PART II: PRIVATE SECTOR PERSPECTIVES ON THE PARTICIPATION OF WOMEN IN HIGH SKILL, DIGITALLY DELIVERED SERVICE SECTORS

Section I. Background on enquiry into private sector perspectives

To incorporate the perspectives of the private sector into the examination of the topic researched in this study, a questionnaire was developed with questions relevant to the content of Part I. It was felt particularly important to solicit and consider private sector views and experience, in order to have a more in-depth and accurate understanding of the current situation, as well as the challenges and opportunities for enhancing the participation of women in high skill, digitally delivered services in APEC.

The questionnaire was sent out to all the firms (21 in total) with a representative member in ABAC that were identified as carrying out activities in the services sectors of focus for this study, namely professional services, ICT services, and financial services. The aim of the questionnaire was to identify structural and institutional factors that enable or hinder women's participation and advancement in high skill, digitally delivered service sectors in APEC economies. Specifically, it focused on gathering qualitative and quantitative insights from firms in the following key areas: Equal Opportunity Practices; Composition and Nature of High-Skill Jobs; Women's Participation in High Skill Digitized Roles; Impact of Digitalization on Skill Requirements; Workplace Support for Women's Advancement; Gender Equity in Pay and Promotion; and Institutional Gender Policies and Transparency. Seven responses were received from ABAC firms for a response rate of 33 percent. These responses have been compiled and serve as the basis for the information presented below.

Additionally, Part II of the study benefited from the rich discussion that took place in the APEC Group on Services (GOS) Private Public Dialogue (PPD) held on 6 May 2025 as part of the annual stocktaking of the APEC Services Competitiveness Roadmap at SOM2 in Jeju, Republic of Korea. A summary of the main insights from the private sector experts in the PPD has been included in the discussion below to complement and further expand upon the responses provided to the questionnaire. The agenda for the PPD is set out in Part II – Appendix 1, and the Summary Report of the full presentations given by the ten experts who provided a private sector perspective on these questions in Part II – Appendix 2.

Section II. Responses to the questionnaire sent to selected ABAC firms

1. On equal access to employment opportunities

The firms that responded to the questionnaire in the three focus sectors of professional services, IT/ telecom services and financial services indicated that they were all equal opportunity employees, half of them by choice and the other half both by legal obligation and by choice. Thus,

the opportunity for women to be considered for professional positions in these digitally intensive firms on an equal footing with men seemed to be both guaranteed and respected. Additionally, and importantly, all firms that responded from these three sectors stated that they provided equal pay to both women and men for the same positions and skills. So, there seemed to be no discrimination in either the hiring practices or in the remuneration offered in these high skill, digitally intensive services

2. On the skills required for women for high skilled jobs

There was also a similarity of responses regarding the skills required to work in these service sectors. All but one of the firms that replied indicated that either a STEM education or STEM certificate, or competency in digital / computer skills was required for hiring in high skilled jobs. This would seem to indicate that rather than the lack of equal employment opportunity, it is possibly the lack of a sufficient number of women with appropriate skills that accounts for the lower percentage of women working in these digitally intensive sectors, as will be evidenced in the discussion below.

3. On the gender gap in high skill digital jobs

Most striking in the replies to those questions which showed a variety of responses was the differences in the percentage gap of women working in high skilled digital jobs in these firms. This percentage varied from 10 percent to 100 percent. The highest percentage of women in these jobs was in the professional service companies (60 to 100 percent), and the lowest in the IT/ telecom companies (less than 20 percent), with financial service companies falling somewhere in between (around 30 percent). It is notable that not less than 60 percent of highly skilled digital jobs are filled by women in the professional services sector. The occupations considered highly skilled as indicated by the respondent firms are legal services, engineering, accounting, programming services, investment advice and decisions, portfolio management and compliance. These responses confirm the information and statistical data that are contained in Sections III and IV of Part I of this study.

It is, however, most interesting to observe that many of the respondent firms stated that digital skills, though essential, had no impact on their baseline operations. Two firms did provide a more positive reply, stating that digital skills enhanced the impact of their activity and that employees with digital skills increased the demand for the application of artificial intelligence.

4. On women working in top positions

Responses to the question on the percentage of women in top positions (according to a five-year trend) showed a picture which also confirmed the information and statistical data contained in Sections III and IV of Part I. In no firm are women at parity to hold an equal number of top positions. The percentage of women in senior roles varies considerably from 10 to 41 percent, but this is lower than 25 percent in all but two firms. One firm replied that these positions were not comparable at the top as between men and women, while the other respondent firms indicated

that the percentage increase in women in top or senior positions over the past five years had been very slight. The largest increase was given as 10 percent, but this was an outlier.

5. On training programmes and/or mentorship for women

Often women can be helped to advance through training programmes or mentorship. All firms but two replied that internal training was either offered or required. And the same number replied that a mentorship programme was available and/or encouraged. Thus, it seems that the opportunity to undergo training to assist with career advancement is available to women in these digitally intensive firms. An internal grievance mechanism was also made available by all but two firms, although details are not made public. In these cases, women have the right and opportunity to express concerns over any aspect of potentially unequal treatment.

Lastly, the questionnaire asked if a report by the firm on gender equality and women's economic empowerment is carried out and made publicly available. Three of the respondent firms stated that such a report is prepared and is publicly available for consultation, while the other firms either did not conduct such a report or did not make it publicly available. Based on these responses, it is possible to provide some further details, as set out in the table below

Table 1: Summary of information from company reports on gender equality issues

Area	**Firm 1** **ITC**	**Firm 2** **Banking**	**Firm 3** **Financial**
Gender equality policy	No discrimination; equal opportunity; zero tolerance for harassment	DEI as core strategy; Talent Policy emphasizes diversity; zero tolerance for discrimination	Diversity, inclusion, and belonging as strategic priorities; zero tolerance for discrimination
Leadership diversity	Board reflects gender diversity; sexual equality on board	23.1% women on board (2024); targets for 30%; initiatives for female managers1	42.9% women on board (FY25); 44% of employees are women; 63% of leadership team (CEO and direct reports) are women
Workforce diversity	Mandatory human rights/gender equality training; inclusive recruitment	48% female employees; diversity KPIs for gender, mid-career, and foreign economy-wide 1	44% women overall; 46.2% of new starters women (FY25)
Pay equity/ Gender pay gap	Not explicitly reported on English website	Paris branch gender pay score: 82 (target: 85); UK: women earn 76p for every £1 men earn (median)	UK: median hourly pay gap 13.2% (women lower); Australia: see WGEA; global median pay gap 7.4% (FY25)
Work-life balance	Not detailed in English materials	Childcare leave: 100% male take-up goal;	Flexible working; strong parental leave policies;

