

Gender Responsive Approach of Innovation and Technology for Sustainable Development

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Abstract - Sustainable business development is about creating a better future for everyone. It means finding ways to do business that are good for people and the bottom line. Innovation and technology are essential for sustainable business development (SBD). They can help businesses to improve their efficiency, and create new products and services that meet the needs of the changing world. Innovation and technology should find answers to the sustainability crisis and should serve as a medium of improving the quality of life of the people living below the poverty line. Sustainable development initiative is the initiative to increase the job opportunity, advancing nation's capacity in science and technology so as to increase the economic activities. Science and technologies can improve the capabilities to address the economic, social and environment dimensions of development. However, if these innovations are not designed with gender equality in mind, they can actually reinforce existing gender inequalities and widen the gap between men and women. A gender-responsive approach to innovation and technology means taking into account the different needs and experiences of women and men, considering their experience at every stage of the innovation process from ideation to implementation and ensuring that innovations are designed to benefit both genders equally. This article analyses the possibilities of gender responsiveness in the sustainable development and the challenges associated with the same. It is an empirical study based on the available secondary data.

Keywords: gender responsive, innovation, technology, sustainable development

I. INTRODUCTION

A gender-responsive approach means going beyond acknowledging and raising awareness of gender gaps, to make sure women's and men's concerns and experiences are equally integrated in the design of innovative products or services and that due consideration is given to gender norms, roles and relations. (UN Women report 2019).

Development is a process of capacity building. Improving the quality includes a sustainable pattern of consumption and production. There should be a connect between the consumption and production pattern to the society. This is possible by way of improving the quality of education, good health and safe food. A sustainable market should be efficient to provide the goods and services in the right quantity and quality also in right manner. To meet the basic human needs and economic sustainability, there is a need for a mechanism of financing innovation.

The report of UN Women, Sep 2017 describes sustainable development will result into the development of Social, Environmental, Economic and Political development. It has ambition to leave no one behind irrespective of their socio-economic condition, location, religion, ethnic or political affiliation. World leaders from 193 nations

adopted by consensus the 2030 Agenda for sustainable development, along with a set of 17 sustainable development goals (SDGs) at the United Nations General Assembly in September 2015. Achieving the UN goal will come true only by gender responsiveness.

There are many examples of how a gender-responsive approach to innovation and technology can be used to advance sustainable development. "Tula" app, used by women in India to track their menstrual cycles and access health information has helped to break down taboos around menstruation and has improved women's access to healthcare. In Kenya, a mobile phone app called "M-Farm" has been used to help farmers get better prices for their crops. The app has been particularly beneficial for women farmers, who traditionally have had less access to information and markets. Innovation is the process of creating new or improved products, services, processes, or business models. It can be a powerful tool for SBD, as it can help businesses to find new ways to reduce their wastage, improve their efficiency, and create new products and services that meet the needs of a changing world.

Technology is the application of scientific knowledge to solve practical problems. It can be used to improve the efficiency of businesses, create new products and services,

and reduce the environmental impact of our activities. Businesses can use new technologies to reduce their energy consumption, water usage, and waste production. They can also use new technologies to create more efficient manufacturing processes, develop new products that are more sustainable, and provide new services that help people to live more sustainably.

Some of the innovative ideas benefited women to a large extent. The birth control pill has given women the freedom to choose when and if they want to have children. This has had a profound impact on women's lives, allowing them to pursue education, careers, and other goals without the fear of unintended pregnancy. The changes made in the workplaces have made changes to be more accommodating to women, such as providing on-site childcare, flexible work arrangements, and paid parental leave. These changes have made it easier for women to balance work and family life. The #Me Too movement has helped to raise awareness of sexual harassment and assault. This has empowered women to speak out against their abusers and has led to a cultural shift in how we view and respond to these crimes. There are a number of technologies that have been developed specifically to help women, such as apps that track menstrual cycles, devices that provide early detection of breast cancer, and telemedicine services that make it easier for women to access healthcare.

OBJECTIVE

The objective of the study is to discuss the challenges of gender responsiveness in the innovation and technology and to provide suggestions to overcome the challenges.

II. REVIEW OF LITERATURE

(Magendane & Kapazoglou, 2021, #) identified gender dimension in studies have been very less though Sustainable Development is talked about in many of the Economic policy including the 2030 agenda.

