunities, rights, and treatment for all genders.

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"From Strain to Success: Empowering Women through Effective Stress Management"

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Abstract:

This research investigates the multifaceted phenomenon of stress experienced by working women, aiming to provide a comprehensive understanding of its causes, effects, and coping mechanisms. The study seeks to unveil the challenges encountered by working women and to identify strategies for mitigating the adverse impact of stress on their health and overall well-being.

The research objectives are delineated into three main areas. Firstly, the study endeavors to identify the primary causes of stress among working women, encompassing workplace factors such as gender discrimination and workload, as well as personal factors such as caregiving responsibilities. Secondly, it delves into examining the physical and mental health effects of stress on women, including but not limited to cardiovascular problems, anxiety, and depression. Lastly, the research explores effective coping mechanisms for managing stress, encompassing self-care practices, social support networks, and professional interventions.

In essence, this research paper illuminates the intricate landscape of stress management among working women. By unraveling the causes and effects of stress and elucidating effective coping strategies, stakeholders are empowered to develop targeted interventions aimed at supporting women in navigating the complexities of the modern workforce.

Keywords: Women Empowerment, Stress Management

1. Introduction:

Studying stress among working women is crucial for several reasons. Firstly, women make up a significant portion of the workforce, and their well-being directly influences organizational productivity and societal health. Secondly, women often experience stressors unique to their gender, such as workplace discrimination, unequal pay, and caregiving responsibilities, which can have detrimental effects on their physical and mental health. Understanding these stressors is essential for developing targeted interventions to support women in managing stress and achieving work-life balance.

The objectives of the research are threefold: Firstly, to identify the primary causes of stress among working women, including workplace factors such as gender discrimination and workload, as well as personal factors such as caregiving responsibilities. Secondly, to examine the physical and mental health effects of stress on women, including cardiovascular problems, anxiety, and depression. Lastly, to explore effective coping mechanisms for managing stress, including self-care practices, social support networks, and professional interventions.

II. Understanding Stress:

Stress, in its simplest form, can be defined as the body's physiological response to external pressures or demands, often referred to as stressors. These stressors can range from everyday challenges like meeting deadlines to more significant life events such as financial difficulties or relationship

problems. Understanding stress involves recognizing its various forms and the physiological responses it triggers within the body. Types of Stress are enlisted as,

1. **Acute Stress:** Acute stress is the most common form of stress and is typically short-term in nature. It is often triggered by specific events or situations, such as giving a presentation or encountering a sudden obstacle. While acute stress can be intense, the body's stress response system is equipped to handle it, and symptoms usually subside once the stressor is removed.

2. **Episodic Acute Stress:** Episodic acute stress occurs when individuals experience frequent episodes of acute stress. These individuals may have a tendency to become easily stressed and overwhelmed by the demands of daily life. They may constantly worry about potential stressors and struggle to relax or unwind, leading to a cycle of repeated stress episodes.

3. **Chronic Stress:** Chronic stress is the most severe form of stress and occurs when individuals are exposed to prolonged and unrelenting stressors. This type of stress can stem from ongoing issues such as financial problems, relationship difficulties, or work-related pressures. Chronic stress takes a toll on both the body and mind, increasing the risk of serious health problems such as heart disease, depression, and autoimmune disorders. (Will Joel Friedman, 2013)

III. Causes of Stress among Working Women

Working women encounter a multitude of stressors arising from both their professional and personal lives. These stressors can have significant implications for their well-being and overall quality of life. Understanding the specific factors contributing to stress among working women is essential for developing targeted interventions to support them in managing stress and achieving work-life balance.

A. Workplace Factors:

1. **Gender Discrimination:** Despite progress in gender equality, women still face discrimination in the workplace, ranging from subtle biases to overt acts of sexism. This discrimination can manifest in various forms, including unequal treatment, limited career opportunities, and disparities in pay and promotions. The experience of gender discrimination can evoke feelings of frustration, anger, and insecurity among working women, contributing to elevated stress levels.

2. **Unequal Pay:** The persistent gender pay gap remains a significant source of stress for many working women. Despite performing comparable work to their male counterparts, women often earn less than men, leading to financial strain and feelings of undervaluation. The discrepancy in pay not only affects women's economic security but also undermines their sense of fairness and equality in the workplace, exacerbating stress levels.

3. **Workload and Time Pressure:** Many working women grapple with heavy workloads and tight deadlines, which can create feelings of overwhelm and anxiety. Balancing multiple responsibilities within limited timeframes can be challenging, leading to increased stress and pressure to perform. Additionally, unrealistic expectations from employers or colleagues may further intensify stress levels, contributing to burnout and exhaustion.

4. **Lack of Career Advancement Opportunities:** Women often face barriers to career advancement, such as limited access to leadership roles or opportunities for professional development. The perception of a "glass ceiling" can be demoralizing for working women, leading to feelings of stagnation and frustration. The lack of avenues for growth and progression within the workplace can contribute to heightened stress and dissatisfaction with one's career trajectory.

B. Family and Personal Factors:

1. **Caregiving Responsibilities:** Many working women shoulder significant caregiving responsibilities, including childcare, eldercare, or caring for family members with disabilities or chronic illnesses. Balancing these responsibilities with work obligations can be emotionally and physically taxing, leading to heightened stress levels and feelings of guilt or inadequacy.

2. **Work-Life Balance Challenges:** Achieving work-life balance can be particularly challenging for working women, who often face competing demands from their professional and personal lives. The pressure to excel in their careers while also fulfilling familial responsibilities can create feelings of stress and overwhelm, leading to difficulties in prioritizing self-care and relaxation.

3. **Societal Expectations:** Women are often subjected to societal expectations regarding their roles and responsibilities, both in the workplace and at home. The pressure to "have it all" and excel in every aspect of life can be overwhelming, leading to feelings of inadequacy and stress. Societal norms regarding gender roles and expectations may contribute to a sense of pressure and anxiety among working women, as they navigate conflicting demands and strive to meet societal standards.

In summary, the causes of stress among working women are multifaceted, stemming from workplace dynamics, family responsibilities, and societal expectations. Addressing these underlying factors is essential for creating supportive environments that enable working women to thrive both personally and professionally. By recognizing and mitigating the sources of stress, organizations and policymakers can foster greater well-being and resilience among working women. (Nair, 2023)

IV. Effects of Stress on Women Physically and Mentally

A. Physical Health Effects:

1. **Cardiovascular Health:** Chronic stress can significantly impact cardiovascular health, increasing the risk of hypertension, heart disease, and stroke. Prolonged activation of the body's stress response system leads to elevated blood pressure and inflammation, contributing to cardiovascular dysfunction over time.

2. **Immune System Function:** Stress has a profound effect on the immune system, compromising its ability to fight off infections and illnesses. Chronic stress suppresses immune function, making individuals more susceptible to viral infections, autoimmune disorders, and other immune-related health issues.

3. **Digestive Disorders:** Stress can disrupt digestive processes, leading to a range of gastrointestinal issues such as irritable bowel syndrome (IBS), acid reflux, and stomach ulcers. The body's stress response can alter gut motility, increase inflammation in the gastrointestinal tract, and exacerbate symptoms of pre-existing digestive conditions.

B. Mental Health Effects:

1. **Anxiety:** Stress is closely linked to anxiety disorders, with chronic stressors contributing to the development and exacerbation of anxiety symptoms. Persistent worry, nervousness, and restlessness are common manifestations of stress-related anxiety, impacting daily functioning and overall quality of life.

2. **Depression:** Chronic stress is a significant risk factor for depression, with prolonged exposure to stressors disrupting neurochemical balance in the brain. Persistent feelings of sadness, hopelessness, and loss of interest in activities can characterize stress-induced depression, leading to impaired social functioning and decreased productivity.

3. **Insomnia:** Stress disrupts sleep patterns and can contribute to the development of insomnia. Difficulty falling asleep, frequent awakenings during the night, and non-restorative sleep are common symptoms of stress-related sleep disturbances, further exacerbating daytime fatigue and impairing cognitive function.

4. **Burnout:** Chronic stress in the workplace can lead to burnout, a state of emotional, physical, and mental exhaustion. Burnout is characterized by feelings of cynicism, detachment, and a reduced sense of accomplishment, often resulting from prolonged exposure to high levels of job-related stress without adequate coping mechanisms or support.

In summary, stress can have profound effects on women's physical and mental health, impacting various bodily systems and contributing to the development of chronic health conditions and mental health disorders. Recognizing these effects is essential for implementing effective stress management strategies and promoting overall well-being among working women.(Habib Yaribeygi, 2017)

V. Coping Mechanisms for Managing Stress

A. Self-Care Practices:

1. **Exercise:** Physical activity is a powerful stress reliever, as it helps to reduce levels of stress hormones such as cortisol while releasing endorphins, the body's natural mood elevators. Regular exercise can improve overall physical health, enhance mood, and promote better sleep, all of which contribute to stress reduction. Activities such as walking, jogging, yoga, and dancing are effective forms of exercise that can be incorporated into a daily routine to manage stress effectively.

2. **Meditation and Mindfulness:** Mindfulness practices involve focusing one's attention on the present moment without judgment, which can help reduce stress and promote relaxation. Meditation, deep breathing exercises, and guided imagery are mindfulness techniques that can be practiced regularly to cultivate a sense of calm and inner peace. Research suggests that mindfulness-based stress reduction programs can significantly decrease stress levels and improve overall well-being.

3. **Healthy Eating Habits:** Proper nutrition plays a crucial role in stress management, as certain foods can either exacerbate or alleviate stress levels. Consuming a balanced diet rich in fruits, vegetables, whole grains, and lean proteins provides the necessary nutrients to support overall health and resilience to stress. Avoiding excessive caffeine, sugar, and processed foods can help stabilize mood and energy levels, reducing the likelihood of stress-related symptoms such as irritability and fatigue.

B. Social Support Networks:

1. **Family Support:** Strong social connections with family members can provide valuable emotional support during times of stress. Spending quality time with loved ones, engaging in meaningful conversations, and seeking comfort and advice from family members can help alleviate feelings of loneliness and isolation, fostering a sense of belonging and security.

2. **Peer Support:** Building supportive relationships with friends and colleagues can also serve as a buffer against stress. Peer support networks provide an opportunity to share experiences, offer mutual encouragement, and receive validation and empathy from others facing similar challenges. Engaging in social activities, joining clubs or community groups, and participating in team sports can help strengthen social connections and reduce feelings of stress and isolation.

3. **Support Groups:** Support groups offer a structured environment for individuals to connect with others who are experiencing similar stressors or life challenges. Whether for specific issues such as chronic illness, caregiving, or workplace stress, support groups provide a platform for sharing experiences, gaining insights, and learning coping strategies from peers in a non-judgmental setting. Participating in support groups can foster a sense of solidarity and empowerment, helping individuals feel less alone in their struggles and more capable of managing stress effectively.

C. Professional Interventions:

1. **Therapy and Counseling:** Seeking therapy or counseling from qualified mental health professionals can be an effective way to address underlying stressors, learn coping skills, and develop healthier ways of managing stress. Cognitive-behavioral therapy (CBT), mindfulness-based therapy, and stress management techniques are commonly used approaches to help individuals identify and change negative thought patterns, regulate emotions, and build resilience to stress.

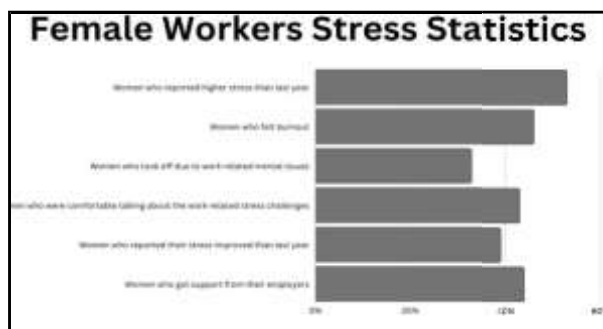
2. **Stress Management Programs:** Many organizations offer stress management programs and workshops to help employees learn practical strategies for coping with workplace stress. These programs may include education on stress awareness, relaxation techniques, time management skills, and assertiveness training. Participating in stress management programs can empower individuals to take proactive steps to reduce stress and improve their overall well-being.

3. **Relaxation Techniques:** Various relaxation techniques, such as progressive muscle relaxation, deep breathing exercises, and guided imagery, can promote physical and mental relaxation, reduce muscle tension, and alleviate symptoms of stress. Incorporating relaxation techniques into daily routines, such as taking short breaks to practice deep breathing or listening to calming music, can help individuals manage stress more effectively and enhance overall resilience.

In summary, coping mechanisms for managing stress encompass a range of self-care practices, social support networks, and professional interventions that empower individuals to effectively navigate life's challenges and promote overall well-being. By incorporating these strategies into their daily lives, working women can build resilience, reduce stress levels, and enhance their ability to thrive in both their personal and professional endeavors.(Sinha, 2014)

VI. Current Research and Trends in Stress Management

A. **Statistics on Stress among Working Women:**Understanding the prevalence and impact of stress among working women is crucial for developing effective interventions and support systems. Recent research provides valuable insights into the extent of stress experienced by women in the workforce. According to a study published in the *Journal of Occupational Health Psychology*, women report higher levels of work-related stress compared to men, with factors such as job insecurity, work-family conflict, and discrimination contributing to elevated stress levels. Additionally, research by the American Psychological Association (APA) reveals that women are more likely than men to report physical and emotional symptoms of stress, such as headaches, fatigue, and irritability. These statistics underscore the importance of addressing gender-specific stressors and implementing targeted interventions to support the well-being of working women.



As per a survey conducted by Deloitte where they covered 5,000 women across 10 countries (Australia, Brazil, Canada, China, Germany, India, Japan, South Africa, the United Kingdom, and the United States) and sectors between October 2022 and January 2023: 44% of Indian working women reported experiencing harassment or micro aggressions in the workplace over the past year.

53% of Indian working women faced higher levels of stress in 2022-23 (FY23) as compared to FY22, higher than their global counterparts

31% of Indian working women said they felt burnt out. The global average of women feeling burnt out was 28%. However, this was significantly lower than 46% of women feeling burnt out in FY22.

In line with the global trends, Indian women faced lower non-inclusive behaviors in FY23 as compared to FY22. These include being interrupted in meetings, being excluded from informal conversations, and having someone take credit for their work, among other things.

According to the World Health Organization, depression and anxiety affect over 264 million people worldwide. Women are disproportionately affected, with higher prevalence rates across the globe.

VII. Conclusions:

In summary, this research paper has explored the multifaceted nature of stress among working women, identifying various causes, effects, and

coping mechanisms. Key findings highlight the prevalence of stress among women in the workforce, with factors such as workplace discrimination, caregiving responsibilities, and societal expectations contributing to elevated stress levels. The physical and mental health effects of stress on women were also elucidated, underscoring the need for targeted interventions to support their well-being.

VIII. Future Scope:

While this research provides valuable insights into stress management among working women, there are several areas warranting further investigation. Future research should explore the effectiveness of specific interventions, such as mindfulness-based programs and workplace wellness initiatives, in reducing stress and improving outcomes for women in the workforce. Additionally, longitudinal studies can assess the long-term impact of stress on women's health and well-being over time.

In conclusion, stress management among working women is a complex and multifaceted issue that requires a holistic approach. By understanding the causes and effects of stress and implementing effective coping strategies, women can better navigate the challenges of the modern workplace and achieve greater balance and resilience in their lives. Moving forward, continued efforts to support working women's well-being through targeted interventions, policy changes, and ongoing research are essential for promoting gender equity and fostering healthier, more inclusive work environments.

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Empowering Women in STEM Education and Research: Overcoming Barriers and Promoting Inclusivity

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Abstract:

Gender equity in Science, Technology, Engineering, and Mathematics (STEM) fields remains a persistent challenge despite efforts to promote inclusivity and diversity. This research explores the barriers hindering women's participation and success in STEM education and research while identifying strategies for empowerment and fostering gender equity. Through a qualitative and quantitative analysis of women's experiences, perceptions, and attitudes in STEM, this study provides insights into the complex dynamics of gender inequality within these fields. The qualitative analysis reveals pervasive gender bias, societal stereotypes, and institutional barriers that women encounter in STEM education and research environments. Despite advancements in gender equality, women continue to face discrimination and obstacles that impede their advancement and success. However, the analysis also highlights the importance of supportive initiatives such as mentorship programs and the value of diversity in leadership roles for empowering women in STEM. Complementing the qualitative findings, the quantitative analysis provides quantitative data on the prevalence of gender bias, discrimination, and attitudes towards gender equity strategies among women in STEM. The results indicate widespread experiences of gender bias and discrimination, underscoring the need for proactive

measures to address these issues. Additionally, the data reveal strong support for initiatives promoting diversity, inclusivity, and increased funding for programs supporting women in STEM.

Keywords: Women in STEM, Gender Equity, Institutional Barriers, Mentorship Programs, Diversity in Leadership

1-INTRODUCTION :

In the realm of Science, Technology, Engineering, and Mathematics (STEM), the issue of gender equity remains a persistent challenge. Despite strides made towards inclusivity, women continue to encounter barriers hindering their full participation and success in STEM education and research. This research delves into the critical endeavor of empowering women in STEM fields by identifying and addressing these barriers while fostering inclusivity and gender equity.

1.1 Background and Context

The underrepresentation of women in STEM has deep historical roots and is perpetuated by societal stereotypes, institutional biases, and systemic barriers. According to research by Ceci and Williams (2011), cultural perceptions and socialization processes contribute to the gender gap in STEM fields, limiting opportunities for women to pursue and excel in these domains.

1.2 Statement of the Problem

Despite advancements in gender equality, women remain disproportionately underrepresented in STEM education and research. This lack of diversity not only limits the talent pool but also hampers innovation and creativity within these fields. As highlighted by Dasgupta and Stout (2014), pervasive stereotypes and implicit biases continue to impede women's progress in STEM, creating a formidable barrier to gender equity.

1.3 Research Objectives

This research aims to:

1. Identify the key barriers hindering women's participation and success in STEM education and research.
2. Explore effective strategies and interventions for empowering women in STEM fields.
3. Examine the role of inclusivity and diversity in fostering innovation and excellence in STEM.
4. Provide actionable recommendations for policymakers, educators, and stakeholders to promote gender equity in STEM education and research.

1.4 Significance of the Study

The significance of this study lies in its potential to address the gender disparity in STEM fields and enhance understanding of the factors influencing women's participation and advancement. By uncovering barriers and promoting effective strategies for empowerment, this research contributes to creating more inclusive and diverse STEM environments, as emphasized by Moss-Racusin et al. (2012).

1.5 Scope and Limitations

While this research endeavors to provide comprehensive insights into empowering women in STEM education and research, it is constrained by certain limitations. The study primarily focuses on women's experiences and perspectives within academic and research settings in developed countries. Additionally, factors such as sample size 15 women's from STEM field, geographical location Gulbarga University, Karnataka State, and available resources may impact the scope of the study.

1.6 Definition of Key Terms

- **STEM Education:** Education encompassing the disciplines of science, technology, engineering, and mathematics.
- **Gender Equity:** The fair treatment and opportunities for individuals of all genders, aiming to achieve parity and eliminate discrimination.
- **Inclusivity:** Creating environments that embrace diversity and ensure equal access and participation for all individuals, regardless of gender, race, ethnicity, or other characteristics.
- **Empowerment:** The process of enabling individuals to gain control over their lives, make informed decisions, and achieve their full potential. In this context, empowerment refers to initiatives and strategies aimed at enhancing women's participation and success in STEM fields.

2. Literature Review

2.1 The Status of Women in STEM Education and Research

Research indicates that women continue to be underrepresented in STEM fields, both in

education and research. According to studies by Hill et al. (2010) and National Science Foundation (NSF, 2019), women earn fewer degrees in STEM disciplines compared to men, and this disparity persists across various levels of education, from undergraduate to doctoral studies. Furthermore, women are less likely to pursue careers in STEM research and academia, leading to a lack of gender diversity in these fields.