Area	Firm 1 ITC	Firm 2 Banking	Firm 3 Financial
		average 11.5 days paternity leave (2023)	supports work-life integration
Training & development	100% of employees attend human rights/gender equality training	Group-wide training for female managers; eCampus for self-directed learning	Career development programs; annual pay equity reviews; leadership development for women
Reporting & transparency	Human rights policy and training data disclosed	Annual DEI reporting: gender pay gap reports for major regions1	Annual sustainability and pay gap reports; transparency in diversity data
Recognition	Recognized for corporate governance and board diversity	Included in Bloomberg Gender-Equality Index	Included in Equileap Top 100 for gender equality; US offices in Built In's 100 Best Places

Key insights obtained by analyzing the public reports and websites of the three companies indicate that the common strengths include strong non-discrimination and strategies for diversity, equity, and inclusion (DEI), mandatory training and development, and transparent reporting. On the other hand, gaps are identified in still-persisting gender pay gaps.

Section III. Insights from experts in the APEC GOS Private Public Dialogue

Several representatives from the high skill, digitally intensive service sectors of focus for this project spoke in the APEC Group on Services Private Public Dialogue held on 6 May 2025. As practitioners, they provided additional, complimentary insights to the issues examined in the questionnaire. A selection of their insights is highlighted below. More detail can be accessed in the full presentations of the speakers which are contained in the Summary Report of the Dialogue in Part II - Appendix 2.

1. On access to digital employment opportunities

Providing the possibility for women to pursue education in STEM and obtain digital skills was emphasized by several speakers as potentially transformative, not just for individuals, but for families and their communities at large. Encouraging women to follow entrepreneurship opportunities by providing digitally delivered services can allow those from small developing economies or underserved communities to participate in regional and global markets. Digital entrepreneurship can represent a survival path in economies where formal jobs are limited.

2. On the skills required for women for high skilled jobs

Speakers highlighted how obtaining digital skills can help women move from education and training into employment, leadership or digital entrepreneurship. Such digital skills can not only be transformational for individuals but can build talent pipelines across generations. Several speakers emphasized the importance of facing and removing the sometimes-persistent barriers that women face in being able to acquire these digital skills and be prepared to access these opportunities.

Women are behind on digital skills, with one speaker stating that only around 35 percent of STEM degrees are currently earned by women compared to 65 percent by men. It is critically important for women to obtain digital skills, as the private sector representatives underscored the acceleration of digital disruption in the workplace, pointing out that nearly 40 percent of core job skills will involve AI and data skills by 2030.

One speaker emphasized that it may be necessary to rethink the skills framework and to focus as well on mid-career women to ensure that they can access digital upskilling and reskilling opportunities. This is especially important as women are represented at every layer in the ecosystem for digitally delivered services in both large and small firms, and their support roles in occupations using digital skills are overlooked but are in fact foundational. So, skills should be viewed in a more comprehensive manner, as women in these support roles act as digital enablers with ripple effects across the economy

3. On the gender gap in high skill digital services employment

Responses to the questionnaire highlighted the large differences in the percentage gap of women working in high skilled digital jobs between those firms surveyed. Speakers emphasized this gap, pointing out that women remain underrepresented in the high tech, digitally intensive sectors, with fewer than 35 percent of tech roles held by women across the APEC region and female representation in digital professions generally below 30 percent. One speaker presented LinkedIn data indicating that women constitute just 27 percent of AI engineering talent globally, representing only one-fourth of the engineering work force and only 22 percent when this is broadened to include foundational skills like GenAI and image generation.

Women account for over 60 percent of the total services workforce yet hold less than 30 percent of STEM roles critical for digital services. One speaker mentioned the finding of an ILO/ADB recent study for the Asia Pacific region finding that in the digital services sectors with the most dynamic growth—IT and other information services—only one in four jobs (25 percent) went to women. The most dynamic sectors for job growth over the past three decades in the region have seen significantly more job gains for men than women. Speakers underlined that marginalizing women's digital contribution results in a significant economic loss of billions of dollars annually to the APEC region.

It was pointed out in the PPD that one critical challenge for boosting women's participation in these high skill digital jobs is found in the large drop off that occurs in the women qualified in STEM degrees who then choose not to be engaged in STEM employment after graduation. This phenomenon is shown to be consistent across APEC economies and across cohorts over the past eight years and represents the largest drop off of women between those educated and those who enter the labour force than in any of the other degree areas. This lower entry by women into STEM occupations is one of the explanatory factors behind the gender gap observed in high skill digitally intensive service jobs and is a key problem to be addressed.

4. On the lower number of women working in top positions

Private sector experts pointed out that leakage from the STEM pipeline contributes to a lower representation of women in top positions, as this participation continues to drop as women start climbing the career ladder. LinkedIn global data show that women hold 24 percent of STEM managerial positions that number drops to 12 percent at the C-suite level, while in comparison women in non-STEM fields hold about 40 percent of managerial roles. Private sector analysts pointed out in the PPD that women continue to face barriers to advancement after they enter the STEM workforce as well. The lack of women in top positions comes at a cost: one speaker cited the estimated $17 trillion of losses to APEC region's GDP as a result of the under representation of women in leadership roles.

5. On the barriers confronting women working in digitally intensive services

Several speakers coincided in highlighting barriers they had observed or experienced in their professional careers that women face in trying to participate in high skill, digitally intensive services. Such barriers included limited market employment opportunities and differences in access to venture capital for startups with women led tech startups securing 50 percent less capital than male startups. Also cited were rigid policies with respect to flexible hours, biased promotions, and hiring through male networks. Lack of access to digital infrastructure for women in rural areas was also cited as an insurmountable structural barrier.

