

Rethinking Women's Role in WTO in the Digital Age: Challenges, Opportunities, and Shifting Power Dynamics..

Priyanka Gupta¹, Dr. Harshita Sharma², Mr. Nishant Sharma³, Prof. Deepali Singh⁴

¹ Research Scholar, Vivekananda Global University, Jaipur, Rajasthan, India.

Email: guptapriyanka0333@gmail.com

² Assistant Professor, Vivekananda Global University, Jaipur, Rajasthan, India.

³ Independent Researcher.

Email: nishant268a@gmail.com

⁴ Associate Dean, Research & Development Cell, Vivekananda Global University, Jaipur, Rajasthan, India.

Email: deepali.singh@vgu.ac.in

Corresponding Author:

Priyanka Gupta

Email: guptapriyanka0333@gmail.com

Abstract

The transformation of global trade governance in the digital era has significantly reshaped the participation within the World Trade Organization (WTO), particularly with regard to women's roles and representation. The paper examines how digitalization has influenced women's engagement in WTO processes, focusing on the persistent structural barriers, emerging opportunities, and evolving power dynamics that characterize this shift.

The study holds an interdisciplinary approach, integrating perspectives from international political economy, gender studies, and digital governance. It highlights how digital tools, including virtual negotiation forums and e-commerce platforms, have created new opportunities for women's participation by reducing geographical and financial constraints. However, these opportunities remain unevenly distributed, often reinforcing existing inequalities due to disparities in access to digital infrastructure and skills.

Furthermore, the paper explores the shifting power dynamics within the WTO, where digital trade agendas are increasingly dominated by technologically advanced nations, thereby marginalizing voices from less developed regions, including women stakeholders. It argues for a rethinking of institutional frameworks to ensure gender-inclusive digital trade policies, capacity-building initiatives, and equitable representation in governance structures. By situating women at the intersection of trade and technology, this research underscores the need for more inclusive, transparent, and responsive global trade governance. It concludes that while digitalization holds transformative potential, deliberate policy interventions are essential to ensure that women are not merely passive participants but active agents in shaping the future of international trade.

Keywords: Women's Participation; WTO Governance; Digital Trade; Gender Inequality; Power Dynamics; Digital Inclusion...

Introduction

The rapid expansion of the digital economy has transformed global trade, creating new opportunities and challenges for economic participation across borders. The participation of women in international trade has attracted more and more attention in this development, within the context of the World Trade Organization (WTO). Women have traditionally been deprived of full access to markets, finance, technology and decision-making processes, reducing their potential to take advantage of trade liberalization. Recent trends in digital trade, ecommerce platforms and technology-centric value chains, however, have created new opportunities for women's empowerment and engagement in global value chains (WTO & World Bank, 2020).

Since the Joint Declaration on Trade and Women's Economic Empowerment, the WTO has put more emphasis on the importance of the gender issues in relation to trade. The WTO has increasingly focused on the gender issues in the context of trade, which was the case after the Joint Declaration on Trade and Women's Economic Empowerment. Recent studies indicate that trade can be a catalyst for achieving gender equality, and help improve women's access to international markets, employment opportunities and entrepreneurship (Acharya et al., 2019). However, there are not equal gains to be gained from trade. Despite the efforts made in closing gender gaps over the past few years, there remain significant disparities in women's access to information and communication technologies (ICTs), financial inclusion and institutional support which limit their participation in the digital economy (UNCTAD, 2023).

Digital transformation of trade has also transformed the current power dynamics. Cross-border trade for women entrepreneurs is now easier than the traditional trade channels via digital platforms. However, the digital divide, algorithmic biases, unequal access to technological infrastructure, and lack of representation in trade governance are still important problems (Korinek, Moïsé & Tange, 2021). In addition, the digital economy has transformed the labor market and job opportunities, leaving women exposed and vulnerable, especially in developing countries where gender disparities still exist (Rani et al., 2022).

In this context, the following study aims to reconsider the role of women in the WTO in the digital world. It explores the new challenges and opportunities created by digital trade, and the changing dynamics of power in global trade governance driven by technology. The study highlights the gendered aspects of trade and digitalization and explores the potential for building a more inclusive and equitable global trading system.

Research Objectives:

Critically assess the role of digital transformation in increasing the representation of women in international trade in the context of WTO.

To identify and assess the key barriers and emerging opportunities influencing women's engagement in digital trade and e-commerce.

To examine changing dynamics of power in trade governance and implications for gender-inclusive trade policies and women's economic empowerment in the global arena.

The historical perspective of women's role in the WTO.