2.2 Barriers Faced by Women in STEM:

Gender bias, stereotypes, and discrimination hinder women's advancement in STEM, creating hostile work environments (Diekmann et al., 2011; Clancy et al., 2016). Additionally, challenges such as work-life balance issues, limited mentorship, and resource access exacerbate their struggles.

2.3 Factors Contributing to Gender Disparities:

Cultural norms and institutional biases dissuade women from pursuing STEM careers (Cheryan et al., 2017; Dasgupta, 2013). Structural barriers within educational institutions create unequal opportunities for women, perpetuating gender disparities (Moss-Racusin et al., 2012).

2.4 Initiatives and Interventions for Promoting Gender Equity:

Efforts including mentorship programs, outreach initiatives, and diversity training aim to increase female representation in STEM (Blake-Beard et al., 2011; Stout et al., 2011). Proposed policies for family-friendly workplaces and flexible career paths seek to address work-life balance issues and support women's career advancement (Smith et al., 2014).

4. Research Methodology

4.1 Research Design

The research design for this study is qualitative, employing a combination of interviews, surveys, and literature reviews to explore the experiences, perspectives, and challenges faced by women in STEM education and research. Qualitative methods are well-suited for capturing the complexity and depth of individual experiences and understanding the social and cultural contexts that influence women's participation and success in STEM.

4.2 Participants

Participants for this study will include women currently enrolled in STEM programs at Gulbarga universities or actively engaged in STEM research. Efforts will be made to ensure diversity in participant demographics, including race, ethnicity, age, and disciplinary background, to capture a range of perspectives.

4.3 Data Collection Tool :

Procedure for Developing the Data Collection Tool:

1. Literature Review: An extensive review of existing literature on women in STEM, gender equity, and relevant theoretical frameworks was conducted. This informed the development of research objectives and guided the creation of the data collection tool.

2. Initial Questionnaire Drafting: Based on the research objectives, the initial questionnaire was drafted with a combination of descriptive and yes or no form questions for each objective. Questions

were ensured to be clear, concise, and directly related to the research objectives.

3. Expert Review: Feedback was sought from experts in the field of gender studies, STEM education, and survey design. Experts provided valuable insights into the relevance, clarity, and comprehensiveness of the questionnaire.

4. Pilot Study:

a. Participant Recruitment: A small sample of 7 women in STEM fields from Gulbarga University was selected to participate in the pilot study, ensuring diversity in participant demographics to capture a range of perspectives.

b. Data Collection: The initial questionnaire was administered to pilot study participants, and their responses were collected.

c. Feedback Collection: Interviews or focus group discussions were conducted with pilot study participants to gather feedback on the questionnaire, including clarity of questions, relevance of topics, and suggestions for improvement.

d. Questionnaire Revision: The questionnaire was revised based on the feedback received to address any identified issues or concerns, with adjustments made to improve clarity, eliminate ambiguity, and enhance the overall quality of the instrument.

5. Reliability Testing:

a. Internal Consistency: Cronbach's alpha coefficient was calculated for the questionnaire to assess the internal consistency of items measuring the same construct.

b. Test-Retest Reliability: The revised questionnaire was administered to a subset of participants at two different time points, and the correlation coefficient was

calculated to assess the stability of responses over time.

6. Validity Testing:

a. Content Validity: Ensured that questionnaire items adequately covered the intended constructs and objectives of the research, seeking feedback from experts to validate content relevance and representativeness.

7. Final Questionnaire Revision: Feedback from reliability and validity testing was incorporated to make final revisions to the questionnaire, ensuring all items were clear, relevant, and contributed to achieving the research objectives.

8. Ethical Review: Ethical approval was obtained from the relevant institutional review board (IRB) or ethics committee before proceeding with data collection.

Data collection involved semi-structured interviews, surveys, and literature reviews:

Semi-structured interviews: In-depth interviews were conducted with women in STEM to explore their experiences, challenges, and perceptions regarding gender equity in STEM education and research. Interviews were audio-recorded with participants' consent and transcribed for analysis.

Surveys: Surveys were administered to a larger sample of women in STEM to gather quantitative data on factors such as self-efficacy, perceived barriers, and experiences of discrimination. Survey data complemented the qualitative findings and provided a broader perspective on the issues under investigation.

Literature reviews: A comprehensive review of existing literature on women in STEM, gender equity initiatives, and theoretical frameworks was conducted to provide context and theoretical grounding for the study.

4.4 Data Analysis Techniques

Data analysis techniques included qualitative analysis, employing thematic

analysis to identify recurring themes in interview transcripts, revealing insights into women's experiences in STEM. Quantitative analysis involved percentage analysis of survey responses, indicating prevalence of experiences and attitudes, such as gender bias and beliefs about gender equity strategies. This combined approach provided comprehensive insights into gender equity in STEM.

Qualitative Data Analysis

Main Subheading of Question	Questions	Data Interpretation
Gender Bias and Discrimination	Have you ever experienced gender bias or discrimination in your STEM education or research environment?	Out of 15 respondents, 10 indicated experiencing gender bias or discrimination in their STEM education or research environments. This suggests a prevalent issue within these fields, highlighting the challenges faced by women due to gender-based discrimination.
Societal Stereotypes	Do you feel that societal stereotypes about gender roles have influenced your experiences in STEM?	12 out of 15 respondents reported that societal stereotypes about gender roles have influenced their experiences in STEM. This indicates that societal norms and expectations impact women's experiences in these fields, potentially contributing to barriers and challenges.
Institutional Barriers	Have you encountered institutional barriers, such as lack of support or resources, in your STEM pursuits?	8 out of 15 respondents stated encountering institutional barriers, such as lack of support or resources, in their STEM pursuits. This highlights systemic challenges within STEM environments that hinder women's advancement and success.
Mentorship and Support	Have you participated in any mentorship or support programs specifically designed for women in STEM?	13 out of 15 respondents have participated in mentorship or support programs specifically designed for women in STEM. This suggests a recognition of the importance of such initiatives in providing guidance and assistance to women in navigating their STEM careers.
Representation in Leadership	Do you believe that increasing representation of women in leadership positions within STEM organizations is an effective strategy for empowerment?	11 out of 15 respondents believe that increasing representation of women in leadership positions within STEM organizations is an effective strategy for empowerment. This underscores a desire for greater gender diversity in leadership roles to empower women in STEM fields.
Work-life Balance Initiatives	Have you observed any initiatives aimed at promoting work-life balance for women in STEM, such as flexible scheduling or family-friendly policies?	9 out of 15 respondents have observed initiatives aimed at promoting work-life balance for women in STEM. This indicates a recognition of the importance of supporting women in managing their professional and personal responsibilities within STEM environments.

Main Subheading of Question	Questions	Data Interpretation
Diversity and Innovation	Do you believe that diverse teams are more innovative and creative in problem-solving compared to homogeneous teams?	14 out of 15 respondents believe that diverse teams are more innovative and creative in problem-solving compared to homogeneous teams. This emphasizes the value of diversity in driving innovation within STEM fields.
Lack of Diversity Consequences	Have you witnessed instances where lack of diversity in STEM teams or organizations has resulted in missed opportunities or limited perspectives?	7 out of 15 respondents have witnessed instances where lack of diversity in STEM teams or organizations has resulted in missed opportunities or limited perspectives. This highlights the negative impact of homogeneity on outcomes within STEM environments.
Inclusivity and Respect	Do you think that fostering a culture of inclusivity and respect for diversity is essential for the long-term success of STEM fields?	12 out of 15 respondents believe that fostering a culture of inclusivity and respect for diversity is essential for the long-term success of STEM fields. This emphasizes the importance of creating an inclusive environment that values diverse perspectives for advancing STEM fields.
Affirmative Action	Do you believe that implementing affirmative action policies or quotas for women in STEM programs or research positions could promote gender equity?	9 out of 15 respondents believe that implementing affirmative action policies or quotas for women in STEM programs or research positions could promote gender equity. This suggests a recognition of the need for proactive measures to address gender imbalance in STEM.
Challenging Gender Stereotypes	Have you encountered educational resources or initiatives aimed at challenging gender stereotypes and biases in STEM?	10 out of 15 respondents have encountered educational resources or initiatives aimed at challenging gender stereotypes and biases in STEM. This indicates a growing awareness and effort to address ingrained biases within STEM fields.
Funding for Women in STEM	Do you think that increased funding for programs supporting women in STEM is necessary to achieve gender equity?	11 out of 15 respondents believe that increased funding for programs supporting women in STEM is necessary to achieve gender equity. This highlights the importance of financial investment to support initiatives aimed at advancing women in STEM fields.

Conclusion: The qualitative analysis of responses from 15 women in STEAM fields highlights persistent challenges of gender bias, societal stereotypes, and institutional barriers within STEM. While women face these obstacles, they also recognize the value of supportive initiatives like

mentorship programs and advocate for increased diversity in leadership and proactive measures such as affirmative action policies. Addressing these challenges and fostering inclusivity requires collective efforts from stakeholders to create equitable opportunities for women in STEM.

Quantitative Data Analysis:

Question	Yes Responses	No Responses
Have you ever experienced gender bias or discrimination in your STEM education or research environment?	10 (66.67%)	5 (33.33%)
Do you feel that societal stereotypes about gender roles have influenced your experiences in STEM?	12 (80%)	3 (20%)
Have you encountered institutional barriers, such as lack of support or resources, in your STEM pursuits?	8 (53.33%)	7 (46.67%)
Have you participated in any mentorship or support programs specifically designed for women in STEM?	13 (86.67%)	2 (13.33%)
Do you believe that increasing representation of women in leadership positions within STEM organizations is an effective strategy for empowerment?	11 (73.33%)	4 (26.67%)
Have you observed any initiatives aimed at promoting work-life balance for women in STEM, such as flexible scheduling or family-friendly policies?	9 (60%)	6 (40%)
Do you believe that diverse teams are more innovative and creative in problem-solving compared to homogeneous teams?	14 (93.33%)	1 (6.67%)
Have you witnessed instances where lack of diversity in STEM teams or organizations has resulted in missed opportunities or limited perspectives?	7 (46.67%)	8 (53.33%)
Do you think that fostering a culture of inclusivity and respect for diversity is essential for the long-term success of STEM fields?	12 (80%)	3 (20%)
Do you believe that implementing affirmative action policies or quotas for women in STEM programs or research positions could promote gender equity?	9 (60%)	6 (40%)
Have you encountered educational resources or initiatives aimed at challenging gender stereotypes and biases in STEM?	10 (66.67%)	5 (33.33%)
Do you think that increased funding for programs supporting women in STEM is necessary to achieve gender equity?	11 (73.33%)	4 (26.67%)

Data Interpretation :

The survey results reveal a mixed landscape regarding the experiences and perceptions of women in STEM fields. A significant majority, comprising 66.67%, reported experiencing gender bias or discrimination within their STEM education or research environments. This indicates a pervasive issue that continues to affect the experiences of women in these fields. Furthermore, a

notable 80% expressed feeling influenced by societal stereotypes about gender roles in their STEM experiences, underlining the broader societal challenges that impact women's participation in STEM. Institutional barriers also emerged as a concern, with 53.33% encountering obstacles such as lack of support or resources in their STEM pursuits.

However, amidst these challenges, there are indications of positive engagement and support for women in STEM. A substantial 86.67% reported participation in mentorship or support programs specifically designed for women, suggesting a recognition of the value of such initiatives in providing guidance and assistance to women in their STEM careers. Moreover, there is a widespread belief, with 73.33% agreement, in the effectiveness of increasing representation of women in leadership positions within STEM organizations as a strategy for empowerment. This underscores the importance of gender diversity in leadership roles for fostering inclusivity and supporting women's advancement in STEM.

Interestingly, the survey also highlighted the perceived benefits of diversity in problem-solving, with an overwhelming 93.33% believing that diverse teams are more innovative and creative compared to homogeneous teams. This emphasizes the value of diversity in driving innovation within STEM fields. However, concerns persist regarding the consequences of lack of diversity, as 46.67% reported witnessing instances where it resulted in missed opportunities or limited perspectives.

Despite the challenges, there is a strong consensus, with 80% agreement, on the importance of fostering a culture of inclusivity and respect for diversity for the long-term success of STEM fields. Additionally, there is support for proactive measures such as implementing affirmative action policies or quotas for women in STEM programs or research positions, with 60% endorsing these strategies for promoting gender equity. Similarly, 73.33% believe that increased funding for programs supporting women in STEM is necessary to achieve gender equity, highlighting the recognition of financial investment as

crucial for advancing gender equality in STEM.

In summary, while there are significant challenges and barriers faced by women in STEM, there is also a clear acknowledgment of the importance of supportive initiatives, diversity, and inclusivity for fostering gender equity and promoting success in STEM fields. Keywords: Women in STEM, Gender Equity, Institutional Barriers, Mentorship Programs, Diversity in Leadership

Conclusion:

The research abstract provides an overview of the study's objectives, methodology, and findings regarding empowering women in STEM fields. Through a combination of qualitative and quantitative data analysis techniques, the study explored the experiences, challenges, and perceptions of women in STEM education and research. The qualitative analysis revealed pervasive gender bias, societal stereotypes, and institutional barriers within STEM, underscoring the need for concerted efforts to address these challenges. However, the study also identified positive engagement and support for women in STEM, such as participation in mentorship programs and recognition of the value of diversity in leadership roles. The quantitative analysis further corroborated these findings, indicating widespread experiences of gender bias and discrimination but also highlighting support for proactive measures to promote gender equity in STEM. Overall, the research contributes to a deeper understanding of the factors influencing women's participation and success in STEM and provides actionable recommendations for fostering inclusivity and diversity in these fields.

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Conclusion:



Enhancing Women's Empowerment: The Role of Technology in Self-Defense and Safety in India

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Abstract

The development of the Android-based application aims to empower women through multi-language support, mental health support, real-time GPS tracking, location-based information sharing, self-defense tips and resources, SMS alerts for emergency situations, identification of nearby safe locations and access to helplines and support services. The objectives include Application development with an intuitive language selection; a multifaceted research methodology adopted for mental health support; GPS integration; content creation; SMS alert system; safe location identification and helpline integration. Android application will empower women in India by equipping them with a tool that enhances their safety and security. Users will be able to use GPS tracking, location sharing and SMS alerts to ensure their safety during distressing situations. The self-defense tips and resources section will raise awareness and educate users on how to protect themselves effectively. SMS alerts and access to helplines will ensure that women in distress receive immediate assistance and information. Users will be

able to identify safe locations and navigate to them swiftly in times of emergency. User feedback will be collected to improve the application, the development of the multi-language support and the Mental Health Support app. In contemporary India, where the safety and security of women have reached critical levels of concern, the proposed Android-based application represents a novel and innovative approach to addressing this issue with the development of a multi-language support app, aiming to enhance accessibility and cultural sensitivity for a broader user base and to bridge language barriers, offering for users of worldwide with a has the potential to reach a wide audience and bridge the gap in mental health support. The application's unique features, including real-time GPS tracking, location-based information sharing, self-defense resources and SMS alerts, make it a groundbreaking solution. Its ability to identify nearby safe locations and provide quick access to helplines and support services adds further novelty to the initiative.

Keywords: Empowering Women, Android-Based Application, GPS Tracking, Self-Defense, Information.

1. Introduction

Women's safety and security have emerged as a paramount concern in India, given the alarming number of crimes against women that persist unabated. The contemporary situation paints a grim picture, with women facing increasing dangers, harassment and teasing on a daily basis. Despite government initiatives and actions taken to combat these issues, the incidence of harassment and violence against women continues to rise. In the face of this escalating crisis, it becomes imperative to explore innovative solutions that empower women to protect themselves and seek immediate assistance when confronted with threats. One promising avenue for addressing this pressing issue is the development of self-defense applications that harness technology to facilitate swift and effective responses in critical situations. These applications often incorporate essential features such as GPS tracking, SMS alerts, identification of safe locations and the ability to send images and voice recordings to trusted contacts for immediate aid. Numerous research endeavors have delved into this field, yielding concepts such as wristbands and smartwatches aimed at enhancing women's safety. Despite the government's concerted efforts, the concerning reality remains that the incidence of crimes against women, including teasing, harassment and domestic violence, continues to plague our society and has become an unfortunate part of everyday life.

The safety and security of women in society have become a growing concern, as evidenced by the continued prevalence of incidents involving harassment, abuse and

sexual violence. Despite advances in technology and government initiatives, these issues persist, leaving a significant portion of the female population feeling vulnerable and apprehensive about their freedom and security. Recent statistics indicate that a substantial number of women, approximately 80%, live with a pervasive sense of insecurity, undermining their confidence and well-being. In light of this pressing problem, there is a compelling need to address the safety concerns of women and provide them with tools and resources to protect themselves and regain their sense of autonomy. To contribute to this endeavor, this research focuses on the development of a mobile application aimed at enhancing women's safety and dignity.

In today's rapidly evolving technological landscape, the widespread adoption of smartphones has opened up new avenues for enhancing personal security and addressing safety concerns. The alarming incidents that have shocked our nation into recognizing the urgent need for improved safety measures have led to the development of various mobile applications and smart devices designed to provide security solutions, particularly for women. However, a critical examination of the existing systems reveals that they often fall short in fully addressing the multifaceted challenges associated with women's safety.

Addressing this problem is essential not only for the well-being and security of women but also for fostering a society where all individuals can live free from fear and harassment. This research project endeavors to make a meaningful contribution to

women's safety by leveraging technology to create a robust, user-friendly mobile application that empowers women and their guardians to take proactive steps towards ensuring their security and respect in society.

In the context of this proposed research paper, we endeavor to develop an Android-based application that offers a comprehensive solution to the safety and security concerns faced by women. This system aims to address some of the challenges associated with existing solutions, including issues related to network connectivity, feasibility and real-time monitoring capabilities. The core functionalities of the application include GPS tracking, location-based alert messages, provision of self-defence tips and the automatic dispatch of SMS alerts when a woman is in danger. Furthermore, the application will facilitate immediate access to helpline services, consolidating essential safety resources within a single platform.

A cost-effective women's safety kit with a dual-purpose focus: self-defense and evidence collection in the event of violence was developed. This system combines a taser ring for incapacitating potential attackers and integrates discrete wearable accessories equipped with an integrated circuit (IC) to record real-time evidence, effectively creating a comprehensive solution for both offense and defense. Additionally, the system automatically sends alert messages to the victim's emergency contacts and the nearest police station, including geo-coordinates, to facilitate immediate assistance. The working of this

system continuously takes the picture of the incident, during the network failure the system will not work [1]. An Android application for women safety developed including two modules one to call police in emergency and another module laws for women are defined to make the women aware of laws. The developed application is able to call only the police in case of emergency [2]. To track the current location and send messages to the relatives in case of emergency a mobile application was developed. In this, application every time user has to make a call to the emergency list [3]. With the improvement of mobile technology for the safety of the women a help button included when the user opens the application. Every time user needs to open the application and press help button which is time consuming [4].

A machine learning model was developed for the identification of different attack on a woman with a jacket consisting of sensors. The implementation of the sensors and developed gadget helps in women empowerment. The limitation of this model is a link between the android app and jacket is always required. The women have to wear the jacket [5]. A women safety app developed with the features GPS positioning, voice recording, siren alerts and emergency helpline numbers with few taps on the screen to safeguard the women against crimes. Every time in this app user has to click different buttons for help [6]. When the crime occurs, the women can call the nearest contact using GPS by pressing the power button twice. In panic situation also the power button requires Pressing of button twice [7]. A self-help group platform

community was established to address the health issue of women to have an impact of wellbeing. Only the people who are in the group can have access to the platform for discussion [8].

