

# The Influence of Women's Leadership Policy on Challenges and Opportunities in the Digital Age



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## ABSTRACT

The digital era brings significant changes in various aspects of life, including women's leadership. However, gender inequality remains a significant issue in the digital era for women's leadership, so whether current policies have addressed this. This research aims to explore the challenges and opportunities of women's leadership in the digital era and to reformulate policies to bring about justice and equality for women's rights in the workplace. The method used in this research is normative legal research with a legislative, conceptual, and comparative approach with Malaysia to find effective policies for women's rights in leadership positions, especially in this digital era. The research findings indicate that, *first*, women still face significant challenges, such as gender bias and discrimination, limited access to technology, and workplace imbalance. *Secondly*, digitalization has created significant opportunities for women to enhance their leadership roles across various sectors, yet persistent gaps in technology access and digital literacy require stronger policy interventions to ensure equal participation. *Third*, Strengthening digital literacy, improving digital protection regulations, and fostering collaboration with technology companies are essential strategies for building an inclusive digital ecosystem that empowers women to lead and drive equitable digital transformation.



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## 1. Introduction

In the digital era, various aspects of life are changing.<sup>1</sup> The digital era is not about converting existing processes into digital versions. This change demands a new perspective or viewpoint to better understand phenomena through the development of technology and the tools used.<sup>2</sup> According to research by the Organization for Economic Cooperation and Development, in 2020, internet traffic in several countries increased by up to 60% in a short period. The total volume of data created, captured, copied, and used globally in 2020 increased significantly

<sup>1</sup> Walter Leal Filho and others, 'Digital Transformation and Sustainable Development in Higher Education in a Post-Pandemic World', *International Journal of Sustainable Development & World Ecology*, 31.1 (2024), 108–23 <https://doi.org/10.1080/13504509.2023.2237933>

<sup>2</sup> George C. Banks and others, 'Leadership in the Digital Era: A Review of Who, What, When, Where, and Why', *The Leadership Quarterly*, 33.5 (2022), 101634 <https://doi.org/10.1016/j.leaqua.2022.101634>

and is estimated to grow by around 57%, reaching 64.2 zettabytes. This growth is the largest since 2012. In 2025, global data traffic is predicted to grow by around 23%, reaching 180 zettabytes.<sup>3</sup> The increase indicates a growing dependence on digital technology in various sectors. Thus, adapting to these changes becomes crucial so that the benefits of technology can be maximized effectively and sustainably.

The development of digital technology has also been seen to influence the world of work and its activities. The world of work is undergoing an exciting transformation driven by technology and digitalization.<sup>4</sup> The integration of digital technology in recent decades is often described in terms of the digitalization or digital transformation of work. The evolution of these developments presents new challenges and opportunities.<sup>5</sup> Digital transformation is necessary and can become a key factor in creating efficiency, transparency, and better services for the community. In addition to increasing efficiency and productivity, digital technology is changing how work is done and the skills required in various sectors. Therefore, organizations, especially in the public sector, are seriously exploring the opportunities provided by emerging digital transformation technologies to enhance organizational agility and the flexibility needed to adapt to changing environments and meet the demands of the government and customers, as well as to create a more adaptive and sustainable work ecosystem.<sup>6</sup>

Digitalization changes the material construction of the workplace and jobs and the social construction, namely leadership and workplace culture.<sup>7</sup> Workplace culture is just as important in transforming an organization's management into digital transformation. With the changes in policies during the era of digitalization, a different leadership style is required.<sup>8</sup> Previously, workplace culture tended to be dominated by men in leadership positions, while limited access to competent women exacerbated the gender gap. At the global level, there are still barriers that prevent women from holding leadership positions, influenced by social norms,

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<sup>3</sup> Mochammad Fahlevi and others, 'The Influence of Information and Communication Technology on Trade in Developing Countries and Partners', *Cogent Business & Management*, 11.1 (2024) <https://doi.org/10.1080/23311975.2024.2320814>

<sup>4</sup> Altan Başaran, 'Digital Nomads, the New Frontier of Work in the Digital Age: A Bibliometric Analysis', *Sustainability*, 17.5 (2025), 1906 <https://doi.org/10.3390/su17051906>

<sup>5</sup> Jaroslav Belas and others, 'Exploring Gender-Based Disparities in the Digital Transformation and Sustainable Development of SMEs in V4 Countries', *Journal of Innovation & Knowledge*, 10.2 (2025), 100681 <https://doi.org/10.1016/j.jik.2025.100681>

<sup>6</sup> Bader K. AlNuaimi and others, 'Mastering Digital Transformation: The Nexus between Leadership, Agility, and Digital Strategy', *Journal of Business Research*, 145 (2022), 636–48 <https://doi.org/10.1016/j.jbusres.2022.03.038>

<sup>7</sup> Helena Vallo Hult and Katriina Byström, 'Challenges to Learning and Leading the Digital Workplace', *Studies in Continuing Education*, 44.3 (2022), 460–74 <https://doi.org/10.1080/0158037X.2021.1879038>

<sup>8</sup> Jie Zhang and Zhisheng Chen, 'Exploring Human Resource Management Digital Transformation in the Digital Age', *Journal of the Knowledge Economy*, 15.1 (2024), 1482–98 <https://doi.org/10.1007/s13132-023-01214-y>

gender stereotypes, and the limitations of women's rights in the workplace. Therefore, organizations must implement more inclusive policies to create a more equitable work environment and support women in leadership.<sup>9</sup>

The involvement and leadership of women in the policy-making or decision-making process in the digital era have significant impacts and are supported by various studies. First, gender diversity in leadership can positively impact organizational performance and better outcomes for the wider community. Second, the presence of women in leadership teams contributes to the quality of decision-making, encourages innovation, and enhances financial success, underscoring the importance of women's perspectives and roles in strategic processes. Third, women's leadership is often associated with empathy, the ability to work in teams, and resilience in facing challenges. These traits are increasingly relevant in the modern era, where a more inclusive and collaborative approach to leadership is needed to address complex issues and drive progress across various sectors. Fourth, leadership that prioritizes inclusivity reflects social diversity and plays a role in building trust, enhancing credibility, and strengthening unity within society. Thus, the role of women in leadership is not merely a compliment but a key factor in creating more sustainable and equitable change.<sup>10</sup> Digital transformation has opened new opportunities for women to hold leadership positions in government, business, and social organizations. However, behind these opportunities, there are still significant challenges faced by women in leadership. Structural barriers such as gender bias, lack of access to technology, and gaps in digital literacy become factors that can hinder women's participation in decision-making. In addition, the still patriarchal social and cultural norms in some countries also pose a challenge in effectively implementing women's leadership policies.

The digital era has great potential for enhancing inclusion, reducing, or even closing the "Gender Leadership Gap" in all industries.<sup>11</sup> To ensure comprehensive human rights and fair labor opportunities are available, the concept of gender equality must be expanded.<sup>12</sup> The United Nations Security Council Resolution (UNSCR) 1325 on Women, Peace, and Security (WPS) has become ubiquitous in women's empowerment in peace and security. Globally, WPS aims to promote

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<sup>9</sup> Sonya G. Smith and Jeanne C. Sinkford, 'Gender Equality in the 21st Century: Overcoming Barriers to Women's Leadership in Global Health', *Journal of Dental Education*, 86.9 (2022), 1144–73 <https://doi.org/10.1002/jdd.13059>

<sup>10</sup> Ali Mohsin Ba Awain and others, 'Empowering Women Worldwide: Education, Mentorship, and Skill-Building for Women's Leadership', in *Empowering and Advancing Women Leaders and Entrepreneurs* (IGI Global Scientific Publishing, 2024), pp. 17–36 <https://doi.org/10.4018/979-8-3693-7107-7.ch002>

<sup>11</sup> Bianca Weber-Lewerenz and Ingrid Vasiliu-Feltes, 'Empowering Digital Innovation by Diverse Leadership in ICT – A Roadmap to a Better Value System in Computer Algorithms', *Humanistic Management Journal*, 7.1 (2022), 117–34 <https://doi.org/10.1007/s41463-022-00123-7>

<sup>12</sup> Alice Ludvig, Barbara Öllerer and Tatjana Aubram, 'Connecting Gender Balance, Crisis Resistance and Innovativeness in the Forestry Sector: Women in Leadership and Management', *Environmental Science & Policy*, 161 (2024), 103890 <https://doi.org/10.1016/j.envsci.2024.103890>

gender equality and the involvement and protection of women and girls.<sup>13</sup> However, women still face various obstacles in taking on leadership roles due to unfair practices, cultural biases, and deeply rooted structural injustices. Although they represent half of the world's population, the representation of women in leadership positions across various sectors is still far from balanced. This limits their contributions to decision-making processes, reduces innovation opportunities, and hinders social and economic progress.<sup>14</sup>

A study conducted by the United Nations International Children's Emergency Fund (UNICEF) in 2023 found that over the previous five years, from 2017 to 2022, the proportion of women in senior roles and leadership positions has continued to increase globally. This is reinforced by UN Women's data regarding women's representation in politics and the public sphere. Based on their data, achieving sustainable development goals by 2030 depends on women's leadership and equal participation in politics and public life. Women tend to lead policies related to gender equality, human rights, and social affairs.