Additionally, many experts identified "attitude" barriers in the form of gender norms and cultural expectations as one of the main reasons keeping women in more traditional occupations, expected to prioritize family over professional ambitions. A lack of mentors and role models was deemed influential in determining women's career choices.

All the barriers cited above contribute to the current significant gender gap in employment in high skill digitally intensive services. Speakers advocated public-private initiatives to tackle regulatory and structural barriers along with education on gender equality so that women could choose freely to study STEM subjects and work in occupations requiring STEM and digital skills.

The lack of role models and mentorship for women constitutes another area of disadvantage for women trying to break through into digitally intensive services sectors. The lack of role models in

leadership positions make it difficult for aspiring female entrepreneurs to see a clear, viable path to long term success in the sector. The absence of female role models thus remains a significant barrier, making it harder to attract women in the sector.

One speaker advocated more effective employment policies to tackle these barriers. The first would be a shift from education and qualifications hiring approach to a skills-based approach to hiring and training. The second would be to place greater emphasis on adopting measures to address actual barriers that are in place, or designing programs around the disadvantage, and not the disadvantaged, to be more specific and targeted. Other speakers advocated a focus on skill acquisition and reskilling as the means to close the gender participation gap faster, with targeted interventions as appropriate.

6. On the impact of artificial intelligence on women in the services area

One topic addressed by the PPD which was not covered in the questionnaire was that of the application of artificial intelligence technologies and their impact on women's participation in these high skill, digitally intensive services sectors. AI technology is reshaping the world of work and what skills are needed to perform various jobs. It offers significant potential benefits to firms and workers, but speakers pointed out that realizing these will require focused and targeted reskilling along with behavioural change.

Private sector representatives in the PPD emphasized that AI is being adopted faster than the computer or the internet was at similar points in time after being introduced, but that only around 50 percent of women trust and use AI tools at work compared with 70 percent of men. Women also display a "technology trust gap" with respect to AI which could inhibit their regular use of the technology and full participation in new genAI applications.

Speakers emphasized that the impact of AI will vary by profession, but data indicate that women are more likely to work in jobs at high risk of AI disruption. Thus, AI presents social risks and threats that may impact women more than men. This is of significant concern because AI-augmented roles are those expected to grow faster and pay more in the future. Speakers pointed out that the participation gap between women and men in using AI technologies is closing only slowly, which has economic implications. Teams lacking gender-balanced representation of digital professionals lose 20 percent of innovation potential, delivering weaker AI FinTech and consulting.

Those engaging with AI acknowledge it can and does channel inherent gender biases. Private sector experts in the PPD explained that AI is trained on raw data—linguistic, audio, or image-based—drawn from societies which are, on the whole, still gender-biased. This bias will continue to be perpetuated as long as women do not participate more fully in developing and applying AI. Presently women constitute less than one-third of the AI workforce. Increasing this percentage will not only help reduce gender bias in AI technologies but also give women a greater role in steering the future of the technology.

Removing the structural barriers standing in women's way to obtain and employ critical AI skills was felt by the private sector representatives to be key, in part because of the incorporated gender bias at present in genAI technologies, examples of which were given in the PPD. Just as important for women-led startups is the impetus for knowing how to use AI technology and deploy it in innovative and monetizable ways.

7. On the impact of trade policy on women working in services

One speaker pointed out that trade policies are not gender neutral, and that trade policy and its implementation impact women and men differently. Trade policies can help promote gender equality and increase women's economic empowerment—especially when they facilitate access to digital markets. The adoption by WTO Members of the E-commerce Moratorium (or the Moratorium on Customs Duties on Electronic Transmissions) has been instrumental in this regard. By preventing customs duties on digital transmissions, the moratorium has allowed digital platforms and services to expand and become more accessible. This expansion has, in turn, enabled women-led and women-owned businesses to advertise, sell, and export their products online at lower costs, creating a more level playing field and opening up new opportunities to participate in international markets. Ultimately, the moratorium has played a key role in supporting women's economic empowerment by fostering an environment where digital platforms can thrive and reach a global audience.

Section IV. Broader evidence from the literature on these issues

Given the relatively small sample size of the ABAC firm questionnaire, it is important to place its findings within the broader context of global and regional evidence on women's participation in digitally delivered services. Several recent reports offer data-driven insights in relevant areas based on large-scale employer surveys and corporate performance metrics.

Recent publications by the World Economic Forum (2023), McKinsey & Co/ Leanin.org .(2024),[81] McKinsey & Co., (2025),[82] Altrata (2025),[83] Deloitte (2024),[84] Equielap (2024),[85] the International

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[83] Altrata (2024) The Global Gender Diversity 2024 available at https://altrata.com/reports/global-gender-diversity-2024#:~:text=Altrata%27s%20latest%20report%2C%20Global%20Gender%20Diversity%202024%2C%20provides,20%29%20as%20of%20the%20first%20quarter%20of%202024.

[84] Deloitte (2024) Women in the boardroom available at https://www2.deloitte.com/us/en/insights/topics/leadership/women-in-the-boardroom.html

[85] Equielap (2024) Gender Equality Report & Ranking available at https://equileap.com/wp-content/uploads/2024/02/Equileap_2024_Gender_Equality_Report_Developed_Markets.pdf#:~:text=Navigating%20unfinished%20business%20In%20the%20corporate%20landscape%2C%20the,a%20slow%20and%20unfinished%20journey%20towards%20gender%20balance.

Labour Organization (2023), and APEC Policy Support Unit (2024). Together, they provide comparative benchmarks that both reinforce and extend the findings of the ABAC survey, particularly regarding the persistent gender gap in high-skill digital service sectors such as IT, finance, and professional services.