A smart device designed for women's safety leverages a combination of sensors, including a pressure sensor, pulse-rate sensor and temperature sensor. This innovative system employs outlier detection techniques to automatically identify potential threats or emergencies. In times of distress, this advanced system autonomously detects and triggers alerts, ensuring the safety of women without requiring their active participation. In this system, it is imperative for the sensors to be consistently recognized [9]. A survey conducted to assess the current methodologies employed for position detection, communication transmission and sensor-based measurements of various physical body characteristics. As a result, this comprehensive survey serves as a valuable resource for developing the IOT based smart safety devices [10]. A women's safety self-defense device proposed, upon activation using a switch, autonomously transmits the sufferer's location to their family members. Further, concerned individuals have the option to request the victim's real-time location, which will be provided via SMS if the correct password is provided. Additionally, the device is equipped with a shock mechanism designed to deter potential attackers [11]. An Android app for enhancing safety, primarily designed for women during emergencies. The app can be triggered through voice commands or an SOS key, sending location alerts to user-

defined contacts at five-minute intervals until deactivated. The unfortunate reality is that many cases remain unsolved due to insufficient evidence. To address this issue, they incorporated an audio recording feature to help preserve crucial evidence. Additionally, the app offers continuous location tracking, making it a valuable tool for enhancing safety [12]. Sakhi-The Saviour" represents a noteworthy contribution to the field of women's safety in the form of an Android application. Sakhi-The Saviour has emerged as a practical tool to aid women during times of social insecurity. Its development underscores the importance of harnessing technology to provide women with practical, accessible and effective means of ensuring their security and well-being in a rapidly evolving social landscape. The app lacks the integration of IOT and to call the nearby services [13].

2. Methodology

2.1. Methodology for Application Functionality

The application encompasses various key functions to ensure user safety and convenience:

a. Registration: This function enables users to create an account within the application by providing the necessary credentials.

b. Login: Registered users can utilize this function to access the application's full range of features by logging into their accounts.

c. Add Relative: Users can use this function to designate emergency contacts who will receive alert messages in case the user encounters an emergency situation.

d. Helpline Numbers: This feature allows users to access and call different helplines, including those for the police, assistance for women in distress, domestic abuse support and ambulance services.

e. Triggers: The Trigger function empowers users to swiftly send alert messages to their designated emergency contact list. This can be activated either by pressing the volume up/down button or by shaking the device.

f. How to Use: This function provides users with guidance on how to effectively utilize the application, ensuring they are well-informed about its features and functionalities.

g. Logout: Users can use this function to securely log out of their accounts and exit the application when needed.

2.2. Methodology for User Characteristics

a. User: Within the context of the Women Safety Alert App, the "user" is an individual who registers and logs into the application. Their primary purpose is to utilize the app's features, specifically designed to enhance their personal safety. Users can swiftly communicate their distress situations to their chosen contacts by triggering an alert message through actions such as shaking the device or holding the volume up/down button for a few seconds. This user group mainly consists of individuals seeking enhanced personal security and a means of

quickly alerting their loved ones during emergencies.

b. Administrator: The "administrator" serves a crucial role in maintaining and managing the Women Safety Alert App. This role involves responsibilities such as updating the database of safe locations and ensuring that helpline numbers remain current and accurate. Administrators play a vital behind-the-scenes role in ensuring the functionality and relevance of the app for its user base. Their tasks include keeping the app's information up-to-date to enhance the effectiveness and reliability of the safety features it offers.

Architectural design for application is given in Figure 1.

2.3. Methodology for Assumptions and Dependencies

a. User Authentication: The successful use of the application is contingent upon users having both a username and password to log in securely.

b. GPS Requirement: To utilize the application's location-based features effectively, it is assumed that the device's GPS functionality must be enabled.

c. Device Specifications: Users are expected to possess a smartphone equipped with GPS and GSM capabilities to fully leverage the application's functionality.

d. User Proficiency: An assumption is made that user should possess basic familiarity with operating Android mobile

devices to effectively navigate and utilize the application's features.

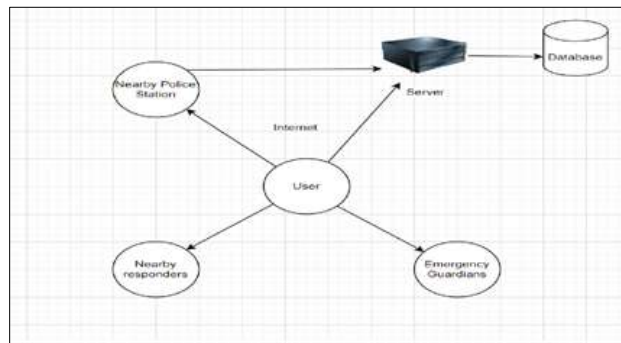


Figure 1. Architectural Design.

2.4 Methodology for Functional Requirements

a. User Registration: The system should allow users to register by providing necessary information.

b. Profile Management: Users should have the capability to update their profiles, including emergency contact information.

c. Emergency Alert Methods: Users must have two options to send emergency alerts: by holding the volume up/down button for a specified duration or by shaking the device.

d. Emergency Alert Functionality: In an emergency situation, the system should

promptly send an alert message to the designated emergency contacts. This message should include predefined text seeking help and the user's precise location (latitude and longitude).

e. Safe Location Finder: The system should assist users in locating safe areas nearby if they feel threatened or unsafe, providing navigation support.

f. Emergency Helpline Access: Users should be able to access and call emergency helplines quickly and easily.

g. User-Friendly Interface: The system should feature a simple and intuitive user interface to streamline the user experience.

h. Real-Time Location Tracking: The system should offer real-time location tracking for users to enhance their safety and the effectiveness of emergency responses.

i. Efficiency and Usability: The system should be designed for smooth functionality and efficiency, ensuring that users can easily grasp and use its features without unnecessary complications.

Workflow of application is given in Figure 2. for the module.

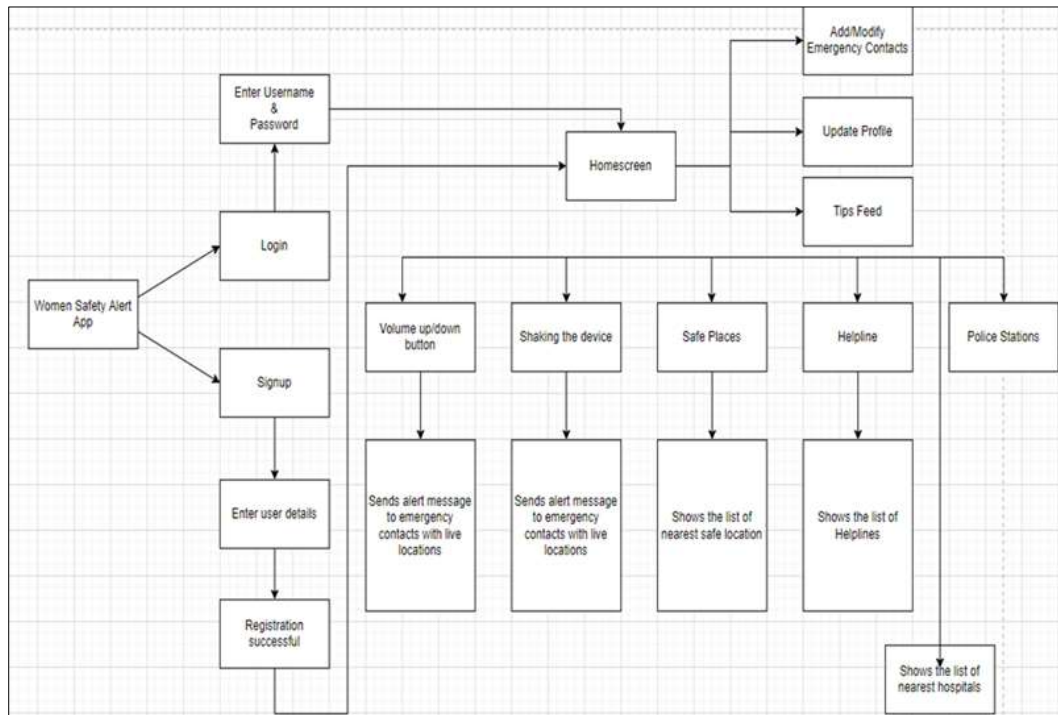


Figure 2. Workflow Design.

The development of the multi-language support app is structured into several key phases

Needs Assessment: We conducted a comprehensive analysis to identify the languages with the highest demand and prioritized them for inclusion in the app. This involved studying user demographics and language preferences.

Content Localization: We collaborated with linguistic experts and cultural advisors to ensure that the app's content is not only translated but also culturally adapted to resonate with users from different backgrounds.

Translation Services: High-quality translation services were employed,

including both machine and human translations, to maintain linguistic accuracy and cultural nuances.

To assess the impact and effectiveness of the "Mental Health Support" app, a multifaceted research methodology was adopted. This methodology includes user surveys, in-app analytics and qualitative interviews with app users. The research is designed to examine the user experience, gauge user satisfaction and assess the app's influence on users' mental well-being.

3. Results and Discussion

The innovation of a budget-friendly women's safety kit, designed for both self-

defense and evidence collection, represents a significant leap forward in women's safety technology. However, it falls short in comparison to the more advanced system, lacking crucial features like automatic alerts and seamless evidence gathering. Unlike the developed system, this kit necessitates users to manually contact their emergency contacts, potentially leading to delays and decreased reliability. In certain scenarios, users must navigate through multiple buttons to seek help, which may prove inefficient during a crisis. The existing apps also fail to integrate all the essential features found in the more advanced system, leaving a gap in meeting the comprehensive safety requirements for women.

Implementation is the crucial phase in transforming a new or updated system design into a fully operational one. The primary objective is to deploy the tested new or upgraded system while minimizing costs, risks and disruptions to the organization's operations. Ensuring the seamless functioning of the organization during this transition is a fundamental aspect of the implementation process. To achieve effective control when introducing any new system, it is essential to employ well-planned testing procedures for each new program. Before employing production data for testing, preliminary tests using test data, created on the old system, should be transferred to the new system to conduct initial program testing. Another critical factor considered during the implementation phase is the procurement of hardware and software. Once the software is developed and testing is completed, the process involves making the newly designed system

fully operational and ensuring its reliability in performance.

The Women Safety Alert App is an Android application designed to assist women in distress or emergency situations. The home page of the app is given in Figure 3. It empowers users to swiftly seek help by triggering an alert to their pre-defined emergency contacts, whom they've designated when installing the app. This alert can be activated by either shaking the device or holding down the volume up/down button for a few seconds. This is given in Figure 4 for activating trigger. Upon activation, the app sends an alert message containing the user's current location, obtained through latitude and longitude coordinates. Additionally, the app offers features such as locating nearby safe zones and providing navigation to reach them safely. Furthermore, it allows users to access important helplines including the police, women in distress support, domestic abuse assistance and ambulance services with ease. The helplines are given in Figure 5. A multi-language support has the potential to transform the way people interact across different language with the app as given in Figure 6.



Figure 3. Home page



Figure 4. Activating app to send alert



Figure 5. Helpline



Figure 6. Language selection

4. Conclusion

The culmination of this application marks a pivotal moment in the ongoing efforts to prioritize the safety and well-being of women facing emergency situations. In pursuit of this goal, our novel approach of application is to create not just a sense of safety but with an option to transform the

way people interact across different language with the app and as a promising tool in the domain of mental health and emotional well-being for entire ecosystem of security and we are proud to have made substantial strides in this direction.

In envisioning and crafting this system, we sought to diminish the risks faced by women and contribute to the realization of a society that is not only safer but also more compassionate. In times of danger, this system serves as an invaluable companion, facilitating swift responses and reducing vulnerability. Its impact is not limited to the immediate assistance it provides but extends to the broader societal context, wherein safety becomes a collective responsibility.

This feature empowers users to capture photos in emergency situations, serving as invaluable evidence for any subsequent legal or investigative proceedings. Visual evidence can often provide critical context and clarity during emergency situations. It can be used to document injuries, damage, or any potential threats, aiding both users and authorities in understanding the situation better.

In future linking the safety app with popular ride-hailing and food delivery services like Ola and Zomato can turn nearby cab drivers and delivery agents into potential responders in emergency situations. Leveraging the existing infrastructure of such apps allows for a wider network of potential helpers. Cab drivers and delivery agents, who are often mobile and in proximity, can quickly respond to distress calls, offering immediate assistance until professional help arrives.

The application can be enhanced integrating with IOT and AI features for providing security to the women. In future this app will serve as a model for cross-cultural communication and collaboration among diverse communities. The Mental Health Support represents a significant step toward providing accessible and inclusive mental health support in the digital age, contributing to the overall safety and empowerment of its users.

These enhancements underscore the application's commitment to providing comprehensive safety solutions for users in their moments of need, ultimately making our communities safer and more secure.

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Role of Women in Indian knowledge system

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Abstract:

Divinity in human beings in his complete journey of life and true responsibility towards the society i.e. unity in society "Vasudhaiva Kutumbakam" carries the role of women to a great extent. The fine tuned correlation of sanskar and sanskriti based on the indian knowledge system are briefed herewith.

Keywords: Sanskar, Sanskriti, Emotions, feelings

Introduction:

The importance of exchange of knowledge experienced in the ancient culture of India is described in great detail in the Upanishads. Veda is Apaurusheya. The knowledge of Vedas is found in experience. We get to see the same experiences through the Upanishads in the Guru-Shishya education system. Under the Indian knowledge tradition, there are many scriptures, arts, music, ayurveda, medicine, tantra system etc. described in Vedas, Upanishads, Smriti, Shruti, Philosophies, Puranas, Samhita etc. Referring to these important aspects, how great is the contribution of women in ancient culture. How many roles does a woman play in her lifetime? Along with this, it has been described how the complete maintenance of even the smallest activities of the society happens with the contribution of a mother.

Brief on Women candidature in Indian Knowledge System :

It is also said in the Upanishads, "The fulfillment of the entire void of creation is considered to be done by women." [1]. Great sages of vedas in ancient india are briefed here[2];

Mother Goddess Aditi was a great scholar of the four Vedas. She was the daughter of Daksh Prajapati and wife of Maharishi Kashyap. She gave such a good education of Vedas and scriptures to his son Indra that it was not possible to compare that knowledge with anyone, that is why Indra became the ruler of the three worlds on the

strength of his knowledge. Aditi is considered immortal.

Devsamarajni Shachi was the wife of Indra, she was a great scholar of the Vedas. Shachi did research on many hymns of Rigveda. Shachi devi is considered the best among devoted women. Shachi is also called Indrani. Apart from being a scholar, she was also a great moralist. She regained the empire and position lost by her husband only on the strength of knowledge.

Sati Shatarupa was the wife of Swayambhuva Manu. She was a great scholar of the four Vedas. After the flood, creation started again from Manu and Shatarupa. She was also a great scholar and practitioner of Yogashastra.

Shakalya Devi was the wife of Maharaj Ashwapati. Once Ashwapati Maharaj told the sages that he wants the election of girls also in the nation. Who is such a great scholar of Vedas in the country who can impart education of Vedas to the goddesses? The sages told that there is no one more knowledgeable of the Vedas than your wife. So the king sent his wife Shakalya Devi into exile, so that she could live in the forests and establish a Gurukul for girls, build an ashram and the girls of the country could get education there. He did the same. Shakalya Devi is the first scholar who established schools for girls.

Sandhya was a great scholar of Vedas. She defeated Maharishi Medhatithi in a debate. She was the first woman priest to perform the Yagya.

Vidushi Arundhati was the wife of Brahmarishi Vashishtha ji. She was also a great scholar of Vedas. On the basis of her knowledge, she is the only scholar who got a proud place as a sage's wife in the Saptarishi Mandal. She used to participate in the Yagya of Maharishi Medhatithi from childhood and after the Yagya, she used to debate on the topics of Vedas.

Brahmavadini Ghosha was the daughter of Kakshivan. She was suffering from leprosy, but for its treatment, she studied Vedas and Ayurveda

deeply and despite being a leper, she became a scholar and a Brahmadini. Ashwinkumars treated her and she also became the world beauty of her time.

Brahmadini Vishwavara was a great scholar who researched the Vedas. It was she who made the simple transformation of the twenty-eighth Sukta Shadraka of the second Anuvaka of the fifth Mandal of Rigveda. This scholar, born in the lineage of Atri Maharishi, had attained the status of sage on the basis of knowledge of Vedas.

Brahmadini Apala was also born in the lineage of Atri Muni. Apala also suffered from leprosy, due to which her husband threw her out of the house. She went to her father's house and started researching Ayurveda. She was the one who discovered "Somras". Indra Dev obtained Somras from her and provided medical help in her recovery. Through Ayurvedic treatment, she became Vishwasundari and got involved in the research of Vedas. She compiled verses 1 to 7 of the 91st Sukta of the Eighth Mandal of the Rigveda.

Vidushi Tapati was the daughter of Aditya and younger sister of Savitri. In those days, there was no one more beautiful than her in Devlok, Daityalok, Gandharvalok and Nagalok. She was also a great scholar of Vedas. Impressed by her beauty and qualities, Maharaja Samvaran of Ayodhya married her. Tapati herself taught the Vedas to her son Kuru, in whose name the Kurukula was established.

Brahmadini was the daughter of sage Vak Abhrin. She was a famous Brahmagyanini. She did research on food grains and in her era, for advanced farming in her era, she produced new seeds for farming based on the Vedas and gave them to the farmers through research.

Brahmadini Romsha was the daughter of Brihaspati and the wife of Bhavabhavya. She had hair all over her body, because of this her husband did not like her. But she propagated knowledge, propagated such things which develop the wisdom of women power.

Brahmadini Gargi's father's name was Vachaknu, due to which she is also called Vachaknavi. Due to her birth in Garga Gotra, she is called Gargi. She was a great scholar of Veda scriptures. She had defeated even the great scholar of her era, Maharish Yajnavalkya, in debates.

Vidushi Maitreyi was the wife of Maharishi Yajnavalkya. Sitting at the feet of her husband, she studied the Vedas deeply. The title of "Pati Parmeshwar" became famous in the world because of this, because she had received knowledge from

her husband and then established Kanya Gurukul to propagate that knowledge.

Vidushi Sulabha was the greatest scholar of Maharaj Janak's kingdom. She defeated King Janak in a debate and established a school for women's education.

Vidushi Lopamudra was the wife of Maharishi Agastya. She was the daughter of the king of Vidarbha country. Despite being born in a royal family, this simple life was a supporter of high thoughts, that is why her husband had told her "तु तो अहं मि म कायण तव वृत्तेन शोभने," - i.e. Kalyani, I am very satisfied with you due to your good conduct. She was such a great scholar that, once she taught many things of knowledge to Ram, Sita and Lakshman in her ashram.

Vidushi Ushij was the wife of Mamta's son Dirghatama Rishi. Maharishi Kakshivan was her son. Her second son Durgashrava was a great sage. It was she who imparted the education of Vedas to her sons. Research was done on mantras 116 to 121 of the first chapter of Rigveda.

Vidushi Pratitheyi was the wife of Maharishi Dadhichi. She was the daughter of the king of Vidarbha and sister of Lopamudra. Her son Pippallad has become a great scholar.

Mamta was the mother of the sage Dirghatama. She was a great scholar and possessed of theological knowledge. Vidushi Bhamati was the wife of Vachaspati Mishra. She was a great scholar of Vedas.

Vidyotma- After being defeated by the wise Vidyotma, the pundits had challenged the scriptures by calling a fool a silent guru. By giving different meanings of two fingers and fist etc., the pundits declared Vidyottama defeated and forced him to marry a fool. Vidyotama, hearing the camel hooting from her husband, chased him out of the house at night and closed the door. "अनावतकपाटं दवारं देहि." A few years later, on a dark night, my husband called out. Vidyottama opened the door and said, "अि त किञ्चित् वाक् विशेषः।" Of the above three words of his wife, the husband composed the epic poem Asti to Kumar, "अ यु र यां दिश देवता मां" Meghdoot Khandakavya from Kashchit, "किञ्च काङ्ताविरहगणना" and Raghuvansh epic from Vak Vishesh "वागथा विव संप तौ". The author of these three classics was the same fool of the past, the world's best Sanskrit litterateur, the immortal great poet Kalidas.