**Table 1.** Portfolio of Women's Leadership in the Digital Era

No	Leadership Portfolio	%Woman
1.	Women and gender equality	84
2.	Family and child matters	68
3.	Inclusion and social development	49
4.	Social protection and social security	45
5.	Affairs of indigenous and minority communities	44

Source: UN Women 2023

The data shows men dominate policy areas such as economics, defense, justice, and internal affairs. Women only occupy 12 percent of Cabinet Ministers leading the defense and local government portfolios, 11 percent of energy, natural resources, and mining, and 8 percent of transportation. Based on this, statistics show that gender equality in leadership positions is still far off, and women's representation remains low at all levels of decision-making globally. In addition to fundamental human rights, the continuous lack of representation of women in leadership positions creates productivity issues because many of the female population's capabilities are underutilized.<sup>15</sup>

In Indonesia, according to the 1945 Constitution, as outlined in regulations, guarantees of protection and equality for every resident have been mandated.

<sup>13</sup> Luna K.C. and Crystal Whetstone, 'Women, Peace and Security: Digitalization and Cyber Feminist Solidarity Building in the Global South', *Women's Studies International Forum*, 105 (2024), 102952 <https://doi.org/10.1016/j.wsif.2024.102952>

<sup>14</sup> Aparna Kulkarni and Mahima Mishra, 'Aspects of Women's Leadership in the Organisation: Systematic Literature Review', *South Asian Journal of Human Resources Management*, 9.1 (2021), 9–32 <https://doi.org/https://doi.org/10.1177/232209372111056139>

<sup>15</sup> Mahadih Kyambade, Monica Tushabe and Afulah Namatovu, 'Work Life Balance and Women Representation in Leadership Positions in Ugandan Public Universities', *SN Social Sciences*, 4.8 (2024) <https://doi.org/10.1007/s43545-024-00947-0>

More specifically, Article 49 of Law Number 39 of 1999 on Human Rights emphasizes that women have the right to choose, be chosen, be appointed to jobs, positions, and professions, as well as to receive special protection in their work or profession against things that threaten their safety and health, which has been guaranteed and protected by law. [1] According to data from the Central Statistics Agency (BPS), in 2022, the proportion of women in Indonesia reached 32.26%. The percentage shows an increase from the proportion in 2015, which was only 22.32%. This significant increase indicates the potential to develop women's leadership in Indonesia. Indonesia ranks fifth in Southeast Asia in terms of the proportion of women. Here is the World Bank data on the proportion of the female population in Southeast Asia in 2022.

**Table 2.** Proportion of Female Population in Southeast Asia in 2022

No	Country	Proportion of Female Population (%)
1.	Thailand	51,45
2.	Vietnam	50,6
3.	Kamboja	50,5
4.	Myanmar	50,23
5.	Indonesia	49,65
6.	Laos	49,6
7.	Filipina	49,22
8.	Timor Leste	49
9.	Malaysia	48,9
10.	Brunei Darussalam	48,28
11.	Singapura	47,7

Source: Databoks 2023

Based on World Bank data, the proportion of women in Indonesia is 49.65% of Indonesia's total population, reaching 275.5 million people in 2022. Although the proportion of women is relatively high, there is still a gap in the participation of Indonesian women in leadership. In 2023, BPS revealed that only 22% of women held managerial positions in Indonesia. This gap is reinforced by the Gender Inequality Index data for 2023, which stands at 0.447, showing an improvement compared to the previous year's figure of 0.459. However, this figure still indicates that the gender gap in various sectors, including women's leadership positions, persists. This gap reflects the need for concrete steps to encourage women to be more active in strategic decision-making.<sup>16</sup>

Besides Indonesia, Malaysia faces challenges in women's leadership in the digital era. In the Global Gender Gap Index, Malaysia ranks 104th among East Asia and the Pacific countries.<sup>17</sup> The proportion of women in Malaysia, according to the

<sup>16</sup> Tika Widiastuti and others, 'Capturing the Barriers and Strategic Solutions for Women Empowerment: Delphi Analytical Network Process', *Journal of Open Innovation: Technology, Market, and Complexity*, 10.3 (2024), 100345 <https://doi.org/10.1016/j.joitmc.2024.100345>

<sup>17</sup> Abdul Kadir Jaelani, Resti Dian Luthviati, Muhammad Jihadul Hayat, 'Halal Tourism Sector and Tax Allowance Policy: A Case Study Observed from Normative Problems to Effective

above data, ranked 9th in Southeast Asia in 2022, accounting for 48.9% of the total population of Malaysia. This indicates that Malaysian women make up half of the total population; they are an important part of the workforce for building the nation. Next, regarding the percentage of female enrollment in educational institutions, the percentage of women is higher than that of men. However, the percentage of women in roles such as legislators, senior officials, and managers is lower than that of men. As a result of the discriminatory organizational culture, women are still treated unequally in the workplace despite having the same qualifications as men. In addition, there are several challenges faced by Malaysian women in their career development to occupy leadership positions, such as patriarchal culture, gender bias and stereotypes, family factors, organizational culture factors, and individual factors., bias dan stereotip gender, faktor keluarga, faktor budaya organisasi, dan faktor individu.<sup>18</sup> Nevertheless, in terms of regulation, the Malaysian government seems more adept at addressing these challenges than Indonesia. Malaysia has more structured STEM education programs for women to enhance their participation in the technology industry, particularly regarding equal access to technology for women.<sup>19</sup> Meanwhile, there is still a gap in access to technology and leadership in digital companies in Indonesia..

Women's leadership in the era of digitalization marks a profound paradigm shift in social and organizational structures.<sup>20</sup> Women's leadership is not just a trend but an urgent necessity in facing the complex dynamics of the digital world. Considering the drastic changes in how we work, communicate, and collaborate, women's presence in leadership in the digital era is greatly needed.<sup>21</sup> Therefore, it is crucial to identify the impact of technology and digitalization on women's leadership because digital transformation opens up new opportunities while presenting unprecedented challenges. It cannot be denied that there are still many obstacles women face in achieving leadership positions in the digital era.<sup>22</sup> Based

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Implementation', *Ijtihad: Jurnal Wacana Hukum Islam Dan Kemanusiaan*, 23.2 (2023), 185–210. <https://doi.org/https://doi.org/10.18326/ijtihad.v23i2.185-210>

<sup>18</sup> Krishna Moorthy and others, 'Gender Inequality Affecting Women's Career Progression in Gender Inequality Affecting Women's Career Progression in Malaysia', *Journal of International Women's Studies*, 23.1 (2022), 310–32 <https://doi.org/https://vc.bridgew.edu/jiws/vol23/iss1/32>

<sup>19</sup> Rashidin Idris and Jupri Bacotang, 'Exploring STEM Education Trends in Malaysia: Building a Talent Pool for Industrial Revolution 4.0 and Society 5.0', *International Journal of Academic Research in Progressive Education and Development*, 12.2 (2023), 381–93 <https://doi.org/10.6007/ijarped/v12-i2/16825>

<sup>20</sup> Bora Ly, 'Transforming Commitment into Performance: A Study of Digital Transformation in the Cambodian Public Sector amidst a Pandemic', *Cogent Business and Management*, 11.1 (2024) <https://doi.org/10.1080/23311975.2024.2333609>

<sup>21</sup> Haroon Abbu and others, 'Measuring the Human Dimensions of Digital Leadership for Successful Digital Transformation', *Research-Technology Management*, 65.3 (2022), 39–49 <https://doi.org/https://doi.org/10.1080/08956308.2022.2048588>

<sup>22</sup> Sandra Baroudi, 'Leading in Times of Crisis: Evidence of Digital Transformational Leadership among Arab Female Educational Leaders', *International Journal of Leadership in Education*, 1–22 <https://doi.org/10.1080/13603124.2022.2108506>

on this, this research becomes important to see how women's leadership policies influence the challenges and opportunities in the digital era..

