

# The Future is Equal: Gender Equality in the Technology Industry





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## Preface

As the world embarks on the Fourth Industrial Revolution, the transformation of economic structure and acceleration of sustainable development is shaped by Science, Technology and Innovation (STI). However, social and economic inequalities pervade the technology industry and the current disparities are expected to be amplified in a technologically driven world.

STI are critical means of achieving the Sustainable Development Goals (SDGs). Yet **STI can be a catalyst for an increase in inequality and exclusion if disadvantaged groups do not have the necessary capabilities to harness the benefits that technologies offer and cannot fully participate in innovation processes.** Inclusive growth emphasizes a fair distribution of economic growth across society and opportunities for all. Similarly, it is important to develop an inclusive STI system that takes into account the needs of disadvantaged groups to ensure leaving no one behind.

Specifically, **the existing underrepresentation of women in the technology industry will reinforce social inequalities**, with women being marginalized amid the digital divide. It is meaningless to talk about technological advancement if half of the population is being left behind. Gender equality is not only a fundamental human right but also a cornerstone of a prosperous, inclusive and sustainable society.

**These concerns particularly manifest in North-East Asian countries, especially in China, Japan and the Republic of Korea (ROK).** These countries are undergoing unprecedented technological development and account for a considerable share of the global technology industry. However, they have a relatively high level of gender inequality, partly due to traditional social and cultural conventions. To ensure that no one is left behind in this emerging technological landscape, the public and private sectors have important roles to play in implementing policies and innovative solutions to overcome entrenched norms and improve gender equality in the technology industry.

**While women's participation in Science, Technology, Engineering and Mathematics (STEM) education has been increasing, the gender gap remains high in employment.** Thus, more attention is required to understand the barriers and challenges faced by women in the workplace of the technology industry.

**These gender divisions are being exacerbated by the COVID-19 pandemic.** It is therefore crucial to put gender equality at the forefront of the recovery agenda as we move forward, to overcome the slow pace of progress before the crisis and redress gender imbalances in the technology industry.

In this regard, **this report aims to build a knowledge base on how to improve gender equality in the workplace of the technology industry, focusing on the experiences of China, Japan and the Republic of Korea.** With holistic consideration of the key barriers to gender equality in the workplace (Chapter II) as well as the current policies (Chapter III) and industry measures (Chapter IV), this report provides actionable suggestions for policymakers, the private sector and other stakeholders to remedy gender inequality in the technology industry and beyond (Chapter V), contributing to the Beijing Declaration and Platform for Action.

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## Acknowledgements

This report was prepared by the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP) East and North-East Asia Office, in partnership with Korea Center for Women in Science, Engineering and Technology (WISET), Center for Gender Equality of Nagoya University and Ladies Who Tech.

Under the overall direction and guidance of Ganbold Baasanjav, Head of ESCAP East and North-East Asia Office, and the supervision of Sangmin Nam, Deputy Head of the Office, Wai Kit Si Tou led the drafting of the report and coordinated inputs from partners. The report has also benefited from useful comments and suggestions offered by ESCAP colleagues Cai Cai, Jonathan Wong, Channe Lindstrom Oguzhan, Marta Perez Cuso and Michal Podolski, as well as valuable inputs from interns Huaiwen Dong and Kirsty Goodman.



Center for Women In Science,  
Engineering and Technology

At WISET, under the leadership of Dr. Hye Yeon Ahn and Jeehye Kweon, a team including Seyun Ji, contributed their expertise in supporting women in Science, Technology,

Engineering and Mathematics (STEM). The team helped collect and analyze data on the situation of gender equality in the technology industry in the Republic of Korea, conduct interviews with the selected companies and provide valuable inputs on gender equality policies.



NAGOYA UNIVERSITY

At the Center for Gender Equality of Nagoya University, Mana Takahashi, Designated Assistant Professor, conducted

interviews with the selected companies in Japan and provided substantive inputs about the Japanese context.



At Ladies Who Tech, Jill Tang, co-founder, provided useful inputs about the situation of gender equality in the technology industry in China as well as helped connect technology companies to share their initiatives and experiences.

Useful comments and suggestions were received from Hajime Wada, Professor Emeritus, Graduate School of Law of Nagoya University, Hyo Suk Lim, President of the Association of Korean Women Scientists and Engineers (KWSE), Hee Sun Chung, President of Korea Federation of Women's Science and Technology Associations (KOFWST) and Jung Sun Kim, Vice President of Dongseo University.

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# Chapter I

## Introduction

‘Gender equality is not only a basic right, but a prerequisite for a better world.’

António Guterres. Secretary-General of the United Nations.

**As the world embarks on the Fourth Industrial Revolution, technology and innovation play key roles in transforming the economies and promoting sustainable development, especially in North-East Asian countries.** In fact, China, Japan and the Republic of Korea (ROK) ranked 2<sup>nd</sup>, 3<sup>rd</sup> and 5<sup>th</sup>, respectively, in terms of value-added in the Information and Communication Technology (ICT) sector in the world (UNCTAD, 2019). These three countries are pioneering the trend of digitalization in Asia and they have a significant impact on the transformation to digital societies globally. Appropriate development tracks for technology should be accentuated to ensure positive social impacts are made.

**While economies are experiencing rapid structural transformations amid the digital revolution, promoting gender equality is essential to reduce social imparities.** The importance of diversity and inclusion is magnified in the Fourth Industrial Revolution and the rapidly changing business

landscape.<sup>1</sup> It is predicted that **advancing gender equality could add US\$ 2.6 trillion to annual GDP in 2025 in China, US\$ 325 billion in Japan and US\$ 160 billion in the ROK** (McKinsey Global Institute, 2018). Another report suggests that the world could achieve a ‘Gender Dividend’ of US\$ 172 trillion from closing lifetime labour earnings between women and men (Wodon et al., 2020).

Based on current trends, the World Economic Forum (WEF) estimates that the overall global gender gap will close in 136 years and it will take significantly longer (165 years) in East Asia and the Pacific.<sup>2</sup> Specifically, **in contrast to their technological advancement, China, Japan and the ROK face serious gender inequality issues.** Out of 156 countries in the Global Gender Gap Index 2021, they rank 107<sup>th</sup>, 120<sup>th</sup> and 102<sup>nd</sup>. In terms of women’s economic participation and opportunities, they rank 69<sup>th</sup>, 117<sup>th</sup> and 123<sup>rd</sup>. In fact, the ROK and Japan have the largest gap in this area among advanced economies.<sup>3</sup> Furthermore, considering the

1 In addition to gender, diversity and inclusion also encompasses age, ethnicity, religion, education, national origin, etc.

2 The Global Gender Gap examines the gap between men and women across four fundamental categories: Economic Participation and Opportunity, Educational Attainment, Health and Survival, and Political Empowerment (WEF, 2021).

3 Another study reveals that China, Japan and the ROK have higher gender inequality in work compared to countries across the Asia Pacific (McKinsey Global Institute, 2018).

unique and longstanding culture conventions where gender roles and family responsibilities differentiate from western countries, the situation in China, Japan and the ROK requires more targeted and detailed analysis.

**The objectives of this report are to study the status of gender parity in the workplace of the technology industry and suggest measures to promote gender equality.**<sup>4</sup> China, Japan and the ROK are the focus given their leading role in the technology sector and relatively high level of gender inequality.

### A. Gender Equality and Technology Revolution

Gender equality, featured as a stand-alone Sustainable Development Goal (SDG 5) and a cross-cutting priority in the 2030 Agenda for Sustainable Development, is a fundamental human right and is crucial for achieving a prosperous, inclusive and sustainable future for all. **SDG 5 aims to achieve gender equality and empower all women and girls.** The goal of achieving gender equality spans a wide range of dimensions, including education, health care, workplace, economic influence and political representation. **The economic empowerment of women is a critical aspect towards**

**the progressive realization of SDG 5 on gender equality.** It is identified as one of the priority areas for action by ESCAP and UN Women.<sup>5</sup> It is also a key

component of target 5.5 of SDG 5, for ensuring women's full and effective participation and equal opportunities for leadership at all levels of decision-making in political, economic and public life.<sup>6</sup>

Since the 1995 Beijing Declaration and Platform for Action, the most progressive blueprint ever for advancing women's rights, the world has gained important progress in gender equality. Yet **long-lasting and newly emerged challenges exist**, including economic and political participation, equal access to technology, workplace equality, etc., **stressing the urgent need for accelerated actions to achieve gender equality** (UNESCAP, 2021 and UN Women, 2020a).

Technology and innovation have indispensable connections with this consideration because of their powerful impact on the economy and capacity to expand access to communication, financial services,



<sup>4</sup> Broadly speaking, gender equality refers to the equal opportunity and treatment of both men and women.

<sup>5</sup> As a part of its strategy to enhance women's economic empowerment, ESCAP is supporting efforts to foster enabling conditions for women's entrepreneurship. For example, ESCAP's regional initiative on 'Catalyzing Women's Entrepreneurship' helps create an enabling environment for women to build and grow their businesses with improved access to financial services and capital, as well as increased use of ICT tools and innovative technology in their business operations (UNESCAP, 2019a).

<sup>6</sup> The economic empowerment of women is closely related to multiple other SDGs. SDG 1 is about ending poverty and target 1.4 highlights the importance of ensuring that men and women have equal rights to economic resources as well as access to basic services and appropriate new technology. SDG 8 focuses on promoting sustained, inclusive, and sustainable economic growth, full and productive employment and decent work for all, while target 8.5 specifically stresses the goal should be achieved for all women and men, including for young people and persons with disabilities. The economic empowerment of women plays an important role in achieving the 2030 Agenda for Sustainable Development.

business support and more. **Technology has the power to shape inclusive, creative and dynamic cultures in which everybody can benefit from and contribute to the development of modern societies.** Digital transformation is an important avenue for the economic empowerment of women. **Yet, the existing underrepresentation of women in the technology industry reinforces social inequalities.** If these concerns are left unaddressed, women will be further marginalized in the rapid digital revolution due to but not limited to the following aspects.

Firstly, **improper use of technology may lead to the creation and reinforcement of social bias.** Frontier technologies, such as big data and Artificial Intelligence (AI), are used to design financial products, business services, etc. The training and calibration of the AI system depend on the original input. If data used to train the system involve gender-biased information, the use of these technologies will reinforce gender bias (UNESCAP, 2018).

Secondly, **technological products are designed to provide personalized service for users' convenience, and they should benefit men and women alike.** Yet, early speech recognition software struggled to recognize women's voices and airbags failed to protect women as they were designed by and tested on men. Active involvement of women in the design and development of technology is fundamental if technological innovation is to respond to their needs. For example, in response to dangers faced by female passengers and drivers of popular ride-hailing

platforms, there has been an increase in ridesharing apps catering 'for women by women' (Moritz, 2019). If the spearheading applications had instead had a more inclusive development from conception, they may have produced a product better able to address the concerns of females and vulnerable groups in the first place.

Thirdly, given the increasing importance of technology in economic activities and urban constructions, there is a growing demand for technical jobs and technological transformations in current jobs. **Gender imparities in technology and innovation will lead to a further imbalance in the labour market.** Women's low participation in STEM professions and high participation in low-skilled jobs make them less resistant to job loss due to replacement by automation and technologies. **Women stand to gain only one new job for every 20 lost elsewhere, whereas the ratio for men is one new job for every four lost** (WEF, 2016). In Japan, where 4 per cent of the male workforce is at risk for automation, 12 per cent of the female workforce falls at high risk of being displaced. Women in the ROK are also disproportionately exposed to a high risk of automation. Among the 30 countries of the study<sup>7</sup>, this gender gap is the largest in Japan, and it is the second largest in the ROK (Brussevich et al., 2018). Under the current trend, if the problem is not properly addressed, female participation in technology and innovation as well as in the labour market will be further weakened.

Furthermore, the COVID-19 crisis deepens existing

<sup>7</sup> 28 member countries of the Organization for Economic Cooperation and Development (OECD), plus Cyprus and Singapore.

gender inequalities. **The pandemic is impacting men and women differently, exacerbating current asymmetries and risking a reversal of progress made towards closing the gender gap.** Filling the majority of service industry roles, women have been particularly hard hit by COVID-19. The pandemic has also exposed the undervalued “invisible” labour of care work that is often taken on by women (Mercado et al., 2020). Moreover, often taking on the burden of household responsibilities, women have been doubly hit by the closure of schools and childcare facilities. These factors will likely compound issues women already face in attempts to achieve parity in the technology sector. With the rapid adoption of technology during the crisis, there will be a strong demand for new roles in technology. **It is thus important to redress gender imbalances by promoting women’s representation in the technology industry.**

In fact, **the economic empowerment of women is a win-win case for women, technology companies and society.** Acceptance and recognition of females can increase an organization’s capacity to attract and retain talent and generate higher profits. It is shown that companies with three or more women in senior management score higher in all dimensions of organizational performance (McKinsey & Company, 2017). Analysis of a global survey of more than 20,000 firms from 91 countries suggests that **the presence of women in corporate leadership positions could improve firm performance** (Noland et al., 2016). Research also finds a positive correlation between diversity in technology company workforces and higher revenues, profits, and market value globally. Indeed, **diversity leads to various organizational benefits**, such as improved financial health and

returns on investment, higher staff productivity, a healthier workforce and more creative problem solving (Sey and Hafkin, 2019).

**In short, the empowerment of women in the technology industry is crucial to shaping an equitable society.** It not only improves gender equality but also makes significant contributions to sustainable economic development. While experts are making efforts towards scientific inventions and innovative advancements, involving women in the design and development of technology and innovation is equally important. **COVID-19 provides an opportunity for rapid transformation and redressing the gender imbalance in the technology industry.** In this regard, gender equality should be put at the forefront of the recovery agenda as we move forwards, to maximize gains in the post-COVID-19 workplace.

## **B. Gender Equality in the Workplace of the Technology Industry**

Many aspects impact women’s willingness and abilities to enter the fields of science and technology, such as social culture, gender stereotypes and uneven participation in STEM education. **Although there is still uneven gender representation in STEM education, the situation has been improving. A major problem is the “leaky pipeline” between education and employment.**

For example, in the ROK, the percentage of female bachelor graduates in STEM fields increased from around 30% in 2008 to 32% in 2018, and the number of female doctoral graduates in STEM fields doubled from 762 to 1,433 during the same period (WISET,

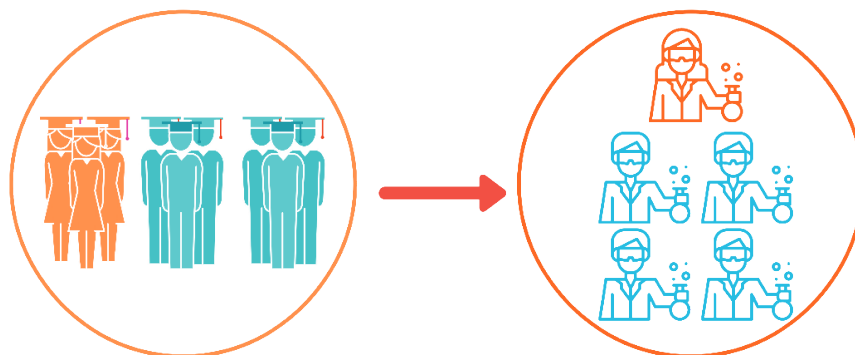
2020). Despite the increasing trend of highly educated women in STEM, women composed only 20% of the STEM researchers in 2018 (Figure 1). In Japan, the proportion of female bachelor graduates in STEM fields increased from less than 15% in 1992 to more than 30% in 2013, whereas female PhD graduates more than doubled from 10% in 1992 to 25% in 2013 (Shibayama and Geuna, 2016). Yet only around 16% of researchers were women in 2017 (Gender Equality Bureau Cabinet Office, Government of Japan, 2018a). In China, the proportion of overall female undergraduate students increased from 37% in 1997 to 53% in 2018 (China, Ministry of Education, 2019), but women are estimated to make up less than 30% of STEM researchers in China (UNESCO, 2018). There is much room for improvement in learning how to plug this “leaky pipeline” from education to employment.

**The paucity of female employees in STEM is disproportional to their overall labour force participation in China, Japan and the ROK** (World Bank, 2020a). Participation in the workplace allows individuals

to realize their abilities gained from education and eventually make substantive contributions to society. With the enormous demand for talent in the fastest growing professions of the future, there is a unique window today to get more women trained for these roles and, at the same time, address the biases that prevent women with the right skillsets from being hired, promoted and retained. Given the significant gender gaps in jobs of tomorrow (e.g., females only account for an estimated of 13% workers in cloud computing, 20% in engineering and 32% in data and AI) (WEF, 2021), gender inequality in the workplace of the technology industry requires special attention.

The rest of the report is organized as follows: Chapter II provides a holistic analysis of key barriers to gender equality in the workplace of the technology industry. Chapter III reviews policy measures on promoting gender equality. Chapter IV highlights the good practices of technology companies. Chapter V concludes by offering recommendations to remedy gender inequality in the workplace.

**Figure 1.** Leaky pipeline between education and employment



Women account for one-third of bachelor graduates in STEM fields, but only 20% of STEM workforce.

**Source** WISET (2020) and UNESCO (2020).

# Chapter II

## Key Barriers to Gender Equality in the Workplace

This chapter approaches gender equality in the workplace from several aspects, covering the hiring process, working condition, the double burden of work and housework and career advancement, with special attention to the technology industry in China, Japan and the ROK. While some of the issues are general problems across sectors, the situation in the technology industry is highlighted for a more in-depth discussion. **The analysis follows a typical career path and reviews the obstacles women may face during the process.**

Starting from the hiring stage, gender bias embodies in employers' favor toward males and salary differences. Even after being admitted, women usually face high attrition rates due to unfriendly working

environments and workplace harassment. Women also suffer from the double burden when they juggle both job and household responsibilities. Furthermore, the glass ceiling in career promotion impedes female representation in leadership (Figure 2).