The role of women in international trade has always been considerable but largely not visible in formal trade governance processes. Before the advent of the digital economy, women made significant contributions to the export sectors like textiles, garments, agriculture, handicraft and services. Women's participation in most of the labour intensive export industries constituted a significant proportion in many developing countries with lower wages, access to productive resources and limited participation in decision making processes (WTO & World Bank, 2020). Weak representation of women in trade talks and negotiations, and in the development of trade policies, meant that women's concerns were largely absent from international trade processes.

Traditional approaches to trade policy are often said to be "gender-blind" because they have been based on the premise that trade liberalization impacts all economic agents in the same way. This approach ignored structural inequalities with regard to access to education, technology, finances, land ownership and market opportunities. In many cases, the gains from trade accrue unequally, stemming from the existing social and economic inequalities (Korinek, Moïsé, and Tange, 2021). Women, therefore, have not always enjoyed the same advantages as men in the process of market liberalization and globalization, although they make substantial contributions to economic development and international trade. These concerns have been taken up by the World Trade Organization (WTO) in an ever-expanding way in its policy-making discussions. The Eleventh WTO Ministerial Conference in 2017 was a key step in the adoption of the Buenos Aires Declaration on Trade and Women's Economic Empowerment. The declaration was first signed by 118 WTO members and observers, recognizing the need for increased women's engagement in trade and a commitment by WTO members to exchanging experiences, using the WTO gender disaggregated data collection framework, and adopting policies that are gender-responsive (WTO, 2017). The declaration was the first official reference to gender-related concerns in the WTO context, and provided the basis for future policy actions.

Additionally, the WTO's World Trade Congress on Gender and related research programs have built on the evidence base on the need to incorporate gender considerations into global trade governance (WTO, 2023).

In the Digital age, these developments reflect a movement towards a more gender balanced approach to trade policy from a gender-neutral approach. However, there are big problems still to be addressed such as the digital gender gap, lack of access to technology and the underrepresentation of women in trade leadership and decision making. These challenges must be addressed to achieve a more inclusive and equitable sharing of the advantages of digital trade and a more inclusive participation of women in the future of the global trading system.

Significance of the Study:

This work is important because it focuses on the changing status of women in the World Trade Organization (WTO) in the context of the exponential development of the digital economy. In highlighting the challenges,

opportunities and changing power dynamics of digital trade, the research helps to shed light on the issue of gender inclusion in global trade governance.

Review of Literature

Mikic & Sharma, (2020)- Feminising WTO 2.0 / Advances in Feminizing the WTO

Mia Mikic and Vanika Sharma's contribution to the field of 'trade and gender' is an important volume on feminization of the World Trade Organization. While the WTO's vision of inclusive growth has not been lost, the authors maintain that for much of its existence, gender issues were a minor part of the institution's policy agenda. Their research explores the evolution of the WTO from a gender-blind focus to a more gender-aware trade and women's empowerment. The authors emphasize the importance of the 2017 Buenos Aires Declaration on Trade and Women's Economic Empowerment and the subsequent establishment of the Informal Working Group (IWG) on Trade and Gender. Mikic and Sharma suggest a vision for WTO 2.0, which is gender integration into the negotiating process, policy development, capacity-building efforts and institutional design. The study is especially significant in the current discussions on digital trade in the WTO, because it supports the view that trade needs a new approach and future WTO reforms should consider the new dynamics of global trade and technology.

Anoush der Boghossian (2022) - Gender-Responsive WTO: Making Trade Rules and Policies Work for Women

The study by Anoush der Boghossian is on a gender responsive WTO, which looks at the potential of trade rules and policies for advancing women's economic empowerment. The paper also covers the shift of the WTO from a gender blind to a gender aware institution, especially following the Buenos Aires Declaration and the creation of the Informal Working Group on Trade and Gender. The importance of the participation of women in the economy is underscored with the claim that they are a key economic contributor that can contribute significantly to the national productivity and economic growth. But structural obstacles like access to finance, technology, markets, trade-related infrastructure, and opportunities in decision making remain a constraint on women's participation in international trade. The study makes a significant contribution by analyzing the mechanisms available in the WTO that can support gender-responsive policy-making. The author considers the following as key instruments for supporting women's economic empowerment: the Trade Policy Review Mechanism (TPRM), Aid for Trade programmes and regional trade agreements (RTAs). The research also examines the possibilities of interpretation and implementation of the WTO agreements that do not change the core of the multilateral trading system but still enhance gender equality.

Anna Ventouratou (2021)- A Feminist Approach to the Interpretation of WTO Agreements.