1. Participation gaps

Recent studies consistently confirm that women remain significantly underrepresented in roles central to digital transformation. According to the World Economic Forum (2023), women account for only 29 percent of the global tech workforce and just 26 percent in emerging digital fields such as artificial intelligence and cloud computing. These trends are echoed in the Asia-Pacific region, where the ILO (2023) reports that only one in four STEM-qualified professionals are women—a pattern also reflected in low female representation across ICT and high-skill professional services. The Altrata Global Gender Diversity 2024 report, based on data from publicly listed companies in major economies, finds that while women hold 32 percent of board seats and 22 percent of executive leadership roles, only 6.5 percent of CEOs are female. In the technology and financial sectors, women's participation in senior roles remains below 30 percent, closely aligning with the ABAC companies survey data (presented in section A).

In addition to participation gaps, broader literature highlights a consistent set of structural, cultural, and institutional barriers that hinder women's advancement in digital and high-skill service sectors. Cultural and attitudinal biases, particularly in promotion and evaluation processes, remain widespread. The Women in the Workplace 2024 report by McKinsey and LeanIn.org emphasizes that women, especially those in technical roles, continue to be under-mentored and under-sponsored, which limits their progression into leadership. Deloitte's Women in the Boardroom study similarly underscores how workplace cultures often fail to adapt to women's needs, with unconscious bias frequently unaddressed. These findings are especially relevant as the findings from the private sector reflected in sections A and B acknowledge challenges in fostering inclusive advancement pathways.

2. Structural barriers

Structural barriers also play a key role. Limited access to STEM education and targeted upskilling opportunities constrains the pipeline of qualified women entering digital roles. While many companies acknowledge the importance of digital skills, few have gender-specific training or development programs. The APEC PSU (2024) highlights that only a minority of firms in the region assess the gender implications of adopting digital technologies or track disaggregated workforce outcomes. Similarly, Equileap's 2024 report reveals that just 33 percent of companies globally disclose gender pay gap data, and only 65 percent have a formal anti-sexual harassment policy. The resistance to collecting and publishing diversity, equity, and inclusion (DEI) data is particularly acute in sectors where male dominance is entrenched.

3. Emergence of positive trends

Despite these ongoing challenges, several positive trends have emerged. Some leading firms are implementing targeted strategies to promote gender equality in high-skill, digitally delivered roles. Companies such as Cisco and Telstra have developed leadership programs specifically tailored to women in digital fields, often tied to measurable inclusion outcomes. Increasingly, gender-related key performance indicators (KPIs) are being incorporated into environmental, social, and governance (ESG) reporting frameworks, with some firms linking these KPIs to executive remuneration—a move designed to embed accountability for inclusion at the highest levels. Legislative reforms in economies like France, Spain, and the United Kingdom have also made an impact. France, for example, mandates a minimum of 40 percent women on corporate boards and is extending quotas to executive teams, while the UK enforces mandatory gender pay gap reporting.

Equileap's ranking of the top 100 companies for gender equality in their workforce provides further evidence that institutional change is possible. The top-performing companies tend to have strong policies on pay equity, parental leave, leadership diversity, and harassment prevention. They are also more likely to have women in CEO roles and other senior leadership positions, suggesting that intentional and sustained efforts can lead to meaningful results. Importantly, these practices are not only improving gender outcomes but also strengthening organizational performance. Evidence increasingly shows that diverse teams drive innovation, enhance decision-making, and improve employee retention—critical advantages in a fast-evolving digital economy.

In this broader context, the findings from the questionnaire carried out for this project reflect larger global patterns, especially in sectors where digitalization is advancing rapidly. While progress remains uneven, the growing body of good practices and performance-linked gender initiatives offers a roadmap for firms seeking to harness the full potential of their female workforce. Strengthening institutional support for women in high-skill, digitally delivered services is not only a matter of equity—it is also a business imperative.

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Part II – Appendix 1: APEC GOS Agenda at SOM2 2025

Agenda from the APEC Group on Services Private Public Dialogue on Challenges and Opportunities for Women's Participation in High-Skill, Digitally Delivered Services in APEC

GOS PRIVATE PUBLIC DIALOGUE ON CHALLENGES AND OPPORTUNITIES FOR WOMEN'S PARTICIPATION IN HIGH SKILL, DIGITALLY DELIVERED SERVICES IN APEC

09:00 – 9:10	**Welcome Remarks**
	Christine Schaeffer, Assistant Director, APEC Trade and Investment Section, Australian Department of Foreign Affairs and Trade (DFAT) *The Public Private Dialogue (PPD) will focus on advancing the economic empowerment of women in APEC through addressing the challenges and opportunities of their greater participation in the dynamic growth sectors of high skill, digitally delivered services. The PPD will also provide input into the formulation of recommendations for how APEC economies can best help to progress this objective in different areas through relevant supportive policies in both the public and private sector. This PPD and its outcome constitute steps towards carrying out the key areas of the Action Plan contained in La Serena Roadmap for Women and Inclusive Growth endorsed by APEC Senior officials in December 2019 in Chile. It also supports one of the Republic of Korea's three main policy priorities for APEC 2025, namely digital innovation and transformation essential for accelerating sustainable and inclusive growth*
09:10 – 10:00	**Session 1: Barriers holding women back in high skill, digitally delivered services**
	Moderator: Sherry Stephenson, Member, Pacific Economic Cooperation Council (PECC) Services Network *The digital revolution is reshaping the global services landscape, creating new avenues for trade and employment. Among these, digitally delivered services (DDS) have emerged as the fastest-growing and most dynamic component of the global economy, offering unprecedented opportunities for innovation and economic growth. However, despite the transformative potential of DDS, women across APEC economies continue to face significant barriers that limit their participation and potential as key contributors to this growth. This session discusses existing gaps in women's participation and the reasons behind these in the three high-skill service sectors of focus, from the perspective of executives from these sectors.* Speakers: **Silvia Lara,** Gender Research Lead, LinkedIn Economic Graph Research Institute, Singapore ➢ General overview of main barriers holding women back in the digitally intensive, high skill service sectors

Hanna Norberg, Founder and Principal, TradeEconomista; Initiator and President TradeExperettes, Co-founder TPRForum

- Perspective from professional (consulting) services sector

Grace Gown, Head of Global Public Policy, Xero, Australia

- Perspective from financial services sector

Winifred Kula, President of the PNG ICT Digital Cluster and Founder eNovaX solutions, Papua New Guinea