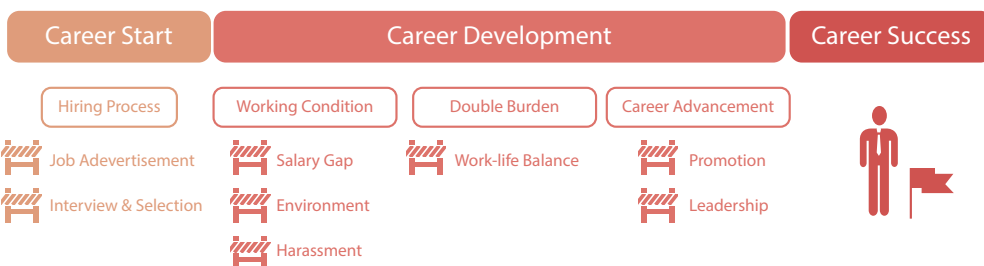
### A. Hiring Process

**The first barrier that women encounter is a biased hiring process.** Generally, stereotypes and reservations about women tend to influence employers' decisions



**on hiring female employees.** Research suggests that male recruiters tend to favor male candidates (Norton et al., 2004), a practice particularly damaging in fields

**Figure 2.** Barriers for Women to Succeed in Their Careers



with stark gender imbalances such as STEM. Another study finds that recruiters in the science field tend to view female applicants as less competent and are more likely to give male applicants higher starting salaries (Moss-Racusin, 2012). A recent survey indicates that many companies in the ROK have/are working on guidelines to ensure non-discrimination in the hiring process, yet they usually have not considered the gender balance of the interview panel.

According to a survey on middle managers in science, engineering and technology organizations, **stigma and stereotypes about women are identified as impeding factors in the hiring process of females.** These stereotypes connect women with being harder to manage, more emotional and sensitive (Braun and Turner, 2014).<sup>8</sup> For example, it is often said in Korean society that women are less loyal and committed to the job than men, although a study reveals there is no gender difference in absence, punctuality and taking time off (Jhon et al., 2006).

Let's see how Schneider Electric Korea establishes an inclusive corporate culture and increases the number of female employees in page 47.

**Developments in the technology industry are contributing to gender stereotypes.** A report stemming from a workshop on 'AI and Gender' explains how ubiquitous gendering of modern technology entrenches a gender divide (Collett and Dillon, 2019). It highlights the female form taken by humanoid

robotics; the default use of female voices for virtual personal assistants such as 'Siri' and 'Alexa'; and, at a fundamental level, the "gendered epistemology" within technology, as three examples that perpetuate notions of a female ideal and associated roles.

**Gender stereotypes have evolved with technological progress and societal context.** Women originally had an instrumental role in the development of computers and coding. When these tasks were considered "low status [and] clerical", it was considered women's work (Engsmenger, 2012). It appears that attitudes towards the work have been more influential than any actual gender differences. In the United States, as progress was made and prestige shifted to computing, it gradually became a male-dominated sector. This was a systematic process involving media depictions of technology, targeted advertisement campaigns and modification of the hiring process for computing jobs, which included privileges afforded only to male networks (Engsmenger, as cited in Frink, 2011). Gendered stereotypes shaped by societal context have formed a negative feedback loop into the hiring process.

**Traditional culture norms and gender roles exacerbate discrimination towards female applicants in the hiring process.** For instance, a distraction from family-related commitments is listed as a major concern when managers consider hiring female employees (Braun and Turner, 2014). Employers may feel that men with family responsibilities will work harder

<sup>8</sup> At the organizational level, it was noted that the more the company was seen as having favorable practices toward women, the more managers intended to engage in the behaviors that would be beneficial to women professionals in science, engineering and technology.

and be more committed, but women with family responsibilities have less commitment to work (Koput and Gutek, 2010). In general, working mothers usually encounter systematic disadvantages in perceived competence, pay and benefits relative to childless women, the so-called "motherhood penalty".

Let's see how Accenture Japan raises awareness on diversity and inclusion and improves female representation in page 38.

**The situation is particularly common in China, Japan and the ROK, partly due to cultural conventions.**

In China, many companies laid out "married women with child" as restrictions for female applicants to avoid providing paid maternity leave (Human Rights Watch, 2018). Research on women in China's labour market also found that two-thirds of new jobs advertised through public employment services in 117 cities have gender requirements, and more listings specify that a man is wanted for a job than a woman (Dasgupta et al., 2015). In the ROK, many female applicants are asked questions about plans for marriage and children, while male applicants are only asked questions about the job in interviews (CNN, 2019). In Japan, companies tend to prioritize the hiring of new graduates for regular employment rather than women with family responsibilities (IMF, 2019).

**For the technology industry, the preference of male employees is also reflected in job advertisements.**

Some of the advertisements list "men" as a mandatory requirement. Some of the reasons behind such discriminatory issues are: (i) the stereotype of females being less physically, psychologically and intelligently capable than males, (ii) the stereotype of women

being less committed to their jobs due to family responsibility, and (iii) it is costly for companies to pay for salaries during maternity leave, especially for technology companies, which always pursue innovations and efficiency amid intense competition (Human Rights Watch, 2018).

Let's see how Alibaba promotes gender equality in human resources management in page 30.

**Moreover, women could be hit harder by the economic impact of COVID-19 as unemployment soars and conscious and unconscious gender discrimination within the hiring process may impact women's ability to re-enter the workforce.** The gendered difference of the impact on the technology industry is two-fold, which can be divided into job losses and job gains. Regarding job losses, women have reportedly been "more likely to have quit or lost their job or to have been furloughed" during this crisis (Andrew et al., 2020a). As for job gains, opportunities for women post-COVID-19 are likely to be different than those for men. The biases and stereotypes mentioned above are particularly pronounced within the technology industry, making it more difficult for women to gain employment in the technology sector. There is a risk of negative reinforcement, whereby women in financially strained positions are further pushed towards undervalued and low-paid roles within the informal economy with lesser benefits and protections (The Economist, 2020).

Let's see how Microsoft China supports female tech students to transit from school to the workplace in page 32.



The disproportionate impact of the crisis on women may have a compounding effect, whereby the greater hurdles faced by women hinder them from achieving necessary skills development, preventing them from seizing post-COVID-19 opportunities to enter the technology industry and potentially widening the digital gender gap (UN Women and UNGC, 2020).

## B. Working Condition

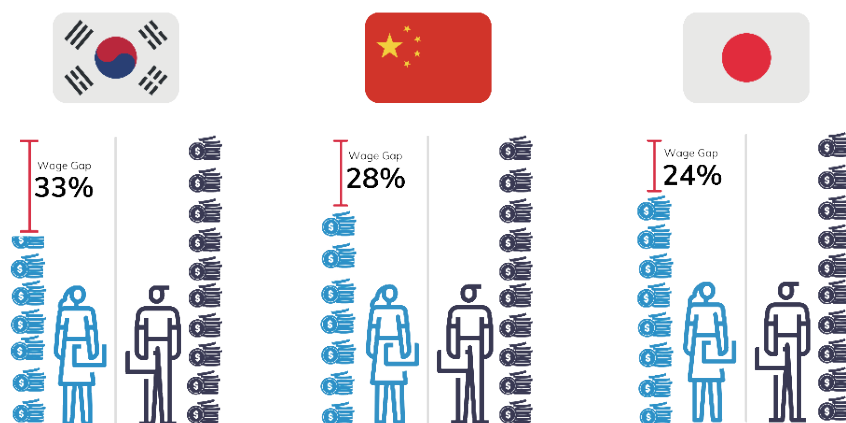
Even after being admitted, explicit differences in working condition such as salary and implicit discrimination towards females exist in the workplace. A respectful and inclusive working condition allows employees to thrive and feel valued. While providing an equitable working environment is the basis of guaranteeing human rights, it benefits both productivity and social equality.

### i. Wage Gap

According to statistics from the Organization for Economic Co-operation and Development (OECD), the gender wage gap is the highest in the ROK, with the median earnings of women lower than that of men by 32.5%. This gap in Japan is 23.5%, ranked the second-highest among 36 member countries.<sup>9</sup> Meanwhile, Zhipin.com, a Chinese mobile hiring platform, conducted research based on their HR big data platform and suggested a 28% gender wage gap in China in 2018.

The above figures indicate a significant wage difference between women and men. Not surprisingly, this phenomenon is common in the technology industry as well. In China, the gender wage difference in information security and data services was 28% and

Figure 3. Women earn much less than men



**Note:** The figures are from different sources and caution is warranted in direct comparison.

**Sources:** OECD (2021) and Zhipin.com (2019).

<sup>9</sup> The gender wage gap is defined as the difference between median earnings of men and women relative to median earnings of men. Another study on the laws and regulations that restrict women's economic opportunities shows that China, Japan and the Republic of Korea score 25, 50 and 25 out of 100 respectively on the pay indicator (World Bank, 2021).

the figure was 27% in E-commerce in 2018, similar to the overall gender wage difference (Zhipin.com, 2019). In Japan, the gender wage gap in the technology industry was 26%, slightly higher than the economy's average (HoneyPot, 2018). In the ROK, the gender wage gap in digital intensive industries was 27%, compared to 20% in less digital intensive industries (Sey and Hafkin, 2019).<sup>10</sup>

**Although women generally score better in literacy skills as well as in ICT skills, men enjoy significantly higher wages than women in digital industries** (Sey and Hafkin, 2019). Other than the biases against women, possible reasons could be better wage bargaining outcomes due to higher self-confidence of men, network effects among male colleagues and more competitive behaviors and stronger negotiation skills of men (Sey and Hafkin, 2019). As companies feel the squeeze in an economic downturn due to the pandemic and adjust accordingly, women are potentially at a greater risk of a post-COVID-19 wage differential (WEF, 2020b).

## ii. Working Environment

**The workig environment of a male-dominant industry may exert unconscious but persistent pressure on female employees.** For example, the cultural significance placed on masculinity, collectivism and the adherence to social norms and ostracization of



non-compliers permeate in Japanese society. Both men and women internalize this culture which causes intrinsic discrimination towards female employees, affecting their education and career choices (Yoshikawa et al., 2018). **Stereotypes, gender invisibility, tokenism and a gender-biased physical environment are challenges women face in the workplace.** Uneven dynamics in the technology industry working environment thus create a reinforcing gender imbalance.

**Stereotypes could unconsciously lead to inequities when women experience misperception, misinterpretation and misunderstanding while the same behaviors from men are more acceptable** (Ashcraft et al., 2016). For example, a survey on women working in technology positions in the United States suggests that 67% of them feel underestimated by peers or not taken seriously; 65% of them receive over-explained responses to questions; 61% receive oversimplified answers to technical questions and 58% of them are given tasks unrelated to tech (Paychex, 2018). Another survey on Chinese employees, which reviews the working environment from six aspects (i.e., encouragement of healthy behaviors, supportive and constructive feedback, understanding of family consideration, support to work-life balance, organizational culture and opportunities for advancement), shows that women reported lower scores than men in all dimensions. When asking about the most important factors in an ideal working

<sup>10</sup> One of the reasons behind the gender wage gap is because of the relatively longer working experiences of men, especially for professionals and related workers. For example, according to the 2019 Survey Report on Labour Conditions by Employment Type, the average working years for 'Professionals and Related Workers' are 7.4 years for men and 4.8 years for women, respectively (MOEL, 2019).

environment, the most popular factor, 'recognition and respect in the workplace'—chosen by 86% of female responders—ranks above the choice 'satisfactory salary' (Lean in China & Deloitte, 2019).

Let's see how KT Corporation develops a fair and equal organizational culture for gender equality in page 48.

**Gendered stereotypes have also led to a gendered division of labour within the technology industry**, such as the association of males with hardware and women with software (Huyer, 2019). Or what is sometimes referred to as "pink collar areas associated with emotional labor, such as overseas call centers" (Bergeron, 2016). A similar finding in the field of information systems is also reported (Armstrong et al., 2012).

**Gender invisibility refers to the phenomenon that employees follow the culture and needs of the majority while ignoring biases in the workplace.** For example, when most employees have a stay-at-home-wife, flextime does not become a norm (Ashcraft et al., 2016). Or when a female employee makes achievements, people will unintentionally use discriminatory language such as, "you are a good female coder". Male dominance in technology companies is common and the cost of such gender imbalance is more serious than expected. The gender divide has long been knitted into the culture and female colleagues are often left out of social events dominated by men (disruptive.asia, 2018).

Let's see how Oracle Corporation Japan raises awareness for gender equality through multidirectional training programs in page 43.

**Tokenism occurs when only a few employees belong to a particular group and they are singled out to represent that group.** It ignores the reality that a wide range of variety exists within any identified group and thus creates biases (Ashcraft et al., 2016). In addition, underrepresented members are expected to be able to "relate to" clients who are also members of the same or similar identity groups and take up related responsibility. **Female technology employees are often asked to take responsibilities for other jobs related to their gender identity**, such as receiving guests, designing promotional materials and socializing with clients (Paychex, 2018).

**These inequities have carried over into the post-COVID-19 working environment**, morphing with the new forms of workplace communication necessary for the digital age. Online communication strips away many subtle and nonverbal cues that women usually rely on to decide on when to jump in the conversation, when to stop and how to respond. While men tend to speak longer, more argumentative and assertive, remote meetings make it harder for women to be heard in group settings (Gupta, 2020). This may be amplified in China, Japan and the ROK, where hierarchical social conventions hold even more importance.

**The physical working environment, including decorations, settings and devices in the office, is also an important factor in creating a friendly workplace.** Famously, temperature settings were calibrated for the needs of males at a time when men were the primary office workers (Bichell, 2015). A more recent study has shown the negative impact this can have on female cognitive performance (Chang and Kajackaite,

2019). Their performance is also likely impacted by the culture within technology organizations with high male-to-female ratios, which can increase female discomfort in these male-dominant work environments (Armstrong et al., 2012). Research in China, for example, reported that the combination of occupational demands unique to the computing industry, with societal expectations of Chinese women, contributed to their unfulfilled potential and high attrition rates (Zhang and Yin, 2019). Although uncertainties remain regarding the concept of the traditional office post-COVID-19, any efforts to close the gender gap in the technology industry will require workspaces that are equally comfortable for both men and women—further demonstrating the need to include women in decision-making in design and implementation.

### iii. Workplace Harassment



**Workplace harassment refers to offensive and threatening behaviors towards an individual worker or a group of workers** It can be in the

form of discrimination, personal attack, physical harassment, cyberbullying, sexual harassment, etc. Workplace harassment is not a concern unique to the technology industry, but male dominance in technology companies and the asymmetrical gender-power dynamics of funding technology start-ups amplifies sexual harassment and discriminatory behaviors experienced by females (The Elephant in the Valley, 2016; O'Brien and Segall, 2017).

A government survey from the ROK in 2015 finds that 8 out of 10 respondents report having been sexually harassed at their workplace, and most offenses take place during *hwaesik* (after-work gathering) (VOA, 2019). **Given the exposure of sexist actions, female workers in technology companies may feel unsafe when most of their colleagues are male.** Intrinsic male-dominant conventions in China, Japan and the ROK may further promote unconscious harassment against females, hence there is a need for attention.

In addition, women face the dual danger of experiencing abuse in both the workplace and at home. This is an added hurdle for women to contend with in the workplace. A study on the impact of domestic violence on the workplace in China, for example, found that women experiencing violence claimed that it had had a negative impact on their careers (Wenfen and Tingting, 2017). Described as a “shadow pandemic” (UN Women, 2020b), **the worldwide increase in domestic violence in the wake of the COVID-19 crisis and subsequent containment measures risks widened the gender gap.** This is a particular concern in North-East Asia where historically ingrained attitudes towards gender division and norms may contribute to the countries’ relatively high percentage of women expressing justification for domestic violence (OECD, 2020b).<sup>11</sup> Indeed, the rate of domestic violence in China has reportedly increased in view of the COVID-19 pandemic, partly due to the economic strain put on many families (Wanqing, 2020). Also, in Japan, the number of consultations about domestic violence surged amid the COVID-19 crisis (Gender Equality

<sup>11</sup> Aside from being a moral issue, it is an economic one. In a report on “interpersonal violence” for example, the World Health Organization breaks down the multiple dimensions of the cost of domestic abuse (2004).

Bureau Cabinet Office, Government of Japan, 2020a). Effective remedies on gender inequalities require holistic solutions that take into account the impact of such socio-cultural factors (Trauth, 2019).<sup>12</sup>

### C. The Double Burden

**Women take up a disproportionate responsibility for housework rather than economic and political leadership.** On average, women in Asia and the Pacific spend around 4 times more than men on unpaid care and domestic work (ADB and UN Women, 2018). **Japanese women spend 5.1 times more time than**

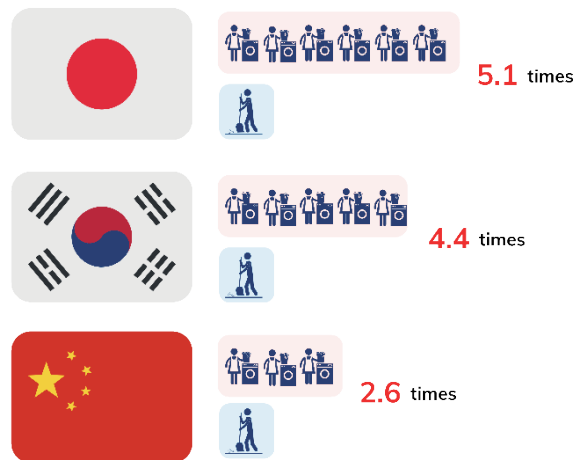


**men on unpaid care and domestic work, and the ratios are 4.4 for the ROK and 2.6 for China** (Figure 4). Because of discriminative assumptions (i.e., family responsibilities impair work performance), women may lack the opportunity to demonstrate their values and abilities in the workplace at the recruitment and promotion stages.