(Commission on the Status of Women, n.d.) Women experience a series of disadvantages over men and gender inequality is pervasive across the globe. Sustainable Development is needed to have both the genders to enjoy equal rights and women should be free from violence and discrimination.

(Morgan et al., 2020, #) There is an improvement in several areas of discrimination like, education to girls, forceful early marriage, and women in leadership roles. Still policy decisions in gender context are taking place in sectors like education, health etc.

Active addressing of Sustainable Development with reference to gender equality and women empowerment should lead to a catalytic effect on human development. (Odera & Mulusa, 2019, #)

(Bourgault et al., 2021) emphasis on redesigning the gender responsive approach of the 2030 agenda of the UN. It is necessary because studies repeatedly prove that women are more fragile to poverty, public employment position responsiveness, insecurity and physical and sexual violence.

(Caridade et al., 2021, #) demonstrated the wider benefits of gender equality in relation to Sustainable Development beyond food security agricultural production, climate change, and natural resource management.

(de Jong & Vijge, 2021, #) Gender inequality creates inequality and injustice in opportunities which results in inefficient economic activities and growth.

(World Economic Forum, 2020) highlighted that progress in achieving gender equality continues to be slow. The report also highlighted the need for achieving gender equality.

(Soochnapreneur, n.d.) Educational programme Soochnapreneur (Information-Preneur) in India, provided the rural women with education and technological training to make the women change makers and to discriminate the information related to government schemes and benefits to the fellow community members. Participants were not only developed their entrepreneurial skill but also trained to have sustainability by using their skills.

III. METHODOLOGY

This study is an empirical research based on the secondary data availability. The study has given more importance to the UN Agenda 2030 on sustainable development goals. The study also had taken into consideration of the reports available from several corporate agencies.

CHALLENGES IN GENDER RESPONSIVENESS

Gender stereotypes: Many of the works are gender biased even in this 21st century. Though there are a large volume of talk about equality, the women themselves believe in times that they are not meant for doing some kind of works or some of the works are not meant for them. This gender stereotypes lead women being excluded from innovation processes and the need for gender responsiveness becomes a question.

Access to technology: Women are less likely than men to have access to technology, which can limit their ability to benefit from innovation. This is due to a number of factors, including economic inequality, lack of education, and cultural norms. Household work is commonly treated as the work of women which consumes almost full day. Entire day is spent on cooking, cleaning and parenting work. This makes the women not getting in touch with the new technology. So it becomes harder for them into get into the process of innovation.

- **Gender-based violence:** Women are more likely than men to be victims of gender-based violence, both online and offline. This makes it difficult for women to use technology safely and effectively.
- **Lack of data and research:** There is a lack of data and research on the gender dimensions of innovation and technology. Sustainability is always seen as the business model leaving the gender importance. The data available on the gender responsiveness also not clearly mentioning the action plan to make the technology and innovation to benefit both the gender equally.
- **Lack of funding:** Funding becomes a great concern for gender-responsive innovation and technology initiatives. Though there are number of initiatives by the international organisations like UN, there is a wide gap between demand and supply of such fundings which makes it difficult to develop and implement gender responsive ideas.
- **Lack of political will:** Though countries hold meetings, pass resolution, there is a lack of political will to promote gender-responsive innovation and technology because of the lower political benefits of such move.

DISCUSSION

Bridging the gap between knowledge, technology and gender is not a tough job if the innovators identify what is needed to be improved or what should be given priority for sustainability in terms of gender equality. The root cause for the non-gender responsiveness has to be studied about. Many of the times sustainability does not include the women because the same is not felt important by the innovators themselves. Apart from identifying the need the following can be taken into practice for making the innovation and technology a gender responsive one.