Previous scholars have researched women's leadership in the digital era. Research by Karin Assmann (2023) shows that the increasing number of women in editorial leadership in Germany contributes to institutional support for paid parental leave and childcare options. Additionally, transparency in mentoring, coaching, and recruitment has increased through more structured processes.<sup>23</sup> Further research by Pauline Thompson (2024) reveals several barriers and enablers for women to access middle management positions. The identified barriers include family responsibilities and caregiving, informal networks that exclude women, and assumptions made by others.<sup>24</sup> Furthermore, research by Sheena J Vachhani (2023), this article contributes to understanding the complexities and differential effects of the online environment, the mediation of feminist politics through digital knowledge culture, and the possibilities, challenges, and productive tensions inherent in the increasing use of the digital environment.<sup>25</sup> Research by Sheshadri Chatterjee (2022) found that there is a significant influence on individual skills and abilities to embrace the journey of digital transformation.<sup>26</sup> Furthermore, research by Luna K.C. (2024) contributes to understanding the digitalization of the women's movement, building digital feminist solidarity, and the potential of cyberspace for the WPS agenda.<sup>27</sup>

This study fills a critical gap in the leadership literature, particularly women's leadership policies in the digital era.<sup>28</sup> To address the challenges and opportunities in sustainable development, women's leadership must play a role not only as objects of progress but also as subjects in development. By understanding the impact of women's leadership policies on challenges and opportunities in the digital era, this research explores how policies can strengthen women's roles in

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<sup>23</sup> Karin Assmann and Stine Eckert, 'Are Women Journalists in Leadership Changing Work Conditions and Newsroom Culture?', *Journalism*, 25.3 (2024), 565–84 <https://doi.org/10.1177/14648849231159957>

<sup>24</sup> Pauline Thompson and Helen Stokes, 'Experiences of Women in Middle Leadership – Barriers and Enablers', *School Leadership & Management*, 44.2 (2024), 180–99 <https://doi.org/10.1080/13632434.2023.2277187>

<sup>25</sup> Sheena J. Vachhani, 'Networked Feminism in a Digital Age—Mobilizing Vulnerability and Reconfiguring Feminist Politics in Digital Activism', *Gender, Work & Organization*, 31.3 (2024), 1031–48 <https://doi.org/10.1111/gwao.13097>

<sup>26</sup> Sheshadri Chatterjee and others, 'Digital Transformation of Organization Using AI-CRM: From Microfoundational Perspective with Leadership Support', *Journal of Business Research*, 153 (2022), 46–58 <https://doi.org/10.1016/j.jbusres.2022.08.019>

<sup>27</sup> Zaidah Nur Rosidah, Lego Karjoko, and Mohd Rizal Palil, 'The Government ' s Role in Interfaith Marriage Rights Protection : A Case Study of Adjustment and Social Integration', *Journal of Human Rights, Culture and Legal System*, 3.2 (2023), 265–87 <https://doi.org/https://doi.org/10.53955/jhcls.v3i2.105>

<sup>28</sup> Michelle Russen, Mary Dawson and Juan M. Madera, 'Think Leader, Think Man? The Role of Implicit Bias, Status-Legitimizing Beliefs, and Gender in Hospitality Leadership Discrimination', *Journal of Hospitality and Tourism Management*, 62.August 2024 (2025), 321–28 <https://doi.org/10.1016/j.jhtm.2025.02.002>

facing technological changes. Through in-depth analysis, effective strategies can be found to enhance women's contributions to leadership in the digital era, thereby creating a more inclusive and sustainable environment.

## 2. Research Method

This research uses normative legal research. This research applies three primary methodologies, namely the legislative approach, comparative approach, and conceptual approach.<sup>29</sup> The legislative approach is necessary to thoroughly examine laws, regulations, and legal instruments related to women's equality before the law, particularly in terms of women's career advancement to leadership positions. The legal instruments examined include international legal standards and national law.<sup>30</sup> Furthermore, the theoretical foundation and significance of fundamental legal principles, such as John Rawls' theory of justice, are used to analyze the challenges faced by women that imply injustice within them, examined using a conceptual approach in legal practice.<sup>31</sup> Meanwhile, the comparative approach evaluates Indonesia and Malaysia's regulatory framework and law enforcement mechanisms. Malaysia was chosen because its recent women's rights policy reforms are better than those of Indonesia despite facing the same challenges of gender inequality. This research uses primary legal sources, such as laws and government regulations, and secondary sources, including academic literature, legal commentaries, and reports from gender equality and women's rights enforcement organizations in Indonesia and globally.<sup>32</sup>

## 3. Results and Discussion

### *The Challenges Faced by Women's Leadership in the Digital Era*

Despite the increasing demand for diversity in career paths in the digital era, women in leadership still face many challenges.<sup>33</sup> The performance of female leaders is still hindered by their low representation in leadership roles, which is more due to injustice than to factors of inability.<sup>34</sup> According to John Rawls in his

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<sup>29</sup> Rahayu Subekti and others, 'Solidifying the Just Law Protection for Farmland to Anticipate Land Conversion', *International Journal of Economic Research*, 14.13 (2017), 69–79 [https://doi.org/https://serialsjournals.com/abstract/38652\\_6.pdf](https://doi.org/https://serialsjournals.com/abstract/38652_6.pdf)

<sup>30</sup> Yogi Yasa and others, 'Unraveling the Complex Policies Regulating Conflicts of Interest and Criminal Corruption', *Journal of Human Rights, Culture and Legal System*, 5.1 (2025), 33–59 <https://doi.org/https://doi.org/10.53955/jhcls.v5i1.486>

<sup>31</sup> Sapriani Sapriani, Reza Octavia Kusumaningtyas, and Khalid Eltayeb Elfaki, 'Strengthening Blue Economy Policy to Achieve Sustainable Fisheries', *Journal of Sustainable Development and Regulatory Issues (JSDERI)*, 2.1 (2024), 1–19 <https://doi.org/10.53955/jsderi.v2i1.23>

<sup>32</sup> Tareq Al-Billeh and others, 'Digital Evidence in Human Rights Violations and International Criminal Justice', *Journal of Human Rights, Culture and Legal System*, 4.3 (2024), 842–71 <https://doi.org/10.53955/jhcls.v4i3.446>

<sup>33</sup> Tomoki Sekiguchi and Nele De Cuyper, 'Addressing New Leadership Challenges in a Rapidly Changing World', *Applied Psychology*, 72.4 (2022), 1741–50 <https://doi.org/https://doi.org/10.1111/apps.12401>

<sup>34</sup> Muhammad Irfan Syaebani, Dian Rezky Catur Pitaloka and Maria Ulpah, 'Broken Rung Roles in the Female Leadership Deficit Phenomenon in Indonesia', *Humanities, Arts and Social Sciences Studies*, 24.3 (2024), 607–17 <https://doi.org/10.69598/hasss.24.3.268815>



social justice theory, justice can only be achieved if everyone has equal access to opportunities and rights without discrimination. Rawls emphasizes that justice must be realized through two main principles, namely, the principle of greatest equal liberty, which states that every individual has the same right to fundamental freedoms that cannot be reduced for the benefit of others. Second the second principle consists of two parts: the difference principle and the principle of fair equality of opportunity. The principle emphasizes that inequality in the distribution of resources and opportunities can only be justified if it benefits the least advantaged groups in society. In the context of women's leadership, this principle highlights that leadership policies must ensure women have equal access and opportunities to reach strategic positions without being hindered by structural biases or systemic discrimination.<sup>35</sup>

In the digital era, the challenges of women's leadership are becoming increasingly complex. Although technology offers broader access to education, professional networks, and economic opportunities, structural barriers still limit women's participation. Some of the main challenges women face in digital leadership include gender bias and discrimination.<sup>36</sup> Female leaders continuously face intense scrutiny and are disadvantaged by systemic discrimination, both in theory and practice. Although research on gender-based leadership has been conducted for decades, stereotypes about female leaders remain strong. These stereotypes are rooted mainly in the perceived inherent differences between women and men.<sup>37</sup> In general, women are often viewed as subordinate figures and have fewer positions in the symbolic hierarchy of gender, which ultimately shapes the language, ideology, and assumptions about leadership. In essence, gender stereotypes create bias against women in the process of their career advancement. In this way, gender stereotypes contribute to the prevalence of gender bias, and gender stereotypes within organizations play an important role in the journeys and careers of women leaders.<sup>38</sup>

A study found that people with traditional views on gender roles are more likely to believe that men are more qualified than women for leadership positions. These stereotypes can lead to unfair workplace policies, such as denying women

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<sup>35</sup> Lara Hamdanieh and others, 'Social Justice: The Unseen Key Pillar in Disaster Risk Management', *International Journal of Disaster Risk Reduction*, 101.November 2023 (2024), 104229 <https://doi.org/10.1016/j.ijdr.2023.104229>

<sup>36</sup> Fatma Ulfatun Najicha and others, 'The Conceptualization of Environmental Administration Law in Environmental Pollution Control', *Journal of Human Rights, Culture and Legal System*, 2.2 (2022), 87–99 <https://doi.org/https://doi.org/10.53955/jhcls.v2i3.55>

<sup>37</sup> Lego Karjoko and others, 'Islamic Court ' s Approach to Land Dispute in Inheritance Cases', *AHKAM: Jurnal Ilmu Syariah*, 21.2 (2021), 213–38 <https://doi.org/https://doi.org/10.15408/ajis.v21i2.21864>

<sup>38</sup> Enkhzul Galsanjigmed and Tomoki Sekiguchi, 'Challenges Women Experience in Leadership Careers: An Integrative Review', *Merits*, 3.2 (2023), 366–89 <https://doi.org/10.3390/merits3020021>

the opportunity to take on leadership roles.<sup>39</sup> Organizations with a higher percentage of women in leadership roles also seem more egalitarian towards gender roles.<sup>40</sup> In practice, women face a dilemma. They are expected to adopt a masculine and rational leadership style, yet at the same time, they must still meet the prevailing standards of femininity. Independent female leadership is often seen as a threat to the organizational structure. As a result, women are forced to conform to masculine leadership norms as a prerequisite to being recognized and considered successful in the professional world.<sup>41</sup>