Consequently, although there may be no gender difference in workplace performance<sup>13</sup>, women usually have a harder time balancing work and life as they shoulder more of the household responsibilities. The situation is more common in China, Japan and the ROK due to the family structure

**Figure 4** Women spend much more time on housework than men

### Time Spent on Housework **Women vs. Men**



**Source:** ADB and UN Women (2018).

<sup>12</sup> In a comparative investigation into Broadband use in Asia, it was also claimed that “social factors such as political situation, people’s mentality and cultural context may play more significant roles than economy and policy”, further demonstrating the importance of socio-cultural contexts (Aizu, 2002).

<sup>13</sup> Research found that female coders on GitHub (a platform that shares open-source codes) are more competent overall and their contributions tend to be accepted more often than men’s (Terrell et al., 2017)

and cultural background.<sup>14</sup> To sustain decent performances in the workplace, women must bear more pressure or give up family life.

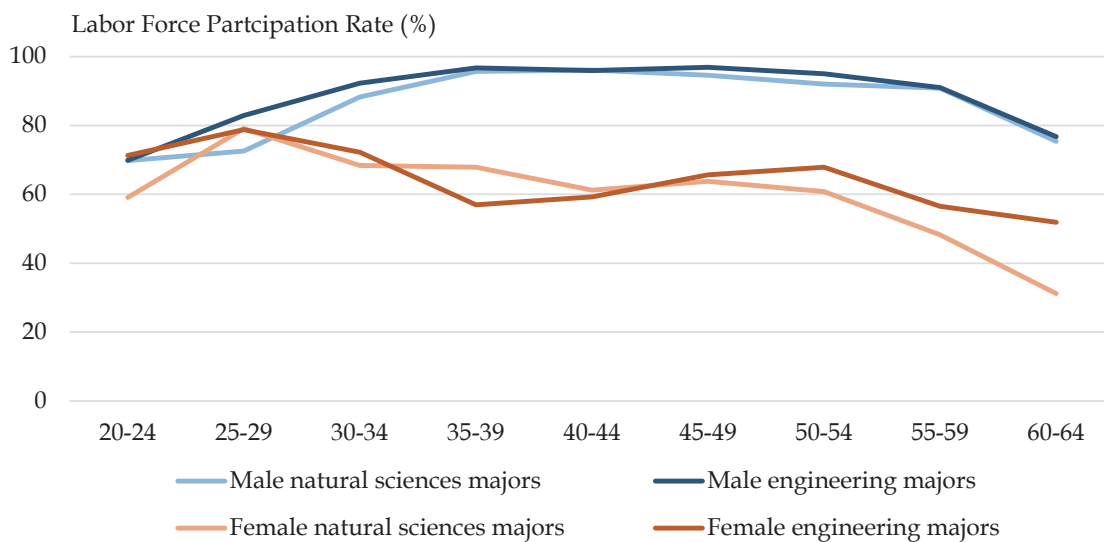
Let's see how Lotte Engineering & Construction encourages male employees to share housework through a mandatory paternity leave system in page 52.

The female labour force participation rates in Japan and the ROK are infamous for their M shapes, illustrating the phenomenon of women in their late

20s and early 30s dropping out of the labour force to raise children and only returning to work in their 40s after their children have grown. In the ROK, there is a significant divergence between the labour force participation rate in STEM of men and women after the age of 30 (Figure 5).

The double burden of a job and housework is further reinforced by long working hours in the technology industry, discouraging women from pursuing careers in the technology field. For instance, working overtime is common for programmers in technology

**Figure 5** Labour force participation rate in the Republic of Korea, 2019



Source: WISSET (2020).

**14** A survey indicates that more than 60% of 2,000 female respondents from China say they know cases in which working mothers were blamed for neglecting their families, and about 86% said that giving birth to and raising a child could affect a woman's career development (China Daily, 2019). In Japan, childrearing is the top reason why women do not seek a job even if they wish to work (Gender Equality Bureau Cabinet Office, Government of Japan, 2019a). A study on household labour division in the ROK shows that housework was gendered even prior to the birth of the first child, and this inequality increases significantly with the first child. Household burden persists regardless of women's employment status (Kim and Cheung, 2019). Moreover, among females who were not economically active, two-thirds of them were inactive because of childcare and domestic chores in 2018. 76% of Korean women consider childcare as a barrier for them to participate in the labour market (Korean Women's Development Institute, 2018).

companies in China. Companies usually require employees to work overtime to boost efficiency and reduce costs. In March 2019, Chinese programmers launched a protest “anti-996” on GitHub against the overtime work culture (“996” refers to working from 9 a.m. to 9 p.m. 6 days a week). Being required to be available 24 hours every day and working with or manage colleagues in multiple time zones are also common sources of pressure in the technology industry (Ashcraft et. al, 2016). It is important for both employers and employees to understand that family-friendly work policies could increase job satisfaction and reduce the likelihood of an employee leaving a company, especially for female employees (Chen et al., 2016). Family-friendly work policies are particularly crucial for females as they usually suffer more than males when their career is conflicted with family responsibility.<sup>15</sup>

Let’s see how Emerson Korea helps employees better balance their work and family life in page 53.

Let’s see how INES Corporation improve work-life balance and productivity via digital transformation in page 42.

**Furthermore, the COVID-19 pandemic has presented enormous challenges associated with increased caregiving.** Specifically, the containment measures

put additional demands on families to care for children, older persons and those who suffer from disease or disability. This burden most often falls on women, which makes it more difficult to balance housework with workplace responsibilities. In the Asia-Pacific region, this amounts to the sudden demand for care of over 700 million children (UN Women, 2020c). In another survey, working mothers were found to be more likely than fathers to be interrupted by their children while working from home (Andrew et al., 2020b). While women in different sectors are subject to these challenges, those in the technology industry may find it even harder to adjust given the long working hours.

Let’s see how Didi Chuxing supports work-life balance and childcare of female employees in page 34.

## D. Career Advancement

### i. Promotion

**Females in technology companies usually feel “stalled” in their careers,** with early-career women reporting greater dissatisfaction with their



career prospects (Hewlett et al., 2014).<sup>16</sup> As more women attempt to enter higher echelons, leading technology firms have faced numerous lawsuits

<sup>15</sup> A study on the Management Information System industry in the United States suggests family responsibility keeps men in the field but it tends to lead women to leave the field (Koput and Gutek, 2010).

<sup>16</sup> In the ROK, just 16% of women being promoted in the STEM workforce in Korea in 2017 (WISSET). Also, it is noted that mentorship programs and specific measures to support the career development of female employees are not very common in the ROK.

in response to perceived gender discrimination preventing them from progressing up the career ladder at the same rate as their male peers (Campbell, 2019).

**Similar to the hiring process, there is gender bias in the work performance evaluation process.** Research shows that women’s evaluations contain nearly twice as much language about their communal or nurturing style and they receive more penalties due to personality confictions in performance reviews. In contrast, men are three times as likely to receive feedback related to technical experience and vision (Ashcraft et al., 2016). As a result, **females’ ability and contribution might be overlooked in career advancement.** Indeed, a study shows that 46% of women in technology fields reported that gender bias influences performance evaluations and 1 in 4 technical women reported that women are often seen as intrinsically less capable than men in their companies (Hewlett et al., 2008). Moreover, echoing the analysis in previous sections, a survey conducted in China shows that the nature of occupation (48%), poor work-life balance (44%) and lack of training (37%) are the top three reasons that prevent women from

promotion (Lean in China & Deloitte, 2019).

Let’s see how Docomo CS Hokuriku Inc. ensures equal opportunity for career development in page 46.

**Analysis shows that the lack of role models, mentors and sponsors further impedes females from career advancements.** A mentor can provide a mentee with advice, strategies and networking opportunities for developing skills and improving work performance. A sponsor helps make an employee’s accomplishments visible and creates opportunities for promotion. A sponsor usually exists at senior levels and enables career advancement. A satisfactory rate of promotion is about 20% higher for women with a mentor or sponsor than women without. More than 80% of women reported that they do not have sponsors in the technology workplace, and around half of them reported a lack of mentors (Ashcraft et al., 2016).

**The lack of females in senior leadership roles, to be discussed below, has a negative spillover effect on a female’s career promotion in the technology industry.** Lack of female leaders can

**Figure 6** Key Challenges for Women in Career Promotion





result in a biased evaluation process. Without female leaders, female employees are less likely to find role models and mentors that better understand their demands and concerns, such as work-life balance issues and training programs that suit their needs. **This forms a vicious circle as barriers in promotion in turn lead to a lack of female leaders.**

Research shows that women at the senior level are much more likely to take allyship actions (e.g., take a public stand for gender and racial equity at work, mentor and sponsor other women, etc.) (McKinsey & Company and Lean In, 2020). In fact, women's representation in top management does not only help support career advancements of female employees but also contributes to better firm performance (Noland et al., 2016).

## ii Leadership



**Women are significantly under-represented in leadership roles.** In Asia, women make up just 14% of the highest company roles (Teo, 2020). Similar proportions can be found across the upper echelons. For instance, in China, women represent less than 10% of board members of publicly traded companies.

### Gender parity in the technology industry is more

**serious at senior levels.** Only 5% of Chief Technology Officers (CTOs) in Fortune 100 IT companies are women (Klawe et al., 2009). **For the top information technology companies in Asia and the Pacific, only 2% of CEOs are female, and 10% of board members are female** (McKinsey Global Institute, 2018).<sup>17</sup>

In the ROK, women hold less than one-tenth of management roles in STEM (WISSET, 2020).<sup>18</sup> Reports of gender disparity and widespread harassment during the process of venture funding for tech start-ups adds to the extra hurdles that women face to become leaders in technology (O'Brien and Segall, 2017)<sup>19</sup>. The situation is also crucial in Japan. A survey shows that only 20% of the IT engineers were female in Japan in 2019 and the representation of women in a leadership position was even lower at around 6% (Japan Information Technology Services Industry Association, 2019).

**Among 29 OECD countries, the ROK and Japan ranked the last and second to last in the Economist's glass-ceiling index, an index that assesses the extent of gender inequality in the workplace** (e.g., the ratio of women in executive-level positions, the difference in salary between genders, etc.) (The Economist, 2021). Specifically, Japan and the ROK have the lowest percentage of women in managerial positions and company boards.

<sup>17</sup> Data for 7 countries (Australia, China, India, Indonesia, Japan, Philippines, and Singapore). Figures are based on the top 100 companies in each country. Results are generated from 683 CEOs and 6,647 board members in total.

<sup>18</sup> In addition, women account for less than 3% of total executives among Top 500 Korean companies by income, and 27 of these companies do not have a single woman board member as in 2018. In fact, the ROK has among the lowest share of women representation in leadership roles in the world (EVE, 2018). For example, none of the nine board members at Hyundai Motor are women, versus six out of 12 at General Motors (South China Morning Post, 2019).

<sup>19</sup> For example, they report a male-to-female-led tech startup funding ratio of \$64.9 billion to \$1.5 billion in 2016.

Let's see how SK C&C fosters female leaders with the support of senior management in page 50.

Nevertheless, China stands out in gender parity for start-up companies, with a solid base of powerful female entrepreneurs in its dynamic e-commerce industry and technological fields. In fact, about 55 per cent of new Internet businesses are being founded by women (The State Council of the People's Republic of China, 2015). With women filling the majority of service sector jobs hardest hit by the COVID-19 closures (United Nations, 2020c), there may be a surge in female entrepreneurship in the e-commerce industry. With appropriate support, this could be a positive opportunity for female economic empowerment and leadership participation in the technology sector post-COVID-19.

Let's see how SAP China support female talent to achieve their leadership aspirations in page 37.

In summary, the table below highlights the key issues of gender inequality in the workplace. Women face various biases and discriminations regarding the hiring process, working condition, double burden and career advancement.

For the **hiring process**, evidence shows that **stigma and stereotypes about women**, especially being viewed as less committed to work due to family responsibilities, **are the major impeding factors**. The preference of male employees in the technology industry is particularly notable.

**Gender biases and stereotypes about women**

**further result in less favorable working condition**, as reflected in the large gender wage gap as well as female-unfriendly workplaces. The lack of respect and recognition of women also promotes workplace harassment against women. These issues are compounded by the intrinsic male-dominant conventions in China, Japan and the ROK, especially in the technology industry.

Moreover, **with a heavy household burden, it is much harder for women to balance work and life**. Women often have to quit their jobs to take care of the family, especially after having a child. The situation is more common in China, Japan and the ROK due to the family structure and cultural backgrounds. The double burden of job and housework is further reinforced by long working hours and tight deadlines in the technology industry.

Lastly, **the lack of females in senior leadership roles, especially in the technology industry, impedes women from career advancement**. Female employees are less likely to have support from mentors and sponsors who appreciate their contributions and understand their concerns. This forms a vicious circle as barriers in promotion in turn lead to a lack of female leaders.

**The COVID-19 pandemic has exacerbated these issues**. Women are more at risk from job losses and furloughs as a result of the crisis. Unconscious and conscious biases within the hiring process will make it harder for women to re-enter the workforce. Furthermore, workplace stereotypes and prejudice have carried over into the COVID-19 working environment. Women face new types of harassment

as their physical and digital spaces merge. Moreover, research indicates that women are taking on the burden of the extra household responsibilities resulting from the crisis. This may have long-term negatively reinforcing impacts on bridging the gender gap, hindering progress made to increase female participation in positions of leadership. Nevertheless,

**the transformational impact of the crisis offers unique opportunities. If handled correctly, it is a chance for meaningful progress towards redressing gender inequality in the technology industry.**

**Table 1** Key issues of gender inequality in the workplace

<p><b>Hiring Process</b></p> <p>1. <b>Gender Discrimination</b></p> <ul style="list-style-type: none"> <li>• Gender-biased requirement and language in job advertisements and interviews</li> <li>• Stigma and stereotypes about women</li> <li>• Priority given to female candidates with no family responsibility</li> <li>• Male preference for tech positions</li> </ul>	<p><b>Working Condition</b></p> <p>1. <b>Gender Wage Gap</b></p> <p>2. <b>Working Environment</b></p> <ul style="list-style-type: none"> <li>• Gender biases and stereotypes</li> <li>• Less respect and recognition of female employees</li> <li>• Male-dominant culture and settings</li> </ul> <p>3. <b>Workplace Harassment</b></p>
<p><b>Double Burden</b></p> <p>1. <b>Household Burden</b></p> <ul style="list-style-type: none"> <li>• Much heavier burden for females due to inherent stereotypes</li> </ul> <p>2. <b>Job Burden</b></p> <ul style="list-style-type: none"> <li>• Long working hours and lack of support for women to re-enter labour market</li> </ul>	<p><b>Career Advancement</b></p> <p>1. <b>Promotion</b></p> <ul style="list-style-type: none"> <li>• Biased performance evaluation process</li> <li>• Lack of mentors, sponsors and training opportunities</li> </ul> <p>2. <b>Leadership</b></p> <ul style="list-style-type: none"> <li>• Low proportion of females in senior management positions</li> </ul>

## Chapter III

# Public Policy on Gender Equality

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This chapter reviews public policies by the governments of China, Japan and the ROK that address key barriers to gender equality in the workplace (i.e., gender-biased hiring process, discriminations in working condition, the heavy burden of housework and the lack of women representation in senior management).

At the international level, gender equality is a fundamental principle of key international law instruments. For example, all three countries have ratified the Convention on Elimination of All Forms of Discrimination Against Women and at the national level, they constitutionally guarantee gender equality.<sup>20</sup> Accordingly, they have implemented various national legislations for the protection of women's rights in the workplace. **While the legislations generally apply to all industries, they may have stronger implications**

**on gender equality in the technology industry given the more challenging situation therein** (as discussed in the previous chapter). As countries adapt to technological advancements, we may see concurrent progress in gender equality policymaking within the technology industry itself. A brief discussion of each country is provided below.

### A. China

**Women's development is a fundamental aspect of the State Council of the People's Republic of China's national strategy.** Every 10 years, the State Council releases an action plan outlining its aims and the measures to be taken to achieve progress compartmentalized into six principal areas of focus concerning women's development. Significant progress has been made to establish gender parity as

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<sup>20</sup> Yet, it should be noted that the three countries have not ratified ILO Convention No. 175 (Part-Time Work Convention), which calls upon employers to provide the equivalent conditions to their part-time employees that are enjoyed by their full-time employees nor ILO Convention No. 177 (Home Work Convention), created to improve the employment situation of homeworkers by advocating for their equal treatment with onsite employees. These conventions should not be overlooked by countries since working part-time or from home enables women to participate in the workforce when conventional full-time employment is incompatible with their family situation (UNDESA, 2020).

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a key pillar of China's overall development strategy.

**Gender parity within STEM is not explicitly set aside as its own goal, rather it is seen as a byproduct of achieving broader national gender parity.** That being said, within these priority areas, STEM is specifically mentioned in “women and health”, as a strategic measure for strengthening science and technology research related to women's health, “women and education”, as a strategic measure for establishing a female talent pool within science and technology, and “women and the economy”, as a strategic measure for increasing women's employment within science and technology.

Under the Law of the People's Republic of China on the Protection of Women's Rights and Interests, Chapter 4 states the Rights and Interests Relating to Work and Social Securities. Legal terms protect women's right to be treated equally in the hiring process, salary, promotion, safety, health, social security and maternity care. The National Working Committee on Children and Women under the State Council is responsible for organizing, coordinating, guiding, supervising and urging departments concerned to promote gender equality and women's development.