- Perspective from information technology services sector

Views will be sought on the following questions:

1. *How important is the area of digitally intensive services for women's greater participation in trade and their economic future?*
2. *The background paper discusses several reasons behind the current economic gender equality gaps in the APEC region in the area of high skill, digitally delivered services. What has contributed to these gaps, and how costly have they proven to your operations?*
3. *What might be the benefits of greater women's participation in the digitally intensive service sector of your focus? And how this might have a positive impact not only on women but on society and economic performance and trade.*
4. *What are the main actions or programmes of support that you would ask from governments to allow women to better realize their potential through playing a bigger role in the growth area of digitally intensive services?*

10:00 – 10:40	**Session 2: Women in high-skill digital services: Addressing skills, access, and inclusion challenges**

Moderator: Dr. Mia Mikic, Research Associate, Waikato University, New Zealand

While more women work in services in the APEC region than in manufacturing and agriculture, the proportion of women in the highly skilled services jobs that demand digital skills is much less than that of men, particularly for managers and technicians/ associate professionals. The study suggests that there is a "digital equality gap" that is in part responsible for this, characterized by a skills mismatch for digital, financial and managerial jobs created by fewer numbers of women STEM graduates (less than one-third in APEC), and women's unequal access to training and digital tools and infrastructure. This session discusses these issues, along with other barriers (access to capital, cultural and attitude, and regulatory barriers) and the challenge of informality that impede women's greater participation in these services

Speakers:

Joana Valente, Partner in Technology and Transformation, Deloitte, Australia

- Enhancement of digital skills for women in high tech professions

Samar Alrayyes, Co-Chair, TechWomen, New Zealand

- Tackling structural and institutional barriers

Steven Tobin, ILO, Bangkok

- Challenges in converting informality into the formal economy

Discussion with panel and participants

11:10 – 11:50	**Session 3: Artificial Intelligence and its impact on women in services**
	Moderators: Sherry Stephenson and Mia Mikic
	AI is being adopted faster than PCs or the Internet were in the previous technological revolutions. Data from many sources indicate that by the year 2030, there will be a seismic shift in job skill requirements as AI accelerates change in the workplace, and particularly in the services area. It is unclear at present what type of impact AI technologies will have on women. What is clear is that ingrained attitudes and biases exist in the development and application of AI tools, which may influence women's ability to apply these. This session will discuss these issues and offer insights not only into the rapidity of technological change but also into what types of education and professional skills will be needed by women to be able to participate and thrive in the future in high skill, digitally delivered service sectors. Speakers: **Peter Lovelock,** Head of Fair Tech Policy, Access Partnership, Singapore ➢ Inherent biases in the creation of AI tools **Gareth Tan,** Associate Director and Technology Lead, APCO, Singapore ➢ Role of AI in preparing women for next generation careers **Silvia Lara,** Gender Research Lead, LinkedIn Economic Graph Research Institute, Singapore ➢ General overview of main barriers holding women back in the digitally intensive, high skill service sectors
11:50 – 12:20	**Session 4: Roundtable discussion, Recommendations and Wrap-up (30 minutes)**
	Moderator: Bonnie Rivendell, Associate Director, International Development and Director of Australian APEC Centre at RMIT University

Part II – Appendix 2: Summary Report from the APEC Group on Services Private Public Dialogue

SUMMARY REPORT

GOS Public Private Dialogue on Challenges and Opportunities for Women's Participation in High-Skill, Digitally Delivered Services in APEC

Held at SOM2, Jeju Island, Republic of Korea, 6 May 2025

Introduction

The Group on Services (GOS) Public Private Dialogue (PPD) on Challenges and Opportunities for Women's Participation in High Skill, Digitally Delivered Services, held on Tuesday 6 May 2025 in Jeju Korea, focused on advancing women's economic empowerment in APEC through addressing the challenges and opportunities of their greater participation in the dynamic growth sectors of high skill digitally delivered services.

The PPD provided input into the formulation of recommendations of how APEC economies can best help advance this objective in different areas through relevant supportive policies in both the public and private sector. The PPD and its outcomes constitute a step towards carrying out the key areas of the action plan contained in the La Serena Roadmap for Women and Inclusive Growth, endorsed by APEC Senior Officials in December 2019 in Chile.

The PPD also supports one of the Republic of Korea's three main policy priorities for APEC 2025 namely, digital innovation and transformation essential for accelerating sustainable and inclusive growth.

This discussion was held as part of a project being carried forward for the GOS by Australia, the objective of which is threefold. First, the project analyzes how women's employment in high skill digitally delivered services has evolved in the region and what may be the impact of digitalization on women's economic prospects in trade in these services. Second, it aims to deepen understanding of the nature of barriers to women's engagement in these sectors. And third, it aims to inform evidence-based policy making in support of women's greater participation in digitally delivered services.

There are approximately 600 million women in the region's labour force, with only 60 percent of these women included in formal economic sectors. Their limited participation as a workforce in the formal sector across the Asia Pacific can cost the regional economy tens of billions of dollars every year. Furthermore, two thirds of women in the APEC region are engaged in services activities. Empirical evidence shows women are overrepresented in low-paid services jobs, and underrepresented in high-paid services jobs, and are rarely in decision making roles when engaging in services trade.

The project on enhancing women's economic empowerment in APEC through greater participation in high skilled, digitalized services sectors, aims to deeper understand how better policy can lift women's participation in selected services activities and how greater participation by women in higher skilled digitally delivered services can advance their economic empowerment (and thus serve as an impetus to growth in the region's economies).

Incorporating the private sector perspective and experience, the project will provide case study discussions of three selected digitally delivered service sectors in APEC to analyze how women's employment and advancement in these sectors have evolved. The experience of firms in these sectors will identify barriers to women's participation and illustrate how digitalization can impact women's formal participation in high skilled digital services sectors.

Background research

The project has developed a background study that explores four issues and employs a multi-dimensional approach to understand how these issues interact. These are:

- women's employment in digitally intensive services;
- the skills and education that are necessary for enabling women's employment in these services;
- the growing informality of work in these higher skill digital services; and
- the potential impact of artificial intelligence on work in digitally delivered services, especially as it impacts women.