According to a World Economic Forum (WEF) report, the global gender gap score based on the current population stands at 68.6%. This means that there is still a gap of 31.4%, which poses a challenge for the global community in creating gender equality. In Indonesia, the gender gap is still quite high, ranking 85th in the WEF report.<sup>42</sup> This figure indicates that there is still much work to be done to enhance the participation and opportunities for women in various fields, particularly in the economic and leadership sectors. Data from BPS also reveals that the Gender Empowerment Index in Indonesia, which measures women's participation in the workforce and decision-making, still ranges between 35% and 55%. This percentage indicates that women's involvement in the formal work sector and strategic positions is still not on par with men. If viewed by region, the % of women holding administrative positions in urban areas is 33.1%. Meanwhile, this figure is only slightly lower in rural areas, at 33.03%.<sup>43</sup> This data shows that women in urban and rural areas still face significant challenges in obtaining leadership roles in the administrative sector. In addition, women's involvement in managerial positions also varies depending on the industry in which they are engaged.<sup>44</sup> The service sector recorded the highest percentage, with 37.9% of women occupying managerial positions. However, in the industrial sector, the

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<sup>39</sup> Huichao Du, Yun Xiao and Liqiu Zhao, 'Education and Gender Role Attitudes', *Journal of Population Economics*, 34.2 (2021), 475–513 <https://doi.org/10.1007/s00148-020-00793-3>

<sup>40</sup> Cynthia Saldanha Halliday, Samantha C. Paustian-Underdahl and Stav Fainshmidt, 'Women on Boards of Directors: A Meta-Analytic Examination of the Roles of Organizational Leadership and National Context for Gender Equality', *Journal of Business and Psychology*, 36.2 (2021), 173–91 <https://doi.org/10.1007/s10869-019-09679-y>

<sup>41</sup> Alison Pullen and Sheena J. Vachhani, 'Feminist Ethics and Women Leaders: From Difference to Intercorporeality', *Journal of Business Ethics*, 173.2 (2021), 233–43 <https://doi.org/10.1007/s10551-020-04526-0>

<sup>42</sup> I.G.A.K. Rachmi Handayani, Lego Karjoko, and Abdul Kadir Jaelani, 'Model Pelaksanaan Putusan Mahkamah Konstitusi Yang Eksekutabilitas Dalam Pengujian Peraturan Perundang-Undangan Di Indonesia', *Bestuur*, 7.1 (2019), 36–46 <https://jurnal.uns.ac.id/bestuur/article/view/42700>

<sup>43</sup> Rina Arum Prastyanti and Prattana Srisuk, 'Achieving Sustainable Consumer Protection in the Era of Social Media', *Journal of Sustainable Development and Regulatory Issues*, 3.1 (2025), 121–46 <https://doi.org/https://doi.org/10.53955/jsderi.v3i1.52>

<sup>44</sup> Paul Atagamen Aidonojie and others, 'Examining Human Rights Abuses on Religious, Cultural, and Political Intolerance in Nigeria', *Journal of Sustainable Development and Regulatory Issues*, 3.1 (2025), 78–94 <https://doi.org/https://doi.org/10.53955/jsderi.v3i1.55>

representation of women in management only reaches 20.5%, and in the agricultural sector, it is even lower, at 20.08%.<sup>45</sup>

This disparity indicates that, despite progress in women's participation in the workforce, various efforts and more inclusive policies are still needed to ensure that women have greater access to leadership positions equivalent to men.<sup>46</sup> According to John Rawls, in this context, the principle of equal liberty asserts that every individual, regardless of gender, including women, must have the same rights to recognition and opportunities for promotion. This right must be based on the competence, skills, and qualifications possessed by the individual, not on prejudice, social bias, or gender norms that are still deeply rooted in many societies. Thus, in the world of work and leadership, women must have fair access to strategic positions without experiencing systemic discrimination that hinders their potential to develop and contribute optimally. On the other hand, Rawls' principle of difference emphasizes that inequality in the distribution of opportunities and resources can only be justified if such inequality benefits groups historically less fortunate or have experienced structural injustice. In the context of women's leadership, social and economic policies must be designed to rectify long-standing inequalities by providing more support for women to compete on equal terms.<sup>47</sup>

*Second*, limited access to resources and opportunities is one obstacle hindering women's leadership in policymaking. One aspect that reflects this inequality is access to higher education, where there is still a significant gender gap. Although technically, women have the same opportunity to pursue higher education, there are fundamental differences in the fields of study they choose compared to men. This disparity is particularly evident in Science, Technology, Engineering, and Mathematics (STEM), where women are still underrepresented. According to the WEF in 2020, the enrollment rate of women in STEM disciplines globally is still very low, with only 3% of women taking courses related to information technology (IT), 5% in mathematics, and 8% in engineering. The low representation reflects structural barriers, both in the form of social norms and the lack of policy support that encourages women to participate in innovation and technology-oriented fields. Moreover, this gap also affects women's aspirations to reach leadership positions at the senior managerial level. Factors such as the lack of female role models in strategic positions, limited access to professional networks, and stereotypes that

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<sup>45</sup> Aditia Syaprillah and Fuad Shehab Shyyab, 'Legislative Framework for Decentralized Administration in Addressing River Pollution', *Journal of Sustainable Development and Regulatory Issues*, 3.1 (2025), 55–77 <https://doi.org/https://doi.org/10.53955/jsderi.v3i1.39>

<sup>46</sup> Harniyati Hussin and others, 'Decisive Factors of "Glass Ceiling" on Women Career Development in Malaysia', *International Journal of Academic Research in Business and Social Sciences*, 11.3 (2021), 269–85 <https://doi.org/10.6007/ijarbss/v11-i3/8931>

<sup>47</sup> Jelang Ramadhan and Imam Khomeini Hayatullah, 'Zakat and Waqf Synergies to Accelerating Sustainable Development', *Journal of Sustainable Development and Regulatory Issues*, 3.1 (2025), 29–54 <https://doi.org/https://doi.org/10.53955/jsderi.v3i1.56>

hinder women's career mobility further exacerbate gender inequality in leadership.<sup>48</sup>

Law Number 13 of 2003 on Manpower guarantees women's rights to receive training, promotions, and equal job opportunities. However, implementation in the technology sector still faces obstacles, such as gender stereotypes and disparities in access to technology-based training.<sup>49</sup> This inequality violates the principle of justice because it hinders women from competing equally in digital leadership. John Rawls' principle of difference requires affirmative policies to ensure women receive training and broader access to technology to rectify long-standing inequalities. Therefore, systematic efforts are needed to address these barriers through more inclusive policies, mentorship programs, and incentives for women to become more confident and have equal opportunities to hold leadership positions in various sectors.<sup>50</sup>

*Third*, there are still issues with work-life balance. The idea of work-life balance has received much attention lately, especially concerning working women. For everyone, regardless of gender, finding a work-life balance is an endless challenge. This is about how to balance their personal and professional lives.<sup>51</sup> Currently, it is becoming increasingly difficult to maintain this balance in a busy work environment. The fact is that women often face more significant obstacles than men in achieving work-life balance. Women are under more pressure than men to successfully manage their personal and professional lives due to societal expectations and stereotypical gender roles. Work-life imbalance can significantly impact the representation of women in the workforce. This imbalance can have negative impacts, such as increased stress, fatigue, and even the decision to leave the workforce early.<sup>52</sup>

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<sup>48</sup> Mansi Maheshwari and Usha Lenka, 'An Integrated Conceptual Framework of the Glass Ceiling Effect', *Journal of Organizational Effectiveness*, 9.3 (2022), 372–400 <https://doi.org/10.1108/JOEPP-06-2020-0098>

<sup>49</sup> Dennis Junior Choruma and others, 'Digitalisation in Agriculture: A Scoping Review of Technologies in Practice, Challenges, and Opportunities for Smallholder Farmers in Sub-Saharan Africa', *Journal of Agriculture and Food Research*, 18. February (2024), 101286 <https://doi.org/10.1016/j.jafr.2024.101286>

<sup>50</sup> Zakaria Elkhwesky, Islam Elbayoumi Salem and Younès El Manzani, 'Talented Women for Senior Positions across Multi-Regions: Challenges, Strategies, and Future Research Agenda', *Management Review Quarterly*, 75.1 (2023), 353–89 <https://doi.org/10.1007/s11301-023-00383-z>

<sup>51</sup> Babatunde Akanji, Chima Mordi and Hakeem Adeniyi Ajonbadi, 'The Experiences of Work-Life Balance, Stress, and Coping Lifestyles of Female Professionals: Insights from a Developing Country', *Employee Relations: The International Journal*, 42.4 (2020), 999–1015 <https://doi.org/10.1108/ER-01-2019-0089>

<sup>52</sup> Mahi Uddi, 'Addressing Work-Life Balance Challenges of Working Women during COVID-19 in Bangladesh', *International Social Science Journal*, 71.239–240 (2021), 7–20 <https://doi.org/https://doi.org/10.1111/issj.12267>

Women's concerns about work-life balance often led to low participation in specific fields and roles. These concerns arise due to high work demands, social expectations regarding women's roles in the family, and a lack of support in terms of work flexibility. As a result, many women choose not to enter or maintain careers in fields that demand a significant time commitment, leading to the ongoing gender representation imbalance. Concerns about work-life conflict affect women's career choices, preventing them from aspiring to become leaders and increasing the likelihood of working part-time. This gap will remain a difficult challenge to overcome without efforts to create a more inclusive work environment and support work-life balance.<sup>53</sup>