**Regarding gender-biased hiring processes, the**

**Ministry of Human Resources and Social Security of China announced new measures prohibiting gender-based discrimination practices when hiring females in 2019.** Organizations are not allowed to restrict gender requirements and gender-based standards in the hiring process. They are also banned from asking for women's childbearing and marital statuses. Violation of these regulations can lead to alerts, a fine of RMB 10,000 to 50,000 and even withdrawal of business certificate (China Ministry of Human Resources and Social Security, 2019).<sup>21</sup>

**On harassment, an article addressing sexual harassment against women was added to the Law on the Protection of Rights and Interests of Women revised in 2005.** Also, the Special Regulations on the Labor Protection of Female Employees formulated and implemented in 2012 clearly stipulate that employers should prevent and prohibit sexual harassment against female employees (The State Council of the People's Republic of China, 2015). Accordingly, the number of companies providing protection to their female employees increased by 35% from 2002 to 2017.

**As for the heavy burden of housework, Chinese law includes statements for improving gender equality within the family.**<sup>22</sup> A recent national survey showed

<sup>21</sup> Apart from that, the Employment Promotion Law of the People's Republic of China has a chapter specially dealing with fair employment, emphasizing gender equality in employment right. The Labor Contract Law of the People's Republic of China also has clear provisions under which businesses are required to create collective contracts for protecting female workers' rights and interests, providing a legal basis for protecting the legitimate rights and interests of female workers (The State Council of the People's Republic of China, 2015).

<sup>22</sup> China's Marriage Law of the People's Republic of China (1980) proclaims equality between men and women. Additionally, measures to protect women in the household have been enhanced with the promulgation of a new Anti-domestic Violence Law in 2015, to prevent and protect women from the harms of domestic violence (The State Council of the People's Republic of China, 2019).

improvements in gender dynamics in families, with more than 70% of women reporting participation in the decision-making of family affairs, and a more equitable share of resources and domestic duties. Regarding child-rearing responsibilities, China's paternity leave entitlements lack a nationwide standard and range from one week to one month depending on the region. Meanwhile, elderly-care leave is only implemented by some provinces. Countries that are more advanced in promoting gender equality generally offer more generous universal paternity leave as well as elderly-care leave. Although responsibility for caring for children and the elderly lies mainly with families in Chinese culture, government support is growing gradually. Some Chinese government officials have also suggested providing subsidies to childcare, thereby enabling women to return to the labour force. **Apart from mandate minimum nationwide paternity leave and elderly-care leave as well as better support on childcare and elderly care, public-awareness campaigns that encourage men to share housework are important to advocate equal gender roles.**

**Regarding increased women's representation, China has undergone extensive legislative reform to enhance the protection of women's rights,** including the provision of legal aid to help women in legal

disputes over workplace discrimination and efforts to effectively implement national law at the local level through tribunals. More recently, this has included ongoing legislative reform in line with the impact of cybersecurity developments on women's rights, such as privacy concerns that may contribute to workplace harassment. There has also been a substantive increase in women's representation within key legislative roles. According to the State Council, more than half of new civil servant recruits at the central government level and over 40% at the local level are women. A gender-balanced judicial process is essential for ensuring a fair and nondiscriminatory assessment of workplace complaints related to gender discrimination.

## **B. Japan**

The Japanese Government has been actively promoting gender equality over the past two decades. The Council for Gender Equality and the Gender Equality Bureau were established in the Cabinet Office, which is headed by the Prime Minister, to formulate related policy and monitor the implementation of government measures. The Basic Act for Gender-Equal Society, enacted in 1999, lays out the basic principles relating to the formulation of a gender-equal society.<sup>23</sup> **Every year, the Japanese Government has to submit a statutory report, "White Paper on Gender Equality";**

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<sup>23</sup> Before that, a significant milestone for gender equality in the workplace was the enactment of the Equal Employment Opportunity Act in 1985 and prior to it was the Working Women Welfare Act enacted in 1972 that considers the workplace for women in response to women's advancement during the Japan's economic boom. The law aims to ensure equal opportunity regardless of gender in the workplace. It enjoins employers from gender discrimination on recruitment, promotion, discharge, welfare and training. Also, it illegalizes sexual harassment and related unjust treatments due to marriage, pregnancy and childbirth. Under the law in 1986 when it was enforced, there were no penalties on these matters but reasonable endeavors, however, these were revised to prohibitions in the amended law of 1999, 2007, 2017, and 2020. It has become a foundation of current policies on gender equality in the workplace in Japan.

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to the National Diet of Japan to review the progress of a gender-equal society and discuss related policies (Gender Equality Bureau Cabinet Office, Government of Japan, 2020b).

Based on the Basic Act for Gender-Equal Society, the First Basic Plan for Gender Equality was launched in 2000 and the Fourth Basic Plan for Gender Equality was published in 2015, which sets long-term policy directions and specific targets to be implemented by 2020 under four objectives, namely (i) women's participation and advancement in all fields of society, (ii) safety and security of life, (iii) infrastructure improvement on the realization of a gender-equal society, and (iv) implementation of the plan (Gender Equality Bureau Cabinet Office, Government of Japan, 2020c).<sup>24</sup> **The promotion of positive action measures** (e.g., quota system that allocates a certain number or percentage of people based on gender, specific targets for expanding women's participation by a certain timeframe, as well as work-family balance support and training programs for women) is **highlighted to accelerate gender equality in various fields.**<sup>25</sup>

**The Japanese Government has taken an active stance in promoting gender equality along with**

**its broad economic reform since 2012.** In view of the decline in demographic and ageing population, a critical pillar of the economic plan is to increase women's labour force participation. Former Prime Minister Shinzo Abe once said that Abenomics won't succeed without "womenomics". Plans to create a "Japan in which women can shine" were announced, with the "Declaration on Action by a Group of Male Leaders who will Create a Society in which Women Shine" made in 2014. **Commitment from the top with the backup of resources is the key to accelerate gender equality in Japan.** One example is the Intensive Policy to Accelerate the Empowerment of Women formulated in 2015, which aims to incorporate the perspective of women's empowerment into the annual requests for budgetary appropriations of government ministries and agencies (Gender Equality Bureau Cabinet Office, Government of Japan, 2019b).



**Regarding the gender biases and stereotypes in the hiring process and working condition, the Japanese Government enforced the Act on Promotion of Women's Participation and Advancement in the**

<sup>24</sup> The Fifth Basic Plan for Gender Equality was adopted by the Cabinet of Japan in December 2020. It recognized the failure of achieving the goal of having 30% of women in leadership positions by 2020 and postponed the timeline to as early as possible during the 2020s (Gender Equality Bureau Cabinet Office, Government of Japan, 2020d).

<sup>25</sup> To encourage corporations to launch their positive action programs, the Minister of Health, Labour and Welfare of Japan has been holding the Positive Action Promotion Council, honoring companies that work on gender equality projects and work-life balance projects, providing comprehensive information on positive action, holding training sessions on positive action practices and helping SMEs introduce their positive actions. Regarding the technology industry, the Minister of Education, Culture, Sports, Science and Technology of Japan has been supporting female researchers to maintain a balance between their research activities and child-rearing works. Female researcher fosterage system reform acceleration project has also been launched to foster women's participation in the technology industry and academic field (Cabinet Office, Government of Japan, 2011).

**Workplace** in April 2016 (revised in May 2019), which proactively provides women with opportunities for employment and promotion. Under the Act, **government agencies, local government and private sector corporations with more than 300 employees are required to (i) collect and analyze data on issues of gender and employment** (e.g., the number and share of newly hired female employees, the proportion of female managers, etc.), **(ii) formulate an action plan to improve gender equality with concrete targets and measures based on the analysis of data collected, and (iii) announce the data regarding women’s participation and advancement in the workplace** (Gender Equality Bureau Cabinet Office, Government of Japan, 2017).

The enforcement status is promising thanks to the efforts by the Japanese Government on ensuring effective supervision and transparency of progress. For example, **an evaluation and recognition system was established with the “Eruboshi” and “Kurumin” certifications.** There are 4 classes of “Eruboshi” (3 levels plus Platinum) based on the number of items that the company meets the standard of the evaluation and the certification is granted by



the Minister of Health, Labour and Welfare of Japan in recognition of the efforts in promoting women’s participation and career advancement.<sup>26</sup> The “Kurumin” certification is also accredited by the Ministry of Health, Labour and Welfare of Japan as a childcare supporting company. The certified companies have to formulate an action plan based on the revised Act on Advancement of Measures to Support Raising Next-Generation Children<sup>27</sup> and achieve the targets set in the plan as well as satisfy other certification requirements. When ministries conduct procurements that evaluate factors other than price, additional points will be awarded to companies that received the certifications. In addition, to ensure the visibility of progress, the Japanese Government launched the **Database on Promotion of Women’s Participation and Advancement in the Workplace** in 2016 to disclose data, action plans and assessments regarding women’s participation in each company. As of April 2021, the Database has included more than 13,800 companies’ data and 17,400 action plans for gender equality and women’s career development in the workplace.<sup>28</sup>



**On the heavy burden of housework, the Japanese Government has been boosting the supply of childcare facilities to address the strong demand**

<sup>26</sup> As of February 2021, more than 1,200 companies have received Eruboshi certification in which around 13% of them are in the technology sector (Available at <https://shem.or.jp/>).

<sup>27</sup> The major concept of the law came from the Act on Childcare Leave, Caregiver Leave and Other Measures for the Welfare of Workers Caring for Children or Other Family Members in 1991 and its amendatory law.

<sup>28</sup> Data and assessment of the private sector are made available via the “Mieruka” data disclosure project (Available at [https://positive-ryouritsu.mhlw.go.jp/positivedb/en\\_index.html](https://positive-ryouritsu.mhlw.go.jp/positivedb/en_index.html)).



as well as improving childcare leave benefits. The efforts paid off as evidenced by the increase in the share of women who continue to work after giving birth to their first child from around 40% in 2000-2004 to 53% in 2010-2014. For more recent efforts, the Plan for Raising Children in a Peaceful Environment was announced in 2017 to establish facilities for 320,000 more children by the fiscal year 2020. Meanwhile, the Child and Childcare Support Act was revised in 2019 and childcare provided by certified institutions is free for all children aged 3 to 5. In addition, the Employment Insurance Act was revised in 2014, with the childcare leave benefits raising from 50% to 67% of wage prior to leave for 6 months from the start of leave. The 2017 Amendment of Childcare and Family Care Leave Act further increased the flexibility of taking childcare and family care leave.

In fact, Japan has one of the most generous paternity leaves in the world, but only 5% of eligible fathers took it in 2017.<sup>29</sup> It signifies the challenge of enforcement. It is thus **crucial to change the stereotyped perception of gender roles** (e.g., men make houses, women make homes). One of the campaigns by the Japanese government is the **“Ikumen” Project** (*Ikumen* means men who play an active role in childcare) which encourages men to take childcare leave and share the burden of housework.

**As for the issues of promotion and leadership, the Act on Promotion of Women’s Participation and Advancement in the Workplace tries to address the stereotyped perceptions of gender roles in the workplace and encourage companies to actively provide women with opportunities of appointment to higher positions.** In addition, all listed companies are requested to appoint at least one woman to a board position. The share of women board members increased notably from less than 2% in 2012 to around 5% in 2019, yet it is far below the target. Meanwhile, **companies are obligated to disclose the number and proportion of women board members in their annual securities reports.** With the growing recognition of companies promoting women’s active participation, especially in the capital market, it is expected that the promotion and leadership of women in Japan would continue to scale up (Gender Equality Bureau Cabinet Office, Government of Japan, 2020c).<sup>30</sup>

**As highlighted by the Basic Plan for Gender Equality, science and technology are the basis for the sustainable development of Japan. It is one of the focal areas for promoting women’s participation and advancement.** In this regard, **the Japanese Government has carried out “Riko-challe”** (support choosing STEM fields) **to inspire female students to choose STEM careers.**<sup>31</sup> While more focus is put on

<sup>29</sup> Japan offers the longest entitlement to paid leave for fathers with the full-rate equivalent of 30 weeks (Chzhen et al., 2019).

<sup>30</sup> Women’s underrepresentation in the field of politics is still one of the crucial problems in Japan. In fact, according to the Global Gender Gap Report 2021, Japan is ranked 147<sup>th</sup> out of 156 in political empowerment (WEF, 2021). To enhance the political empowerment of women, Japan enacted the Act on Promotion of Gender Equality in the Political Field in 2018.

<sup>31</sup> The Ministry of Education, Culture, Sports, Science and Technology of Japan has also launched different programmes to support women in STEM field, e.g., Restart Postdoctoral Fellowship (for researcher to ‘restart’ from childcare leave).

the education front, a support network comprised of members of industry, academia and government is also developed. To enable women to develop a successful career in the technology industry, more targeted programs (e.g., job placement and training, empowerment activities, mentorship, and sponsorship, etc.) could be provided by private companies, academia and government.

### C. Republic of Korea

**The Ministry of Gender Equality and Family of the ROK has developed and implemented Plan for Gender Equality Policies since 1998.** The plan is renewed every five years, with the aim of securing gender equality rights, strengthening government accountability and enhancing the system of promoting gender equality. The latest Plan for Gender Equality Policies covers six major aspects: (i) promoting awareness and culture of gender equality, (ii) ensuring equal rights to work and opportunities, (iii) enhancing women's representation and participation, (iv) creating social infrastructure for work-life balance, (v) eradicating violence against women and improving women's health, and (vi) strengthening the implementation mechanism for gender equality policies (Ministry of Gender Equality and Family, Republic of Korea).

**To ensure equal rights to work and opportunities, the ROK Government implemented life cycle-based support policy to provide comprehensive assistance to women.** The major support policies include a mentorship program, a women leader academy that offers customized capacity development education to increase female leadership, support for reemployment

of career-interrupted women, etc. 150 New Occupation Centers have been established to provide career support including employment counseling, vocational training, job matching and follow-up care after employment (Ministry of Gender Equality and Family, Republic of Korea).

**To tackle workplace harassment the ROK Government amended the Equal Employment Opportunity and Work-Family Balance Assistance Act to include provisions for countering sexual harassment in the workplace.** Further progress was made in 2019 when the Labor Standards Act was amended to enhance provisions for prevention and protection. Commonly referred to as the "workplace anti-bullying law" (Yonhap, 2019), the amendment formally obliges companies to investigate cases of workplace harassment, implement protective measures, enforce disciplinary and remedial measures in the event of harassment and prevent secondary harm.

**On the heavy burden of housework,** the ROK Government offers generous parental leave, yet the uptake rate of men is low, similar to Japan. Providing father-specific leave (i.e., paid leave that can be used only by the father), along with better support for small and medium enterprises, contributed to the rise in men taking time off. In addition, **the Equal Employment Opportunity and Work-Family Balance Assistance Act was also amended in 2019 to provide better support to parents, including expanded paid paternity leave and reduced work hours.** Although the primary objective is to boost fertility rates, it helps reduce the child-rearing burden of women.

Moreover, **to create a family-friendly social**



**environment, a family-friendly certification system has been introduced in 2008.** The applications are reviewed by the Ministry of Gender

Equality and Family. Selected companies will receive a certification and benefits such as additional points for public procurements and preferential interest rates for investment loans for SMEs. Certification has been mandatory for public institutions since 2017. Survey results show that companies that adopted family-friendly management had better financial performance and employees reported higher job satisfaction.

**Regarding promotion and leadership, the ROK Government has set a good example of improving women's representation in the public sector.** For instance, the establishment of the Plan for the Expansion of Women's Participation successfully increased women's participation in government committees from 26% in 2012 to 40% in 2017. Similar plans have also been implemented in government ministries and agencies as well as other public institutions.<sup>32</sup>

Recent research shows that larger companies have adopted government policies, including hour reduction, work and life balance, etc. They have

succeeded in some efforts, in particular, affirmative action policies and family-friendly measures, but have yet to internalize them within the companies. Issues such as the large gender wage gap, fewer opportunities for women in promotion and leadership roles and gender stereotypes in human resource practices still exist. **Awareness of gender equality differs between generations and genders within an organization, which makes the attitude of the senior management crucial** (KWDI, 2020).

**As for STEM fields, the ROK Government promulgated the Act on Fostering and Supporting Women Scientists and Technicians** (KLRI, 2018). Under this Act, the ROK Government implements new short and mid-term goals every 5 years. They are currently working towards the goals set out in the 4<sup>th</sup> Basic Plan for Fostering and Supporting Women in STEM (2019 – 2023)<sup>33</sup>. Article 11 of the Act provides the legal basis for setting target ratios to increase women's representation in STEM. Other legal provisions include financial aid for women candidates excelling in STEM and the establishment of institutes dedicated to achieving gender parity, such as the Korea Center for Women in Science, Engineering and Technology (WISET). As a government-funded public institution, WISET has adopted systematic research and initiatives focusing on women in STEM fields. For example,

<sup>32</sup> The ROK Government has institutionalized gender mainstream via four policy tools, namely (i) gender impact assessment, (ii) gender-responsive budgeting, (iii) gender-responsive statistics, and (iv) gender-responsive education. For example, the enactment of The Gender Impact Analysis and Assessment Act requests central administrative agencies and local governments to conduct gender impact analyses and assessments on newly enacted or revised bills, ensuring the consideration of gender equality perspectives in legislation.

<sup>33</sup> The 1<sup>st</sup> plan was established in 2003, and noticeable accomplishments were made as the 3<sup>rd</sup> plan finished, including (i) increase in the percentage of female newly employed for full-time research positions from 22% in 2008 to 30% in 2017, (ii) increase in conversion to flexible working hour systems from 556 women in 2015 to 5,487 women in 2017, and (iii) increase in the participation rate in economic activities for women in their 40s in STEM from 57% in 2012 to 61% in 2017.

career re-entry program, support for entry-level female researchers and startup entrepreneurs and parental leave cover programs. The institute funds research grants for female researchers and offers mentoring programs. 3,339 mentors and 12,031 mentees have participated in the program as of 2017 (WISET, 2020).