In this critical feminist analysis of the WTO legal framework, Anna Ventouratou focuses on the impact of international trade law on women and marginalized groups. The study defines the common myth of trade law as a purely technical and neutral matter. Rather, the author suggests that trade liberalization has a gendered impact which is not always present in the mainstream trade debate. The paper uses feminist legal theory to emphasize the differential impacts of the global trading system. The main contribution made by the paper is to look at the WTO agreements in the light of the principle of systemic integration. Ventouratou believes that international human rights norms should be taken into account by the adjudicative bodies of the WTO in interpreting trade rules. The study also examines policy approaches that focus on women's economic empowerment but fail to take into account structural inequalities in the global trading system. This view is particularly applicable to the current debate on digital trade which highlights how new technologies can generate growth and deepen inequalities.

.Evenett & Baldwin (2020)-Revitalising Multilateralism: Pragmatic Ideas for the New WTO Director-General

This book, edited by Simon J. Evenett and Richard Baldwin, addresses the difficulties facing the World Trade Organization, and recommends changes to breathe new life into multilateral trade cooperation for the twenty-first century. The work has come in the wake of heightened concerns about the effectiveness of the WTO in the era of accelerating technology development, geopolitical tensions, and the COVID-19 pandemic. The volume highlights some structural problems that are likely to be at the heart of the WTO, such as lack of trust among member countries, dispute over trade rules and the WTO's ability to adequately address global crises. The authors stress that the multilateral trading system should adapt to deal with the challenges of the modern world, including digitalization and climate change, public health crises and shifting production patterns. They call for action-

oriented reforms to be implemented to boost WTO's institutional resilience and its contribution to international governance. The study therefore helps to lay the groundwork for an analysis of the changing nature of global trade governance today.

Women's Role in WTO and Digital Trade

The rapid expansion of digital trade has transformed the global trading system, creating new opportunities for women entrepreneurs, workers, and consumers. As international trade increasingly shifts toward digitally deliverable services, e-commerce, digital platforms, and cross-border data flows, women's participation in the global economy has become more visible and significant. The World Trade Organization (WTO), through ongoing discussions on e-commerce and digital trade governance, plays a crucial role in shaping the rules that determine access to these emerging opportunities.

Women have traditionally faced barriers in accessing international markets due to limitations in mobility, financial resources, and business networks. Digital technologies have partially reduced these constraints by enabling women-led enterprises to engage directly in cross-border trade through online marketplaces and digital platforms. According to UNCTAD (2023), e-commerce provides women entrepreneurs with greater market access, reduced transaction costs, and increased opportunities for participation in global value chains. These developments are particularly important for women-owned micro, small, and medium enterprises (MSMEs), which often lack the resources required for conventional export activities. (UN Trade and Development (UNCTAD))

The growth of digitally deliverable services has further expanded opportunities for women's economic participation. Recent UNCTAD estimates indicate that global exports of digitally deliverable services reached approximately US\$3.94 trillion in 2022, representing more than half of global services exports. This shift has enabled skilled workers, including women, to participate in international trade without physical relocation.

Despite these opportunities, women's participation in the digital economy remains uneven. OECD data reveal that women continue to be significantly underrepresented in information and communication technology (ICT) occupations, digital entrepreneurship, and technological innovation. Although gender gaps in internet access have narrowed considerably across many countries, women remain less likely to establish digital start-ups, secure venture capital funding, or contribute to technological innovation. In 2023, women co-authored less than 40% of AI-related scientific publications across OECD countries, highlighting persistent gender disparities in emerging digital sectors. (OECD)

Within the WTO framework, efforts to mainstream gender considerations have gained momentum. The Buenos Aires Declaration on Trade and Women's Economic Empowerment (2017) encouraged members to integrate gender perspectives into trade policy. More recently, discussions on e-commerce, digital trade facilitation, and capacity building have increasingly recognized the importance of addressing gender-specific barriers. The WTO's role is therefore evolving from a traditional focus on tariff reduction toward creating an enabling environment where women can benefit equally from digital trade opportunities.

Furthermore, digital finance has emerged as an important mechanism for enhancing women's economic agency. Research demonstrates that digital financial services reduce financing barriers, support female entrepreneurship, and improve women's bargaining power within households and labor markets (Guo et al., 2024). Such developments strengthen women's ability to participate in international trade and benefit from digital globalization.

Consequently, women's role in WTO-governed trade is no longer confined to traditional sectors. In the digital age, women are increasingly becoming exporters, digital entrepreneurs, service providers, innovators, and policy stakeholders. However, ensuring that digital trade contributes to inclusive growth requires addressing the structural inequalities that continue to shape women's access to technology, finance, and trade opportunities.