Madālasā, an ancient queen married to King Kuvalayāśva, was a yogini and a highly spiritually accomplished person. She had made her first three children saints by singing to them spiritual lullabies while rocking them to sleep. They then left for the forest to practice further austerities.

Mother Shakuntala also preached bravery to her five year old son Bharat.

Knowledge:

As said in shreemad bhagvad geeta[3];

न हि ऋणनेन स७शं प७व ममह विदयते। त वयं योगसंस्सदधः कालेना मम विद्वदति॥४.३८॥

Here knowledge has been mentioned first. Knowledge is found in experience. Knowledge is the experience of the set of emotions that arise in one's own mind and intellect according to all types of time and place situations in the visible world. To attain knowledge, it is necessary to have many aspects within a human being. The functioning of all the organs like diet, thoughts, behavior, acceptance etc. depends on the sanskars of the human being. These rituals/dharmas continue to be performed from the mother's conception till the end of her life. Garbh Sanskar explains the same at a very deep level. As starts from Conception , Pumsavana, Seemantonnayan, Jatakarma, Namkaran, Nishkraman, Annaprashan, Mundan, Karnvedhan, Vidyarambh, Upanayan, Vedarambh Keshant, Samavartan, Marriage till Funeral rites.

Here, many subtle organs keep developing in the human mother's body from conception to upbringing etc. The child will get nutrition exactly as the mother eats. The same thoughts and behavior as the mother will remain and the same thing happens inside the child. Mother loves her child very much. She is the first teacher. That's why it is said first "Matri Devo Bhava". By saying 'Matri Devo Bhava', the Upanishads described the mother as supreme, whereas in Manusmriti, the mother has been described as a hundred times greater than the father. Further sanskars contributes towards the says of geeta;

दधावाँलभते ऋणं त परः संयतेिद्वि५यः। ऋणं ल वा परां शािद्वितमचरेणाधिगच्छति॥४.३९॥

By doing devotion with knowledge, faith is attained and when faith is strong, faith is built. This faith provides inner strength to every soul. Increases self-confidence. By maintaining patience continuously, one makes the best of all activities in life. This is the skill of life. This is to be self-reliant.

The 'Sanskar', activities of life & myth of reincarnation can be seen in the sutras described in

Patanjali Yoga Darshan[4].

सति मले तदवपाको जा यायुभ गाः ॥ २.१३ ॥

यु थाननरोधसं कारयोरभभव ादभा वौ निरोध णच ाद्वयो निरोधप रणामः ॥ ३.९ ॥

The same movement, cessation and emergence of sanskars are implied from the words of Geeta.

ऋणं ऋयेयं प रऋतां विधा कमच

ोदना। करणं कम कतंति विधः कमस

ं हः॥१८.१८॥

Due to these sanskars, the activities of life keep happening throughout the lifetime of a human being. It is through the sanskars that the human being continues to perform actions when the instincts flow in his mind. These actions again produce subtle karmic results.

In all the above mentioned kriyaman dharma, emotions and feelings have utmost importance. As is the feeling, the same kind of instincts arise from mind, body and speech. Behavior in the visible world happens due to one's own instincts. The underlying meaning is that all human beings have active life through sanskars.

Role of Women at Gurukul Shiksha- Human Values : The ancient Indian Gurukul education system was capable of creating an ideal social system with an ideal personality. Besides, the contribution of motherhood was also very important. Due to the mother's love and affection, the seeds of many divine values were sown in the children. Such divine knowledge was acquired in gurukul. The same was backbone of "Vasudhaiva Kutumbakam".

Conclusion:

Divinity in the human lifestyle is not far longer, when ancient culture regains and sanskars fill the gaps to nurture

sanskriti. As manusmriti says

"य नाय

तु प यद्वते रमद्वते त देवताः। यैता तु न प

यद्वते सवा त फलाः यः॥",[5]

that's exactly worship towards supreme power. The tradition of worshiping Mother Saraswati on Vasant Panchami and paying homage to Mother Goddess by doing Matri Puja during Navratri is very old.

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Gender-based violence in the Video Games

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Introduction

Digital violence against women is a pressing and pervasive issue that shows no signs of abating. According to a report by The Economist Intelligence Unit, 38% of women have personally experienced online violence, and 85% of women who are active online have witnessed digital violence against other women. This phenomenon poses a serious threat to the rights and well-being of women in the online world, particularly in the online gaming communities.

Online games is a estimated 320 billion industry and is known have a hostile and abusive environment for women players, who are subjected to sexual remarks, trolling, doxing, and other forms of harassment by male-dominated gamers. This not only affects the safety and dignity of women, but also discourages their participation and representation in the gaming industry and culture, undermining the goal of gender

equality. This thesis aims to explore the causes, consequences, and solutions of digital violence against women in online games, and to propose recommendations for enhancing women's online safety and empowerment.

Abstract

This study investigates digital violence against women in online gaming communities, focusing on first-person shooter (FPS) games like Valorant. Through online surveys, social media analysis, and qualitative interviews, the research explores the experiences of female gamers and the factors contributing to the hostile environment they face.

The findings reveal that women players encounter frequent and severe harassment, including verbal abuse, unsolicited messages, and even threats of violence. This negatively impacts their enjoyment, performance, and sense of security, often leading them to adopt

coping strategies like hiding their gender identity.

The research argues that the lack of female representation and the intersection of gender with other social factors contribute to this issue. It emphasizes the need for alternative solutions that address the root causes without compromising user privacy.

Therefore, the study proposes a multi-faceted approach to foster a more inclusive and respectful gaming environment. This includes increasing the representation of female characters and developers, establishing a community of experienced women leaders, implementing rigorous verification methods, providing in-game education on online harassment, and promoting game development as a viable career option.

By implementing these solutions, the gaming community can create a safer and more welcoming space for all players, fostering women's empowerment and participation in the online gaming world.

MATERIALS AND METHODS

Online Surveys: My research project focused on the experiences of women players in online games, especially in first-person shooter (FPS) games such as Valorant. I conducted online surveys and interviews with female gamers to understand their

motivations, challenges, and coping strategies in gaming environments.

Social Media Analysis: I also analyzed the social media pages related to the FPS games and their fan communities. I found that the content featuring female players attracted more attention and comments, indicating that women's presence in these games was still perceived as unusual or exceptional. Moreover, some of the memes and jokes about female players were sexist and derogatory, implying that women did not belong in gaming spaces. A common stereotype that women should “stay in the kitchen” and not play games was prevalent in many of these posts.

Quantitative Analysis: I conducted a quantitative analysis of the survey responses from women in online gaming. I identified the common problems, comments, and situations that they encountered in this space. I also analyzed a large amount of content from various sources to find out the reasons behind the hostile environment for women gamers. My analysis revealed some interesting and alarming patterns that I will discuss in the next sections.

Qualitative Analysis: I conducted case study interviews with trusted and regular

members of various gaming communities to explore their perspectives and experiences on gaming-related issues. I also drew on my own first-hand experience as a gamer for over five years, which helped me to relate to the respondents and understand their views better. I followed a thematic approach to analyze the qualitative data, which involved identifying recurring themes that emerged from the interviews and the literature review. I then discussed the findings and implications of the themes in relation to the research questions and objectives.

Data

Fig no.1

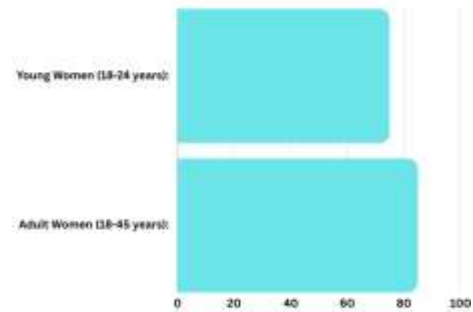
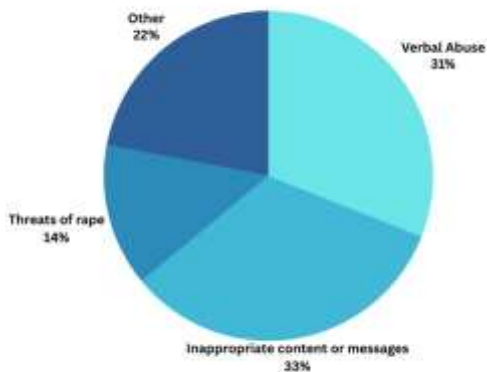


Fig no.2

Figure1): In the dystopian world of online gaming, an overwhelming wave of abuse and discrimination has been unleashed upon female gamers. A staggering 31% have been subjected to a verbal onslaught from their male counterparts during multiplayer games, their gaming experience marred by a barrage of insults and derogatory comments.

But the horror doesn't stop there. An even more alarming 33% have been the recipients of unsolicited and inappropriate content or messages, their inboxes flooded with material that has no place in a respectful society.

And the most chilling statistic of all? A terrifying 14% have been on the receiving end of threats of sexual violence. This is not just a statistic, it's a stark reminder of the dark underbelly of the gaming world, a world where the lines between virtual and

real-life violence are becoming increasingly blurred.

These numbers are not just percentages, they represent real women, real gamers who are being subjected to this horrifying reality every time they log on to play. It's a grim picture of a gaming culture that urgently needs to change.

Figure 2): The issue of online harassment is a significant concern in the gaming community, particularly for women.

In the United Kingdom, a survey found that a staggering 75% of female gamers aged between 18 and 24 have experienced abuse online. This statistic highlights the prevalence of toxic behavior in online gaming platforms and the urgent need for more robust measures to protect young women who engage in these virtual spaces. The problem extends beyond this age group, with adult women also facing similar challenges. A report by the Anti-Defamation League and Fair Play Alliance in 2022 revealed that 83% of adults, equivalent to five in six individuals, between the ages of 18 and 45 have experienced bullying in online multiplayer games.

These figures underscore the pervasive nature of online harassment in gaming, affecting a broad demographic of players. It calls for concerted efforts from game developers, platform providers, and the

community at large to foster a more inclusive and respectful gaming environment.

RESULT AND DISCUSSION

This research assessed the reasons behind the unfair treatment faced by women in the digital space of gaming. It also measured the impacts of such behaviour on their mental health. It underlined the question of whether women's rights are protected in unmonitored spaces like video game lobbies and what are the ways to protect them.

The results of the online survey showed that most women players faced frequent and severe harassment from other players, which negatively affected their enjoyment and performance. Many women players resorted to hiding their gender identity by using masculine or neutral usernames and avoiding voice chat. This research highlights the need for more inclusive and respectful gaming culture and policies that can prevent and address online gender-based violence. It also showed the unfairness of other players in terms of harassment of women, which in other real life cases would result in a strict action by law or the authorities.

The lack of female interaction in real life was found to be a factor that fuels the hatred against women among some online gamers. This research adds to the growing body of literature on how gender, race, and class

intersect in the online gaming space and the challenges and opportunities for fostering women's empowerment and participation.

To address this problem, the game and platform developers could use strict supervision on the communication that occurs in their products, but this might compromise the privacy of the users. Therefore, some alternative solutions that I identified through my research are:

1. Increasing the representation of female characters in games and other male-dominated platforms.
2. Creating a community of experienced women leaders who can provide regular feedback to the game and platform developers from a feminine perspective.
3. Implementing rigorous verification methods for the players.
4. Providing in-game education for players on the consequences of harassment, doxing, and other forms of online abuse on mental health .
5. Promoting game development and content creation as viable career opportunities for students by educational institutions .

These solutions could help to reduce the gender bias and hostility in the online gaming environment and create a more inclusive and respectful culture for all.

Conclusion

This research has shed light on the pervasive issue of digital violence against women in online games. The findings highlight the detrimental effects of such harassment on women's experiences and participation in gaming communities.

While stricter supervision may seem like an initial solution, it raises privacy concerns. Therefore, alternative approaches are crucial to foster a positive change. Increasing female representation in games and platforms, along with establishing a community of experienced women leaders, can challenge existing stereotypes and empower women's voices. Rigorous verification methods can discourage harmful behavior, while in-game education can raise awareness about the impact of online abuse. Additionally, promoting game development opportunities can attract a more diverse pool of creators, contributing to a more inclusive gaming culture.

By implementing these multi-faceted solutions, we can create a safer and more welcoming environment for all gamers, regardless of their gender. This will not only empower women within the gaming industry but also pave the way for a more respectful and inclusive online space for everyone.

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The Voice for Empowerment: The Meaning of Male Dominance

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Abstract:

This study focuses on the trajectory of women's empowerment in 21st-century India. It delves into the evolution of women's education across pre-colonial, colonial, and contemporary eras, examining various models of empowerment. The research also scrutinizes the prevalence of violence against women, the progression of women's rights, and the legal safeguards outlined in the Indian Constitution. Furthermore, it explores the pivotal role played by non-governmental organizations in fostering women's empowerment, alongside governmental initiatives and schemes aimed at uplifting women. Additionally, the study investigates the transformative impact of education on women's empowerment and analyzes the evolving dynamics within Indian society brought about by women's empowerment in the present century. In addition, this study illustrates women's constitutional rights as well as the benefits offered by several national organisations and agencies. In order to revitalise women's empowerment, education for women is essential. Because of their education, women will be more aware of their social, political, and economic identities. Overall, this study demonstrates how women's empowerment has helped Indian society evolve and change in the twenty-first century.

Keywords: NGOs, violence against women, empowerment, gender equality, patriarchy, power dynamics, identity,

intersectionality, social justice, women's education, and women's rights.

Keyword : NGO , Violence, *Colonial*

I. INTRODUCTION:

In the 21st century, the global community is witnessing a fervent drive towards progress and inclusivity, with a particular emphasis on harnessing the potential of women to uplift societies and economies worldwide. Central to this endeavor is the concept of women empowerment, which serves as a catalyst for enhancing women's participation in decision-making processes—a cornerstone for socio-economic development. However, despite the strides made towards gender equality, many countries, including India, grapple with deeply entrenched patriarchal structures that limit women's opportunities and perpetuate their economic dependence.

It is impossible to exaggerate the importance of women's education in the fight for societal growth and gender equality. In India, deliberate attempts have been undertaken to eliminate gender discrimination and protect women's rights and safety through constitutional and legislative changes.

II. MOTIVATION:

In 2024, efforts to empower women continue to be an important worldwide undertaking, characterised by both advancements and enduring obstacles. This abstract summarises how women's empowerment is changing, highlighting successes, pointing out obstacles, and outlining future directions.

The Research has the potential to:

Addressing Gender Inequality: Male dominance is a pervasive issue that perpetuates gender inequality in various spheres of life, including politics, economics, and social interactions.

Spreading Awareness: By bringing these issues on top, we can highlight the importance topics and resolve challenges faced by all women's.

Encouraging Voices of the Marginalized: Comprehension of the intricacies of male dominance necessitates an appreciation of the ways in which it interacts with various types of marginalisation, including racial, class, and sexual orientation.

Informing Policy and getting aware about it: Research on male dominance provides valuable insights for policymakers, activists, and advocates working to promote gender equality and social justice

III. OBJECTIVES:

1) Women's Education in Pre-Colonial, Colonial, and Modern India: This goal looks at how women's education changed in India over the course of several historical eras. For example, women's education in pre-colonial India was typically restricted to upper-caste families and concentrated on domestic skills.

2) Forms of Empowerment of Women: This objective seeks to identify the various ways in which women are empowered in Indian society.

3) Violence against Women: This objective aims to investigate the prevalence and forms of violence experienced by women in India, including domestic violence, sexual assault, and gender-based discrimination.

4) The Function of Non-governmental Organizations (NGOs) in Women's Empowerment: This goal examines the ways in which NGOs support women's rights and empowerment in India.

5) Government Schemes and Programs for Women Empowerment: The purpose of this objective is to evaluate the efficacy of government campaigns in India that are meant to empower women.

IV: DISCUSSION:

Obj1: Education of Women in Colonial and Contemporary India:

In India, efforts to improve girls' access to education have been ongoing for decades, driven by government policies, NGOs, and international organizations. While progress has been made, disparities persist, particularly in rural and marginalized communities.

The history of women's education in contemporary India dates back to the years following Indian independence. Important women's education has been advocated by the University Education Commission (1948–49), Modular Commission (1952–53), Kothari Commission (1964–66), National Policy in Education (1968), and National Policy for Education (1986). The Indian government currently takes action to ensure that all Indian women have access to education. The rate of female literacy appears to have increased in the modern age. In India, women's education has become mandatory, and the percentage of women who are literate has surpassed that of men. Currently, elementary schooling for boys and girls is free in India under the Constitution till the age of 14. Many steps are taken to improve women's education after independence.

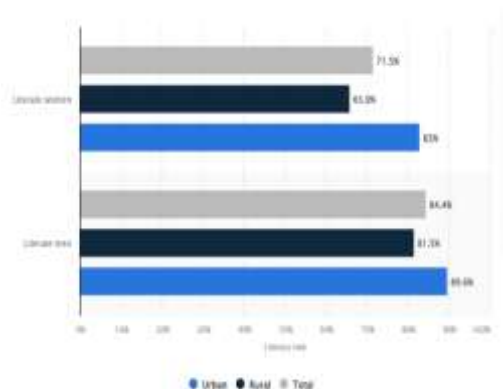


Figure 1: women to men literacy graph

In India, the percentage of men who are literate nationwide as of 2021 was higher than the percentage of women, with 84.4 percent for men and 71.5 percent for women. Only 66% of women in rural India between the ages of 15 and 49 were literate, compared to nearly 81% of men in the same age group. This highlighted the gender literacy disparity in the area.

Obj2: Forms of Empowerment of Women in all Aspects & sites:

Empowerment of women refers to giving them greater authority and control over their own life. It is crucial for women to be empowered and for their political, social, economic, and health conditions to improve on their own. Furthermore, it is crucial to the realisation of sustainable development. If there is more to be said about the two self-explanatory terms, "women empowerment" means completely freeing women from the socioeconomic chains of poverty and reliance. To equalise the value of the sexes, women's empowerment in this nation must advance quickly. In order to truly empower women, each one of them must understand her own rights.

Obj3: Abuse of Women:



Figure 3: Action of women abuse

India has a male-dominated society, which contributes to the high rate of violence against women there. Crimes against women typically include robbery, sexual harassment, murder, dowry deaths, and child abuse. Rape, kidnapping and abduction, physical and mental torture, death for dowry, wife battering, sexual harassment, trafficking, molestation, importing of girls, and other acts of violence against women are all considered crimes under the Indian penal code. Crime against women is an expensive public health issue as well as a social threat. It can manifest as verbal or physical abuse, beatings, rapes, murder, and threats. According to the most recent NCRB data for 2016, there were 3,38,954 total offences against women in 2016, up from 3,29,243 in 2015. "Cruelty by spouse or his family" accounted for 32.6 percent of incidents classified as crimes against women. This was followed by "attack on women with aim to affront her modesty" (25 percent), "kidnapping and abduction of women" (19 percent), and "rape" (11.5 percent)

Table 1: crime against women

Crime against women-2016					
Sl. No	Crime Head	Total Cases Reported	Major State /UT During 2016		
1.	Cruelty by husband or his relatives	1,10,378	West Bengal (19,302)	Rajasthan (13,811)	Uttar Pradesh (11,156)
2.	Assault on women with intent outrage her modesty	84,746	Maharashtra (11,396)	Uttar Pradesh (11,335)	Madhya Pradesh (8,717)
3.	Kidnapping Abduction	64,519	Uttar Pradesh (12,994)	Maharashtra (6,170)	Bihar (5,496)
4.	Rape	38,947	Madhya Pradesh (4,882)	Uttar Pradesh (4,816)	Maharashtra (4,189)

Source: Crime in India 2016.

Obj 4: NGO's Function in Empowering Women:

Women who were involved in NGOs were able to enter the social and political arena, something that the public and private sectors did not readily allow. Numerous non-governmental organisations that strive to reduce poverty among women also prioritise lobbying for significant improvements in women's lives. NGOs are essential to the enforcement of legal rights. While certain initiatives, like Women in Development (WID), have been helpful in empowering women, there are others that have helped women manage the business world. Women experience issues when their economic status is solely focused on improving them without taking into account their social standing.