The study which can be found here examines these issues based on three premises.

- First, there continues to be a big gap in economic opportunity between men and women in APEC, which is manifested in several areas, including in levels of pay, advancement, access to seniority, and especially participation in high skilled digital services. This economic equality gap has not closed in the region, while other gaps, such as those in education and health, have been brought to near parity. So why is this the case? It's important to understand the reasons behind this.
- Second, the underutilization of women in the workforce leads to a loss of multi-billion dollars of annual foregone GDP in APEC. The second premise is the most dynamic area in our economies today is that of digitally delivered services. Trade in digital services is the fastest growing segment of world trade growing fast, twice as fast as trade in goods or trade in other services. And those service sectors which show the greatest digital intensity and APEC are the information communication technology services, financial services and professional services. These are our sectors of focus for discussion. Together with computer services, information communication technology services, financial services, and professional services constituted over three-fourths of digital services exports in 2023, and they continue to expand at the most dynamic rate.
- Third, digitally intensive services are also those that require higher skill levels. Our third premise is the recognition that women are not participating at present, to their full extent or potential in the high skill, digitally delivered, intensive service sectors, which are a crucial avenue for narrowing the current economic opportunity equality gap in APEC. And the critical question is why. The three sessions of this PPD explore these issues in more depth.

The main messages of the study are contained in an Annex to this summary report. The PPD discussions provide a better understanding of the reasons behind the current reality, along with insights into what policies can be recommended to enhance women's economic empowerment. Once finalized, the study will be posted on the APEC GOS website.

Session 1: Barriers holding women back in high skill, digitally delivered services

The digital revolution is reshaping the global services landscape, creating new avenues for trade and employment. Among these, digitally delivered services (DDS) have emerged as the fastest-growing and most dynamic component of the global economy, offering unprecedented opportunities for innovation and economic growth. However, despite the transformative potential of digitally delivered services, women across APEC economies continue to face significant barriers that limit their participation and potential as key contributors to this growth. This session discusses existing gaps in women's participation and the reasons behind these in the three high-skill services sectors of focus, consulting, financial and information and communication technologies.

General overview of main barriers holding women back in the digitally intensive, high skill services sectors

Silvia Lara, Gender Research Lead, LinkedIn Economic Graph Research Institute, Singapore

At LinkedIn, we analyze real time labour market data across more than a billion members and tens of millions of job postings and companies. This allows us to track workforce trends as they emerge, what jobs are growing, which skills are in demand, and how workers are adapting, across all economies, across industries and, of course, across demographics.

Starting with the big picture, according to our data, the share of women in STEM in 2016 was 26 percent and last year (2024) that number grew to 28 percent. While there was some progress, we are a long way from parity.

Women remain underrepresented, not just in STEM overall, but especially in the most advanced, highest paid parts of the digital economy, like artificial intelligence (AI), software engineering, and data science. What's interesting is that we found one critical challenge in the pipeline for women in STEM, and that is a barrier that happens right between education and joining the workforce.

Across nine APEC economies where LinkedIn has sufficient and reliable data we see a consistent drop off between the number of women who graduate with STEM degrees and the number who go on to be engaged in STEM employment. For example, in the 2017 graduating class on average, across the world, women made up 37 percent of STEM graduates, but only 30 percent of STEM job entrants the year after. That's a seven percentage points drop in one year, and it's remarkably consistent across economies, but also across cohorts, from 2017 all the way until now.

This large drop off in STEM representation of women between graduation and entry into the labour market is bigger than in any of the other degree areas. While proportionally, more and more women are graduating with STEM degrees, which is the good news, around 70 percent of women STEM graduates do not enter STEM careers, compared to 60 percent of men.

Leakage from the STEM pipeline remains a serious concern that we must address. It's especially important to address this drop-off, because representation keeps dropping as careers progress and as women start climbing the career ladder. One of the issues is really representation and accessing leadership levels. From our data globally, women hold 24 percent of STEM managerial positions but when we go to the C suite level, that number drops to 12 percent.

In comparison women in non-STEM fields hold about 40 percent of managerial roles. But even there, when we go to C suite, it just one in four. About 24 percent of executive level roles are held by women. Women are not just facing barriers to enter the workforce and STEM workforce specifically, but they really face barriers to advancement and to become those role models that young graduates can then look up to when they graduate the workforce.

If we zoom in specifically on women in AI, which is a fast-growing, transformative part of the digital economy, we see something quite similar. Women make about 27 percent of AI engineering talent globally. That's three men to one for every woman AI engineer. If we broaden the view to include those that list on their LinkedIn profiles AI, foundational skills like ChatGPT, Claude image generation platform, that percentage drops to 22 percent.

Women aren't just underrepresented in building AI, they are also underrepresented in using it. However, there is cause for optimism. The optimism is that the numbers have been improving and women's participation in AI is growing. In fact, the global likelihood of a woman being an AI engineer has more than doubled between 2016 and 2023. More women are learning those skills that matter. What we need to do now is remove the structural barriers that still block their way.

To sum it all up, our data show that the gender gap in STEM is largest right at the point of transition from education to employment. With visibility and inclusive hiring, we can build a stronger and more representative digital economy by targeting that moment.

Perspective from professional (consulting) services sector

Hanna Norberg, Founder and Principal, TradeEconomista; Initiator and President TradeExperettes, Co-founder TPRForum

Much of my intervention will be based on the study that the TradeExperettes trade experts did for Australia's Department of Foreign Affairs and Trade, looking at the role of the WTO e-commerce moratorium on women entrepreneurs across the world and during COVID. As a reminder, the E-commerce Moratorium dates back to 1998. It prohibits the imposition of customs duties on electronic transmissions, which was agreed to and regularly renewed by the members of the World Trade Organization (WTO).

After introducing the importance of applying a gender lens to the E-commerce Moratorium debate in a publication presented to the WTO in 2022, the TradeExperettes proceeded to further explore its impacts on women – including women-led or owned businesses, women working in the digital economy, as well as the effect on their livelihoods – and the possible consequences of the discontinuation of this arrangement. This study is based on research and discussions with experts, women leaders and business owners, and association representatives from Latin America and the Caribbean, Africa, and Asia and the Pacific that were held through webinars and one-on-one interviews during the spring of 2023.