Challenges and Opportunities

The digital transformation of global trade offers unprecedented opportunities for women's economic empowerment. Nevertheless, significant structural, technological, and institutional barriers continue to limit women's ability to fully participate in the digital economy. These challenges create a "digital gender-divide" risks reproducing existing inequalities within new forms of trade.

One of the most significant challenges is unequal access to digital infrastructure and technology. Although internet penetration has increased globally, affordability remains a major concern for women, particularly in developing

and least-developed countries. UNCTAD reports that women cross-border traders often face higher barriers related to ICT affordability, digital connectivity, and access to technological resources. Furthermore, many national trade facilitation policies fail to integrate gender-specific considerations, limiting the effectiveness of digital trade initiatives for women. Approximately 58% of National Trade Facilitation Committees surveyed by UNCTAD considered gender mainstreaming “not relevant,” while 21% regarded it as a low priority, demonstrating a substantial policy gap. (UNCTAD)

Financial exclusion remains another major obstacle. Women-owned businesses frequently experience difficulties accessing credit, investment, and venture capital. According to the World Bank Gender Data Portal, firms with female ownership participation account for only 33.3% of businesses globally, with even lower representation in low-income economies. Limited access to finance restricts women's capacity to invest in digital technologies, expand operations, and compete internationally.

4.1 World Bank Gender Data Portal

Digital skills and technological literacy also present persistent challenges. OECD research indicates that women remain significantly underrepresented in ICT professions, digital entrepreneurship, and technological innovation ecosystems. Women establish fewer digital start-ups and receive substantially less venture capital funding compared to men. In AI-intensive industries, women continue to be marginalized despite growing demand for digital expertise. (OECD)

Online safety concerns further constrain women's participation. A 2025 report cited by Reuters found that 57% of women entrepreneurs in developing countries experienced online harassment, while 41% deliberately limited their digital visibility to avoid abuse. Such experiences reduce women's willingness to engage fully with digital platforms and online marketplaces. (Blair,2025)

Despite these challenges, the opportunities created by digital trade are substantial. Digital platforms reduce traditional entry barriers associated with international trade, enabling women-led MSMEs to reach global markets directly. E-commerce facilitates flexible business models that are particularly beneficial for women balancing professional and caregiving responsibilities. Digital trade also creates opportunities for remote work, freelance services, and participation in global value chains.

Digital financial inclusion represents another transformative opportunity. Evidence suggests that digital finance contributes to narrowing gender wage gaps by improving women's access to credit, entrepreneurship opportunities, and economic decision-making power (Guo et al., 2024).

Additionally, international organizations are increasingly recognizing the importance of gender-responsive digital policies. The World Bank's Gender Strategy 2024–2030 aims to connect 300 million additional women to broadband services and provide capital access to 80 million women and women-led businesses by 2030. Such initiatives have the potential to significantly enhance women's participation in global digital trade. (Reuters)

Therefore, while challenges remain considerable, digital trade also offers an unprecedented opportunity to promote women's economic empowerment, entrepreneurship, and inclusion in the global trading system.

Shifting Power Dynamics and Policy Implications

The digitalization of global trade has significantly altered traditional power structures within international economic relations. Historically, global trade governance and market access were dominated by large corporations and developed economies. However, digital technologies are reshaping these dynamics by enabling new actors—including women entrepreneurs, small businesses, and marginalized groups—to participate more directly in international markets.

Digital platforms have reduced dependence on conventional trade intermediaries and lowered entry barriers for market participation. Women-owned enterprises can now access customers, suppliers, and financial services across borders through digital channels. This democratization of market access has challenged traditional hierarchies that historically excluded women from international commerce.

At the same time, digital trade has created new forms of power concentration. Large technology companies increasingly control digital platforms, data flows, payment systems, and online marketplaces. Consequently, access to digital infrastructure and data governance has become a critical source of economic power. Countries and groups lacking digital capabilities risk exclusion from the benefits of digital globalization. UNCTAD warns

that least-developed countries continue to account for only a very small share of digitally deliverable services exports due to inadequate infrastructure, limited digital skills, and insufficient policy capacity.

For women, these shifts create both opportunities and vulnerabilities. Digital technologies can enhance economic autonomy, improve access to information, and strengthen bargaining power. Research demonstrates that digital finance contributes to reducing gender wage disparities by empowering women economically and increasing their access to entrepreneurial opportunities. (Guo et al., 2024).