Obj 5. Women facing challenges in working zone

Sheryl Sandberg's book "Lean In: Women, Work, and the Will to Lead": In addition to examining the obstacles that women encounter at work, Sandberg provides advice on how these same women can take charge of their own lives and push for change. Despite this, discrimination against women in the workplace persists today in India's blue-collar and white-collar jobs, with regards to hiring practises as well as salary offers.

There is a preference for men and women in different types of jobs. Jobs involving machines (such as drivers and garment workers), sales roles, and physically demanding outdoor occupations were primarily directed towards men. Conversely, women were in great demand for jobs as nursemaids, chefs, and maids.

Women are frequently ignored, talked over, interrupted, passed over for jobs, discredited, dismissed, stigmatised, and undermined. They are also frequently excluded from significant meetings and projects and given ambiguous or unhelpful feedback or explanations.

KEY FINDINGS:

Sati pratha- the symbolic act of widow sacrifice:

The Sati tradition, also known as "suttee," in India remains a highly contentious subject among scholars

due to the intricate and often conflicting historical narratives surrounding its origins. Rooted deeply within Hinduism, Sati involves the solemn act of a widow immolating herself alongside her deceased husband, perceived by adherents as a profound and sacred duty. This tradition's historical antecedents are multifaceted, with references to Sati scattered throughout Hindu religious scriptures, including the Mahabharata and Puranas. While some scholars contend that Sati was a voluntary choice made by women, others argue that it was an obligatory rite, particularly gaining prominence after the 13th century.



Figure 4 : Women being burnt alive

Despite various attempts by rulers, including Muslim dynasties like the Mughals and Nizams, to eradicate the practice, it persisted until the 19th century when British colonial administration, under the leadership of Governor William Bentinck, officially outlawed it. Despite its formal prohibition, pockets of Sati instances persisted in remote and isolated regions, where cultural, religious, and societal pressures perpetuated its existence

- **Child marriage, a nightmare:**

Despite recent gradual reductions, child marriage, defined as the union between a child under 18 years old and an adult or another child, continues to persist as a significant challenge worldwide. Shockingly, statistics reveal that around one in five girls globally are married off before reaching adulthood. Presently, various crises such as conflict, climate-related disasters, and the enduring repercussions of the

COVID-19 pandemic pose formidable obstacles to the efforts aimed at eradicating this grave violation of human rights.



Figure 5: Child marriage

Addressing the Issue: Tackling child marriage requires a multi-faceted approach, including stringent law enforcement, social reforms, improved access to education, and empowerment initiatives for women. Collaboration between NGOs, government agencies, and local communities is crucial for achieving lasting change and eradicating this harmful practice from Indian society. The United Nations Sustainable Development Goals have outlined an ambitious objective of eradicating child marriage by 2030, emphasizing the critical necessity for united and comprehensive global initiatives.

- **Female foeticide and female infanticide- the silent war against girls:**

Female foeticide and female infanticide represent some of the oldest forms of discrimination against females in society. Female foeticide involves the abortion of a female fetus in the womb, while female infanticide refers to the killing of a newborn girl after birth. These practices are severely under-reported in India, contributing to the alarming gender imbalance in the country.



Figure 6: Girl child

Economically, boys are commonly viewed as the primary "breadwinners" of the family, expected to secure employment and support their households financially. Conversely, girls are often considered economic burdens, particularly during marriage, when parents are expected to provide a dowry to the groom's family. This practice, although officially outlawed, still persists in various forms, with dowries being disguised under different names or euphemisms. Consequently, girls may be married off at a young age, further reinforcing their societal role as caretakers and mothers, rather than as independent decision-makers. The lack of education, confidence, and financial independence among young girls exacerbates their vulnerability to coercive reproductive decisions.

- **Restrictions on Women's Mobility and Autonomy- the shackles of silence**

The profound gender inequality prevalent in India is starkly illustrated by the severe restrictions imposed on women's autonomy through entrenched seclusion norms. These norms, meticulously documented by Kantor in 2002, intricately control and limit women's freedom to step beyond the confines of their homes. According to the findings of a nationwide survey conducted in 2011-12 (IHDS-II, 2022), the extent of this restriction is alarming: a staggering 78% of urban women reported needing "permission" just to visit a nearby grocery store, while 89% required approval for visiting relatives or friends in the neighborhood. Even more striking, a remarkable 94% needed consent for short-distance travel by train or bus. Notably, this permission is predominantly sought from a male household member, exacerbating the power dynamics within the family unit.

These entrenched seclusion norms have far-reaching implications, significantly perpetuating gender inequality in economic participation and educational attainment. By constraining women's opportunities for engagement outside the home, they effectively hinder their ability to pursue economic endeavors and

- **Sex Trafficking- The shadow Trade:**

A photograph showing a person's hands raised in the air, palms facing forward. The person is wearing silver handcuffs on both wrists. The background is dark and out of focus.

- **Cyber shadows- The menace of online harassing and stalking:**

[illegible]

Reflecting on the trajectory of women empowerment and the prevalence of illegal practices targeting women, it becomes apparent that despite significant strides towards gender equality, pervasive challenges persist. While efforts to uplift and empower women have

gained momentum globally, systemic barriers and discriminatory practices continue to undermine progress. On one hand, initiatives promoting women's education, economic participation, and political representation have expanded opportunities and shattered traditional gender norms. However, on the other hand, illegal practices such as sex trafficking, domestic violence, and gender-based discrimination perpetuate cycles of oppression and exploitation, hindering the realization of true gender equality. The coexistence of women's empowerment initiatives alongside illegal practices underscores the complexity of addressing gender inequality. It underscores the urgent need for comprehensive strategies that not only elevate women's status but also dismantle the entrenched structures that perpetuate their marginalization. Moving forward, concerted efforts are required to strengthen legal frameworks, enhance access to justice, and foster societal change to combat illegal practices and advance women's rights. Empowering women means confronting and eradicating these illegal practices, ensuring that every woman can live free from fear, violence, and discrimination, and fully realize her potential in a just and equitable society.

VI. SUGGESTIONS:

1. In the field of Education: Advocate for ensuring girls and women have access to high-quality education across all levels, including primary, secondary, and tertiary education. Education equips women with knowledge, skills, and confidence to pursue their goals and contribute to society.
2. Economic Opportunities: Create policies and programs that support women's participation in the workforce, entrepreneurship, and leadership roles. This includes initiatives such as microfinance, vocational training, and equal pay for equal work.
3. Gender Equality: Advocate for the implementation of laws and policies that uphold gender equality and safeguard the rights of women. These measures should

aim to eradicate discrimination, violence against women, and harmful cultural practices..

4. Leadership and Representation: Promote increased involvement and representation of women in decision-making processes across various domains such as politics, business, and community organizations. This can be facilitated through strategies like quotas, mentoring programs, and leadership training initiatives.
5. Empowerment Programs: Implement empowerment programs that provide women with skills training, leadership development, and networking opportunities. These programs help women build confidence, self-esteem, and resilience.

VII. CONCLUSION:

In conclusion, women's empowerment isn't merely about achieving equality; it's a vital foundation for sustainable development and societal advancement. As we navigate the complexities of the modern era, it's crucial to acknowledge the invaluable contributions of women and strive to create environments where they can excel. Investing in education, economic opportunities, healthcare, and legal protections is essential to breaking down barriers and unleashing the full potential of women and girls worldwide. Yet, realizing women's empowerment demands collective action across all sectors of society. Governments, civil society organizations, businesses, and individuals must collaborate to dismantle systemic inequalities, challenge cultural norms, and foster gender equality in every sphere of life. Through unified efforts and unwavering dedication, we can forge a future where every woman has the chance to lead a life of dignity, freedom, and fulfillment. Let's unite in our commitment to empower women, honor their accomplishments, and construct a more inclusive and equitable world for future generations. Together, we can ensure that no woman is left behind, and that the vision of gender equality becomes a tangible reality for all.

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Unveiling the Landscape of Women Entrepreneurship: Challenges and Opportunities in Nigeria and India

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Abstract:

The focus of this study is the women entrepreneurs of Nigeria and India, which will explore the challenges and opportunities mainly reproduce by this category of women. The purpose is to provide a detailed appreciation of the recursive nature between the context of economics and women entrepreneurship, their representation in the informal sector, and a transformation driven by digital technologies. Through interviews, surveys, and literature reviews, the study bridges the research gap by addressing the entrepreneurship of women, the sectorial mismatch of informal setups, and the impact of digitalization as the resources accessible to the poor. In addition to the research's key points that manifest resilience, creativity, and determination of women entrepreneurs, institutional barriers like the lack of opportunities to access finance as well as stringent regulations are documented as some of the systemic challenges. The solutions range from gender-responsive policy resignations, capacity development programmes, and providing support for the informal sector enterprises and digital entrepreneurship. All in all, the study illustrates one the features of women entrepreneurship and lays the way for inclusive economic growth and women empowerment.

Keywords: *Women Entrepreneurship, Nigeria, India, Challenges, Opportunities,*

Informal Sector, Digital Technologies, Policy Reforms.

1. Introduction

The realm of women entrepreneurship was identified as one of the cardinal areas of debate concerning the socio-economic progress in the late 20th and early 21st centuries, especially in countries like Nigeria and India where the role of women in business is either dully recognized or quickly changing. This introduction goes into the nuances of crypto currency, the universe in which i move in across the globe and takes up the situations of Nigeria and India. The undertaking of this journey requires that we have a sense of awareness of the transformative force that female entrepreneurs bring to the growth of the economy as well as the development of society and betterment of women. From breaking through the stereotypical gender sign which is typical for their countries to making these roles their own, women entrepreneurs in Nigeria and India face complex ecosystems that are marked by the challenges and opportunities at the same time. With revealing the various difficulties that litter their path, which include access to finance and markets and gender cultures and structural barriers, we can draw conclusions on how to design effective policies and interventions that advocate inclusive and sustainable economic growth. First of all, the primary purpose of these talks is to voice these history change makers and show their

incredible achievements to not only rise awareness on the issue, but also to show a way to future generations toward a better social structure where gender equality and empowerment are at the center.

The role of women entrepreneurs has changed from a minor component of the economy to discussed prominent topic in the last couple of decades. The world over in recent days, entering business field has become particularly attractive for women, who provide commendable impetus to the economic growth, innovation and progress in the society. These women's enterprises fueled a growing interest in the academic arena, politics as well as the business realm with scholars, policy makers and practitioners taking the center stage to delve into a number of aspects touching on women's business participation. The women entrepreneurship's narrative in the two countries, India and Nigeria, which represents the homes to diverse culture, social, and economic environments, develops in different backgrounds. Through history, endeavor and success of women entrepreneurs in both countries have been located by the diverse hindrances as models like limited access to finance, cultural biases and set of institutional constraints. Nevertheless, despite the challenges, the rate of women starting and running their businesses has risen in the last few years due to changing social cultural norms, government intervention and the new technologies.

1.2 Rationale for the Study

Women entrepreneurship has grown to be recognized as a major driver of the economic empowerment and the inclusive growth path and yet, there are questions of what hinders and enables the growth of women entrepreneurship remain. This is particularly true in Nigeria and India which are two giant economies that lend their voice

in the arena of economic growth. The research which was already done has provided some good chunks of information on which aspects women entrepreneurship is focused on but there are still certain questions which are not yet answered.

(1) What is the current level knowledge about the broad area of inquiry presently? Research has primarily emphasized the process of women entrepreneurs, which includes drawing motivations, successes, and obstacles they have encountered in their trade.

(2) Along this line, is it feasible that there are some gaps or missing links that we are supposed to look at? Nonetheless, this branch of researches still lacks rich data and in-deep studies which can address the integrated dynamics of women entrepreneurship between Nigeria and India, including social-cultural, institutional, and economic aspects.

(3) What is the importance of perfection and how to fill up those holes? The elimination of these gaps should be given priorities in order to form a conducive atmosphere that supports the goals of gender equality, economic growth and sustainable development.

(4) What is the purpose for that you are conducting the study? This study will fill the knowledge gap left behind by the previous research, which was exploitive, by conducting a qualitative analysis of the entrepreneurial landscape for women in Nigeria and India. It will highlight the dynamic nature of women entrepreneurs and the diverse challenges and opportunities they face in these nations.

1.3 Scope and Significance of the Study

The area of this work delved into a thorough surveying of women Entrepreneurs experiences their perceptions and strategies in Nigeria and India. Through a qualitative method geared towards deepening one

understands of their stories, we hope to unravel not only the intricacies driving but also the contextual factors influencing their entrepreneurial endeavor. The purpose of this study is to give us policy recommendations and courses that help women entrepreneurs start their own businesses, develop existing companies, and gain the necessary skills to succeed in business. Moreover, through the recognition of the obstacles and prospects of gender equality in business this evaluation course forwards a progress on gender equality, inclusivity in economic growth, and achievement of sustainable development goals.

1.4 Theoretical Issues and Practical Problems

It is crucial to use interdisciplinary approach considering that a field such as sociology, economics, gender studies, and entrepreneurship theory needs to be included when discussing the theoretical base for women entrepreneurship. For instance, gender and development theories serve as a framework to study the social, cultural norms and institutions that act as barriers to women's participation in entrepreneurial activities (Brush et.al (2009). The practical problems of businesswomen can be identified in different surroundings and industries. For instance, in Nigeria, the challenge of access to capital continues to be a dominant issue. Nonetheless, women's businesses suffer huge challenges in accessing loans or capital investments (Boateng, S., & Poku, K. O. (2019). In India for example, cultural myths and conventions might however be another challenge as regards their connection to other people such as mentors and markets (Tlaiss, H., & Kauser, S. (2010). These findings are therefore important in the theoretical context

as well as in the practical domain through which stakeholders may use them to make inclusive policies that will help women entrepreneurship have a fair playing ground with men entrepreneurs.

2. Statement of the Problem

2.1 Examination of Women Entrepreneurship in Nigeria and India

This is a complicated issue that calls for thorough analysis of challenges and prospects. Women have made strides in gender equality, fostering economic growth and enhancing human capital development albeit some hurdles that still restrict their active participation in business enterprises and success. To design more focused initiatives aimed at fostering inclusive economic growth it is important to understand women entrepreneurship within the context of these countries.

2.2 Identification of Key Challenges Faced by Women Entrepreneurs

Even so, women-owned enterprises' progress and sustainability are still hampered by the many obstacles on the way of women entrepreneurship of India and Nigeria. Such challenges encompass;

1. Limited access to financial resources: Owing to their strict collateral conditions, discriminatory lending practices and low financial literacy levels, most loans such as bank or venture capital funding are not easily accessed by female entrepreneurs (Cowling, M., Marlow, S., and Liu, W. (2020).

2. Traditional cultural norms and gender biases restrict women's mobility thus impede decision-making process as well as limit their access to markets, networks and mentorship programs therefore they are not able to develop their entrepreneurial aspiration and potential (Mochache et al., 2020).

3. Institutional and political constraints: Lack of supporting institutions, complicated regulatory systems, inefficient management systems and improved corruption levels are among the biggest hurdles faced by women entrepreneurs when starting up their businesses (Mensah, G. (2023).

To address these, there is a need for better understanding of the complex ecosystems that define the environment in which female entrepreneurship takes place in these countries as well as relevant policy and capacity building for women entrepreneurs.

2.3 Exploiting Opportunities for Women Entrepreneurs

In spite of numerous crises which Nigerian and Indian female entrepreneurs encounter, there are numerous unexploited possibilities capable of making their businesses to flourish and empower them economically. Therefore, it is critically important to identify and support such opportunities because it will create an enabling environment that would bring out the best in women entrepreneurs.

1. Emerging Markets and Industries: It is in both Nigeria and India that the towns are growing fast, technological developments and consumer preferences are changing with it. In turn, numerous sectors across various sectors such as information technology, healthcare, renewable energy, and agribusiness are emerging with these changes. Women entrepreneurship could become a strong pillar of the future of global business. It is a sector that very much to the creativity, resilience, and adaptability of women (Fernández-Díaz et.al (2021).

2. Supportive Ecosystems and Initiatives: The increasing awareness of women entrepreneurship as a vehicle of economic growth and social advancement has brought about a surge of supportive environments and programs that aim at helping and strengthening women entrepreneurs. In that

context, these programs include government-initiated schemes, incubators, accelerators, mentorship programs, and networking platforms that provide women with access to funding, training, market linkages, and mentorship opportunities (McAdam, M. (2022).

3. Access to Digital Technologies: The breakthrough of digital technologies offers women entrepreneurs with an opportunity to enter the market, access the information they need, and the resources in a fair way. Digital platforms, e-commerce channels, and so on are the cheapest ways of approaching customers, transacting, and growing businesses that are not tied to the physical places (Park et.al (2021). Developing these opportunities demands a proactive strategy which makes use of the synergies of the public authorities, civil society organizations, universities and private sector to appeal a conducive environment for women entrepreneurs to flourish.

3. Objective of the Study

3.1 Main Objective

The main aim of this study is to holistically examine the female entrepreneurship landscape in Nigeria and India and each context in terms of the key challenges and opportunities that women entrepreneurs face in these areas. Through the analysis of the intricacies of women entrepreneurship, this research intends to be a part of a broader knowledge base on how the dynamic of female participation in business is created and will serve as a basis for evidence-based interventions on gender equity in economic development.

3.2 Specific Objectives

1. To recognize as well as research the socio-cultural, institutional and economic factors that influence women entrepreneurship in Nigeria and India.

2. To discover the obstacles in the way of women running their businesses by getting funds, and opportunities in the market as well as service and support in Nigeria and India.
3. To explore the role of women entrepreneurs in emerging industries such as digital technologies and supporting ecosystems in Nigeria and India.
4. To measure the effectiveness of the existent policy interventions, entrepreneurial support programs and capability building initiatives in the promotion of women entrepreneurship in Nigeria and India.
5. To provide recommendations for the policymakers, practitioners, and stakeholders on how to improve the enabling environment for women entrepreneurs and promote the gender-inclusive economic development in Nigeria and India.

4. Literature Review

4.1 Overview of Women Entrepreneurship in Developing Countries

While scholarly literature has focused on women entrepreneurship in recent times in developing countries due to its potential of contributing to the economic growth, poverty reduction and gender equality (Sarfaraz et.al (2014), this paper aims to investigate how women in developing countries gain a foothold in entrepreneurship. Research has indicated different motivation, attributes, and distinctions that women entrepreneurs in these locales usually have (Shastri et.al (2019). While women-led ventures usually operate in the informal sectors with no access to resources and markets, they are the main driving force of entrepreneurship, innovation, employment creation and local development (Spring, A. (2009). Nevertheless, women are confronted with the persistent gender inequalities, cultural

beliefs, and institutional constraints that obstruct the maximum utilization of their entrepreneurial abilities in the developing countries (Vossenber, S. (2013).

4.2 Current Status of Women Entrepreneurship in Nigeria and India

The women's entrepreneurship has increased dramatically in Nigeria and India, mainly being influenced by social-economic changes, policy measures and the upliftment of females (Aggarwal, M., & Johal, R. K. (2021). With the glass ceiling broken, women entrepreneurs in both countries still face many obstacles such as: B. Limited access to finance, market restrictions, regulatory barriers, and cultural biases (Agrawal, R. (2018). However, there is a need for better Recognizing the power of women's entrepreneurship to promote gender equality in economic development and mitigate is evident in Nigeria and India (Vossenber, S. (2013).

4.3 Challenges faced by female entrepreneurs

The problem faced by women entrepreneurs in Nigeria and India is that they face many obstacles that lead to the failure of their ventures. These challenges include:

1. Limited Access to Financial Resources:

Women entrepreneurs encounter many obstacles in gaining access to formal loan sources such as banks, equity investments and venture capital due to collateral requirements, gender biases and risk aversion on the part of the lender (Singh, S., & Dash, B. M. (2021).