The gap in women's work-life balance and careers clearly contradicts the principles of justice put forth by John Rawls. According to the principle of equal liberty, everyone, including women, must have the same rights in determining their career paths without obstacles or social pressures limiting those choices. This means that women should have the same freedom as men in making decisions related to their work, whether regarding career development, promotion opportunities, or work flexibility.<sup>54</sup> They should not be forced to choose between a career and domestic responsibilities solely because of deeply entrenched social norms. Meanwhile, the difference principle in Rawls' theory of justice mandates that inequalities can only be justified if they benefit those who have historically experienced structural injustices.<sup>55</sup> In this context, gender-friendly policies must be implemented to ensure that women have equal opportunities in the workforce, especially in achieving a balance between career and personal life.<sup>56</sup>

The challenges that have been explained indicate that women still face various forms of injustice when fulfilling their leadership roles in the digital era. Although the digital era should open more opportunities for women to demonstrate their competence and skills in various fields, the reality is that there are still systemic barriers that hinder them from achieving deserving leadership positions. This injustice does not only manifest in the form of social stereotypes that doubt

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<sup>53</sup> Thekla Morgenroth and others, 'The (in)Compatibility of Identities: Understanding Gender Differences in Work-Life Conflict through the Fit with Leaders', *British Journal of Social Psychology*, 60.2 (2020), 448–69 <https://doi.org/https://doi.org/10.1111/bjso.12411>

<sup>54</sup> Maral Babapour Chafi, Annemarie Hultberg and Nina Bozic Yams, 'Post-Pandemic Office Work: Perceived Challenges and Opportunities for a Sustainable Work Environment', *Sustainability (Switzerland)*, 14.1 (2022), 1–20 <https://doi.org/10.3390/su14010294>

<sup>55</sup> Catherine Audard, 'Addressing the Rise of Inequalities: How Relevant Is Rawls's Critique of Welfare State Capitalism?', *Journal of Social Philosophy*, 55.2 (2023), 221–37 <https://doi.org/https://doi.org/10.1111/josp.12517>

<sup>56</sup> Francesco Pace and Giulia Sciotto, 'Gender Differences in the Relationship between Work-Life Balance, Career Opportunities and General Health Perception', *Sustainability (Switzerland)*, 14.1 (2022), 1–10 <https://doi.org/10.3390/su14010357>

women's capabilities in leadership but also the form of structural barriers. Therefore, a comprehensive reconstruction of the legislative framework and strategic policies to eliminate gender imbalances in the workplace, especially in technology and digital sectors, is necessary. These efforts must focus on creating a fairer work environment, where women are given equal opportunities to develop and attain leadership positions based on their skills and performance rather than solely on gender factors.<sup>57</sup>

### *The Dynamics of Women's Leadership in the Digital Era: Principles and Perspectives*

*Possunt quia posse videntur* is a Latin adage that means they can because they seem to be able.<sup>58</sup> From a legal and philosophical perspective, this phrase reflects the principle that belief in one's capacity can influence the factual realization of that capacity.<sup>59</sup> This principle is closely related to legal theory and legal psychology, where an individual's belief in competence can impact their capacity to carry out a role or achieve a particular goal. It suggests that self-confidence and public perception of authority can contribute to effectiveness in leadership. From a normative aspect, this adage can be linked to the theory of legitimacy in public law, where a person's authority in leading or making decisions often depends on the extent to which he or she is perceived as having legitimate authority and capability.<sup>60</sup> In addition, within the framework of human rights and gender equality, this adage emphasizes the importance of legal and social empowerment for marginalized groups, including women, to gain equal access to leadership and decision-making.

In the digital era, this adage reflects how technology can be used to build credibility, increase visibility, and strengthen self-confidence in leadership.<sup>61</sup> Thus, "*Possunt quia posse videntur*" is a motivational principle and has legal implications in realizing justice and equality in various aspects of social and professional life. The legal implications of the adage "*Possunt quia posse videntur*" in creating justice

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<sup>57</sup> Emmerentia N. Barkhuizen, Gwendoline Masakane and Lidewey van der Sluis, 'In Search of Factors That Hinder the Career Advancement of Women to Senior Leadership Positions', *SA Journal of Industrial Psychology*, 48.1 (2022) [https://doi.org/https://hdl.handle.net/10520/ejc-psyc\\_v48\\_i1\\_a1986](https://doi.org/https://hdl.handle.net/10520/ejc-psyc_v48_i1_a1986)

<sup>58</sup> Claudio Barbaranelli and others, "'Possunt, Quia Posse Videntur': They Can Because They Think They Can. Development and Validation of the Work Self-Efficacy Scale: Evidence from Two Studies", *Journal of Vocational Behavior*, 106 (2018), 249–69 <https://doi.org/https://doi.org/10.1016/j.jvb.2018.01.006>

<sup>59</sup> Yati Nurhayati, *Pengantar Ilmu Hukum*, ed. by Ifrani, Pertama (Bandung, Provinsi Jawa Barat: Penerbit Nusa Media, 2020).

<sup>60</sup> Achmad Ali, *Menguak Teori Hukum & Teori Peradilan: Legal Theory & Judicialprudence*, Cetakan ke (Jakarta: Kencana, 2017) <https://books.google.co.id/books?id=NBZNDwAAQBAJ>

<sup>61</sup> Sloka Iyengar and others, 'Evaluation of a Virtual Networking Event for Emerging Women Leaders in Global Health', *Annals of Global Health*, 88.1 (2022), 1–15 <https://doi.org/10.5334/aogh.3728>

and equality are also reflected in various development indicators that measure women's quality of life and empowerment. In the digital era, achieving gender equality and increasing the role of women's leadership can be analyzed through the Human Development Index (HDI), Gender Development Index (GDI), and Gender Empowerment Index (GEM), which describe the extent to which women have access to education, health, and economic opportunities to develop in the digital world.<sup>62</sup>

The Human Development Index (HDI), Gender Development Index (GDI), and Gender Empowerment Index (GEM) are closely related to women's leadership opportunities in the digital era.<sup>63</sup> The HDI, which reflects the quality of life based on health, education, and decent living standards, is vital in building women's capacity to adapt and thrive in the digital world.<sup>64</sup> Higher education opens up women's access to digital literacy, technological skills, and professional development opportunities that can support them in taking on leadership roles.<sup>65</sup> In addition, good health also impacts women's productivity in carrying out strategic roles in the digital sector, whether as business leaders, innovators, or policymakers. A better standard of living also allows women to have more resources to access technology and use it for self-development, whether in economic, social, or leadership aspects.

Meanwhile, the GDI serves as an indicator of equality between men and women in achieving human development.<sup>66</sup> This index measures the extent to which women have equal access to education, health, and the economy compared to men.<sup>67</sup> Regarding leadership in the digital era, the higher a country's GDI, the more likely women will have equal opportunities to access technology and participate in digital innovation. Conversely, if the GDI is low, it will be more difficult for women to access digital resources, whether in technology-based

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<sup>62</sup> Sabyasachi Tripathi, 'Do Cities Favor Female Entrepreneurs? Evidence from India', *Cities*, 139 (2023), 104404 <https://doi.org/10.1016/j.cities.2023.104404>

<sup>63</sup> Elif Göksu Öztürk, Paulo Guimarães and Sandra Tavares Silva, 'Building a Composite Index Using the Multi-Objective Approach: An Application to the Case of Human Development', *Socio-Economic Planning Sciences*, 91 (2024), 101756 <https://doi.org/10.1016/j.seps.2023.101756>

<sup>64</sup> L Beneria, G Berik and M Floro, *Gender, Development and Globalization: Economics as If All People Mattered*, Second (New York: Taylor & Francis, 2015) <https://books.google.co.id/books?id=cBY-CgAAQBAJ>

<sup>65</sup> Amie Gaye and others, 'Measuring Key Disparities in Human Development: The Gender Inequality Index', *Human Development Research Paper*, 46 (2022), 1–41 [http://hdr.undp.org/en/reports/global/hdr2010/papers/HDRP\\_2010\\_46.pdf](http://hdr.undp.org/en/reports/global/hdr2010/papers/HDRP_2010_46.pdf)

<sup>66</sup> A Geske Dijkstra and Lucia C Hanmer, 'Measuring Socio-Economic GENDER Inequality: Toward an Alternative to the UNDP Gender-Related Development Index', *Feminist Economics*, 6.2 (2020), 41–75 <https://doi.org/10.1080/13545700050076106>

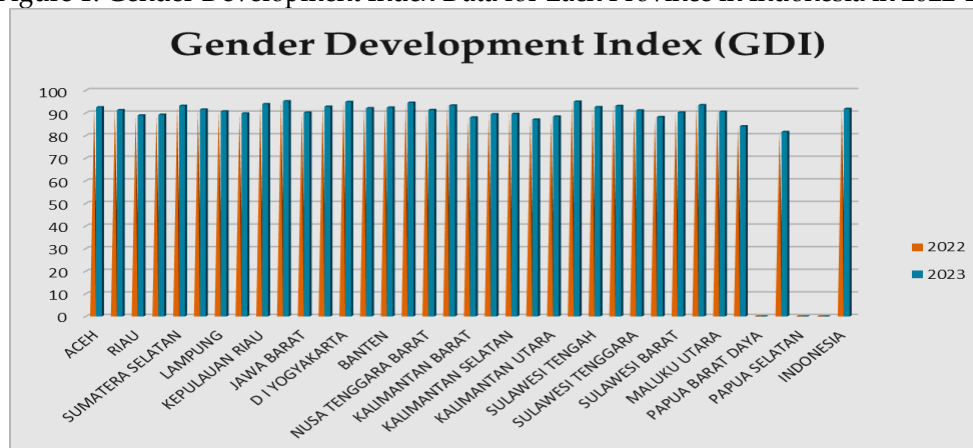
<sup>67</sup> Dana Schüler, 'The Uses and Misuses of the Gender-related Development Index and Gender Empowerment Measure: A Review of the Literature', *Journal of Human Development*, 7.2 (2021), 161–81 <https://doi.org/10.1080/14649880600768496>

education, digital-based business capital, or opportunities to take on strategic roles in the digital sector. It shows that increasing the GDI can reduce the gender gap in leadership, especially in increasingly digitalized sectors such as the creative economy, financial technology (fintech), and e-commerce.