- **Recognizing and addressing gender biases and stereotypes:** Gender biases can exist in all aspects of the innovation process, from the way that problems are defined to the way that solutions are designed. It is necessary to be aware of these biases and to take steps to mitigate them. It is also needed to challenge gender stereotypes and to promote the image of women as innovators and leaders. This can be done through education, awareness-raising, and by providing role models for girls and women.
- **Involving women and girls in the innovation process.** Women and girls are often excluded from the innovation process, even though they are often the most affected by the problems that innovation is trying to solve. Women and girls should be given chance to get involved at all stages of the process, from brainstorming to testing and evaluation.
- **Designing solutions that meet the needs of women and girls:** When designing solutions, there should be a consideration of the specific needs and priorities of women and girls. This includes taking into account their different roles and responsibilities, as well as their different experiences of discrimination.
- **Evaluating the impact of innovation on women and girls:** Evaluation of the impact of innovation on women and girls should be carried out, to ensure that it is having the desired effect. This includes measuring the impact on their economic empowerment, their social status, and their health and well-being.
- **Ensuring access and advancement to technology:** Innovative education programs often emphasize STEM (science, technology, engineering, and mathematics) fields, which are traditionally male-dominated. Women should be given equal access to STEM. Education and training can help to advance technology by providing women with the skills they need to work in STEM fields. Knowledge of science and technology can help them to make a positive impact on the world. This can be achieved by providing affordable and accessible STEM trainings.
- **Addressing gender-based violence:** Gender-based violence, both online and offline has to be addressed in such a way that the women don't hesitate to enter into the sustainable development process. This can be done by providing support services for victims of violence, and by working to change the social norms that perpetuate violence against women.
- **Generating data and research:** Generating data and research on the gender dimensions of innovation and technology will bring changes in the society. This can be done by conducting research, collecting data, and sharing findings.
- **Providing funding:** Governments, donors, and private sector actors working worldwide should provide more funding for gender-responsive innovation and technology projects.
- **Building political will:** Political willingness plays a vital role. Governments of different nations should build a strong political will to promote gender-responsive innovation and technology. This can be done by engaging with policymakers, and by raising awareness of the importance of these issues.
- **A universal basic income:** A universal basic income would provide financial security to all women, regardless of their employment status. This would help to reduce poverty and inequality, and it would also give women more freedom to choose how they want to live their lives.

- **Equal pay for equal work:** Equal pay for equal work is a basic human right. But it is still not a reality for many women around the world. Enacting laws that enforce equal pay would help to close the gender pay gap and give women the same opportunities as men in the workplace which will attract more women in workplace.
- **Education and training opportunities:** Education and training are essential for women's economic empowerment. However, many women around the world do not have access to these opportunities. Providing more education and training opportunities for women would help them to get better jobs and earn higher incomes.
- **By closing the gender gap:** Women should be provided with the same opportunities as men. This could be achieved by innovative education. To have real equitable society men should also be educated about the importance of women empowerment.
- **By promoting peace and development:** Innovative education can promote peace and development by empowering women to resolve conflict and build a better future for themselves and their families. By teaching women about their rights and how to advocate for themselves, innovative education can help to create a more just and peaceful world.
- **Access to quality healthcare:** Access to quality healthcare is essential for women's health and well-being. However, many women around the world do not have access to the healthcare they need. Expanding access to quality healthcare would help to improve the lives of women everywhere.
- **A focus on critical thinking and problem-solving:** Education programs should encourage the women to think critically and solve problems, rather than simply memorizing facts. This helps students to develop the skills they need to succeed in the workforce and in life.
- **A focus on entrepreneurship:** Women entrepreneurship is an important aspect of sustainability. A holistic education programs should include focus on entrepreneurship for women, teaching women how to start and run their own businesses. This can be a particularly valuable skill for women, as it can help them to achieve financial independence and economic empowerment.
- **A focus on leadership and advocacy:** Women should be educated on how to be leaders and advocates for themselves and their communities. This can help women to take control of their own lives and to make a positive impact on the world.
- **A focus on flexibility and accessibility:** Education programs should be designed to be flexible and

accessible, so that women can learn at their own pace and on their own terms. This can be particularly important for women who have other responsibilities, such as caring for children or working full-time.

IV. CONCLUSION

Addressing gender stereotypes and ensuring that women have equal access to technology, can help to reduce gender inequality. When women are able to benefit from innovation, it can lead to improved socio-economic development for all. A gender-responsive approach can help to ensure that innovation and technology are used in a sustainable way. Women are often the primary users of natural resources, so ensuring that they have a say in how these resources are managed can help to promote sustainable development. Innovation and technology have the potential to transform lives and create a more sustainable future. However, if these innovations are not designed with gender equality in mind, they can actually reinforce existing gender inequalities and widen the gap between men and women. A gender-responsive approach to innovation and technology is essential to ensure that these technologies benefit all people equally.

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