Nonetheless, **several challenges persist, e.g., sustained high rate of career interruption, a high percentage of non-regular positions of female, a low operation rate of systems supporting work-life balance and a low ratio of women in STEM**

**being appointed to positions higher than middle managers.** In response to the limitations identified by the 3<sup>rd</sup> Plan, the 4<sup>th</sup> plan lays out four strategies: (i) promoting the influx and growth of strategic talents for future demand in new industries, (ii) enhancing scientific and technological innovation and global competencies of women in STEM, (iii) facilitating retention and progression through the entire career path of women in STEM, and (iv) establishing a gendered innovation system in STEM fields (WISET, 2019).

# Chapter IV

## Gender Equality Good Practices in Technology Companies



Gender equality and diversity benefit companies from various aspects, including talent attraction and retention, higher staff productivity and creativity, better organizational performance and greater profitability. **Promoting gender equality and diversity is not only an element of corporate social responsibility but also crucial to business success.** Indeed, many companies position it

as a business strategy that helps achieve a competitive business advantage rather than merely an HR program.

**Gender equality and diversity are particularly important in the technology industry which celebrates innovation and creativity.** More and more technology companies start designing and implementing diversity and inclusion policies

**Table 2** Case studies on promoting gender equality in the workplace of the technology industry

	China	Japan	Republic of Korea
<b>Hiring process</b>	1. Alibaba; 2. Microsoft China	5. Accenture Japan Ltd.	9. Schneider Electric Korea
<b>Working condition</b>		5. Accenture Japan Ltd.; 6. INES Corporation; 7. Oracle Corporation Japan	10. KT Corporation; 11. SK C&C
<b>Double burden</b>	3. Didi Chuxing	6. INES Corporation; 8. Docomo CS Hokuriku Inc.	10. KT Corporation; 12. Lotte Engineering & Construction; 13. Emerson Korea
<b>Career advancement</b>	2. Microsoft China; 3. Didi Chuxing; 4. SAP China	7. Oracle Corporation Japan; 8. Docomo CS Hokuriku Inc.	11. SK C&C

to address the barriers to gender equality in the workplace highlighted in Chapter II. **Some of the common strategies include setting transparent career paths and salary structures, implementing family-friendly work practices, building awareness among managers and providing development and leadership trainings** (WEF, 2020a).

International technology companies generally have staff from diverse backgrounds and are aware of the importance of an inclusive and equal workplace. Their experiences on diversity and inclusion policies in the workplace provide good references for promoting gender equality. Meanwhile, good practices of local companies offer important experiences on the formulation and implementation of gender equality initiatives based on local context. Table 2 presents case studies on promoting gender equality in the workplace of the technology industry based on interviews with the selected companies, including both international and local companies in China, Japan and the Republic of Korea.

### A. China

In general, **measures that promote gender equality in the workplace are still at an early developing stage for many Chinese companies.** Most of the related initiatives usually come from the technology industry which celebrates innovation and creativity as well as the multinational corporations that already have well-developed programs other offices. In view of the highly competitive working environments in the technology industry in China, work-life balance is often being sacrificed for career development. As the case studies show, many companies put **a strong emphasis on supporting female employees through trainings and professional networks to promote gender equality.** Having said that, work-life balance, as well as family-friendly workplace, have been receiving more attention, especially among the younger generation. Companies start launching different programs to attract and retain female talent, particularly in the technology industry with serious gender imbalance.

#### Case Study 1: Alibaba

About	<ul style="list-style-type: none"> <li>• Alibaba Group is the largest retailer and e-commerce company in China. It is also rated as the world's fifth-largest artificial intelligence company in 2020.</li> <li>• One-third of the Alibaba Group founders and executive leadership are women. Women represent around 47% of more than 50,000 employees of the Alibaba Group. Alibaba Group is one of the best technology companies in China in terms of gender equality.</li> </ul>
Theme 1	<ul style="list-style-type: none"> <li>• Promoting gender equality in human resources management.</li> </ul>

### Case Study 1: Alibaba

Background	<ul style="list-style-type: none"> <li>• Gender bias in the hiring process is prevalent in Chinese technology companies. It is also taken for granted that women in Chinese society take a larger role in childcare and family care.</li> <li>• Gender equality is a core value of the Alibaba Group. To promote gender equality in the workplace, Alibaba Group has taken various measures to protect women from discrimination over recruitment and career development.</li> </ul>
Initiatives	<ul style="list-style-type: none"> <li>• Human Resources Department of the Alibaba Group developed a clear guideline that equal opportunities should be provided to both men and women at recruitment and promotion.</li> <li>• In the recruitment process, interviewers are prohibited from asking female candidates about marital and family status to avoid gender-biased discrimination. To assess the candidate, objective indicators are considered including (i) learning ability, (ii) emotional intelligence, (iii) positive thinking, and (iv) adaptability and flexibility.</li> <li>• In the performance management system, the company strives to protect the rights and interests of female employees during marriage, pregnancy, and maternity leave. The company ensures that their performance appraisal will not be affected because of absences.</li> <li>• In the promotion process, the company ensures a minimum number of female candidates on the list. In reviewing the candidates, six objective indicators (i.e., performance, the potential to growth, positive values, learning ability, global mobility, and ambition) are considered.</li> <li>• The company provides various trainings related to childcare, work-life balance, and emotion management.</li> </ul>
Results	<ul style="list-style-type: none"> <li>• Recognizing the importance of gender equality from the beginning of the establishment, the company has been increasing women's representation in the newly hired and senior managers over the years.</li> <li>• Employees see that each process for recruitment, performance management, and promotion is merit-based but not gender-biased. Feedback shows that women feel being treated equally in these processes.</li> </ul>
Lessons learned	<ul style="list-style-type: none"> <li>• Although women represent about half of the employees, they are underrepresented in IT department and technology-related positions, while they are overrepresented in human resources, finance, and administrative departments. Underneath the overall figure, gender equality should be promoted at all levels.</li> <li>• It is crucial to actively communicate with both male and female employees to understand their concerns and needs better.</li> </ul>

## Case Study 2: Microsoft China

About	<ul style="list-style-type: none"> <li>• Microsoft is the leader in computer software, consumer electronics and related services. Microsoft has committed to accelerating progress in diversity and inclusion and has started publicly sharing its annual workforce demographics since 2014. As of June 2020, women represent around 29% of Microsoft's global workforce.</li> </ul>
Theme 1	<ul style="list-style-type: none"> <li>• Supporting female tech students to transit from school to the workplace.</li> </ul>
Background	<ul style="list-style-type: none"> <li>• Gender imbalance is a long-existence problem in the technology industry.</li> <li>• To inspire female students interested in science and technology, Ada Workshop was established in 2016, aiming to encourage them to pursue their tech dreams and to provide practical support to help female students majoring in computer science successfully transit from school to the workplace.</li> </ul>
Initiatives	<ul style="list-style-type: none"> <li>• There have been four Ada Workshop annual events since 2016, and more than 10 Ada Workshop events were organized in the universities in China. The events invite female role models in the computer science area to share their career development experiences and personal stories.</li> <li>• The company has also collaborated with China Computer Federation and top universities in China to reach more female students.</li> <li>• In response to the COVID-19 pandemic, the annual event of Ada Workshops in 2020 was held online, through the Microsoft China Video Center at Bilibili.</li> </ul>
Results	<ul style="list-style-type: none"> <li>• Ada Workshops 2020 has attracted active participation of more than 1,300 female students from various schools across China, with over 6,000 viewers and more than 2,900 bullet comments.</li> <li>• Ada Workshops were well received, with comments such as "The most rewarding part of the Ada Workshop for me was seeing such great Microsoft female researchers and learning about their stories, which gave me vivid role models!" and "I am highly inspired and had the courage to chase my tech dreams."</li> </ul>
Lessons learned	<ul style="list-style-type: none"> <li>• The choice of speakers is important. Women of distinction in the computer science and junior staff can share different things with female students. To help students understand different career tracks, colleagues from different positions and departments were invited as speakers.</li> <li>• The online Ada Workshop had great results, which is an appropriate modality under COVID-19 pandemic. The company will consider having more "offline + online" events in the future.</li> </ul>



### Case Study 2: Microsoft China

Theme 2	<ul style="list-style-type: none"> <li>• Providing comprehensive development solutions to female employees.</li> </ul>
Background	<ul style="list-style-type: none"> <li>• It is important to identify and develop women leaders to sustain organizational growth and improve team and organization effectiveness.</li> <li>• Building up a community for women employees to network could create a stronger sense of belongings.</li> </ul>
Initiatives	<ul style="list-style-type: none"> <li>• The program “Lead Like Woman” consists of five modules (i) being an authentic leader, (ii) closing the confidence gap, (iii) building a personal brand, (iv) mindfully maintaining wellbeing, and (v) cultivating grit and grace.</li> <li>• The program creates a community for female employees to understand and accept their uniqueness as well as set up their own way of balance between work and life and learn from each other in a relaxed environment.</li> </ul>
Results	<ul style="list-style-type: none"> <li>• The program provides a learning opportunity as well as community belongings to participants, who can network and communicate more within the community.</li> <li>• It results in a higher retention rate and promotion rate.</li> <li>• Woman leaders feel warmly cared for by the company, and they have specific development plans to follow.</li> </ul>
Lessons learned	<ul style="list-style-type: none"> <li>• It is more effective to combine the training program with a community approach to facilitate in-depth learning and development solutions for female employees.</li> <li>• Employees find it more beneficial to have the training materials covering various aspects of daily life rather than including only work-related issues.</li> </ul>

### Case Study 3: Didi Chuxing

About	<ul style="list-style-type: none"> <li>• Didi Chuxing (“DiDi”) is the world's leading mobility technology platform. It offers a wide range of app-based services across Asia Pacific, Latin America, Africa and Russia, including taxi-hailing, private car-hailing, ridesharing, bus, bikes &amp; e-bikes, designated driving, automobile solutions, delivery, freight and logistics, and financial services.</li> </ul>
Theme 1	<ul style="list-style-type: none"> <li>• Supporting work-life balance and childcare of female employees.</li> </ul>
Background	<ul style="list-style-type: none"> <li>• Female employees usually face a critical point in their lives of pursuing career development and at the same time, maintaining work-life balance and providing childcare.</li> <li>• DiDi Women’s Network (DDWN) launched several initiatives to support female employees under this concern.</li> </ul>
Initiatives	<ul style="list-style-type: none"> <li>• DDWN introduced different supporting systems for female employees including (i) remote working policy, (ii) on-site childcare, and (iii) pregnancy care plan.</li> <li>• Remote working policy allows expectant mothers and mothers with young children to work from home once a week.</li> <li>• On-site childcare provides staff an in-house kindergarten during summer and winter vacation months so they can have a worry-free childcare option.</li> </ul>
Results	<ul style="list-style-type: none"> <li>• Remote working policy helps expectant mothers and mothers to have a better balance between work and family life.</li> <li>• High satisfaction of employees who used the on-site childcare facility. It gives a strong incentive for women with children to apply for the company.</li> </ul>
Lessons learned	<ul style="list-style-type: none"> <li>• It is important to introduce and launch inclusive policies after thorough communications and consultations with employees beforehand.</li> <li>• It is also vital to get strong and continuous support from senior management.</li> </ul>
Theme 2	<ul style="list-style-type: none"> <li>• Empowering all levels of female employees through professional development and personal growth programs.</li> </ul>
Background	<ul style="list-style-type: none"> <li>• Women in China face barriers to equal employment. Fewer employment opportunities are given to women, especially in the technology industry.</li> <li>• Female employees, from fresh graduates to middle managers to senior executives, have various concerns about personal growth and professional development.</li> <li>• DiDi Women’s Network (DDWN) was launched in 2017 to address these issues and advance the personal growth and career development of female employees.</li> </ul>

### Case Study 3: Didi Chuxing

Initiatives	<ul style="list-style-type: none"> <li>• DDWN took various initiatives related to career development and personal growth including (i) Women Leadership Program, (ii) Women Empowerment Program, and (iii) Her Growth.</li> <li>• Women Leadership Program provides talented female employees with professional training and development opportunities. These help them boost self-awareness and core competencies, as well as enhance leadership skills and influence in the company. It also provides a platform for them to grow and connect with other female executives.</li> <li>• Women Empowerment Program, launched in 2019 as a pilot, provided employees in middle management with a four-module program. Through personal growth training activities, the program helped women develop self-awareness and confidence in their careers.</li> <li>• Her Growth, launched online in 2020, is designed to offer trainings on resilience, personal growth, as well as effective communication and networking skills to fresh graduates and frontline employees.</li> </ul>
Results	<ul style="list-style-type: none"> <li>• There have been four cohorts of Women Leadership Program since 2017, empowering more than 25% of DiDi's middle and senior management teams. They demonstrate a stronger commitment to the company and have a higher retention rate and better performance evaluation after the training. Comments include "The program makes me look at work and life from a totally new perspective and make a breakthrough" and "I can share the insights and tools I learnt from this program to my team, leading our team to grow together".</li> <li>• Women Empowerment Program has trained 35 employees from three departments at the mid-management level.</li> <li>• About 300 young employees from 28 cities in China, covering all departments in the whole organization, benefited from the Her Growth online program.</li> <li>• Feedback shows that the participants find the programs unique and useful. They feel much more connected with the company and establish good relationships with peers. Graduates usually become mentors for participants of the class that follows them.</li> </ul>
Lessons learned	<ul style="list-style-type: none"> <li>• Women Leadership Program is being improved every year by reflecting the feedbacks of the employees and management teams. It is important to get the employees involved to design the program that best fits their needs.</li> <li>• To sustainably support the participants during and after the program, DDWN is in the process of establishing an alumni group where graduates can continuously support each other through networking, information sharing, and mentorship.</li> </ul>

### Case Study 4: SAP China

About	<ul style="list-style-type: none"> <li>• SAP is the market leader in enterprise application software, with 77% of the world's transaction revenue touched an SAP system. SAP's advanced analytics technologies help turn customers' businesses into intelligent enterprises, enabling them to operate profitably, adapt continuously, and make a difference.</li> <li>• SAP received EDGE Lead certificate (Economic Dividends for Gender Equality) in 2019 which is the highest level of EDGE.</li> </ul>
Theme 1	<ul style="list-style-type: none"> <li>• Improving women's career development by strengthening the professional network.</li> </ul>
Background	<ul style="list-style-type: none"> <li>• Gender inequality persists within the job market and society in China. Yet research has shown that diverse teams are more innovative and have greater customer satisfaction. SAP aims to be the most inclusive software company in the world, attracting and retaining top female talent.</li> <li>• Strengthening the professional network is key to increasing women's leadership skills, career development opportunities, and business acumen. SAP's Business Women's Network (BWN) facilitates these endeavors.</li> </ul>
Initiatives	<ul style="list-style-type: none"> <li>• BWN is an employee-driven network that provides opportunities for women at SAP to share their professional insight, support other women, and influence diversity issues, thereby enabling women to fulfill their potential. The bottom-up approach to inclusivity helps bolster top-down initiatives of the company.</li> <li>• Recognizing that an inclusive culture goes beyond numbers, surveys are conducted to gauge employee satisfaction and townhall meetings are held to encourage dialogues between employees and managers.</li> <li>• BWN creates a platform that acts as a safe space for women to discuss issues they may not feel comfortable broaching in public meetings. This provides opportunities for honest feedback on SAP's initiatives.</li> </ul>
Results	<ul style="list-style-type: none"> <li>• Since BWN's implementation in 2006, it has grown to over 10,000 members and 60 chapters.</li> <li>• Having a strong network encourages the visibility of female role models at all levels at SAP.</li> <li>• SAP strongly believes in the economic dividend of gender equality as promoted by the EDGE global business certification program for gender equality and has gained the highest level of EDGE certification.</li> <li>• SAP was also recognized by the Bloomberg Gender-Equality Index in 2019 and 2020.</li> </ul>
Lessons learned	<ul style="list-style-type: none"> <li>• Achieving gender equality is a continuous and interactive process that includes everyone in the company.</li> <li>• A strong BWN utilizes internal and external knowledge transfer, which is important for women to maximize their potential.</li> <li>• Gender equality should be extended horizontally as well as vertically. For example, increased women's participation should be reflected in technology roles but not just in human resources or marketing roles. Otherwise, it could skew results and give a false impression of gender equality.</li> </ul>

### Case Study 4: SAP China

Lessons learned	<ul style="list-style-type: none"> <li>• Gathering employee feedback is vital for going beyond quantitative data as well as for a more accurate assessment of the company culture.</li> <li>• Taking part in external certification programs such as EDGE has provided valuable information for achieving gender parity. It is a compact, structured, and indicative process which helps identify the gender gaps and provides suggestions for future plan. It has been useful for the institutionalization of gender equality across SAP's policy, process, and structure.</li> <li>• It is important to include men as allies for achieving gender equality. Progress will be limited if it is treated as an issue just for women to fix. It is a responsibility that everyone must share.</li> </ul>
Theme 2	<ul style="list-style-type: none"> <li>• Supporting female talent to achieve their leadership aspirations.</li> </ul>
Background	<ul style="list-style-type: none"> <li>• There is still a widespread gender imbalance in leadership roles which has a knock-on effect of hindering progress towards gender equality.</li> </ul>
Initiatives	<ul style="list-style-type: none"> <li>• SAP's Leadership Excellence Acceleration Program (LEAP) aims to grow and accelerate SAP's pipeline of female leaders. LEAP is a 12-month leadership development journey focused on aspirant women who have the potential and desire to rise into leadership positions or to move into new levels of leadership.</li> <li>• Participants receive training on (i) short and long-term career aspirations, (ii) leadership style and how to leverage it for future success, (iii) value proposition and personal brand, and (iv) strategic alliances, including mentorship opportunities.</li> <li>• SAP also strives to achieve women's leadership potential through 'Women to Watch' initiative. It aims to support female talent at all levels of the company with coaching, executive shadowing, sponsorship, etc. to achieve their leadership aspirations.</li> </ul>
Results	<ul style="list-style-type: none"> <li>• Surveys are carried out at the beginning, mid-point, and end of the program. Three key measures are used, i.e., talent development, talent exposure, and talent movement. Career progression is tracked for two years following LEAP graduation. One follow-up survey shows that 18% of participants had become new managers, 4% had moved into middle management, and 22% had moved into an expert role.</li> <li>• SAP achieved the goal of 25% women in leadership six months ahead of schedule in June 2017, and as of December 2019 it stood at 26.4%.</li> </ul>
Lessons learned	<ul style="list-style-type: none"> <li>• It is important to have a gender equality strategy at all stages. SAP's female hiring strategy helps identify female talent from the interview process. SAP also has a talent management strategy to offer equal opportunity to female talent in their career development.</li> <li>• SAP notices retaining female staff a challenge, particularly at the 5 to 10-year mark, when social and family pressures interfere with workplace participation. It is useful for management to directly engage with employees to make sure employees are maximizing their statutory work benefits and not being penalized as caregivers.</li> <li>• SAP finds that when employees are committed to their work, they can work effectively from home without the need to micromanage staff. A more inclusive working environment leads employees to feel like they belong to the company, and that is a bigger motivation for employee productivity.</li> </ul>

## B. Japan

All the companies below have been awarded grade 3 (i.e., the highest category) of the “*Eruboshi*” certification regarding their commitments to promote gender equality. While the case studies cover different areas of gender equality in the workplace of the technology industry, they all highlight the importance of support from senior management. Indeed, a top-down approach is essential to change the organizational culture. Meanwhile, it is important to engage men for gender equality so they could have a better understanding of conscious and unconscious

bias on women as well as take up the responsibility to promote gender equality (e.g., take paternity leave and share housework). Moreover, one of the major themes is **working style reform** which aims to improve the working environment for gender equality. With the advance in technology, **companies have leveraged their expertise for digital transformation and more flexible working arrangements**, thereby contributing to a smooth transition of business operation amid the COVID-19 pandemic. Their initiatives on working style reform and gender equality serve as good references for other industries.