In addition, IDG has a direct relationship with women's involvement in decision-making in the political, economic, and business sectors, reflecting women's empowerment in leadership.<sup>68</sup> In the digital era, high IDG indicates that women have wider access to leadership roles in various technology-based fields.<sup>69</sup> Women who hold strategic positions in companies, organizations, or the technology industry will be better able to fight for inclusive policies that support women's development and access to the digital world. In other words, increasing IDG creates a more inclusive and supportive environment for women to take on leadership roles in the digital world, whether as entrepreneurs, CEOs of technology-based startups, or policymakers who encourage the development of a more just and equal digital industry.<sup>70</sup>

These three indices—HDI, GDI, and IDG—are interrelated in determining how much women can take on leadership roles in the digital era.<sup>71</sup> The higher the value of the three indices, the more excellent the opportunity for women to access technology, develop digital skills, and participate in technology-based innovation.<sup>72</sup> Therefore, efforts to increase the HDI, GDI, and IDG through policies focusing on gender equality in education, the economy, and access to technology are strategic steps to encourage more women in leadership in the digital era.

Figure 1. Gender Development Index Data for Each Province in Indonesia in 2022-2023



<sup>68</sup> A Geske Dijkstra, 'Revisiting UNDP's GDI and GEM: Towards an Alternative', *Social Indicators Research*, 57.3 (2022), 301–38 <http://www.jstor.org/stable/27526995>

<sup>69</sup> Gaye and others.

<sup>70</sup> Orin Gusta Andini and others, 'Indonesia's Safeguarding of Human Rights to Achieve Sustainable Development Goals: Insights from Australia's Experience', *Journal of Sustainable Development and Regulatory Issues*, 3.1 (2025), 1–28 <https://doi.org/https://doi.org/10.53955/jsderi.v3i1.53>

<sup>71</sup> Schüler.

<sup>72</sup> Beneria, Berik and Floro.



Source: BPS data and processed by the author

The Gender Development Index (GDI) in Indonesia shows an increasing trend from 91.63 in 2022 to 91.85 in 2023, reflecting the narrowing development gap between men and women. Several provinces with the highest GDI, such as DI Yogyakarta (94.99 - 94.93), DKI Jakarta (94.93 - 95.24), and North Sulawesi (94.89 - 95.06), reflect conditions where women have better access to education, health, and the economy, so that their opportunities to play a leadership role, especially in the digital era, are more significant. In contrast, provinces with the lowest GDI, such as Papua (81.04 - 81.64) and West Papua (83.61 - 84.18), still face significant challenges in achieving gender equality, which can hinder women's participation in the digital sector and technology-based leadership.

In general, the increase in GDI in almost all provinces indicates an improvement in gender equality, which can potentially encourage more women to get involved in the digital world, either as leaders, innovators, or entrepreneurs. However, gaps still need to be addressed, especially in areas with low GDI, so that women throughout Indonesia can have equal opportunities to utilize technology for self-development and leadership. Therefore, policy interventions that support access to education, health, and the digital economy for women are crucial in accelerating the achievement of more equitable gender equality throughout Indonesia.

In the ever-evolving digital era, women face significant challenges and opportunities in leadership positions. One of the main challenges is the gap in access to digital technology and education.<sup>73</sup> While digital platforms allow women to connect with leaders and professionals worldwide, not all women have equal access to these technologies. Internet access is still limited in some rural areas in Indonesia, such as Papua and East Nusa Tenggara. Hence, women in these areas have limitations in taking advantage of digital opportunities. In addition, a report from the Ministry of Communication and Information (*Kominfo*) shows that women's digital literacy level in Indonesia is still lower than that of men, which can hinder their ability to compete in the digital world. A real case can be seen in the gap in the number of female digital entrepreneurs, where men still dominate most technology startups in Indonesia.

In addition to technological factors, deep-rooted social and cultural norms also become obstacles for women to participate in professional networks and decision-making.<sup>74</sup> In some cases, women are still considered to have a primary role in the domestic sphere, so their involvement in the business and technology world is

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<sup>73</sup> Noemi Calidori and others, 'Not Enough (yet): A Capabilities Assessment of the Implementation of Energy Poverty Policies in Italy', *Energy Research & Social Science*, 120 (2025), 103879 <https://doi.org/https://doi.org/10.1016/j.erss.2024.103879>

<sup>74</sup> Galsanjigmed and Sekiguchi.

often underestimated.<sup>75</sup> For example, based on a survey conducted by the International Labor Organization (ILO), only around 30% of women occupy leadership positions in the technology sector in Indonesia. In politics, women's representation in strategic positions has still not reached 30% of the total representation in parliament, even though gender-affirmative policies exist.

However, behind these challenges, there are auspicious opportunities. The emergence of digital communities such as "Girls in Tech Indonesia"<sup>76</sup> and "Womenpreneur Community" are real examples of how women can support each other in developing digital skills and building professional networks.<sup>77</sup> These forums provide access to mentoring, technology training, and opportunities for global collaboration. In addition, the government and international organizations have also begun to pay attention to this issue by presenting women's empowerment programs in the digital field. For example, the "SheMeansBusiness" program supported by Facebook has helped thousands of Indonesian women build digital-based businesses.

From the perspective of transformational leadership theory proposed by James MacGregor Burns (1978), successful leaders can inspire and develop their followers to reach their full potential. This principle is relevant in women's leadership in the digital era, where women with access to digital education and leadership training can transform into leaders who inspire their communities. This theory also emphasizes the importance of vision, effective communication, and empowerment, which aligns with how women can use digital media to expand their influence in various sectors. In addition, in the Social Capital Theory developed by Pierre Bourdieu (1986), it is explained that access to social networks, trust, and norms that exist in society can be valuable assets in achieving success. In the digital era, women's social capital can be strengthened through online communities, mentorship, and access to information.<sup>78</sup> Digital platforms have opened up opportunities for women to build and expand their social capital,

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<sup>75</sup> Iyengar and others.

<sup>76</sup> Isyfi Afiani, 'The Advancing Information and Communication Technology (ICT) Has Massively Supported the Economy in the Digital Era as It Disseminates, Stores, Brings Added Value and Manages Information to Provide Unlimited Opportunities for Economic Development. However', *Indonesian Journal of Gender, Women, Child, and Social Inclusion's Studies*, 1.1 (2018), 21–32 <https://doi.org/https://doi.org/10.36625/sj.v1i1.39>

<sup>77</sup> Yung Tsan Jou and others, 'Assessing Factors That Influence Womenpreneurs' Intention to Use Technology: A Structural Equation Modeling Approach', *Behavioral Sciences*, 13.2 (2023) <https://doi.org/10.3390/bs13020094>

<sup>78</sup> Desy Arum Sunarta, 'Womenpreneur On Economic Development in the Digital Economy Era', *Jurnal Penelitian Ekonomi Dan Akuntansi (JPENSI)*, 8.1 (2023), 164–75 [https://doi.org/10.30736/jurnalpenelitianekonomidanakuntansi\(jpensi\).v8i1.1465](https://doi.org/10.30736/jurnalpenelitianekonomidanakuntansi(jpensi).v8i1.1465)

which can help them break through the structural limitations that have so far hampered them in the world of leadership.<sup>79</sup>

Furthermore, the principle of "*Possunt quia posse videntur*," which means "They can because they seem to be able," is relevant in discussing women's leadership in the digital era. This principle shows that self-confidence and perception of one's abilities are significant in success. In this case, women with access to technology, digital education, and a supportive community will be more confident in leadership roles. The success of women leaders in the digital world, such as Nadiem Makarim, who initiated the digital education ecosystem in Indonesia, or women entrepreneurs like Carline Darjanto (Cotton Ink), can inspire more women to believe that they are also capable of succeeding in the digital era.