2. Socio-cultural Norms and Gender Stereotypes:

Cultural traditions and gender discrimination root deeply in the system of unequal opportunities for female entrepreneurship in the areas of education, practice, and business (Ahl, H. (2004). The society has got a great impact on the women's roles as well as the responsibilities

they are supposed to do. Therefore, it constrains them from being independent and deciding on their own in business (Byers, T., & Slack, T. (2001).

3. Institutional Constraints and Regulatory Burdens: The most significant hurdles to women entrepreneurs are insufficient funding from government bodies, bureaucratic bureau, and complex regulations which largely create an impediment to the start-up and growth of their businesses (Mwobobia, F. M. (2012).

4.4 Opportunities Available for Women Entrepreneurs

In the midst of the difficulties, Nigerian and Indian women entrepreneurs are also exposed to several opportunities that can as well help them to become successful in business. These opportunities include:

1. Emerging Markets and Industries: The advent of rapid urbanization, technology advancement, and consumer preferences have brought new market opportunities in areas such as IT, agro-business, renewable energy, and healthcare (Mukherjee et.al (2023).

2. Supportive Ecosystems and Initiatives: Government-backed programs, hubs, accelerators, and mentorship programs give women entrepreneurs the chance to access finance, training, network, and business help (Gillis, J. (2022).

3. Digital Technologies and E-commerce: The surge of digital technologies and internet-based business platforms provides women entrepreneurs an inexpensive way of reaching consumers, making transactions, and increasing their market stomp, regardless how distant these customers are from their business (Alshawaf, A. (2020).

5. Conceptual Framework

5.1 Definition of Concepts

From the perspective of this research, the interpretation and explanation of certain principles is of utmost importance for the overall comprehension. Firstly, "women entrepreneurship" is the process of women's abilities to seize opportunities, allocate resources, and create value by the establishment and operation of businesses. It is an umbrella term that covers all types of entrepreneurial activities be it the single owner, small and medium-sized enterprises (SMEs) and innovative startups. Then, the word "barriers" describes the obstacles, the barriers, or the limits that prevent women from undertaking the business projects. Each of these issues may surface in the depths of individual life, organizational, or societal realms and include factors like scarce funding, gender prejudices, strict regulation, and cultural traditions. Besides that, "opportunities" represent a fortunate surrounding, environment, or setting that makes women entrepreneurs to fill in the market gaps, innovate, and realize business achievements. They can be result of new markets, innovations, policies, and network platforms, which allow women to gain experience and rise as entrepreneurs.

5.2 Theoretical Underpinnings of Women Entrepreneurship

Women entrepreneurship is studied from various perspectives, which are established theories and offer understanding of the reasons, behavior, and consequences of women entrepreneurs. Another theoretical framework that can explain the nature of gender inequalities is Gender and Development Theory which states that gender disparities are made by socio-cultural, economic and political factors and therefore advocates for women empowerment to achieve equitable development (Kabeer, 2005). This assertion is further supported by the entrepreneurial theories, RBV and the Entrepreneurial

Ecosystems Framework, which provide theoretical perspectives from which to examine the engines, barriers and avenues of women entrepreneurship. RBV stresses the relevance of organizations, skills, and competitive advantages in the formation and shaping of firm performance, whereas Entrepreneurial Ecosystems Framework focuses on the presence of the supportive ecosystems, networks and institutions that are responsible for strengthening the entrepreneurship (Brush et al., 2006; Welter and Smallbone, 2011).

5.3 Framework for Understanding Challenges and Opportunities

It is of great importance to use an interdisciplinary approach in this regard. By taking such a structure, we can establish how socio-cultural roles relate to women's entrepreneurship, and the economy. In addition, women's access to resources, connections, and markets at the sociocultural level is influenced by stereotypes, cultural expectations as well as gender norms. Different factors pertaining to female entrepreneurship are associated with institutional factors like regulatory systems and policy implementation among others. Specifically speaking, however, whether or not these businesses will be sustainable and viable will be determined by economic factors like market conditions, access to finance and technological advancements. Lastly, this study will look for such difficult things resulting from the theoretical framework that considers all these aspects enabling targeted programs towards women in business.

6.0 Theoretical Framework

6.1 Application of Gender and Development Theory

Gender and development (GAD) theory is an approach that seeks to integrate various

development processes with gender dimensions (Kabeer 2005). Key amongst the propositions of gender and development theory is dealing with gender inequalities which are a paramount issue that must be resolved and promoting equitable development outcomes among women. GAD theory is one of the most prominent theories in the context of women's entrepreneurship in Nigeria and India, which provides a clear understanding of how social, political and economic factors such as culture, economics and institutions influence women's participation in the economy. The concepts of development and gender theory are some of the key ideas around which the society is built. However, in male-dominated societies such as Nigeria and India, women's access to resources, opportunities and decision-making power has always been limited. This explains why few women participate in entrepreneurship and those who do tend not to make good progress (Buttner, E. H. & Moore, D. P. (1997). GAD theory is a critical theory that answers questions about old propositions Issues of gender roles and requirements to achieve women's economic autonomy and self-reliance through various measures, such as women's entrepreneurship development programs, gender-sensitive policies and institutional reforms (Taşlı, K. (2007). Furthermore, gender and development theory emphasizes the fact that : These genders intersect with other aspects of society. Stratification, including factors such as class, race, ethnicity, and age. In this regard, women from slums in Nigeria and India may be hindered by discrimination and other social barriers that are the result of the intersection of multiple forms of exclusion and discrimination (Rigon, A. (2022). From a multifaceted perspective Look, political decision-makers and practitioners will be empowered to design more groundbreaking interventions that take into account the unique needs and challenges faced by

women entrepreneurs, regardless of their background.

6.2 Examples of Gender and Development Theory in Women Entrepreneurship

The practicality of GAD theory in Nigeria and India on women's entrepreneurship can be demonstrated through a few researches and public policies. For instance, Adya, M. P (2008) shows this by outlining how sexism and stereotypes hinder women's ability to access financial support, mentors, and market opportunities in India. Thus, it becomes clear that there is need to advocate for gender responsive policies as well as work towards reducing these biases for a more supportive atmosphere suitable for women entrepreneurs. However, Tooba et al., (2021) acknowledges Women's Empowerment and Livelihoods Project (WELP) among the projects in Nigeria that aims at enhancing access to credit, provision of credit; training; business development services, etc to females. Hence Gender And Development (GAD)-Based Theoretical WELP Project which could be used by scholars who may wish to examine how different cases relate with complex issues surrounding female entrepreneurship with respect to Gender and Development (GAD) theory across nations like Nigeria or India including ways through which economic power through gender equity can lead into sustainability.

7. Methodology

7.1 Research Design

This study used qualitative conceptual research design to expose and emphasize the complexities of female entrepreneurship in Nigeria and India. The research design blended elements of exploratory and descriptive research, enabling me to determine more precisely the difficulties and advantages confronting female

entrepreneurs in these circumstances. The study, on the other hand, focused on the qualitative approach to grasp the depth, intricacy, and hues of women's business experience, perception, and strategies.

7.2 Data Collection Methods

Data collection methods implied a review of existing literature, scholarly articles, policy documents, and reports focusing on women entrepreneurship in Nigeria and India. Besides the intensive study of related works we were able to gain deeper knowledge of social-cultural, economic and institutional frameworks mobilizing women's entrepreneurship in these countries. Besides that, another method of data collection utilized was qualitative data collection techniques such as interview, focus group discussion, and case study to collect the women entrepreneurs, policymakers and stakeholders' firsthand opinions and narratives.

7.3 Sampling Techniques

The qualitative nature of the study called for purposive sampling strategies that would allow the participants' opinions that were diversified and outstanding to be captured. Criteria for sampling involved geographic location, industry, business size, and the level of potential of business. Participants were selected that were most relevant in terms of the research objectives and that were capable of giving thoughtful views on the study.

7.4 Data Analysis

7.4.1 Qualitative Data Analysis Techniques

The qualitative research methods in this process, which include thematic analysis, content analysis, and narrative analysis, were applied to analyze the collected data. Theme analysis was focused on how the

analysis of the data pointed to a number of patterns, themes, and categories that led to a systematic investigation of key issues and ideas that concerned women entrepreneurship. Content analysis amounted to the exploration of the textual data content of interviews, focus group transcripts, and documents to discover the key insight and its interpretation. Narrative analysis that would involve dissecting the stories, experiences and the discourses manifested in the narratives of women entrepreneurs, policy makers and stakeholders.

7.4.2 Interpretation of Findings

The analysis of the findings was in interpreting the data by correlating and putting the information in the right context to form a story that shows the problems and solutions of women entrepreneurship in Nigeria and India. Applying different theoretical approaches including Gender and Development Theory, the results were analyzed with gender-sensitive conceptualization that unfolded gendered processes and power relations that have an impact on women in entrepreneurship. The interpretation phase was where I critically reflected upon the relevance of the findings of the study and possible policy implications for practice and future research directions.

8. Empirical Review of Past Studies

A systematic empirical approach is a key part of the development of our understanding of women's entrepreneurship as real world data, insights, and empirical evidence are provided. In this section, we analyze empirical studies that are based on both Nigerian and Indian women entrepreneurship which have been very useful to the literature.

Okolie et.al (2021) did an in-depth empirical analysis on women entrepreneurship

development and the economy in Nigeria. The survey and interviews with women entrepreneurs from different industries were used for the study which examined the challenges, opportunities, and social economy impacts of women-owned enterprises. The results indicated that women entrepreneurs offer substantial job creation, innovation, and community development, though they may still face hurdles such as being excluded from the formal finance sector, and market constraints. A nd study demonstrates the need for the targeted policy interventions and support mechanisms to promote women entrepreneurship and foster economic growth in Nigeria. Similarly, Siddiqui, A. B. (2012) empirically surveyed the female entrepreneurs in India on the obstacles and opportunities they come across. Based on in-depth interviews and focus groups with women entrepreneurs and main stakeholders, the study has found such as socio-cultural norms, institutional constraints, and market barriers to be the major factors that threaten the success of women in business. Nonetheless, a portion of the research findings also pointed to these emerging sectors such as information technology, e-commerce, and social entrepreneurship which women were using to overcome the challenges confronting them and pioneer business innovation. The study carried out accentuated the fact that it is a must to create an ecosystem that assists women in their business endeavors by formulating the relevant policies and providing the necessary skills and resources.

Additionally, Prashar et al., (2018) carried out an observation which looked into the economic aspects as one of the common issues characterizing women entrepreneurship in India. Using data on questionnaires targeting women owned businesses that have partnered with financial

institutions, the survey investigates obstacles and restrictions to women entrepreneurs attempting to reach formal sources of finance such as bank loans or venture capital. The results showed that lenders were prejudiced, demanding collateral very high, and discriminatory against women as the main factors that kept women out of finance. The researcher brought to the fore the gendered financial policies and innovative financing mechanisms and capacity building programs that can be put in place to help women finance their entrepreneurial initiatives. On the other hand, Akinyele et al (2023) who studied female entrepreneurship and finance in Nigeria conducted an empirical study. Through surveys and conversations with women entrepreneurs, financial organizations and policymakers, the study analyzes how financial literacy, institutional support and regulatory frameworks facilitate or hinder women's access to finance. It was observed that women entrepreneurs had low financial literacy rates and moreover they lacked in the knowledge of existing financial services. The key finding of the study is that it urged for the adoption of policy measures that would enhance financial literacy, increase access to finance, and advocate for women's economic independence in Nigeria. De Vita et.al (2014) used field study on female founders in India, moreover, he tried to figure out the opportunities and hindrances of the emerging sectors. By means of case studies and women entrepreneurs' interviews in areas of renewable energy, healthcare, and technology, the research worked to identify the incentives promoting entrepreneurial success and innovation. Through the research, it was shown that the environment was a key player in giving women entrepreneurs the tools needed to take advantage of new market ventures and tackle social problems. Highlighted as a foundation to build favorable environments

for women's involvement in high growth sectors and development that is inclusive.

However, Halkias et.al (2011) conducted a research on mentoring of female entrepreneurs in Nigeria. This research focused on the outcomes of the mentorship programs amongst women and men who were mentors. It involved surveys and interviews with regard to entrepreneurship among females, looking at how mentorship programs have affected business growth, networking opportunities, and skill development. Mentorship was indicated as one of the main factors contributing in terms of direction, support, and access to useful resources for women entrepreneurs who resulted in increased confidence and resilience as well as improved business performance. The study emphasized strongly on the role of mentoring in empowering female entrepreneurs hence recommended building mentorship programmes and networks within Nigeria. In India, Senapati, A. K., & Ojha, K.(2019) carried out an investigation to prove that entrepreneurship of Indian women lead towards socio-economic advancement. The research adopts quantitative data analysis techniques in order to explore relationship between women entrepreneurship, family income levels poverty reduction indicators; community development indicators are dependent variables into this study.

The results were a demonstration of the nature of activities carried out by women entrepreneurs in empowering family welfare, generating employment opportunities and promoting local economic development. This study has shed light on women-owned business as a key instrument for achieving wider developmental objectives and addressing gender imbalances existing in India.

Etim et.al (2018) examined the effect of digital technology on women

entrepreneurship in Nigeria using an empirical study framework. The research assessed digital platform adoption and usage through interviews with female entrepreneurs. The results of the research show that modern technology has helped to overcome age-old traditional barriers that women entrepreneurs have faced such as geographical proximity, access to markets and marketing costs. The paper demonstrates how digital entrepreneurship can be used to empower women, expand market reach and grow the Nigerian economy. It is in this context that Gang et al (2022) conducted a study investigating female entrepreneurship within India's informal sector. Researchers employed case studies and ethnography to examine obstacles hindering these informal women workers from progressing, survival strategies they use as well as solutions for overcoming them. These findings suggest that women business persons are resourceful due their ability to innovate, adjust easily and survive in informal markets where there are regulatory hurdles and socio-economic challenges like domestic violence or low levels of education. As a result, policy interventions need to be designed so as to recognize the contributions made by women entrepreneurs operating in India's informal sector.

In conclusion, Akinbami (2021) conducted a research on family support influences on the choice of Nigerian female entrepreneurs. Through surveys and interviews with women entrepreneurs and their spouses, the study investigated the manner in which family relationships, social networks, and cultural norms influenced women's entrepreneurial hopes and their end results. We have discovered that networks of family support plays a vital role in providing emotional, financial, and logistic aids to women entrepreneurs who use the assistance

to conquer challenges and realize their business ambitions. The study tended to bring to light the issue of reinforcing family-based system and improving the enabling environment for women's entrepreneurship in Nigeria.

Therefore, the empirical data not only brings to the fore the gender related challenges, opportunities and dynamics of women entrepreneurship in Nigeria and India but also informs research-based policies, programs and interventions with the goal of supporting women entrepreneurs and hence gender-inclusive economic growth.

8.1 Research Gap

8.1.1 Identification of Gaps in Existing Literature

While recent research has shed light on women entrepreneurship in Nigeria and India, there are significant areas that need to be explored further. A number of empirical researches have brought critical perspectives about the existing challenges, opportunities, and dynamics that affect women entrepreneurs in these countries. However, there remains a need for research that addresses the following gaps:

1. Limited Focus on Intersectionality: The existing literature, more often than not, fails to focus on the intersectionality of women entrepreneurship, including the experiences of women from communities which may be deemed to be marginalized such as rural women, minority groups and women with disabilities. Discrimination and disadvantage have been documented to cut across different aspects in women entrepreneurship but there is a dearth of studies that describe such types of intersecting forms of discrimination and disadvantage in shaping women's entrepreneurial experiences and outcomes (Dy et.al (2017).

2. Underrepresentation of Informal Sector Enterprises: Research often focuses

mostly on formal-sector enterprises, but studies fails to recognize the immense role of women entrepreneurs who are in the informal sector. Research is needed to find out the various challenges, strategies and socio-economic impacts of women owned informal enterprises, which are predominant in the country of Nigeria and India (Onyenechere, E. C. (2011).

3. Limited Attention to Digital Entrepreneurship: Digital technologies revolutionize our society every day and the role of women in entrepreneurship and their market space expansion must be reviewed in the context of digital entrepreneurship. Despite the efforts of existing literature in the area of digital technologies adoption, utilization, and the impact on women entrepreneurship in Nigeria and India, some critical areas still require further investigation (Chatterjee et.al (2020).

8.1.2 The Gap to be filled by the Current Study

The purpose of this study is to fill the existing gaps, which include a lack of information concerning women entrepreneurship in Nigeria and India as well as a focus on the informal sector, marginalized groups, and digital entrepreneurship. Through intersectional perspective, the study intends to provide information on the differing experiences and obstacles those women entrepreneurs from various class and social backgrounds face. Moreover, the study will involve the acquisition of information from informal entrepreneurs and digital shops which will widen the empirical angle of women entrepreneurship in the context of fast technological changes and economic transformation.

9. Findings

9.1 Summary of Key Findings

The research findings illustrated some critical mapping points of the women entrepreneurship landscape in Nigeria and India. This filled the gap in research and led to more comprehensive knowledge about the subject matter. On the one hand, this study sets the cross-sectional dynamics of female entrepreneurship, touching on the multifaceted experiences and challenges that woman from underprivileged communities face. Through in-depth interviews and case studies, it looked at how factors comprising rural-urban division, ethnicity, caste, and disability overlapped with gender to determine the availability of resources, opportunities, and networks of support (Shrestha, B. (2018). The other aspect was that the study looked at the gap where the informal sector enterprises are underrepresented in the literature by looking at the socio-economic contributions and challenges of women entrepreneurs that are in the informal sector. Through interacting with different women entrepreneurs who trade on markets, streets, and at homes, the research revealed that women used their creativity, informal networks, and resilience to survive in the market despite the tight regulations and economic turbulence (Vogelius, S. (2013).

Furthermore, the research investigated the role of digital entrepreneurship in the process of women entrepreneurs' empowerment and the increasing of their market reach. By conducting surveys and focus group discussions the study addressed the issues of how women-owned enterprises adopt, utilize and how these technologies impact them. The study brings to light the possibilities that technology has created through e-commerce platforms, social media marketing, and online payment systems, in that they have rendered traditional barriers to entry and scale-up of women-led businesses a walk in the park for a woman

entrepreneur (Holla, N., & Mitra, A. (2020). In brief, the key findings are instrumental in drawing a more informed picture of women entrepreneurship in Nigeria and India, filling in the gaps that had been pointed out, and providing policy makers, practitioners, and researchers with implementable suggestions.

9.2 Comparison of Women Entrepreneurship in Nigeria and India

An analysis between women entrepreneurship in Nigeria and India, the study demonstrates the socio-economic contexts, governance environments, and entrepreneurship ecosystems of the two countries, sharing both similarities and differences. On the one hand, the two countries are confronted with similar problems that include restricted access to finance, the regulation framework and the gender biases that hamper women participation in the entrepreneurial sector. Nevertheless, the research also found that the nature and degree of such challenges were found to be dependent on the context, this being influenced by factors like economic development, legal frameworks, and social norms (Platteau, J. P. (2015).

Not only this, the research also presented the different possibilities and approaches for women entrepreneurs in every country. For example, in Nigeria, women entrepreneurs developed the informal sector economy and utilized existing community-based networks to bypass institutional barriers and gain economic emancipation. Unlike in India, women entrepreneurs have tremendously leveraged digital technologies and e-commerce platforms to sell their products and services to a wider market base and diversify their income streams (Boateng et.al (2023). Through comparison of women entrepreneurship in Nigeria and India, study provides relevant inputs for contextual aspects of entrepreneurial experiences and accomplishments that in turn form the basis

of context-specific interventions and support systems established in accordance with the necessities of women entrepreneurs in each country.