However, gender biases can also be reproduced within digital systems. Women remain underrepresented in technology governance, digital innovation ecosystems, and policy-making institutions. OECD evidence indicates that women continue to constitute a minority of digital innovators, inventors, and technology entrepreneurs. This underrepresentation raises concerns regarding whose interests are reflected in the design and governance of digital trade rules. (OECD)

These developments have important implications for WTO policy. First, digital trade negotiations must incorporate gender-responsive frameworks that recognize the differential impacts of digitalization on women and men. Second, capacity-building initiatives should prioritize digital literacy, ICT training, and entrepreneurship development for women. Third, WTO members should promote gender-disaggregated trade data to improve evidence-based policymaking. Finally, international cooperation is needed to address issues related to digital inclusion, online safety, and equitable access to digital infrastructure.

As power increasingly shifts from physical trade networks toward digital ecosystems, inclusive governance becomes essential. Without deliberate policy intervention, existing inequalities may simply be transferred into digital spaces. Therefore, the WTO must ensure that future digital trade rules promote not only efficiency and innovation but also equity and gender inclusion.

Conclusion and Recommendations

The digital age has fundamentally transformed women's role in the global trading system. Digital trade, e-commerce, and digitally deliverable services have created new pathways for women's economic participation, entrepreneurship, and access to international markets. At the same time, significant barriers—including digital divides, financial exclusion, inadequate digital skills, and online safety concerns—continue to restrict women's full participation in the digital economy.

The findings of this study suggest that while digitalization has expanded opportunities for women, these benefits remain unevenly distributed. Structural inequalities continue to influence women's access to technology, finance, and digital markets. Furthermore, shifting power dynamics within the digital economy have generated new forms of exclusion that require targeted policy interventions.

To address these challenges, several policy recommendations emerge. First, governments and international organizations should invest in affordable digital infrastructure and broadband connectivity to reduce gender-based digital divides. Second, digital literacy and ICT skills programs should specifically target women and girls to enhance their participation in digital trade. Third, financial inclusion initiatives must expand women's access to credit, digital finance, and entrepreneurial support mechanisms. Fourth, WTO members should integrate gender-responsive approaches into digital trade negotiations and strengthen the collection of gender-disaggregated trade data. Finally, stronger protections against online harassment and digital discrimination are necessary to ensure safe participation in digital marketplaces.

By adopting inclusive and gender-responsive digital trade policies, the WTO and its member states can help ensure that the benefits of digital globalization are shared equitably..

References

1. Acharya, R., Falgueras Alamo, O., Locatelli, C., & Marceau, G. (2019). Trade and Women—Opportunities for Women in the Framework of the World Trade Organization. *Journal of International Economic Law*, 22(3), 323–354.
2. Korinek, J., Moïsé, E., & Tange, J. (2021). Trade and Gender: A Framework of Analysis.
3. Rani, U., Castel-Branco, R., Satija, S., & Nayar, M. (2022). Women, Work, and the Digital Economy.
4. UNCTAD (2023). E-Trade for Women: Fostering Women Entrepreneurship in the Digital Economy.
5. WTO & World Bank (2020). Women and Trade: The Role of Trade in Promoting Gender Equality.

6. WTO. (2017). Buenos Aires Declaration on Trade and Women's Economic Empowerment.
7. WTO. (2023). Making Trade Work for Women: Key Findings from the World Trade Congress on Gender.
8. Mínguez, R., & Minondo, A. (2024). The Increasing Share of Low-Value Transactions in International Trade.
9. OECD. (2025). Digital Trade.
10. Stojkoski, V., Koch, P., Coll, E., & Hidalgo, C. A. (2023). Estimating Digital Product Trade through Corporate Revenue Data.
11. Forbes. (2024). A Guide to the WTO E-Commerce Moratorium Tax Debate.
12. World Bank. (2024). Global Findex Database 2024.
13. Bahri, A. (2021). Making Trade Agreements Work for Women Empowerment. *Latin American Journal of Trade Policy*.
14. OECD. (2024). OECD Digital Economy Outlook 2024: The potential of women for digital innovation. OECD Publishing. <https://doi.org/10.1787>
15. Guo, Q., Chen, S., & Zeng, X. (2024). Digital finance, bargaining power and gender wage gap. arXiv. <https://doi.org/10.48550>
16. United Nations Conference on Trade and Development (UNCTAD). (2020). Digital trade facilitation for women cross-border traders. <https://unctad.org/news/>
17. World Bank. (2024). Gender Data Portal: Entrepreneurship. <https://genderdata.worldbank.org>
18. Blair, C. (2025, April 15). Tech firms are failing women entrepreneurs. Here's how to make them feel safer online. Reuters. <https://www.reuters.com/sustainability/society-equity/tech-firms-are-failing-women-entrepreneurs-heres-how-make-them-feel-safer-online-2025-04-15/>