Social media and communication apps also accelerate collaboration across industries and countries, allowing women to engage in innovative projects and expand their networks globally.<sup>80</sup> For example, several female entrepreneurs in Indonesia have successfully built social-based digital businesses, such as Nadira Yosafat, the founder of a digital education platform for women, and Ibu Sari Wahyuni, who uses e-commerce to empower female artisans in remote areas. Incubator and accelerator programs explicitly designed for women are also increasingly available, providing access to resources, training, and mentoring that can help them overcome obstacles and maximize their potential.

Leveraging technology for greater visibility and influence is critical for women, especially in today's digital age.<sup>81</sup> The Indonesian government has recognized the importance of empowering women in the digital realm through various policies and programs that support their access to technology and digital media. One strategic policy is Presidential Regulation Number 50 of 2023 concerning the National Strategy for Digital Transformation, which emphasizes inclusivity and equal access to technology for all groups in society, including women.

Social media and digital platforms provide women ample opportunities to build their branding and credibility.<sup>82</sup> By leveraging platforms like Instagram,

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<sup>79</sup> Muhammad Yofian Roesjdiansyah, Raka Widya Nugraha, and Yolva Febreight Arthania, 'Policy of Taxation of Premium Value Addition Tax ( Ppnbm ) on Motorwages for the Purpose of Tax Collection in Indonesia', *Jurnal Justice Dialectical*, 2.1 (2024), 56–69 <https://doi.org/https://doi.org/10.70720/jjd.v2i2.45>

<sup>80</sup> Ethné M. Swartz, Caren Brenda Scheepers and Tracey Toefy, 'Women Entrepreneurs' Opportunity Identification of Digital Platform Start-Ups: Emerging Evidence from South Africa', *International Journal of Gender and Entrepreneurship*, 14.3 (2022), 352–74 <https://doi.org/10.1108/IJGE-06-2021-0096>

<sup>81</sup> Caribou Digital, 'The Platform Livelihoods Project', 2022, 1 <https://www.platformlivelihoods.com/>

<sup>82</sup> Neha Vyas, "'Gender Inequality- Now Available on Digital Platform": An Interplay between Gender Equality and the Gig Economy in the European Union', *European Labour Law Journal*, 12.1 (2021), 37–51 <https://doi.org/10.1177/2031952520953856>

LinkedIn, and Twitter, women can showcase their skills, experiences, and values to a broader audience, increasing their recognition and reputation as leaders. Governments and private organizations have initiated digital literacy programs for women, such as Google's "Women Will" and Meta's "SheMeansBusiness," which aim to improve women's digital skills to be more confident in building their personal branding and online businesses.

Digital content, such as blogs, podcasts, and videos, also significantly increases women's reach. Through informative and inspiring content, women can share their knowledge and experiences and build supportive communities. For example, the "Siberkreasi" program managed by the Ministry of Communication and Information (Kominfo) encourages women to contribute to creating positive and educational digital content. This content helps build authority and creates deeper connections with the audience, which can strengthen their influence in their fields.

In addition, search algorithms and online media allow women to expand the reach and impact of the movements they lead. By understanding how algorithms work, women can optimize their content to be more easily found by relevant audiences, increasing the visibility of their movements or initiatives. One real-world example is the "Perempuan Bicara" campaign that used social media to raise issues of gender equality and women's rights. The campaign managed to reach millions of people through algorithm optimization and digital collaboration. Artificial intelligence (AI) and data analytics technologies also benefit women in data-driven decision-making.<sup>83</sup> By utilizing analytical tools, women can collect and analyze relevant data to understand trends, audience behavior, and the effectiveness of implemented strategies. Through the Ministry of Women's Empowerment and Child Protection (KPPPA), the Indonesian government also encourages using gender-based data to create more inclusive and evidence-based policies.<sup>84</sup>

In addition to national policies, local initiatives also play a role in improving women's digital literacy. In some areas, such as Yogyakarta and Surabaya, community programs encourage digital training for women, such as "Girls in Tech Indonesia" and "Women in Digital Entrepreneurship,"<sup>85</sup> which provide access to mentors, workshops, and technology-based business capital. The ability to leverage technology increases women's visibility and influence and empowers

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<sup>83</sup> Riza Fanny Meutia, Ahmad Rafiki and Fahmi Natigor Nasution, 'Social Media, Buying Interest and Womenpreneur: A Review and a Call for Action', in *Economic Recovery, Consolidation, and Sustainable Growth*, ed. by Abdylmenaf Bexheti and others (Cham: Springer Nature Switzerland, 2023), pp. 699–711 [https://doi.org/https://doi.org/10.1007/978-3-031-42511-0\\_45](https://doi.org/https://doi.org/10.1007/978-3-031-42511-0_45)

<sup>84</sup> Bambang Ali Kusuma, 'Establishment of Indonesian Maritime Power: Regulation of Transnational Organized Crime on Illegal, Unreported, and Unregulated (IUU) Fishing', *International Journal of Criminal Justice Science*, 16.2 (2021), 251–266 <https://doi.org/https://doi.org/10.5281/zenodo.4756074>

<sup>85</sup> Sunarta.

them to become more effective leaders and be responsive to the needs and challenges they face. With the support of progressive policies, access to digital literacy, and active participation in the digital ecosystem, Indonesian women have an excellent opportunity to create a broader impact in their society and industry. By taking advantage of these opportunities, women can turn challenges into strengths. They can build strong networks, gain new skills, and contribute significantly in various sectors. In this regard, it is important for all parties—government, organizations, and society—to support initiatives that empower women and create an inclusive ecosystem. For example, the digital training program organized by Google Indonesia through the "Google Women Developer Academy" has helped improve women's skills in coding and digital entrepreneurship. Thus, women can overcome challenges and take on more significant leadership roles in this digital era. Suppose women continue to be supported in developing their digital and leadership skills. In that case, the adage "*possunt quia posse videntur*" will be increasingly true in their lives—they will be able because they appear to be able.

### ***Policy Implications for Women's Leadership***

In the digital era, women's leadership faces increasingly complex challenges and opportunities.<sup>86</sup> Technological advances have opened up wider access for women to participate in leadership in various sectors, but structural and social barriers still require policy intervention. The Indonesian government has adopted several regulations to increase women's involvement in leadership, such as Law Number 7 of 1984 concerning CEDAW<sup>87</sup>, Presidential Instruction Number 9 of 2000 concerning Gender Mainstreaming, and PKPU Number 10 of 2023, which requires political parties to nominate at least 30% women in the list of legislative candidates.

Several key policies support women's leadership by promoting gender equality and increasing female representation in various sectors. Law Number 7 of 1984 ratifies the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW), reaffirming Indonesia's commitment to ensuring gender equality, including in leadership roles. Additionally, Law Number 23 of 2004 on the Elimination of Domestic Violence empowers women by safeguarding their independence and leadership potential, free from the constraints of domestic violence. To further institutionalize gender equality, Presidential Instruction Number 9 of 2000 mandates gender mainstreaming in national development, encouraging women's active participation in political and economic spheres. In the political domain, General Election Commission Regulation (PKPU) Number 10 of

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<sup>86</sup> Vyas.

<sup>87</sup> Iva Kasuma and Sulistyowati Irianto, 'CEDAW Convention and Engendering Faculty of Law ' s Curriculum Reinforcement : A Lesson Learnt from Indonesia CURRICULUM REINFORCEMENT : A LESSON LEARNT', *Indonesian Journal of International Law (IJIL)*, 20.2 (2023), . 143-171 <https://doi.org/10.17304/ijil.vol20.2.1>

2023 requires political parties to allocate at least 30% of their legislative candidate lists to women, enhancing their representation in parliament. Moreover, in the corporate sector, Regulation of the Minister of SOEs Number PER-3/MBU/03/2021 sets a target of at least 15% female leadership in State-Owned Enterprises (SOEs), ensuring greater inclusion of women in executive positions. These policies collectively contribute to strengthening women's leadership and fostering a more inclusive and equitable society.

In the digital era, the implementation of this policy needs to consider changes in the leadership ecosystem that are increasingly technology-based. Access to digital technology, the use of social media to build personal branding, and the influence of algorithms in disseminating information are important factors in determining the effectiveness of women's leadership policies. Based on the theory of public policy implementation and policy effectiveness put forward by Van Meter and Van Horn (1975), six main factors determine the success of policy implementation.<sup>88</sup> Analyze policies supporting women's leadership in the digital era. This theory can be used as a reference to obtain analysis results to measure policy implementation. The first factor is the standards and objectives of the policy<sup>89</sup>, which serve as guidelines in determining the direction of affirmative policies. In Indonesia, affirmative policies such as a 30% quota in the list of legislative candidates are concrete steps to increase women's representation in politics. However, this policy needs to be expanded in digitalization with more innovative strategies, such as strengthening digital literacy for prospective female leaders. Mastery of digital technology allows them to be more effective in managing political campaigns, building personal branding, and expanding their influence reach through various digital platforms.

The second factor is policy resources, which include budget, infrastructure, and access to digital technology and training. In the digital era, access to technology is a significant determinant of women's success in leadership. Without adequate digital skills, women will experience gaps in taking advantage of available opportunities. Programs such as the Digital Leadership Academy launched by the Ministry of Communication and Information are one of the government's efforts to equip women with the digital skills needed to increase their competitiveness in leadership. In addition, investment in more affordable internet connectivity and digital devices is crucial to ensure that all women, especially in remote areas, can feel the benefits of digitalization.