The exercise revealed that women have been using digitally delivered services to fuel their jobs and businesses, and that these services were key for their survival or re-invention during the COVID-19 pandemic. The discussions also showed that the E-commerce Moratorium is deeply embedded in how these women think about their business opportunities. It has been instrumental in the adoption of

digital services by women-led or owned businesses by keeping costs low, creating a level playing field for firms and workers in developing economies, and providing opportunities to participate in international markets. While the evidence collected is largely anecdotal and more research and gender-disaggregated data are needed to thoroughly understand the socio-economic impacts of the E-commerce Moratorium on women in the digital economy, it serves as an important reminder that trade policy has a direct impact on the lives of people. These stories can therefore help inform governments as they develop policies responsive to the practical needs of individuals participating in the global economy.

Why is gender lens needed? Recent studies, such as the 2020 joint report published by the World Bank and the WTO, and a 2021 OECD policy paper, have demonstrated that trade policies are not gender neutral. Looking at trade policy through a gender lens reveals that the policy itself and its implementation impact women and men differently. These studies have also shown how trade policy can promote gender equality and increase women's economic empowerment, which ultimately leads to a positive impact on general economic welfare.

Moreover, post pandemic research has shown that the negative economic consequences of the COVID-19 pandemic disproportionately impacted women, a phenomenon that has been termed the "Shesession." One of the main factors that explain this phenomenon is the fact that the sectors where women are employed, which differ from those in which men are employed, especially in developing economies, were greatly affected by the pandemic. For example, the results of a survey carried out by the World Bank in Latin America and the Caribbean found that most of the job losses in the region during the pandemic were concentrated in sectors where women are highly represented, such as personal services, education, and hospitality. Furthermore, the role that women play as primary caretakers also helps explain many of these job losses.

Previous studies that have analyzed the economic and social impacts of the E-commerce Moratorium suffer from an obvious gap – they do not address its gender impact, though they acknowledge that it is an area in need of further exploration. Indeed, a paper by the Organisation for Economic Co-operation and Development (OECD) expressly points to the fact that the evaluation of this trade arrangement has not focused on traditionally disadvantaged groups, such as women or indigenous peoples.

Perspective from financial services sector

Grace Gown, Head of Global Public Policy, Xero, Australia

Xero is a cloud-based accounting platform with 4.2 million global subscribers—small businesses and their accountants and bookkeepers. These users rely on Xero to manage payroll, issue invoices, pay bills, file taxes, and meet day-to-day compliance obligations. While technically not a financial services provider, Xero enables core financial activities, and the professionals who use it—accountants, bookkeepers, and small business owners—operate squarely within the financial services landscape.

Women are represented at every layer of this ecosystem, and their participation in digitally delivered services provides real-time evidence of both progress and persistent barriers. These support roles—often overlooked—are in fact foundational. Women are overrepresented in roles such as payroll professionals, solo bookkeeping practices, or micro advisory firms. At Xero, many of these women

form part of our partner network, and their impact extends beyond their own work: they are often the primary advisor to small business clients, helping them navigate and adopt digital tools. In this way, they act as digital enablers with ripple effects across the economy.

Yet these roles are rarely recognised as strategic or skilled, despite being central to the digitalisation of small business. We need to rethink our skills frameworks, particularly in the age of AI. It's not just about STEM or digital literacy at entry level. Policymakers must also focus on mid-career women and ensure they can access upskilling and reskilling opportunities especially given the disproportionate caring responsibilities many women carry and their limited access to leadership networks.

From a small business lens, this is urgent. In every APEC economy, small businesses make up around 98% of firms and employ over half the workforce. In financial services, the number one concern is cash flow—so carving out time and resources for training is a real trade-off. Supporting women in these roles means addressing these economic realities and creating incentives that work for their context.

To illustrate the scale, in March 2025, Xero processed 11.7 million pay runs—equating to USD $11.8 billion in salary payments. That’s just one month, on one platform. These digital transactions only happen because of the care, commitment, and accuracy of payroll professionals, the majority of whom are women. Their work powers financial stability for millions.

Finally, the enabling environment matters. Cross-border data flows, e-Invoicing, and eSignatures are crucial for digital trade—but they depend on behind-the-border reforms. What resonated clearly in this discussion was the friction that analogue or disconnected systems create for small businesses and the professionals who support them. Government-led digital transformation is essential to address these frictions and enable participation. This includes investment in modern services infrastructure—such as APIs for tax and payroll, open banking frameworks, and e-Invoicing standards—that make compliance easier, faster, and more reliable. These public systems lower the barriers for small businesses and unlock opportunity for the women who enable them. Digital transformation doesn’t happen without clear, coordinated, and sustained public policy leadership.

Women in support roles are not peripheral. They are strategic. They are essential to the delivery, uptake, and success of digital services. It’s time we recognise and invest in them accordingly.

Perspective from information technology services sector

Winnie Kula, President of the PNG ICT Digital Cluster and Founder eNovaX Solutions

Good morning, distinguished guests. APEC delegates, colleagues and friends. Let me begin by thanking the APEC Secretariat and the Australian APEC Study Center for this important dialogue, and especially Sherry and Mia for the research paper, I also want to acknowledge the inspiring spirit of Jeju Island, especially its legendary women divers, whose deep sea endurance and community resilience reminds me of the strength women carry across all cultures and also with these inspiring women panelists as well. It is an honor and blessing to be here today in Jeju, Korea to discuss the barriers that women face in participating in high skill digitally delivered services.

I will speak today as a woman in tech and mother, daughter and sister, I understand the transformative power of education and digital skills, not just for individuals, but for families and communities at large, and this leads me to acknowledge that entrepreneurship is no longer a choice. It is a survival path in economies where formal jobs are limited. As a digital transformation practitioner with over 25 years of experience in the corporate world and in government, and now with my family business in eNovaX, but also as the President and co-founder of the PNG digital ICD cluster, which is the top industry body that previously did not exist. Also, as a mother of three sons, including one studying in Japan on a scholarship at the Asia Pacific University, and a woman in a developing economy where culture, language and tradition deeply shape our identity and our approach to progress, having navigated the double or triple biases, infrastructure gaps and limited representations in boardrooms and tech forums.