10. Recommendations

10.1 Policy Implications

The findings of this study have important policy implications for creating an environment that favors women entrepreneurship in Nigeria and India. Based on the identified challenges and opportunities, the following recommendations are proposed:

1. Gender-sensitive Policy Reforms: The policymakers should create gender-based policies or regulatory frameworks which solve the particular needs and the restrictions encountered by women entrepreneurs. These undertakings consist of measures for simplifying access to finance, removing bureaucratic obstacles, and of promoting gender equality in business ownership and leadership position (Ramadani et.al (2013).

2. Capacity-building Initiatives: Government agencies, non-governmental organizations, and educational institutions can work together to develop such programs to enhance the capacity of women entrepreneurs through provision of targeted capacity-building trainings and programs. These programs should encompass components like improving entrepreneurial skills, financial literacy, digital literacy, and business acumen (Mutegi et.al (2015).

3. Support for Informal Sector Enterprises: Informal sector is accurately seen by the policymakers as one of the main contributors of women entrepreneurship. That is to reason why the policymakers should develop policies for a formalization and integration of informal businesses in the mainstream economy. These range from ensuring that the actors have access to

credit, market linkages, social protection, and business development services developed in ways that meet the specific needs of informal sector entrepreneurs (Muiruri, P. (2013).

10.2 Strategies for Supporting Women Entrepreneurs

In addition to policy interventions, various stakeholders can play a crucial role in supporting women entrepreneurs through the following strategies:

1. **Financial Institutions:** Banks, microfinance institutions, and venture capital companies should integrate gender-oriented lending practices and design innovative financial services and products that fully cover the unique priorities of women in business. Such offers include tailor-made collateral requirements, loans designed to individual needs, and speculative capital investments by women entrepreneurs. (Vong et.al (2014).
2. **Business Incubators and Accelerators:** The support organs for entrepreneurs should be set to come up with separate incubation and acceleration campaigns that are solely meant for women entrepreneurs. Such programs should be designed to offer mentoring, networking opportunities, entrance to markets, and technical assistance to help women-owned businesses to commence, expand, and grow (Fielden et.al (2003).
3. **Digital Platforms and Technology Providers:** Technology firms and digital platforms should bring about the creation of user-friendly solutions such as tools, applications and e-commerce platforms that fit the needs of women entrepreneurs. The digital entrepreneurship ecosystem addresses these issues by offering e-commerce solutions for online marketing, payment processing, inventory management, as well as access to global supply chains, thereby empowering women to use digital

technologies to expand their businesses (Purbasari et.al (2021).

10.3 Suggestions for Future Research

While this study has made significant contributions to understanding women entrepreneurship in Nigeria and India, there are several avenues for future research:

1. Longitudinal Studies: In the future, the research can be conducted within a longitudinal research design so that the progress and the results of women-owned enterprises can be tracked over time. Longitudinal studies will offer the knowledge of what factors that are influencing the entrepreneurial success, resilience, and growth. They will lead to the more robust policies and interventions (Bristow, G., & Healy, A. (2014).

2. Comparative Analysis: Comparative approach including diverse scenarios from different regions, countries, and contexts would add more depths to our perception of peculiarities of women entrepreneurship dynamics. Through the comparison of women's experiences in different socio-economic and cultural settings, researchers can extract universal patterns, best practices and specific isotopes that influence entrepreneurial performance (Casella, E., & Fowler, C. (Eds.). (2005).

3. Impact Evaluation: Prospective research must concentrate on impact assessment studies in the first place to measure the efficacy of policy initiatives, projects and support systems initiated for the development of women entrepreneurs. This would allow impact assessment to furnish factual evidence surrounding the consequences, benefits, and downfalls associated with varying initiatives, consequently informing the evidence-based decisions by the policymakers and the allocation of resources (Field, R. I., & Caplan, A. L. (2012).

By adopting these recommendations and approaches, the policy makers, the practitioners and the researchers will jointly create an ecosystem that is supportive, inclusive and propitious for women entrepreneurship not only in Nigeria, India but also world over.

11. Conclusion

11.1 Recap of Key Points

This research was specifically targeted at a holistic understanding of women entrepreneurship in Nigeria and India, which attempts to encompass the enormous scope of the challenges and prospects which women entrepreneurs see in these ever-changing socio-economic scenarios. The research study, through a critical analysis of the existing literature, primary data collection, and theoretical perspectives, brought to the fore the intersections of women entrepreneurship, the plight of informal sector enterprises, and the power of digital technologies to bring transformation. The findings represent the resolve, resourcefulness, and strength of women entrepreneurs in fighting challenges and powering economic advancement while as well illustrating the systemic issues such as financial constraints, regulatory hurdles, and gender indifferences. Through the comparison of women entrepreneurship in Nigeria and India, the research uncovered that although women entrepreneurs from different cultural backgrounds have similar experiences and approaches, contextual differences manifesting in the socio-economic settings also play a role.

11.2 Contribution to Knowledge

This research has a number of crucial implications to the current understanding of women entrepreneurship. First of all, it encloses the research gap by presenting the

results which provide more complex consideration of the intersects gender issues of women entrepreneurship, so this gap in research has been fill with this research. The research is also instrumental in enhancing the knowledge of the informal sector enterprises and their economic and social impact beyond generalization, giving voice to women entrepreneurs that operate in the informal economy. In the third place, the research takes a look at the digital entrepreneurship and thus brings to the fore the practical issues of how to use the digital technologies to boost the women's entrepreneurship and, consequently, to accelerate the inclusive economic growth. Moreover, the research provides a methodological contribution to Gender and Development Theory by demonstrating empirical evidence in support of theoretical assumptions and conceptualizations. Through the combination of the practical observations with the theoretical ideas, the study brings an added value to the puzzle on the connection between gender, entrepreneurship, and the socio-economic growth.

11.3 Concluding Remarks

Summarizing, the present study provides the evidence that the government and private organizations have to create an appropriate environment for women entrepreneurs in Nigeria, India, and all over the world. Through the planned policy policies, the women-led business strategies, and the channels for future studies, the stakeholders will collectively contribute to tearing down the barriers, developing gender equality, and unleashing the full potential of women as drivers of innovation, growth, and social change. The belief that we shall continue with the same set of principles is that we must continue to nurture the culture of inclusivity and equality so that every entrepreneur regardless of their gender and background have a space where they can

grow and attain success. Collaboration and long term dedication, however, can propel us to the desired pathway, of a prosperous future, where women entrepreneurship becomes the catalyst for sustainable development and equal prosperity.

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Women Empowerment through Spirituality at Brahma Kumaris

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Empowerment is the process of sharing basic opportunities by marginalized and non-marginalized people, either directly or indirectly. It also includes proactively defending against the attempts to deny the sharing opportunities. It enables individual to understand the relationship between the objectives, actions and the outcomes. It allows people to realize the power to fetch the desirable results. It is an intrinsic motivation comprising of four ingredients viz. meaning, competence, self-determination, and impact. Empowerment of the women means

empowerment of the next generation to bring developmental revolution.

India has a rich legacy of women's empowerment. Great social reformers like Mahatma Jyotiba Phule, Savitribai Phule, Maharshi Karve, Raja Ram Mohan Roy, Swami Vivekananda, Acharya Vinobha Bhave, Ishwar Chandra Vidyasagar etc. strived hard to abolish inhuman practices like sati and child marriage and worked tirelessly for the upliftment of women in India.

Women's empowerment stems through following five components: women's sense of self-worth; women's right to have and to determine choices; women's right to have access to opportunities and resources;

women's right to have power to control their own lives, both within and outside the home; and women's ability to influence the direction of social progress.

Thus, the empowerment of women has to be through her upliftment on psychological, social, economic, educational and political fronts. Social Empowerment refers to the drive and actions that reinforces women's social relations and her position in social ranking. Hence the women empowerment can be ascertained through Health, Education, Security, Finances and Emotion. Empowering of the women means giving them access to tools, opportunities, and conferring them the autonomy. Rectification of historical discrimination and ensuring fairness of treatment form the basic premises for the empowerment. Economic empowerment through education, skill development and entrepreneurship are very important. Academic as well as spiritual education plays a major role in women's empowerment.

In this context the need is obvious to have a mechanism in place which checks and ensures fair treatment to all women and men at work, respect for an individual, gender equality and support human rights, non-discrimination, health, safety and well-being of all women and men without any bias, fear or favour. The society needs to accept and practice the empowerment of women as their fundamental

right. Women should have equal rights to participate in education, society, economics, and politics. They should have access to higher education and treated at par with men.

The society needs to continue its concerted efforts to abolish sex determination during pregnancy, child marriage and prohibit discrimination in gender-based distribution of resources. It should have programs for self-employment and skill development among marginalized women to fend for themselves in case of financial crisis.

Jo Rowland stressed that women's empowerment occurs at three levels – the personal, close relationships, and collective – and that these three levels have to be taken into account simultaneously when trying to investigate empowerment. Empowerment in one sense is participation with others to achieve common goals, activities to gain access to resources and socio-political environment with apt mutual understanding. Women empowerment leads to opportunities for women to speak up for their rights, plead for their communities and makes them able to rise in social standing, which they can dissipate into future generations. The women's rights like the right to vote, property rights, freedom of movement, their legal rights, makes women realize their self-worth, their abilities to determine and decision making. It further invites inclusive

participation, increase happiness for the family and the work place where they work and make significant contribution to modern society in various fields viz. politics, education, business, social services, arts and culture, sports, aerospace, journalism and media, science and technology, literature, entertainment, philanthropy, spiritual and religious activities etc.

The National Mission for women
Women Empowerment and Brahma Kumaris:



Brahma Kumaris, officially known as Prajapita Brahma Kumaris Ishwariya Vishwa Vidyalaya is an organization founded by Shri. Lekhraj (Dada) Kripalani in 1937 at Hyderabad, Sindh (now in Pakistan) with its current headquarter at Pandav Bhawan, Mount Abu, Rajasthan, India. At present, it

At the Brahma Kumaris, the highest spiritual knowledge is being imparted to all human

empowerment is a Scheme under Ministry of Women and Child Development which aims at strengthening the processes that promote holistic development of women through inter-sectorial convergence both at the Centre as well as in the States/UTs. It aims at empowering women with all the rights they should have in the family, society, school, college, and country, just like a man. It is to enable them make their own independent decisions for their personal development.

has around 8500+ centres across the Globe. It undertakes Educational, Philanthropic, Spiritual, Social and Meditation activities for betterment of an individual and thus of the society at large. The institution is headed and administrated by women since its inception. Most revered Rajyogini Brahmakumari Dadi Ratanmohini ji is the present Administrative Head of the organization.



souls by the Supreme Soul (God) Himself. Supreme Soul, Niraakar Parampita

Paramatma is the Father of all souls and we together are the residents of Soul World or Paramdham.

We souls are infinitesimal point of living light situated at the centre of the forehead. Soul is imperishable, immortal and indestructible. Souls from the Soul World come down on the world stage and perform/enact the role according to the script of the Eternal World Drama.

The soul is gender neutral and has seven innate qualities. We souls conform to human bodies (saakar forms) and assume roles as actors (Men/Women) performing our act with legacy of karma i.e deeds (sukarma/vikarma) from earlier births. The Paramatma never interferes in our 'karmic accounts' and our 'Purusharth' or 'Karma' decides what our Soul will carry forward for the next birth.

Once our role on this World Drama Stage is over, we souls drop our 'saakar forms' (physical bodies) and return back to the Soul Word (Sweet Silence Home) in our original 'niraakar form' (tiny point of living light) only to come back again to play the part on this World Drama Stage and thus, the cycle keeps moving.

Women's virtues such as love, tolerance, compassion, understanding, humility, flexibility, adjustment, acceptance, appreciation, encouragement, and caring are qualities of leadership. The lack of equality

finds its roots not only in education, politics, and leadership but more particularly within levels of consciousness upon which spirituality comes in life. In fact, women have more imbibed qualities and virtues needed for walking the path of spirituality and attaining perfection of the Soul.

The peace and happiness are basic virtues of every soul. A peaceful and happy soul is worthy of contributing positively to the society. If one is not able to handle the internal and external pressures and outer situations positively then s/he may tread a path that destroys inner peace and happiness. The inner peace and happiness bring one in harmony with self, family, society and surrounding. The human life, society and surrounding (the nature and the mother earth) will prosper only if the harmony at all levels is ensured. The discrimination on the basis of gender is root cause for disharmony among close to half the population on the earth.

The need to educate the masses to distinguish between self and the body is paramount. The needs of the body and the soul (self) are different. Thus, every human being needs to undertake self-exploration to understand. The Brahma Kumaris philosophy of soul-consciousness or self-awakening is in line with this self-exploration. The change of consciousness needed is to move away from unworthy feelings and attitudes and to see the

greatness contained within the self. Every human being possesses same set of qualities but women are more easily and naturally able to tap them, for feelings of love and devotion are often more natural to women, combined with a profound sense of discipline and order. This helps them in self-exploration and self-realization.

Serving others or putting other's concern before self is a sign of a noble self (soul). A woman is always better at serving others and looking beyond self when it comes to care. If this quality of giving to others is not balanced with qualities of courage, determination, and self-respect, it is disastrous. Many a times, women have a tendency to give to others and neglect their own needs and subsequently

The quality of self-respect comes from the knowledge and experience of the eternal self which is beyond social, cultural, or physical identity. The eternal self or soul is pure, peaceful, and complete with divine and spiritual qualities. Spiritual power is an expression of the inherent qualities of the spirit and has nothing to do with gender or physical limitations. Feelings of domination or suppression occur when there is a cognizance of superiority or inferiority. Feelings of equality, however, manifest when there is the consciousness of spirit or soul. These feelings and attitudes can

inding themselves depleted and lacking in authority. The foundation for assuming leadership and position of authority is thus a change of consciousness. Overcoming the huge physical, spiritual, political, and sociological barriers that have prevented women from becoming spiritual leaders can only be done through the development of self-respect. Thus Women become leaders with self-respect, when they themselves realize they have the capacity and necessary attributes to play such a role. The change of consciousness needed is to move away from unworthy feelings and attitudes and to see the greatness contained within the self and the others.

be expressed in actions with positive results.

Thus, self-exploration, consciousness awakening, moral and value education, and spirituality can help women empowerment for equity and equality in the society. Brahma Kumaris have been successfully doing it since last 88+ years with millions of women beneficiaries worldwide.

Conclusion:

The health and Progress of any civil society can be gauged from the indicators like liberty, independence, equality and empowerment of the women in the society. Government has been undertaking various measures to ensure equality and equity among the men and

women in the society. Spiritual approach as adopted by the Prajapita Brahmakumaris has instilled a sense of well being, security and confidence among the deprived women in the society. Thus the selfless work and service by Brahmakumaris has been instrumental in Gender Equality and Women Empowerment of the society. Hence Spirituality has a major role to play in sensitizing the masses and help the cause Gender Equality and Women Empowerment.

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“OPPORTUNITIES FOR WOMEN EMPOWERMENT”

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Abstract:

The process by which women gain authority and control over their own lives and develop the ability to make smart decisions. It is evident that the importance of female education is a serious issue. Women's empowerment is an essential component of every community, state, or country. In a child's fundamental existence, a mother plays a vital role. Women play a crucial part in our culture. Women's empowerment via education may result in a positive attitude shift. As a result, it is crucial to India's socio economic and political growth. The Indian Constitution authorizes the government to use affirmative action to enhance women's empowerment. Education has a significant influence on the lives of women.

Women's empowerment is a worldwide issue, with various official and informal groups throughout the world focusing on women's political rights. Women's empowerment starts with education, which enables them to adapt to challenges, confront established norms, and change their life. As a result, empowerment is characterized as a psychological

sensation of personal control or influence, as well as a desire for genuine social power, political authority, and legal protection. This multilevel architecture includes individuals, organizations, and communities.

Keywords: Gender equity, Opportunities, sustainable development

1. INTRODUCTION

Achieving gender equality and building a community that is more equitable and welcoming needs the empowerment of women. Providing women the means, methods, and opportunities to engage completely and equitably in all facets of life—the social, political, economic, and personal—is the very essence of empowering them.

1. Next Generation Women

a. Destigmatize discussion of mental well-being. Raise awareness, demonstrate vulnerability, and put assistance in place. Mental illnesses will not be fixed quickly, however, we can all discuss how we manage our mental and physical well. Taking

time to take care of oneself is not a sign of weakness.

b. The most important aspect is trust. Whether the next generation of female leaders works from home or in the office, a key component of Turn and Pull is presenting opportunity with a safety net; a chance to try something new that challenges the comfort zone with the assurance that the leader has their back. Silvana Koch-Mehrin, Founder and President of Women Political Leaders, said at Davos: "You trust people, you trust that they want to do the job and you trust them to do the job. It doesn't matter if they sit at an office desk, or if they sit at home or if they even sit somewhere else. What matters is to get the job done and to deliver on it."

c. Women are not looking for favors, but rather an equal playing field. According to experience, women are normally the last to apply for new jobs for which they sense they are unqualified, yet men with the same qualifications do. We should all strive for at least a 50%/50% for growth opportunities, particularly in historically male-dominated departments like finance and information technology.

d. We make it quite obvious that for this sort of activity, we work best when we are together. When we notify our employees that they may come in. They want to feel as if the culture works for them. If we ask people to come in, sit in front of their computer, and do e-mail, both men and women will answer, 'I can do that from home.' "And we all know better now."

e. Policies like the four-day work week make headlines, but when we asked women what contributes most to their well-being at work, a supportive and sympathetic boss came out on top. A

Friday off will not change the outcome if the rest of the week is spent with an unsupportive crew. According to The New Human Age statistics, one-third of women (vs. 25% of men) wish their boss understood the impact of their workload on their mental health. They are willing to walk away if companies do not satisfy their needs.

f. The pandemic has served as an example that life occurs. Women and men prioritize their families' health and well-being. People appreciate being there with loved ones and are concerned about their health. As the global talent deficit continues to break new records, with 77% of companies reporting issues hiring the skilled workers they require, allowing individuals to live one life that combines work and home is not only the right thing to do, but also crucial to closing the skills gap.

g. Women are saying, "We want shared values, skill development, and a true work-life balance," and in return, they will provide their talents, time, engagement, and trust to their company.

2. Role of Women in Nation development

Women have always played a crucial role in society, ensuring the stability, advancement, and long-term growth of countries. Women make about 43% of the agricultural labour force worldwide, with that percentage reaching 70% in certain nations. For example, 80 percent of agricultural production in Africa is produced by small farmers, the majority of whom are women from rural areas. It's common knowledge that in developing countries, agriculture can serve as a catalyst for economic development and the decrease of poverty. When it comes to choosing the family's nutrition and meal plans, women—especially mothers—have the most say. Women also self-report more frequently that they

take the initiative to maintain the diet and health of their children.

A few of the many roles that women play in the development of a country are that of carers, educators, farmers, entrepreneurs, and conscience; few of them are on international platforms.

In all countries on earth, women are the primary carers for children and the elderly. International studies demonstrate that women take the lead to support the family in adjusting to new challenges and realities when a society's political framework and economy shift. They are generally the ones who start seeking assistance the most, and they have a big say in whether changes in family life are made easier or more difficult.

Currently, 45.4 percent of the workforce worldwide are women. Formal and informal labour carried out by women has the power to move a community from a relatively autonomous society to one that is involved in the national economy. Notwithstanding considerable challenges, women-owned small enterprises in rural communities that are growing can serve as a networked economic base for future generations as well as a lifeline for generations to come. In recent decades, women's roles in both urban and rural workforces have grown significantly.

The community development work that Global Volunteers conducts in host nations around the world supports the future wellness development of women and children, as well as strengthening their capacity.

3. Women empowerment

Education is one of the most crucial ways to provide women the knowledge, abilities, and self-assurance they need to completely engage in the process of

growth through education.

Women's empowerment consists of five components: women's sense of self-worth; their right to have and make choices; their right to access opportunities and resources; their right to have power over their own lives, both inside and outside the home; and their ability to influence the direction of social change to create a more just social and economic order, both nationally and globally.