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<sup>88</sup> Rolifola Cahya Hartawan and Fitriyani Kosasih, 'Implementation of the Van Meter and Van Horn Zoning System Policies Model', *International Journal Of Humanities Education and Social Sciences (IJHESS)*, 2.4 (2023), 1348–58 <https://doi.org/10.55227/ijhess.v2i4.373>

<sup>89</sup> Yohanes K Olin, Petrus Kase and Hendrik Toda, 'The Role of Traditional Institutions in Implementing the Empowerment Policy of Oetulu Village, Musi District, Timor Tengah Utara Regency', *Journal of Governance and Accountability Studies*, 1.2 SE-Articles (2021), 145–61 <https://doi.org/10.35912/jgas.v1i2.305>

The third factor is communication between policy actors, emphasizing the importance of collaboration between government, the private sector, and civil society in implementing effective policies. In the digital era, this synergy can be realized through digital technology to strengthen women's involvement in leadership. For example, political parties can optimize social and digital media platforms to provide more space for female candidates to convey their visions and programs to the public. In addition, civil society organizations can play an important role in providing digital-based mentoring and training programs for aspiring female leaders to prepare them better to face leadership challenges in the digital era.

The fourth factor is social, economic, and political conditions, which greatly influence the effectiveness of women's leadership policies. Although digital technology has opened up wider opportunities for women to participate in leadership, various challenges still hinder them from building influence online. One of the main challenges is algorithmic bias, which often makes women's content less exposed than content from more dominant groups. In addition, cyber harassment and gender disinformation are also serious threats that can damage women's credibility in leadership. Therefore, digital protection policies, such as the Personal Data Protection Law (PDP Law), must be optimized to protect women from various digital attacks that can hinder their careers and reputations.<sup>90</sup>

The fifth factor is the characteristics of policy implementers, which reflect the commitment of policy actors to implementing the policies that have been designed. The effectiveness of women's leadership policies is highly dependent on the extent to which leaders and policymakers understand the importance of digital governance and the role of technology in strengthening women's representation. In the digital era, policy leaders must be able to adapt to technological developments and create regulations that are inclusive and responsive to the challenges faced by women in the digital world. Without a firm commitment from policy actors, implementing affirmative policies to improve women's leadership will be challenging to achieve optimal results.

The final factor is the external environment, which includes global digitalization trends and the development of artificial intelligence (AI). Technological developments have provided new opportunities for women to increase their visibility and influence through digital platforms. By utilizing social media, podcasts, and blogs, women can build a stronger personal brand and reach a wider audience. However, if it is not balanced with regulations that protect women from data exploitation and digital attacks, the positive impact of digitalization can be reduced. Therefore, policies are needed that encourage

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<sup>90</sup> Anila Robbani, Raffy Arnanda Faturrohman, and Ahmad Hananul Amin, 'Optimization of Income Tax Revenue in Land and Building Rights Transfer Transactions', *Jurnal Justice Dialectical*, 2.1 (2024), 28–42 <https://doi.org/https://doi.org/10.70720/jjd.v2i2.38>

women to be active in the digital world and protect them from various threats that can hinder their progress in leadership.<sup>91</sup>

The effectiveness of women's leadership policies in the digital era depends on the formulation of appropriate policies and the extent to which these policies are implemented by considering the dynamics of technology and the challenges women face in the digital space.<sup>92</sup> Ensuring that the six main factors in Van Meter and Van Horn's theory are accommodated in the policies implemented can be a reference for women's leadership to develop further and have a broader impact in various sectors.

More structured, comprehensive policies oriented toward real solutions are needed to improve women's leadership in the digital era. One of the main steps that must be taken is strengthening digital literacy for women leaders. Digital literacy is key for women to utilize technology in their leadership.<sup>93</sup> The government needs to develop unique programs that equip women with digital skills, such as online personal branding management, effective digital communication strategies, and cybersecurity, to deal with potential threats in cyberspace. In addition, integrating digital literacy into leadership training programs in various sectors, both in government, corporations, and civil society organizations, is very important so that women have sufficient technological provisions to support their leadership roles. To expand its reach and impact, the government must also provide an inclusive digital education platform, such as online courses, that women can access in urban and rural areas. In addition, online mentorship and digital networking must be facilitated so that aspiring women leaders can learn directly from figures who have been successful in their fields so that they have references and support in building a leadership career in the digital era.

On the other hand, digital protection regulations for women must be strengthened to protect women from the threat of cyber harassment, the spread of gender-based hoaxes, deepfakes, and the exploitation of personal data.<sup>94</sup> One of the central policies that needs to be strengthened is the implementation of the Personal Data Protection Law (UU PDP), which ensures that irresponsible parties do not misuse the personal information of women leaders. In addition, the government needs to develop specific regulations related to gender-based cyber harassment, including a rapid reporting mechanism and stricter penalties for perpetrators of digital harassment. Cooperation with digital platforms and social

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<sup>91</sup> Fitri Nur, Aini Prasetyo, and Abdul Kadir Jaelani, 'The Changing of Environmental Approval Administrative Law Perspective', *Journal of Human Rights, Culture and Legal System*, 2.3 (2022), 191–208 <https://doi.org/https://doi.org/10.53955/jhcls.v2i3.55>

<sup>92</sup> Moorthy and others.

<sup>93</sup> Widiastuti and others.

<sup>94</sup> Kumari.



media is crucial in creating a more effective protection system. The government can encourage platforms like Instagram, Twitter, and TikTok to provide better security features, such as automatic detection technology that can delete comments or content containing hate speech against women. Furthermore, education and anti-digital violence campaigns also need to be encouraged so that the public is more aware of the dangers of cyber harassment and understands the steps that can be taken to overcome it.

In addition to digital protection, integrating technology into gender mainstreaming policies is an important step to ensure that women's representation in leadership continues to increase. Big data and artificial intelligence (AI) technology can be used to analyze trends in women's involvement in leadership and design more targeted data-based policies. For example, the government can develop a dashboard for monitoring women's participation in various leadership sectors that can be accessed by the public so that it becomes a transparent evaluation tool for policymakers. In addition, developing supporting applications for aspiring women leaders, such as e-mentorship systems, digital discussion forums, and AI-based learning platforms, will be beneficial in providing recommendations for educational content that suits individual needs. This step will create a stronger, technology-based women's leadership ecosystem, ensuring women have the tools to thrive and compete in an increasingly digitalized world.

Equally important, collaboration with digital platforms and social media must be strengthened so that women can showcase their leadership in the digital world. The government can work with technology companies such as Google, Meta, LinkedIn, and TikTok to optimize fairer algorithms so that content from female leaders can be more easily accessed and get equal exposure. In addition, affirmation in the distribution of digital information can be applied, for example, by providing unique slots for women in virtual discussion forums, webinars, or national digital campaigns. This effort can also be expanded by providing grants or funding for startups and digital initiatives focusing on women's empowerment so that more technology-based solutions can be developed to support women's leadership.

Finally, ensuring digital inclusion for women in disadvantaged areas is important, as not all women have equal access to technology and the internet. The government must increase internet access in rural and remote areas by strengthening digital infrastructure and providing cheap or free internet access for vulnerable groups. Specialized training for women in disadvantaged areas should also be provided, with an approach tailored to local needs and limitations of technological infrastructure.

In addition, providing affordable digital devices through subsidies or technology assistance programs for women in the small and medium business sector will ensure that women across all levels of society have equal opportunities

to thrive in the digital era. With more detailed, data-driven, and technology-empowerment-oriented policies, women's leadership in the digital era can grow even further. These steps strengthen women's participation in the public and private sectors and create a more inclusive, equitable, and sustainable leadership ecosystem amid the ever-evolving digital era.

#### 4. Conclusion

Based on the discussion that has been outlined, it can be concluded that, *first*, women still face challenges in leadership in the digital era, such as bias and gender discrimination, limited access to resources and opportunities, and work-life imbalance. These challenges illustrate the injustice women face in fulfilling their leadership roles in the digital era. Digitalization has opened up great opportunities for women to increase their involvement in leadership in various sectors, such as politics, economy, and business. However, the gap in access to technology and digital literacy remains a challenge that needs to be addressed through more substantial policy interventions so that women's participation in the digital era can occur equally. The Human Development Index (HDI), Gender Development Index (GDI), and Gender Empowerment Index (GEM) are important indicators in measuring the extent to which women have access to education, health, and the economy, which ultimately affect their opportunities in technology-based leadership and digital innovation. Along with that, affirmative policies such as a 30% quota for women's representation in politics and increasing the role of women in BUMN leadership have had a positive impact. However, their implementation needs to be strengthened through a more adaptive digital approach, including protection from cyber attacks, optimization of social media algorithms, and integration of technology in gender mainstreaming. Therefore, a comprehensive strategy that includes strengthening digital literacy, improving digital protection regulations, and collaborating with technology companies is crucial in creating a more inclusive digital ecosystem for women. With the proper policy support, women can become more confident in taking on leadership roles and contributing to a fairer and more equal digital transformation.

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