### Case Study 5: Accenture Japan Ltd.

About	<ul style="list-style-type: none"> <li>Accenture is a global professional services company with leading capabilities in digital, cloud, and security. Accenture has been recognized for its strong commitment to enhancing diversity and inclusion, with a goal of achieving gender parity in its global workforce by 2025. Accenture Japan Ltd. has around 15,000 employees and the ratio of female employees is 45% as of November 2020.</li> <li>Accenture has been consistently ranked as one of the top companies in Revinitv's Diversity and Inclusion Index since 2006 and has been placed in the top 3 in 2020.</li> </ul>
Theme 1	<ul style="list-style-type: none"> <li>A comprehensive approach for ensuring diversity and inclusion in the company.</li> </ul>
Background	<ul style="list-style-type: none"> <li>Accenture Japan Ltd. has committed to creating a better working environment to promote gender equality. The company believes this would contribute to recruitment and retention of talent, as well as improvement of employees' abilities and motivation.</li> <li>The company considers the culture and working environment for equality, including diversity and inclusion, as an important business agenda.</li> </ul>
Initiatives	<ul style="list-style-type: none"> <li>The company has strengthened efforts to recruit women, e.g., organizing career seminars targeting female students at the universities. The company has also launched measures to change the organizational culture and raise the awareness of managers to improve female representation.</li> <li>The company has offered trainings to employees at different positions and levels to help them resolve individual issues including work-life balance, childcare, and career development.</li> <li>Every year, the company organizes an internal event on International Women's Day to raise awareness regarding gender equality.</li> </ul>

### Case Study 5: Accenture Japan Ltd.

Initiatives	<ul style="list-style-type: none"> <li>• To better support female employees in different stages of career development, the company has set up an internal community called “Japan Women’s Initiatives” in 2006.</li> <li>• The company has been implementing various initiatives under the concept of diversity and inclusion, covering gender, disabilities, LGBTQ, and cross-culture. The company believes that collaboration among people with different backgrounds can generate new perspectives, create innovation, and improve the competitiveness of the company. Special attention is also being paid to issues such as religion and race, sexual minorities, and nationalities, to avoid discrimination and prejudice.</li> </ul>
Results	<ul style="list-style-type: none"> <li>• Gender stereotypes and prejudice are successfully reduced among employees, such as “employees cannot get a promotion if they take a long leave.”</li> <li>• Equal opportunity for promotion regardless of gender is also ensured.</li> <li>• The training programs were well-received as they helped clarify career paths especially for young employees and identify their strengths and weakness for further development. Also, the training program for managers enhanced their understanding of the importance of gender equality as well as the company’s commitments to diversity and inclusion.</li> <li>• The number of female employees has been increasing gradually and the ratio has reached 45% in 2020.</li> </ul>
Lessons learned	<ul style="list-style-type: none"> <li>• A long-term approach with continuous efforts is critical to cultivate a sustainable environment for gender equality in the workplace.</li> <li>• Understanding and leadership at the management level are essential to promote comprehensive initiatives. Part of the success can be attributed to the CEO of Accenture, Ms. Julie Sweet, who puts equality as one of the top priority issues and has been actively promoting related reform.</li> </ul>
Theme 2	<ul style="list-style-type: none"> <li>• Promoting flexible working arrangements with an emphasis on the quality of work.</li> </ul>
Background	<ul style="list-style-type: none"> <li>• Accenture Japan Ltd. considered that it is essential to create a better working environment for diversity as well as helping employees perform at their full potential.</li> <li>• The company has been focusing on work style reform since 2015 to build an environment where employees can work comfortably and sustainably.</li> </ul>
Initiatives	<ul style="list-style-type: none"> <li>• One of the key initiatives is the introduction of “Performance achievement” in the evaluation process. It means that evaluation is based on individual progress and achievement, rather than comparing with other employees. It emphasizes employee ownership and gives more focus on the tangible outputs and quality of work.</li> <li>• The company has also offered diverse options for working arrangements.</li> </ul>

### Case Study 5: Accenture Japan Ltd.

Results	<ul style="list-style-type: none"> <li>• It encourages employees to focus on the quality of work and provides flexibility for employees to work sustainably according to their stages of life.</li> <li>• The evaluation process which emphasizes individual strength and growth fosters a corporate culture of creating value, regardless of the hierarchical relationship.</li> <li>• Employee's satisfaction toward work-life balance was greatly improved because of the flexible working environment and support (e.g., work from home arrangement, shortened working hours, and childcare support).</li> <li>• While employees are accustomed to a flexible working arrangement and the use of digital technology, it enabled a smooth transition to remote work arrangements without affecting business operation during the COVID-19 pandemic.</li> </ul>
Lessons learned	<ul style="list-style-type: none"> <li>• It is important to introduce a comprehensive system (e.g., human resources and evaluation process) to leverage technology for a flexible working environment. In view of the pandemic, digital transformation and a flexible working environment are becoming more important for both Accenture and its clients.</li> <li>• There are emerging challenges from the new working arrangement, e.g., how to monitor and manage employees effectively, how to prevent overwork at home. In response to the challenges, managers have actively communicated with their subordinates.</li> <li>• In the technology industry, service development usually takes an agile approach with trial and error. Close communication is key to improvement and it also applies to the new working arrangement.</li> </ul>

### Case Study 6: INES Corporation

About	<ul style="list-style-type: none"> <li>• INES Corporation is an independent system integrator established in 1964 with currently about 1,400 employees. INES Corporation provides various services and solutions, such as information processing and communication services, software development services, system provider services and other system-related services. The company has operations with a community-based approach, based in the headquarters office in Tokyo and 11 branches across Japan.</li> </ul>
Theme 1	<ul style="list-style-type: none"> <li>• Working style reform to improve the working environment for gender equality.</li> </ul>
Background	<ul style="list-style-type: none"> <li>• While the company has various programs to support employee's work-life balance, employees are not well aware of the programs, resulting in a low utilization rate.</li> <li>• Also, the underrepresentation of women is a critical problem for the company, which was 6% in 2016.</li> <li>• In order to develop its business sustainably, the company considered that it is essential to improve its working environment for achieving gender equality as well as diversity and inclusion.</li> </ul>



### Case Study 6: INES Corporation

Initiatives	<ul style="list-style-type: none"> <li>• The company launched a project to improve the working environment in 2016. At the early stage of the project, the task force team conducted a survey on diversity to identify the critical problems in the company. The result highlighted four areas (i) raising awareness at the manager/board level, (ii) comprehensive working style reform, (iii) promotion activities, and (iv) institutional reform.</li> <li>• The project on working style reform started in 2017 with different initiatives. One of the initiatives was to offer training programs to employees, such as unconscious bias and awareness on the significance of gender equality.</li> <li>• One of the most effective approaches to raise awareness was to utilize internal communication tools. The company published stories about taking maternity/paternity leave, granny leave, and various cases of work-life balance via the intranet, including the opinions from other colleagues and managers about the potential barriers, required preparation, and how to overcome them.</li> <li>• The company has also created a friendly environment for employees who need to take leave. For example, the CEO sends a congratulations message not only to the employee with a newborn but also to their managers to encourage them to pay attention to the employee's needs.</li> </ul>
Results	<ul style="list-style-type: none"> <li>• The initiatives have resulted in remarkable improvement. For example, the annual average working hours have been reduced from 2,143 hours in 2014 to 1,989 hours in 2019, whereas the average utilization rate of paid leave has been increased from 13 days in 2014 to 17 days in 2019, compared to the average of 12.7 days in the technology industry in Japan.</li> <li>• The CEO's congratulations message is also effective in increasing the percentage of male employees taking paternity leave (which reached 88% in 2019). With the message from the CEO, the manager would encourage the employee to take paternity leave. This approach fosters the culture which taking paternity leave is normal for everyone.</li> </ul>
Lessons learned	<ul style="list-style-type: none"> <li>• It is noteworthy that this comprehensive approach for improving the working environment for gender equality was initially raised by board members as a required action for the company. It illustrates the importance of a top-down approach.</li> <li>• On the other hand, it is crucial to have a bottom-up approach run in parallel. Introducing a personal story on the intranet is a good example. It helps other employees learn applicable practices.</li> <li>• The project team consists of members with different backgrounds. It ensures different perspectives to be reflected in the project designing process.</li> </ul>

Case Study 6: INES Corporation	
Theme 2	<ul style="list-style-type: none"> <li>• Digital transformation to improve work-life balance and productivity.</li> </ul>
Background	<ul style="list-style-type: none"> <li>• In view of the COVID-19 crisis, the company foresees a growing demand for services on digital transformation. Since the company would be expected to provide servicing which potentially leads to digital transformation to the clients in the future, they consider that digital transformation should be generated in the company first to improve their working environment.</li> </ul>
Initiatives	<ul style="list-style-type: none"> <li>• The project on the promotion of “New Normal” was launched in June 2020. It aims to improve work-life balance and productivity through digital transformation, ensuring that employees can work anytime, anywhere, and communicate smoothly with anyone.</li> <li>• One of the initiatives is the “super-flex” working system which allows employees to decide their working schedule flexibly. Also, the company has standardized the remote-work arrangement and enhanced IT systems to ensure security as well as smooth communication among employees.</li> <li>• In response to the reduction of face-to-face communication, the company has conducted a regular survey for all employees, which is an online questionnaire for a mental and physical health check. Employees can also have internal consultation services about their working and health conditions.</li> <li>• The human resources department has prepared a guidebook about “New working style” for all employees to present the new working rules and communication measures. It also includes a checklist for employees to conduct self-evaluation about their working and health conditions.</li> </ul>
Results	<ul style="list-style-type: none"> <li>• The project brought tangible changes in employee’s working styles. For example, employees do not need to follow fixed working hours and can decide their own working hours.</li> <li>• The guidebook provides examples of flexible working arrangements which helps enhance employee’s understanding of the new working style. This approach could enhance an employee’s understanding and create a clear image of the working style under the new normal.</li> </ul>
Lessons learned	<ul style="list-style-type: none"> <li>• The key to a seamless transition to the new normal is the company’s past experiences of reviewing their policies and institutions towards gender equality and working style reform.</li> <li>• Company could make use of the opportunity brought by the COVID-19 pandemic to accelerate their working style reform and improve work-life balance. This approach of digital transformation promotion in the company, which utilizes the technology sector’s advantage, can be a good reference for future business models in the new normal era.</li> </ul>

### Case Study 7: Oracle Corporation Japan

About	<ul style="list-style-type: none"> <li>• Oracle Corporation Japan was established in 1985 as the Japanese arm of the Oracle Corporation. Oracle Corporation Japan provides cloud services, software and hardware products for information systems, consulting, technical support services, and education and training programs in Japan.</li> <li>• Oracle Corporation Japan has been evaluated as “AAA” in the category of Sociality, Human Resource, Future Growth, Profitability, Safety, and Scale by the Toyo Keizai CSR Survey in 2016.</li> </ul>
Theme 1	<ul style="list-style-type: none"> <li>• Raising awareness for gender equality through multidirectional training programs.</li> </ul>
Background	<ul style="list-style-type: none"> <li>• The low ratio of female employees (22% in 2019) and female representation in manager positions (14.8% in 2019) have been long-standing challenges for the company. The company has considered that a shift in the environment and culture is required.</li> </ul>
Initiatives	<ul style="list-style-type: none"> <li>• To increase female representation and ensure gender equality in the company, various training programs have been implemented targeting employees in leadership positions. The training programs are designed for each management level including managers, senior managers, and board members to raise awareness on gender equality. The programs consist of both mandatory and optional courses, covering a variety of contents such as the concept of gender equality and harassment issues.</li> <li>• While the contents of the training programs are shared in Oracle Corporation globally, special focuses on the local context, e.g., the Japanese national character and gender and culture stereotype in the Japanese society, are considered.</li> <li>• The most effective approach was the training program for the first-line manager level. As they are engaged in both on-site business and decision-making processes, their mindset is significant to change the working environment and awareness among employees at all levels.</li> </ul>
Results	<ul style="list-style-type: none"> <li>• The training programs have achieved some positive results, with better awareness of gender equality at different management levels.</li> <li>• The ratio of female managers has increased and two female executive officers are recently appointed.</li> </ul>
Lessons learned	<ul style="list-style-type: none"> <li>• In view of the diverse situations and challenges of gender inequality, the training programs should focus on country-specific content. For example, the tendencies and characters of females such as lack of confidence and attitude of humbleness are important considerations in Japan.</li> <li>• Experiences show that continuous efforts are important to foster changes in the working culture and environment.</li> </ul>

### Case Study 7: Oracle Corporation Japan

Theme 2	<ul style="list-style-type: none"> <li>• Creating a community to support and develop female leaders.</li> </ul>
Background	<ul style="list-style-type: none"> <li>• To enhance the working environment toward diversity, further approaches for career development and improving work-life balance are also required. A community approach is significant to ensure women's advancement.</li> </ul>
Initiatives	<ul style="list-style-type: none"> <li>• Oracle Women's Leadership (OWL) is a global development program with a mission to engage and empower current and future generations of women leaders at Oracle, and OWL Japan is one of 117 communities around the world. OWL Japan consists of a diverse membership which includes women and men, and employees from junior to manager level. Currently, it has about 60 members in Japan.</li> <li>• OWL Japan has organized a variety of events, seminars, workshops and mentoring programs since its inception in 2012, focusing on enhancing women's leadership and promoting communication on gender equality among employees.</li> <li>• OWL Japan encourages male engagement, e.g., inviting a male employee who took paternal leave as a speaker to share his personal experience at the seminar.</li> </ul>
Results	<ul style="list-style-type: none"> <li>• OWL Japan successfully promoted dialogues among employees about career development and gender equality as well as improving the working environment with equal opportunities.</li> <li>• According to an internal survey, female employees are more confident that they can play an active role in businesses.</li> </ul>
Lessons learned	<ul style="list-style-type: none"> <li>• The community-based approach of OWL Japan has created a platform for communication among employees, offering an opportunity and a place for employees to find out tangible solutions through sharing their concerns and anxiety about future career and work-life balance. This approach has worked particularly well during the COVID-19 pandemic when employees face many challenges brought by work style changes.</li> <li>• Apart from OWL Japan, there are various community-based activities covering LGBTQI+ and other issues of diversity and inclusion in the company. These activities have generated insightful suggestions, which are sometimes leveraged for the company's strategy.</li> </ul>