The education, training, awareness raising, self-confidence building, expanded choices, improved accessibility to and ownership of resources, and steps that change the systems and organizations that perpetuate and strengthen gender discrimination and inequality are critical tools for empowering women and girls to assert their rights.

4. Role of Women in education and research

Women's education is vital for the country's overall growth. It's analogous to an effective drug, which may be able to treat a patient and restore health. A well-educated woman can manage her personal and professional lives. Education's moral objective is to help children grow physically and intellectually. Education's fundamental goal is to provide pupils "full knowledge" or "greater information."

A well-educated woman possesses the skills, knowledge, and self-assurance required to be an effective mother, worker, and citizen. A well-educated lady will be more productive and earn more money at work. Indeed, women frequently outperform men in terms of educational returns.

Womens must get the freedom to make their own choices. To get things started with, education is a fundamental entitlement for everyone, including women. We cannot have that many uneducated women in our society; it would be a major loss for

us. Every girl and woman has the right to an education, regardless of her socioeconomic status. Education is a fundamental right and not a privilege. According to the United Nations Inter-Agency Project on Human Trafficking, illiterate and impoverished women are the most prone to trafficking. Giving young ladies opportunity and vital skills might have a significant influence on this international company.

Women are underrepresented as voters and political actors across the world. Civic education, training, and general empowerment, according to the United Nations Women's leadership and participation programs, will assist to close that gap.

Discrimination and inequality always start at the ground level. When a boy attends school but his sister stays at home because she is a girl, it plants a seed of bias in the boy's mind. He feels he is superior merely because he is a boy, and he provides no explanation for this view. When women engage in education by attending schools and colleges alongside men, boys become more conscious of their educational rights and are less prone to develop a superiority complex. As a result, teaching both men and women fosters the ideas of equality and democracy.

When women have equal rights and educational opportunities, they are more likely to participate in commercial and economic activities. By feeding, clothing, and providing for entire families, greater earning power and income combat present and future poverty.

The United National Development Fund for Women (UNIFEM) defines women's empowerment as knowledge and awareness of gender relations and their potential for change.

1. Developing a sense of self-worth, trust in one's ability to make desired changes, and the ability to steer one's own life.

2. Being able to make judgments that provide you negotiation leverage.

3. Improving one's ability to organize and influence social change in order to establish a more equitable social and economic order on a national and global scale.

5. Role of women in economic growth

One billion women live in poverty because they lack access to banking, business loans, and formal marketplaces.

Several research in recent years have demonstrated that gender equality is "smart economics." Women's untapped potential is a missed chance for economic growth and development that the world cannot afford. Women's economic engagement boosts agricultural production, micro, small, and medium-sized firm development, and improves business management and returns on investment.

In addition to improving economic growth, investing in women has a multiplier impact, since women reinvest a significant amount of their earnings in their families and communities. Women also play vital responsibilities in fostering peaceful and stable communities, which are essential for economic progress. Unfortunately, these benefits have not been uniformly acknowledged, and hence women have not been able to fully participate in the economy. Women still confront challenges when starting new enterprises or expanding established ones. Discriminatory laws, regulations, and business circumstances are among the most significant barriers, as is women's lack of access to property rights, financing, training, technology, markets,

mentors, and networks.

Investments to increase women's economic opportunities for women empowerment include:

Financial Inclusion: Promote women's access to excellent financial services such as credit, savings, insurance, and payment systems through improved regulation, technology, and financial literacy.

Women and Agriculture: Emphasize women's critical role in improving agricultural development and food security, and urge legislative and programmatic support for female farmers and agricultural companies controlled by women.

Enterprise Growth: Support non-governmental organizations (NGOs), associations of industries, and corporations that advocate for policy and programmatic solutions that enable women's economic participation, such as reforming discriminatory laws and practices that impede access to capital, land tenure, and inheritance rights, and fostering a policy climate conducive to the growth of women-run SMEs.

Reduce the gender gap in access to mobile phones, the Internet, and other critical technologies by tackling cultural, socioeconomic, educational, and motivational hurdles.

Capacity Building: Through our Pathways to Prosperity and African Women Entrepreneurs Programs, we provide women and girls with capacity building, training, and mentoring programs, as well as market information, entrepreneurship opportunities, and the skills they need to achieve economic independence.

Business Leadership: Promote best practices for increasing women's representation in senior management roles, including corporate boards.

Data Collection: Encourage the collection and alignment of gender-sensitive data in the economic sector so that evidence-based policies and programs may be developed to increase women's economic involvement in all sectors.

6. Women in decision making

Women frequently serve as dynamic changers, inspiring both men and women to participate, assert their rights, improve their communities, and safeguard the environment. Their participation is essential to democratic government. Nonetheless, women still face substantial obstacles to equal participation in positions of power and leadership, whether in executive offices or national cabinets.

Women have the right to equal participation. Once in positions of leadership, individuals have the potential to make a significant influence for whole civilizations. According to the Inter-Parliamentary Union, women legislators prioritize social welfare and legal rights, which builds trust. Taking up the Beijing promises and uniting behind women's leadership might hasten progress toward equitable participation—right now. We cannot wait for the next century!

7. Women Entrepreneurship: challenges and opportunities

Women entrepreneurs are women who start a business, acquire the necessary resources, take risks, confront problems, offer employment for others, and manage the firm autonomously. "Women Entrepreneurship" refers to the act of owning and starting a firm that economically empowers women in society.

The value of female entrepreneurship in economic growth is well acknowledged. Numerous studies show that female entrepreneurs contribute positively

to economic growth and development. Women entrepreneurs continue to be underrepresented, and they confront several challenges along the way.

Challenges for female entrepreneurs

Limited financing: Having investors is the most significant or necessary aspect of launching a business, and not everyone is fortunate enough to find them. Funding acts as a lubricant and fuel in companies, allowing for smoother product creation, production, and marketing while also keeping administrative operations effective. Women's companies are among the most prominent endeavors that lack financial backing. Instead of backing female entrepreneurs, many banks seek out male-owned enterprises.

Balancing responsibilities: Entrepreneurship requires time and patience, and many women have families, spouses, children, and other commitments in addition to their business or careers. Society and family expect her to be a good mother and wife who is always accessible to her family, yet business requires her to be a leader and demonstrate devotion. Balancing personal and professional lives may be tough, especially for individuals who lack familial support. Nonetheless, many female entrepreneurs effectively manage their personal and professional lives.

Fear of failure: Success and failure are inextricably linked; they cannot be attained apart. This applies to both men and women, but a man's failure in business is easily tolerated by others around them. People adore ridiculing women for failing. It's almost like women's failures in business are a win for them since their belief that a woman cannot be a leader or manage a firm smoothly is proven right. And this worry is corrosive, especially in the absence of

support. As a result, fear replaces confidence, and people fail even when they have the potential to achieve.

Gender inequity: This is one of the most commonly used expressions in today's world: women are paid equally for their labor, yet it appears to bring very little change, if any at all. Every field we visit, we notice a guy leading it. Women must work their way up in a macho environment, despite all stigma and discrimination. Although the government tried to make a favorable environment for them, women continue to be seen as inferior to men despite having the right attitude and aptitude for the job. And these struggles only add up difficulties to start a business.

Unfavorable environment: The unfriendly atmosphere is one of the most significant problems that women entrepreneurs encounter. Even when women operate a firm, they are expected to have a male partner to make transactions, negotiate, or act as a business face. Furthermore, the fear of harassment and the steady increase in rape cases limit their ability to pick their company location and operating hours, which reduces their chances of success. Entrepreneurs' life are rarely easy, and it is more difficult for women entrepreneurs.

Lack of education: In many nations, education for girls is not a priority. Rather than inspiring them to be a career-oriented person or a leader, they are taught to be a "good wife and mother." They are expected to abandon their hopes and goals in order to provide for their families. Education is critical for generating unique ideas and turning them into profitable businesses. Lack of education and skill training restricts their access to a variety of governmental and commercial support services, including company development services and

information on business growth.

Lack of familial support: Business requires devotion and time, making it difficult for them to satisfy the needs of their family and society as a whole. As a result, they become unable to attend to domestic duties or their children's demands, causing tension in their personal life and making it harder for them to function as entrepreneurs.

All of these issues limit their ability to endure the risks and uncertainties of a business unit. The lack of sufficient support, collaboration, and backing for women from their own family members and the outside world pushes them to abandon the goal of succeeding in the business sphere.

Despite these challenges, there are a lot of successful businesswomen who continue to operate their businesses while managing their personal and professional responsibilities. And it is their determination to overcome all odds to become a successful entrepreneur that has changed people's perceptions of women to a greater extent, with the World Bank and its donor nations, as well as leading businesses, universities, and NGOs, now focusing on supporting women-owned businesses.

8. Women and cyber security

We commonly utilize the internet for research, communication, and amusement. To protect our safety when using the internet, we must publicly share the best practices. A few excellent practices are outlined below:

1. Personal sensitive information should not be published on social media or any other platform.
2. Private content should be guarded with complicated passwords.
3. Printers, wifi, cameras, and laptops should be turned off and not kept open while not in use.

WiFi should always be protected by a2cure password.

4. Do not open the URLs to which an email may take you and then ask you for personal information.
5. While utilizing net banking, instead of using Google or other search engines, type the actual address of your bank into the address box.
6. Before buying online, ensure the site address is https or has a picture of a lock.
7. Use complicated passwords and change them periodically. To gain access to your email accounts, complete a two-step OTP verification process.
8. Install and update anti-spyware and antivirus programs.
9. Avoid taking calls from strangers, accessing popup windows, or responding to unsolicited verification messages that may require you to validate your personal information.
10. When downloading plug-ins for any software, use an antivirus to scan them first.
11. Keep a comprehensive backup of your system/mobile data occasionally.
12. Avoid accessing your email accounts at internet cafes, and remember to sign out of any online accounts you no longer want to access.
13. If you pay online or using netbanking, sign up for mobile SMS and email transaction alerts.
14. Type the URL into the address box to visit the bank's website. Otherwise, it may be a bogus website in a search result.
15. Use the virtual keyboard whenever feasible to improve security.
16. If you change your mobile phone number, notify the bank. If you lose your phone, remember to deactivate any financial services associated with

that number.

17. Avoid swapping old mobile phones for new ones since the data on them can be used to harass the phone owner or others and commit other crimes, such as phishing.

18. Never leave your mobile phone or laptop alone or without password protection with anybody.

19. Before activating a web service such as Whatsapp on your new phone, deactivate it on your old one.

9. Human rights for women

We are all entitled to human rights. These are among the right to live free of violence and prejudice, to have the best possible bodily and mental health, to be educated, to own property, to vote, and to be paid equally.

HOW ARE WOMEN'S RIGHTS VIOLATED?

Gender-based violence occurs when violence is done against women and LGBTI persons because of their orientation, gender identity, or sex traits. Gender-based violence affects women and girls in disproportionate proportions. Women and girls in conflict are particularly vulnerable to violence, and sexual assault has historically been utilized as a weapon of war.

Globally, around 30% of all women who have been in a relationship have suffered physical and/or sexual abuse perpetrated by their partner. Women are more likely to be victims of sexual assault, including rape, as well as so-called "honour crimes".

Sexual Violence and Harassment

Sexual harassment refers to any unwanted sexual conduct. This might include physical actions and approaches, demanding or soliciting sexual favors, or using improper sexual language.

Sexual violence occurs when a person is physically sexually abused. Although men and boys can be victims of sexual abuse, women and girls are disproportionately victimized.

Workplace Discrimination

Women frequently face gender-based discrimination in the workplace. One method to demonstrate this is to consider the gender wage disparity. Equal compensation for the same labor is a basic right, yet women are consistently denied a fair and equal income. According to recent data, women earn around 77% of what men receive for the same occupation. This creates a lifetime of financial imbalance for women, hinders them from completely exercising independence, and increases their likelihood of poverty later in life.

Discrimination because of sexual orientation or gender identity

Many governments across the world deny women's rights based on their sexual orientation, gender identity, or sex traits. Lesbian, bisexual, transgender, and intersex women, as well as gender nonconforming individuals, endure assault, marginalization, harassment, and discrimination. Many people face terrible violence, including sexual abuse, commonly known as "corrective rape" and "honour killings."

10. Women and health

While poverty is a significant obstacle to healthy health outcomes for both men and women, it disproportionately affects women and girls' health due to factors such as food patterns (malnutrition) and the use of dangerous cooking fuels (COPD).

Some of the sociocultural variables that restrict women and girls from receiving appropriate health care and achieving the greatest potential level of

health include:

Factors contributing to gender inequality include unequal power dynamics, social norms limiting education and career prospects, an emphasis on women's reproductive duties, and the possibility of physical, sexual, or emotional abuse.

Menstrual cycles, pregnancy, birth control, and menopause are just a few of the particular health challenges that women face. Some health disorders affect just women, while others are more frequent in women. Furthermore, men and women may have the same illness yet have distinct symptoms. Many illnesses affect women differently and may need specialized therapy. Breast cancer treatment options include removing the damaged breast (mastectomy), removing the tumor and a small amount of surrounding tissue (lumpectomy), radiation therapy, chemotherapy, and hormonal therapy.

Women's health initiatives can focus on the following topics to make women's lives easier:

1. To deliver evidence-based community health interventions aimed at promoting wellness, environmental health literacy, and public health.
2. Investigate and address environmental health inequities using a racial and gender equality focus.
3. To promote environmental justice and the development of localized community health resilience.
4. To educate students, researchers, postdoctoral fellows, and clinical and public health practitioners on community and environmental health research and practice.

11. Cultural heritage and women

Women have a critical role in preserving and revitalizing cultural history and diversity across the world. Their contributions in intangible heritage are

crucial since they cover basic categories and representations of cultural heritage that are often overlooked. crucial to the preservation of cultural identity. Examples include language, ethical rules, behavior patterns, value systems, and religious beliefs. In many societies, women are responsible for raising children and passing along intangible legacy to future generations. Women not only preserve and transmit intangible culture to future generations, but also create and modify it. Women's participation in preserving intangible heritage, especially within local cultural settings, is crucial for protecting cultural variety. Women's intangible heritage deserves special attention and support in activities aligned with the UNESCO Universal Declaration on Cultural Diversity, issued at the 31st General Conference in 2001.

12. Post pandemic women empowerment

Since the start of the COVID-19 crisis, women in the Asia-Pacific region have demonstrated decisive leadership in steering their countries and communities toward effective pandemic responses, whether through managing their businesses and households or serving on the front lines as health care workers.

However, in the top echelons of decision-making and the public sector, many women's opinions are still not heard. Only a small percentage of political leaders in our region are women, which is far lower than the global norm.

This is detrimental not only to women, but to the region as a whole. To ensure that the pandemic response and recovery are genuinely successful and address everyone's needs, we must accelerate progress toward women's empowerment in public decision-making.

The COVID-19 pandemic has highlighted the critical role of women in delivering rapid reaction to the pandemic - on the front lines, in crucial employment supporting everyday requirements, and in care and domestic labor for the economic and social well-being of societies. It has emphasized the need of implementing policies, programmes, and measures that aim to fully include women and girls in economic, social, and political life, both as suppliers of and contributors to the end results, as well as recipients of the outcomes.

The course on Economic Empowerment of Women during and after COVID-19 will help women achieve economic empowerment by addressing financial literacy, business thinking, and leadership abilities in order to increase women's prospects for active participation during and after the COVID crisis. These are critical variables in developing women's ability to enhance their income and find work in a changing economy.

13. Policies for women empowerment in different countries

Everyone benefits from ensuring that women have equal and meaningful opportunities in the workplace. Nonetheless, the average female employment participation rate across nations remains 20 percentage points lower than the male rate, owing to persistent gender disparities in earnings and access to opportunities such as education.

The study reveals that fiscal policy choices that promote gender equality, such as investing in education or infrastructure, improving sanitation facilities, implementing individual-based tax regimes, and providing parental leave, increase

economic opportunities for women, boost growth, and reduce poverty and inequality.

14. Gender equality: Social and economical aspects

The main socioeconomic inequalities and differences between men and women are related to employment, as women are more likely to work part-time and in lower-paid occupations, and they continue to face a number of inequalities. Women continue to be the primary caregivers in families, which has an influence on their use of public resources, capacity to work, make decisions, and participate in other social activities. Women earn less than males due to a combination of disadvantages. All of these factors should be considered so that social policies promote true gender equality.

15. Success stories of different countries on women empowerment and gender equality

Kiran, the founder and chairman of Biocon Limited, has had a huge effect on the biotechnology sector. Her creative leadership propelled Biocon from a modest start-up to a global powerhouse in biopharmaceuticals and research.

She had a decent education and studied biology and brewing at the University of Bangalore. She eventually pursue postgraduate studies in malting and brewing at Ballarat College, Australia. Kiran returned to India and launched Biocon in 1978 with a startup capital of Rs 10,000 (Indian rupees).

Kiran has been a beacon of gender equality in the workplace throughout her career, inspiring numerous women to pursue their aspirations in science and business. Her dedication and talents have garnered her several prizes, making her a true inspiration and catalyst for positive societal

progress.

Chanda Kochhar is a highly regarded figure in the banking and financial industries. She was born in Rajasthan, India, in 1961 and studied economics before earning an MBA from the Jamnalal Bajaj Institute of Management Studies in Mumbai.

Her banking career began in 1984, when she joined ICICI Bank, one of India's leading financial organizations. She gradually rose in her profession, demonstrating outstanding leadership skills and extensive banking sector knowledge.

Chanda Kochhar created history in 2009 when she became ICICI Bank's first female managing director and CEO. Under her leadership, the bank achieved outstanding results and expanded its local and foreign activities. She had a critical part in designing ICICI Bank's retail lending operations, which helped the bank's performance and expansion.

Indra Nooyi, born on October 28, 1955, in Chennai, India, she attended the famous Indian Institute of Management Calcutta. She later received a Master's degree in Public and Private Management from Yale University.

Indra Nooyi joined PepsiCo in 1994 as Senior Vice President of Corporate Strategy and Development. Her excellent leadership and strategic ability propelled her to become PepsiCo's CEO and Chairman in 2006, a post she maintained until October 2018.

During her time, PepsiCo saw substantial development and expansion. Nooyi broadened the company's product portfolio by emphasizing healthier alternatives and snacks, in line with shifting customer tastes and societal trends.

Nita Ambani's professional career began in the

1980s as a schoolteacher. However, her life altered when she married Mukesh Ambani, the oldest son of Reliance Industries' founder, Dhirubhai Ambani. As the daughter-in-law of one of India's wealthiest families, Nita Ambani accepted the task of positively affecting a variety of fronts.

She is the founder and chairperson of the Reliance Foundation, which was created in 2010. The foundation focuses on education, healthcare, rural development, and disaster response projects, with the goal of improving the lives of millions in India. Nita Ambani's dedication to social issues and philanthropy is admirable.

When Aditi Gupta was in her early twenties, she encountered the shame and ignorance associated with menstruation in rural India. She was startled at the dearth of understanding and availability of period hygiene items.

Aditi decided to take action and started Menstrupedia in 2012. Menstrupedia is a social venture dedicated to breaking the stigma around menstruation and providing young girls and women with factual information on menstrual health. Menstrupedia started as a web-based comic book that combined stories and graphics to teach girls about menstruation in a fun and approachable way.

Conclusion:

The potential for women's empowerment are numerous and exciting, but the struggle to achieve gender equality and empower women worldwide is continuing. By emphasizing the value of education, economic independence, access to healthcare, and political engagement, nations may foster an environment in which women can thrive and

contribute meaningfully to social, economic, and political advancement. Governments, organizations, communities, and people must continue to advocate for women's rights, break

down obstacles, and create inclusive environments in which women may fulfill their full potential. Empowering women benefits not only them, but also the economy, communities, and the globe as a whole. As we move forward, let us remain dedicated to creating possibilities for women's empowerment and working toward a future in which every woman has the freedom, resources, and support she needs to have a full and empowered life.

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