### Case Study 8: Docomo CS Hokuriku Inc.

About	<ul style="list-style-type: none"> <li>• Docomo CS Hokuriku Inc. is one of the affiliated companies of NTT Docomo, which is Japan's largest telecommunications company serving over 73 million customers. The company provides management and installation services of the communications network, call center operations, and sales businesses of mobile phones. The company is located in Ishikawa prefecture, Hokuriku area.</li> </ul>
Theme 1	<ul style="list-style-type: none"> <li>• Creating a better working environment for employees and by employees.</li> </ul>
Background	<ul style="list-style-type: none"> <li>• The company aims to enhance the work-life balance of all employees. One of the challenges is the low ratio of taking childcare leave among male employees (66.7% in 2019). The company has been trying to raise awareness regarding the significance of gender roles and equality both at home and office.</li> </ul>
Initiatives	<ul style="list-style-type: none"> <li>• The company has been organizing various “working group” activities to improve the working environment for about 10 years. The initial idea was to promote female advancement and the activity was conducted by women. Since 2018, both male and female employees work together on the activities.</li> <li>• The theme of the working group is set by the department of human resources and administration every year, such as remote work system and compatibility between work and childcare.</li> <li>• The working group recruits volunteer members and about 30 members join the activity every year. The working group consists of members from different departments, positions, and professions. The working group has organized various activities to find out tangible solutions to different issues. One of the activities was the organization of “father’s community” to create a network for information sharing among fathers in the company.</li> </ul>
Results	<ul style="list-style-type: none"> <li>• The working group has created different networks for employees. Their feedbacks provided insightful suggestions for further initiatives.</li> <li>• The company has introduced a “remote work system” since 2017 as a part of the working group activity for “work-style reform promotion”. It enables a smooth transition of working arrangements under the pandemic without affecting the quality of work and business.</li> </ul>
Lessons learned	<ul style="list-style-type: none"> <li>• It is important to consider the voices and perspectives of employees regarding the working environment and work-life balance.</li> <li>• Since the company is in Hokuriku area with a comfortable atmosphere and the community is much smaller than big cities, employees are close to each other. The working group activity made use of the environment and culture to further enhance employee’s solidarity in the company.</li> <li>• The department of human resources and administration plays an important role as a facilitator of the working group and helps find out appropriate challenges they face.</li> </ul>

**Case Study 8: Docomo CS Hokuriku Inc.**

Theme 2	<ul style="list-style-type: none"> <li>Ensuring equal opportunity for career development.</li> </ul>
Background	<ul style="list-style-type: none"> <li>The company has a high female hiring ratio (56.5% in 2019), but the female representation in a leadership role is very low (12.5% in 2019 at board level).</li> </ul>
Initiatives	<ul style="list-style-type: none"> <li>The company has implemented different initiatives to develop and support female employees for career advancement and raise awareness of the low female representation in a leadership role.</li> <li>One significant milestone was the appointment of the first female CEO in 2019. She has sent a strong message on the importance of gender equality and she could become a great role model for female employees.</li> <li>Female employees may be absent from work for a few years due to their family plans. To ensure equal opportunity for career development, the company has revised the criteria for promotion which does not consider these absences as a disadvantage. Also, the reviewers are advised to focus on employee's abilities and achievements during the evaluation process.</li> </ul>
Results	<ul style="list-style-type: none"> <li>Female representation at the manager level has increased to 42.9% in 2019, exceeding the target of 40%.</li> <li>Annual employee survey shows improvement of employee's motivation for career development. In 2019, 95% of female employees responded that they aim to be a manager (90% in 2017), and 55% answered that they aim to be a board member (43% in 2017).</li> </ul>
Lessons learned	<ul style="list-style-type: none"> <li>The revision of evaluation criteria and efforts on awareness-raising contributed to a positive change of employee's motivation toward career development.</li> <li>The presence of a female leader helps remove the perception that "I will not be able to reach a leadership position", especially among female employees.</li> <li>A fair and transparent evaluation process regardless of gender is important to provide equal opportunity for all employees.</li> </ul>

**C. Republic of Korea**

A growing number of Korean companies are implementing measures to create a **family-friendly working environment** to attract and retain talent. To encourage women to return to work after giving birth, companies usually provide generous maternity leave, offer comprehensive life cycle caring programs and promote flexible working arrangements. This is also in line with the national policy on boosting the birth rate. In addition, **the role of men in housework and childcare has been emphasized**. Some companies

launched a mandatory paternity leave system to change employees' perception that only female employees can take childcare leave and encourage men to share housework. Indeed, **a change in mindset is crucial for the promotion of gender equality**, especially given the traditional social norms and stereotypes about women in the ROK. The case studies below provide some useful examples of how to establish an inclusive corporate culture and equal working environment that could fundamentally drive gender equality with the support of all stakeholders.

### Case Study 9: Schneider Electric Korea

About	<ul style="list-style-type: none"> <li>• Schneider Electric is a multinational company that provides energy and automation digital solutions for efficiency and sustainability.</li> <li>• Schneider Electric has received high recognition for its efforts related to diversity and inclusion. It was selected as one of the top 50 employers that has established the most diverse and inclusive corporate environment by Universum.</li> <li>• Schneider Electric Korea has approximately 450 employees, 28% of whom are female. Most female employees belong to support-related departments such as finance, customer service, human resources, and marketing.</li> </ul>
Theme 1	<ul style="list-style-type: none"> <li>• Establishing an inclusive corporate culture with an increasing number of female employees.</li> </ul>
Background	<ul style="list-style-type: none"> <li>• Although gender discrimination has been significantly improved and resolved, female employees still experience unequal treatment when they are on leave due to childbirth or childcare.</li> <li>• The company hires many employees who have degrees in electric engineering. Yet the number of male candidates is significantly higher than that of females, accounting for 80% of all candidates. The number of female employees, especially in the technical position, is very low.</li> <li>• The company has established a target to place female employees in 40% of the current executive positions.</li> </ul>
Initiatives	<ul style="list-style-type: none"> <li>• The value of diversity and inclusion is reflected in the hiring process.<sup>34</sup></li> <li>• Diversity is emphasized as a core value of the company to support employees' recognition that productivity would be higher in an equal working environment that celebrates diversity.</li> <li>• In the past three years, the company established a goal of having gender parity in the newly hired employees. The goal was included in the key performance indicator of the human resources department.</li> <li>• A succession plan<sup>35</sup> is performed annually. At least three candidates per team are nominated and one of them should be female.</li> </ul>
Results	<ul style="list-style-type: none"> <li>• All employees have been encouraged to recognize the value of diversity and the prohibition of discrimination.</li> <li>• The target for new hiring (at least 50% of women) was achieved for the past three years from 2017 to 2019.</li> </ul>
Lessons learned	<ul style="list-style-type: none"> <li>• Employment-based on diversity is essential to encourage all employees to recognize the value of diversity and establish a non-discriminatory organizational culture.</li> <li>• Diversity can lead to the improvement of corporate performance.</li> <li>• Complaints on the quota system for female employees have been recently raised as discrimination against men. Measures should be taken to prevent hostility toward the implementation of related initiatives.</li> </ul>

<sup>34</sup> Candidates who respect diversity and inclusion are prioritized. Candidates' knowledge on diversity and experience in cooperation with people of different backgrounds are also considered in the hiring process.

<sup>35</sup> Succession planning refers to the processes of identifying and developing a new leader who can replace an existing leader.

### Case Study 10: KT Corporation

<p>About</p>	<ul style="list-style-type: none"> <li>• KT is the largest telecommunications company in the ROK with main business fields including wired and wireless telecommunication and high-speed internet.</li> <li>• As of December 2019, KT had 22,810 employees and 4,006 of them were female (i.e., 17.6% of all employees).</li> <li>• 341 employees were at manager level in high positions and 22 of them were female, accounting for only 6.5%.</li> </ul>
<p>Theme 1</p>	<ul style="list-style-type: none"> <li>• Developing a fair and equal culture and improving the perception of employees toward gender equality.</li> </ul>
<p>Background</p>	<ul style="list-style-type: none"> <li>• The proportion of female employees has been low.</li> <li>• To ensure gender equality and sustainable management, the company president considers a fair and equal organizational culture as the main issue.</li> </ul>
<p>Initiatives</p>	<ul style="list-style-type: none"> <li>• Blind interviews have been carried out to improve fairness and transparency in the hiring process.</li> <li>• A program for improving the perception of employees toward gender equality, called “Understanding Gender”, has been provided to new employees, junior managers, and executives.</li> <li>• Female employees have been trained under the concept of gender equality without gender discrimination in corporate conditions that covers personnel management, wages, and welfare.</li> <li>• Corporate environments have been regularly managed according to the core sustainable development indexes proposed by the United Nations. In particular, the ratio of female employees in high positions has been included in an index for performance management.</li> </ul>
<p>Results</p>	<ul style="list-style-type: none"> <li>• The average continuous service period of female employees is 18 years. It has been achieved through the establishment of pleasant working environments regardless of gender.</li> <li>• The ratio of female executives in KT is 6%, compared to the 2% in the top 100 companies in the ROK.</li> <li>• The ratio of female managers in high positions gradually increased from 7.4% in 2016 to 7.8% in 2017 and 8.4% in 2018.</li> </ul>
<p>Lessons learned</p>	<ul style="list-style-type: none"> <li>• The commitment of senior management is crucial to establish a fair and equal organizational culture for gender equality. It is also important for all employees to share positive perceptions toward gender equality.</li> <li>• The pursuit of diversity should be regarded as a performance indicator for long-term sustainable management and should be constantly managed.</li> </ul>



### Case Study 10: KT Corporation

Theme 2	<ul style="list-style-type: none"> <li>Improving the work-life balance of female employees through a comprehensive life cycle caring program.</li> </ul>
Background	<ul style="list-style-type: none"> <li>The ratio of female employees decreases in the higher position. The ratio of female junior managers is 21%, those in the position of intermediate manager is 13%, and those in the position of senior manager is 6%.</li> <li>Despite a relatively high ratio of newly hired female employees (around 40%), the ratio of female employees is still low (less than 18%). It indicates that measures should be developed to prevent career breaks of female employees.</li> </ul>
Initiatives	<ul style="list-style-type: none"> <li>Personalized caring programs have been provided for female employees according to their life cycles such as the periods of pregnancy, childbirth, intensive infant care, and general childcare. These programs have resulted in a pleasant working environment where female employees can balance work and family life.</li> <li>Support for medical costs, prenatal diagnosis, and working time reductions are offered to female employees who are pregnant. For those who have given birth, childbirth-based care programs including holidays before and after childbirth and financial support for childbirth are also provided. Moreover, meetings for pregnant employees are held twice every year with the support of the company. Through these meetings, pregnant employees are encouraged to talk to each other and exchange useful information.</li> <li>Childcare leave of up to two years is allowed for employees with infants. Regarding those with care duties for older children, programs such as working hour reduction, the use of the nursery school at work, and financial support for educational expenses are provided.</li> <li>A female leader training program is provided for female employees who have been responsible for infant care to help them stably settle in the company and successfully progress.</li> </ul>
Results	<ul style="list-style-type: none"> <li>99.3% of female employees returned to work after childcare leave in 2019. The ratio of female employees who worked for more than 12 months after returning to work is 100%.</li> <li>Female employees are satisfied with female leader training as they can expand their networking and learn new skills.</li> <li>The company was selected as a firm with outstanding performance in gender equality in employment and received the Minister's award from the Ministry of Gender Equality and Family.</li> </ul>
Lessons learned	<ul style="list-style-type: none"> <li>Personalized support for female employees according to their life stage is essential to retain talent.</li> </ul>

### Case Study 11: SK C&C

About	<ul style="list-style-type: none"> <li>• SK C&amp;C is a Korea-based company engaged in the provision of system integration, consulting, and information technology outsourcing services.</li> <li>• The company has 4,022 employees, 818 (20%) of whom are female. Regarding the types of jobs, 64% of female employees are technical workers, 17% are office workers, 16% belong to the departments of marketing and sales, and 3% work as consultants.</li> </ul>
Theme 1	<ul style="list-style-type: none"> <li>• Establishing a female-friendly corporate culture and working environments.</li> </ul>
Background	<ul style="list-style-type: none"> <li>• Despite a corporate consensus regarding the necessity of fostering female leaders, they are sometimes being excluded from the promotion list due to career breaks caused by pregnancy and childcare.</li> </ul>
Initiatives	<ul style="list-style-type: none"> <li>• A family-friendly management strategy called “Hompany” has been implemented. It is a combination of the terms “Home” and “Company” to reflect the company’s goal of providing a working environment as comfortable as homes and increasing employees’ satisfaction.</li> <li>• SK W-network has developed a system for ensuring female-friendly working environments for female employees. It has conducted intensive discussions on improving the personnel management system to increase the share of female employees and providing support programs for them to better balance their work and family life.</li> <li>• The company has created the “W indexes” to monitor the progress of gender equality, covering the ratio of female employees, the ratio of female managers, indicators related to employment, promotion, and retirement of female employees, and the ratio of female employees who have taken childcare leave. Currently, 17 major affiliated companies of SK Group are applying these indexes. The annual evaluation is conducted and the analysis is used for formulating personnel management policy.</li> </ul>
Results	<ul style="list-style-type: none"> <li>• The ratio of female employees including newly hired female employees has increased.</li> <li>• All male and female employees who took childcare leave returned to work.</li> </ul>
Lessons learned	<ul style="list-style-type: none"> <li>• Consultative groups play an important role to support female employees systematically, e.g., through the improvement of the personnel management system to increase the share of female employees and develop support programs to ensure work-life balance.</li> <li>• Quantitative data is useful for establishing female-friendly culture and environment.</li> </ul>
Theme 2	<ul style="list-style-type: none"> <li>• Fostering female leaders with the support of senior management.</li> </ul>
Background	<ul style="list-style-type: none"> <li>• The ratio of female employees in positions above deputy general manager has become lower than that of female employees in positions of associate and assistant manager due to issues such as childbirth and childcare.</li> </ul>

## Case Study 11: SK C&amp;C

Initiatives	<ul style="list-style-type: none"> <li>• A consultative group for female employees at the level of executives, called “SKW-network”, has collected opinions and performed practical policy improvement since its foundation in 2011. SKW-network has constantly analyzed and undertaken tasks related to female issues, such as the development of a female leader fostering program, improvement of the human resources system and establishment of the infrastructure for the system, and enhancement of corporate culture for better awareness.</li> <li>• Female executives have communicated with new female team managers and candidates for team managers as mentors since 2012.</li> <li>• Leadership analysis, mentoring, and leadership-related trainings are provided as part of the female leader fostering program. Female leaders at the level of team managers share with junior female leaders about their own experiences in career development and participate in the female leader fostering program to contribute to the development of junior female leaders.</li> </ul>
Results	<ul style="list-style-type: none"> <li>• Measures for enhancing and supporting the female leader fostering program have been implemented based on the analysis of the SKW-network.</li> <li>• The number of female executives has increased significantly, with the number of female team managers increased by two-fold from 2011.</li> </ul>
Lessons learned	<ul style="list-style-type: none"> <li>• Programs that foster female leaders should be regarded and supported as measures for increasing corporate competitiveness in the long term.</li> </ul>

### Case Study 12: Lotte Engineering & Construction

About	<ul style="list-style-type: none"> <li>• Lotte Engineering &amp; Construction has implemented various projects related to the fields of housing, construction, civil engineering, and plants in Korea and abroad. The company's main projects include the construction of apartment buildings, private rental houses, industrial plants, and long-span bridges and tunnels.</li> <li>• The company has 3,356 employees and only 296 of them are female. The ratio of female employees is very low at 9%.</li> <li>• Most female employees work in the sectors of interior, design, and sales.</li> </ul>
Theme 1	<ul style="list-style-type: none"> <li>• Encouraging male employees to share housework through a mandatory paternity leave system.</li> </ul>
Background	<ul style="list-style-type: none"> <li>• It is necessary to improve employees' perception that only female employees can take childcare leave. In addition, issues related to career breaks should be addressed.</li> <li>• A childcare leave system has been implemented since 2012. Most female employees who have given birth have taken childcare leave. In contrast, only 10% of male employees whose spouses went through childbirth have taken childcare leave.</li> </ul>
Initiatives	<ul style="list-style-type: none"> <li>• The paternity leave system has been made mandatory since January 2017. Lotte Group was the pioneer to implement a mandatory paternity leave system among major companies in the ROK.</li> <li>• Male employees in Lotte Group are encouraged to take mandatory paternity leave for more than a month when their spouses give birth. Moreover, 100% of their regular wages are provided for the first month of paternity leave.</li> <li>• An education program called "Daddy school" has been operated since July 2018 to support male employees who have taken paternity leave to actively participate in housework. Participants can learn about the necessity of childcare performed by fathers, specific techniques for playing with their children, etc. They can also discuss their experiences with other male employees who have taken paternity leave.</li> <li>• A guidebook for paternity leave, "Father for the first time", has been published by and distributed across the company. It includes stories of male employees who took paternity leave and is designed to encourage male employees to balance their work and family life.</li> </ul>
Results	<ul style="list-style-type: none"> <li>• Lotte Group conducted a survey on 100 male employees who took paternity leave in 2018. The results showed that 91% of them shared housework with their spouses evenly through the paternity leave system.</li> <li>• On average, male employees spent 1.2 hours per day on housework before taking paternity leave and it increased to 2.9 hours after they took paternity leave.</li> <li>• 89% of the spouses who participated in the survey responded that their husband's paternity leave had positive effects on their plans related to childbirth.</li> <li>• An increasing number of male employees are willing to take paternity leave.</li> <li>• The mandatory paternity leave system has helped male employees understand the necessity of the maternity leave taken by female employees.</li> </ul>
Lessons learned	<ul style="list-style-type: none"> <li>• The mandatory paternity leave system is crucial to promote gender equality. Relevant governmental policies are required to promote paternity leave.</li> </ul>

### Case Study 13: Emerson Korea

About	<ul style="list-style-type: none"> <li>Emerson Korea specializes in industrial automation including automatic measurements for industrial processing, process automation, and control equipment manufacturing.</li> <li>The company has 341 employees, 76 (22.3%) of whom are female. 70 employees work as managers and 14 (20%) of them are female. As for executives, 3 (13.6%) out of 22 employees are female.</li> </ul>
Theme 1	<ul style="list-style-type: none"> <li>Establishing a corporate culture to ensure work-life balance and an equal working environment.</li> </ul>
Background	<ul style="list-style-type: none"> <li>The company aims to build a corporate culture in which the diversity of employees is respected.</li> <li>The company targets to increase the ratio of female employees to reduce gender imbalances and promote sustainable development.</li> </ul>
Initiatives	<ul style="list-style-type: none"> <li>Training programs related to unconscious prejudice have been provided to employees, especially for managers to prevent employment discrimination.</li> <li>Welfare policies that exceed legal standards have been applied. For example, male employees whose spouses had given birth were provided with paid childbirth holidays for ten days since September 2018, before relevant laws were enforced on 1st October 2019.</li> <li>A flexible time work system has been implemented to help employees better balance their work and family life. Employees are encouraged to apply for working hour reduction for pregnant employees and leave for family care.</li> <li>An autonomous organization for female employees, "Women in STEM", has been operated since 2018 to help female employees advance their careers in the STEM fields.</li> </ul>
Results	<ul style="list-style-type: none"> <li>The ratio of female employees hired increased from 22% in 2018 to 37% in 2019. The ratio of female employees promoted to managerial roles increases every year because of the job competency improvement of female employees in Women in STEM.</li> <li>All female employees who met the conditions took both childbirth holidays and childcare leave. All of them returned to work after the leave.</li> <li>The company was certified as a family-friendly firm by the Ministry of Gender Equality and Family in 2019 and received an award for its contribution to equal employment in 2020.</li> </ul>
Lessons learned	<ul style="list-style-type: none"> <li>Support measures should be taken to improve the working environment and reflect gender equality.</li> </ul>

# Chapter V

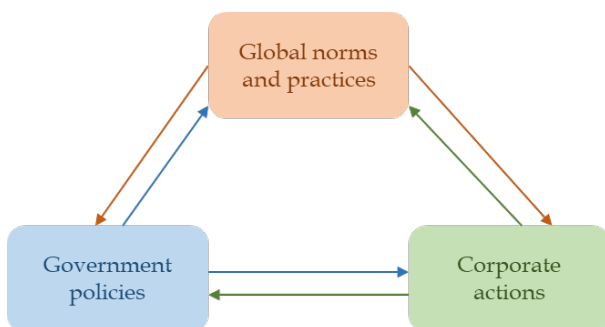
## Collective Actions to Accelerate the Achievement of Gender Equality

Achieving gender equality in the workplace and empowering women in the technology industry require collective actions from the public and private sectors. Both work in conjunction together and are bolstered by civil society and support from international organizations. To strengthen the collaboration among key stakeholders, it is important to ensure a mutually supportive mechanism that mainstreams the gender perspective in policy formulation and program design (Figure 7).

forge a consensus on the principles and guidelines regarding gender equality. Among which, the Beijing Declaration and Platform for Action is the most progressive blueprint for advancing women’s rights, covering 12 critical areas of concerns.<sup>36</sup> With reference to the general principles, governments and companies develop specific policies and programs targeting different levels and types of issues in the local context. Based on a transparent and evidence-based evaluation system, the experiences and lessons learnt from different countries and companies could be summarized into good practices and guidelines

At the global level, international organizations

**Figure 7** A mutually supportive mechanism for gender mainstreaming



<sup>36</sup> The Declaration provides a comprehensive guide to understanding and combatting the key barriers to gender equality. In each critical area of concern, the problem is diagnosed and strategic objectives are proposed with concrete actions to be taken by various actors in order to achieve those objectives. The strategic objectives and actions on women and economy, e.g., promote women’s economic rights and independence, including access to employment, appropriate working conditions and control over economic resources, as well as provide business services, training and access to markets, information and technology, are particularly relevant to gender equality in the technology industry (UN, 1995).

that accelerate the achievement of gender equality.

As a global champion dedicated to gender equality and the empowerment of women, UN Women supports member States as they set global standards for achieving gender equality. **One example is the Women's Empowerment Principles (WEPs) which offer guidance to the private sector on how to empower women in the workplace, marketplace and community.** Some principles and suggestions in the WEPs have instructive significance regarding the issues of gender equality in the workplace, echoing the analysis in this report. For example, Principle 1 (Leadership promotes gender equality) highlights the importance of company-wide goals and targets for gender equality and gender-sensitive policies, Principle 2 (Equal opportunity, inclusion and non-discrimination) recommends gender-sensitive recruitment and retention practices, equal remuneration and benefits, non-discrimination in workplace policies, inclusive working cultures, flexible work options and provision of child and dependent care, and Principle 4 (Education and training) encourages investment in workplace policies and programs that open avenues for the advancement of women at all levels and across all business areas (UN Women and UNGC, 2010). **In North-East Asia, stronger support from the private sector is needed given that less than 400 companies have signed the WEPs.**

**Another important initiative that aims to drive women's empowerment in innovative industries, especially the technology industry, is the Global Innovation Coalition for Change (GICC).** Specifically, the Gender Innovation Principles provide companies the guidance they need to adopt a gender-responsive

approach to innovation within their company. Organizations can sign up and apply the Principles and make use of the toolkits to achieve their gender equality goals. The five Principles lay out initiatives and measures that organizations could adopt, including (i) make a high-level corporate commitment to adopt a gender-responsive approach to innovation, (ii) design innovations that include women as end users, (iii) adopt an adaptive approach to implementation to ensure innovations are gender-responsive and meet the needs of women, (iv) evaluate the gender-responsive impact using a data-driven approach, and (v) scale innovations that provide sustainable solutions to meet the needs of women and girls (GICC, 2020).

To put the principles into practice, the following outlines some suggestions for governments and companies to work together to accelerate the achievement of gender equality in the workplace. **While some of the suggestions are relevant to all industries, they are particularly applicable to the technology industry to tackle the serious issues of gender inequality in the workplace.**

### Government

Government has the power to set rules and regulations, coordinate public resources and provide basic services and raise awareness. **The role of the government is to address structural problems and market failures by regulating organizations, providing public services and promoting change in stereotypes.** Based on the experience and lessons learnt from the gender equality policy in China, Japan and the ROK, as well as other related studies, some recommendations are provided below.

i. **Strengthen institutional monitoring and evaluation processes for greater accountability.** There are various legislations that protect women's rights and promote gender equality in the workplace. It is important for the government to take proactive steps to ensure effective implementation of the legislation.<sup>37</sup> It includes improving mechanisms for victims of discrimination and harassment to come forward and strengthening whistleblower protections so that employees can fully utilize legislation designed for their protection. More importantly, it is recommended to strengthen institutional monitoring and evaluation processes for holding public and private organizations to account. The transparent and evidence-based approach of the Database on Promotion of Women's Participation and Advancement in the Workplace in Japan which requests companies to disclose data, action plans and assessments on gender equality is a good example. With a top-down approach, mandate reporting and evaluation mechanisms could start from government institutions and listed companies, especially technology companies with better analytic and data management capacities, and gradually expand the information disclosure requirement to other institutions and companies. Benchmarks could be established to quantify the progress of gender equality at all

levels across different areas. Good practices collected could serve as usual references for other companies and the data could further be fed back into more effective policymaking for achieving gender equality. A comprehensive gender impact assessment would provide insights on the formulation and administration of government policy and legislation.

ii. **Take the lead to improve women's representation.** Governments can set a good example of improving women's representation in the public sector. For instance, in the ROK, the establishment of the Plan for the Expansion of Women's Participation successfully increased women's participation in government committees from 26% in 2012 to 40% in 2017. Similar plans have also been implemented in government ministries and agencies as well as other public institutions. For the technology industry, targets on increasing women's representation are outlined in the 4<sup>th</sup> Basic Plan for Fostering and Supporting Women in STEM (2019 – 2023). In Japan, the Government sets specific targets on women's participation and advancement in all fields of society and promotes positive action measures (e.g., a specific target on women representation) to drive gender equality. Moreover, all listed companies are requested to appoint at least one woman to a board position. To

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37 The Beijing+25 regional review showed that member States in Asia and the Pacific have prioritized legislative actions to advance gender equality and women's empowerment. Yet barriers to implementation remain, such as a lack of institutional mainstreaming, capacity and resources, as well as persistent discriminatory social norms that sustain gender inequalities in practice (UNESCAP and UN Women, 2020).

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accelerate the achievement of gender equality, commitment from the top with the backup of resources is crucial.

**iii. Ensure adequate provision of public services.**

Governments play a key role in addressing the double burden women face that often hinders their participation in the labour market. Governments are recommended to ensure sufficient provisions of public services, such as adequate childcare and elderly care facilities, to help women balance work and household responsibilities. Meanwhile, expanded paid paternity leave and elderly care leave could provide better support to women.

**iv. Offer assistance for career development.**

Governments should provide public assistance to help women develop skills and advance in their careers. The life-cycle based support policy of the ROK is a good example that provides comprehensive assistance to women, covering vocational training, job matching, support for reemployment of career-interrupted women, as well as mentorship and leadership programs. More targeted measures were launched to foster and support women in STEM fields, including the establishment of institutes such as WISET in the ROK and the “*Riko-challe*” project in Japan. Given the increased role of technology in socio-economic development and its significant

implication on the labour market (e.g., the future of work), governments are encouraged to dedicate more resources to redress gender imbalances in the technology industry (e.g., offering re-skilling training to develop women for the emerging jobs of tomorrow) and keep gender bias out of the technology industry. These supports would drive a virtuous cycle which encourages women to pursue their study and career in STEM fields.

**v. Introduce measures to incentivize gender equality practices.**

Governments can establish incentive schemes, such as certification programs, to reward companies for their efforts and progress on gender equality. For public procurements, additional points could be awarded to companies that received the certifications. The “*Eruboshi*” and “*Kurumin*” certifications in Japan that grade companies based on their progress towards gender equality and childcare support, as well as the family-friendly certification in the ROK are good examples.

**vi. Launch publicity campaigns to combat traditional stereotypes and promote women in leadership roles.**

It is fundamental to change the cultural norms and social attitudes about the role of women in society and work.<sup>38</sup> National public campaigns could help change the traditional views of women’s roles, raise

<sup>38</sup> For instance, there is a strong stigmatization of unmarried women called ‘*sheng nu*’ or ‘leftover women’ in China, in contrast to single men who are often labeled positively as ‘golden bachelors’ or ‘diamond single man’. This reflects the long-lasting tradition in China that the role of housewife is the core identity of women.

public awareness and encourage women to freely pursue their careers. Initiatives dedicated to the promotion of gender equality through norm change are helpful. For example, female leaders could be promoted as role models to showcase women's suitability and contribution in leadership roles, especially in the technology industry given the low women representation. Governments are also encouraged to promote inclusive views on gender roles and communicate the vision and policy regarding gender equality to the public.

## Company

**Company is the center for change. It is the place where principles and policies of gender equality are put into practice.** Research shows that gender equality leads to various organizational benefits and thus should be positioned as an integral part of business strategy rather than merely a part of human resources management. A comprehensive gender equality policy should consider different aspects, including recruitment and promotion, working condition, family-friendly work practices, training and career development. As illustrated by the case studies in Chapter IV, **the technology industry can leverage its strengths** (e.g., more advanced analytic and data science capabilities, better IT infrastructure, faster digital transformation and more flexible working styles) **to accelerate gender equality and address the challenges brought by the COVID-19 pandemic, serving as examples for other industries.**

- i. **Dedicate resources to monitor and evaluate gender equality in the workplace with**

**specific and measurable targets.** Companies should start by taking a proactive approach to identify gender gaps within the organization, highlighting the priority areas, as well as the key challenges and opportunities (e.g., W-network of SK C&C in page 51). Staff engagement survey and focus group discussion could facilitate in-depth analysis on systemic factors affecting gender equality as well as recognition of the intersectionality within gender inequality and those intersections unique to the organization's working environment. These exercises should take into account the latest changes which may exacerbate gendered differences (e.g., internal restructuring due to mergers and acquisitions, the COVID-19 pandemic, etc.). Key performance indicators on various dimensions of gender equality should be developed (e.g., W indexes of SK C&C in page 50). Publishing a gender equality/ diversity annual report is a good practice to transparently measure and inform the progress. Based on the assessment of the latest situation, companies should set specific and measurable targets to ensure timely progress. The targets should not be simply about increasing the number of female employees but engaging them in decision-making and creating an inclusive working environment. A transparent evaluation mechanism (e.g., via a special committee or the board of directors) is crucial for continued monitoring of the progress as well as holding the senior management of the company accountable. Again, commitment from the top with the backup of resources is crucial.

- ii. **Introduce measures to overcome conscious and unconscious biases in the hiring and promotion processes.** Research shows that removing language with certain gendered associations from job advertisements can have a positive impact on the number of women applicants. Also, job advertisements with lengthy descriptions tend to be off-putting to women applicants who are less likely to apply for a job if they do not believe they meet all requirements (Silverberg, 2018). During the hiring and work performance evaluation processes, it is important to focus on the objective achievements of the candidate and avoid using criteria that inadvertently carry gendered bias with the help of standardized interview and assessment guidelines (e.g., the case studies of Accenture Japan in page 39 and Schneider Electric Korea in page 47). Tech-enabled solutions, such as AI-powered text analytics and machine learning human resources management system, can help address bias in the hiring and promotion processes.
- iii. **Increase transparency of compensation and career development.** In view of the gender wage gap, companies are encouraged to increase the transparency of compensation by evaluating wage differences both between differing rungs of the career ladder and within each rung. Companies are also recommended to increase their career path transparency to enable equal opportunities for promotion. For example, the evaluation criteria and job requirements of different positions and levels could be shared with employees (e.g., Docomo CS Hokuriku Inc. in page 46).
- iv. **Support work-life balance of all employees.** Given the asymmetrical household burden on women, companies are advised to promote flexible working arrangements (e.g., flex time, compressed work week, telework and job sharing), especially during the difficult time of the COVID-19 pandemic. While flexible working arrangements also help improve work-life balance of male employees, initiatives such as mandatory paternity leave could encourage men to share housework (e.g., Lotte Group in page 52). For the technology industry, many companies had a smooth transition to new working arrangements by leveraging their expertise in technology and digital transformation (e.g., INES Corporation in page 42). Yet companies should be aware of the emerging challenges faced by women, e.g., cyber harassment and difficulty in expressing themselves and interacting with others in virtual meetings given the lack of social cues. In addition, an on-site childcare facility is shown to be an effective measure that supports parents with young children (e.g., Didi Chuxing in page 34).
- v. **Strengthen trainings, leadership development programs and professional networks to support female employees.** Women at different levels of career development have specific needs. Fresh graduates could benefit from job shadowing and mentorship programs, whereas middle managers require

leadership development programs on strategic thinking and team management to rise to leadership positions.<sup>39</sup> While women often take up a higher percentage of part-time and irregular jobs to fit in with their duties outside of work, particularly as the technology sector is driving and being served by the gig economy, companies are recommended to provide them with regular upskilling opportunities. Also, trainings could help mothers and other women who have taken career breaks keep up to date with the latest skills and facilitate career re-entry. Moreover, the good practices in Chapter IV highlight the importance of community-based networks (e.g., DiDi Women's Network in page 34, SAP's Business Women's Network in page 36, Oracle Women's Leadership in page 44 and Emerson Korea in page 53). A community for female employees to share their professional insight, network and support each other could create a stronger sense of belonging, enable women to fulfill their potential, as well as provide feedback to the company.

#### vi. Create a culture of diversity and inclusion.

Companies are encouraged to create a culture of diversity and inclusion that goes beyond gender equality via positive reinforcement.<sup>40</sup> Research shows that positive reinforcement

tactics, especially combined with a bottom-up approach, allow employees and managers to feel empowered as "diversity champions" and tend to have a greater impact. It can be fostered by initiatives that enable more diverse interactions, such as hosting regular events that bring different departments together and interdepartmental training and social events that extend out of the office (e.g., Accenture Japan in page 38). Creating a culture of inclusiveness also entails providing safe spaces for accepting honest feedback from employees. Moreover, gender equality should be treated as an issue and responsibility for everyone, instead of focusing on it as a 'women's issue'. Thus, it is important to engage men in the discussion and create opportunities for men to be allies in the quest for gender equality (e.g., Oracle Japan in page 44), especially given the male-dominant culture in the technology industry.

To conclude, societies should strive for gender equality not just because it is a moral choice, but because it is also a practical choice. **Companies with greater gender parity perform better and citizens in countries with greater gender equality are more likely to better off for it.** The benefits of gender equality do not limit to women themselves but extend to all genders, families, communities and societies.

<sup>39</sup> In addition, Ada Workshop organized by Microsoft China is a good example that supports female STEM students to transit from school to the workplace, addressing the "leaky pipeline" between education and employment in the technology industry (see page 32). Improvement of gender equality in the workplace will also attract female students to pursue study and career development in the STEM field.

<sup>40</sup> Diversity and inclusion are a broader concept that covers not only gender equality, but also LGBTQI+, disabilities, cross-culture, etc.

In particular, **gender equality in the technology industry is crucial to shaping an equitable society** in view of the rapidly emerging technological landscape. Countries are thus recommended to accelerate gender equality in the technology industry, especially for China, Japan and the Republic of Korea which have a relatively high level of gender inequality in contrast to their advanced technological development.

Moreover, the COVID-19 pandemic has sped up the adoption of technology and exacerbated gender inequality embedded in the existing social structure. The ground made towards gender equality is in danger of being lost. **To build back better, gender equality should be at the forefront of the recovery agenda to maximize gains in the post-COVID-19**

**workplace.** Among the recommendation discussed above, tackling gender inequality begins with a transparent monitoring and evaluating system with a gender lens, which could be facilitated using technology.

**While this report focuses on the role of public and private sectors, all stakeholders have a part to play to remedy the deeply entrenched gender norms and stereotypes.** With the tremendous impact of the COVID-19 pandemic on women and gender equality, it is essential to mobilize multi-stakeholder support and strengthen collaboration to accelerate the achievement of gender equality.

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