I know what it's like to build digital pathways with few role models or none at all, and I also know the power of showing others that it can be done by providing digitally delivered services to businesses and communities in PNG, allowing women like me with a background in computer science and entrepreneurship to contribute to local and potentially to global markets from underserved communities or economies such as PNG. I'd also like to highlight my journey as an example of how education builds talent pipelines across generations.

My family's connection to Australian development scholarships started with my father in the late 1970s, a pioneer biodiversity policy specialist and conservationist who helped establish Conservation International in PNG in the Pacific Islands. Scholarships to Canberra laid the foundation for our early exposure to global education. With my brother, we both started our early childhood learning in Canberra. Years later, I received an Australian Award Scholarship to complete my master's in business entrepreneurship, which later launched my career in tech and innovation. This scholarship didn’t just support me, it created ripple effects. My younger brother, also an Australian Japanese scholarship recipient, is now a professor in software engineering at Osaka University in Japan.

These talent pipelines matter. They are transformative and generational. But not everyone can access such pipelines, structured pathways or systems that help women move from education and training into employment, long term skills, job creation, leadership or digital entrepreneurship. In PNG and across the Pacific, women face persistent barriers to achieve these goals.

These barriers can be broken down into six areas. The first is the slow and complex approach to progress in PNG. This can often involve infrastructure challenges, domestic regulatory hurdles and resistance to change that make it harder for women to advance in tech fields and ecommerce and digital payments. While the world embraces digital rapid digital transformation, we are sometimes left behind due to these deep-rooted barriers. The reality is that these systemic barriers slow progress, and limited resources prevent women from achieving the success and growth that is expected.

The second is gender norms and cultural expectations. In PNG, cultural expectations place the majority of women in traditional roles, expected to prioritize family and care responsibilities over professional ambitions. This makes it difficult for women to pursue tech careers as they are expected to take on the majority of household responsibilities. As a caregiver myself, I understand this role. However, these norms not only restrict time and opportunities for professional development, but also create a cycle where women are sometimes excluded from high-tech careers. The absence of remote work options, part time roles, or family friendly policies often forces women to choose between employment and caregiving duties.

The third is limited employment and market opportunities. Despite being highly educated at university level, and with access to local and international scholarships being offered to tech, women in PNG still struggle from a shortage of job opportunities and career options in ICT sector. This lack of market development pushes many tech women into entrepreneurship, but with limited resources and support, the businesses they start often struggle to thrive. Also, these tech women entrepreneurs frequently encounter pricing pressure and are often undervalued compared to their male counterparts, even when delivering digitally intensive services of equal or higher quality.

The fourth is limited access to funding and investment. Women in ICT still face challenges in attracting investment. There is a lack of venture capital and angel investors targeted at women in tech. Additionally, the gender biases in funding decisions continues to limit the growth of women led businesses without access to capital credit. Women-led businesses are often unable to scale, limiting their potential and contributing to the under representation of women in high-skill services, also without a social welfare system in place. The vulnerabilities are quite high in economies such as PNG.

Fifth is the lack of role models and mentorship. While women in tech may gain some visibility, the lack of sustainable, profitable opportunities and role models in leadership positions make it difficult for aspiring female entrepreneurs to see a clear, viable path to long term success in the sector. The absence of female role models remains a significant barrier, making it harder to attract women in the sector.

The sixth is the digital divide that is a major obstacle in many parts of PNG and the Pacific Island economies. Women, especially those in rural areas, lack access to technology and training that would enable them to thrive in high skill sectors. Without adequate resources, women are unable to upskill in areas like software engineering, cyber security, data science, digital marketing or AI development, all which are essential for success in the modern digital economy. Even in theurban areas, the skill mismatch remains a significant issue. Women are underrepresented in STEM education and often lack the specialized training necessary.

In closing, I want to note that women divers in Jeju Island did not wait for permission to drive. They simply held their breath and went deep. We too must create systems where women in tech can dive into digital futures, equipped, supported and celebrated.

Session 2: Women in high-skill digital services: Addressing skills, access, and inclusion challenges

While more women work in services in the APEC region than in manufacturing and agriculture, the proportion of women in the highly skilled services jobs that demand digital skills is much less than that of men, particularly for managers and technicians/associate professionals. The study suggests that there is a "digital equality gap" that is in part responsible for this, characterized by fewer numbers of women STEM graduates (less than one-third in APEC), and women's unequal access to training and digital tools and infrastructure. This session discusses these issues, along with other barriers (access to capital, cultural and attitude, and regulatory barriers) and the challenge of informality that impede women's greater participation in these services. It explores how targeted investments in digital skills, more inclusive training programs, and better access to tools and enabling policy environments can help women overcome the structural, financial, and institutional barriers holding them back in these

jobs. It also examines informality and the difficulties in moving from informal to formal jobs. This is often overlooked but is a critical issue that continues to limit women's engagement in these sectors.

Enhancement of digital skills for women in high tech professions

Joana Valente, Partner in Technology and Transformation, Deloitte

We have already reflected on why gender parity is important – the estimated $17 trillion of losses in the APEC region's GDP as a result of the under representation of women in leadership roles is a strong reminder. Since 2006 we have only reduced the gender gap in the region by just 5.7 percent. This means it will still take 84 years to reach parity even though we now have transformational improvements via generative AI. Digital disruption is accelerating so that by 2030, nearly 40 percent of core job skills will involve AI and data skills, and over 70 percent of all new economic value will be digitally enabled. Yet women remain underrepresented in the high tech, digitally intensive sectors. Fewer than 35 percent of tech roles are held by women across the APEC region. And female representation in digital professions is generally below 30 percent.

Globally, as we've heard from our previous panel, only around 35 percent of STEM degrees are earned by women compared to 65 percent by men. Deloitte has undertaken a recent study which uncovers what we're calling the gender trust gap in AI.

We know AI is being adopted faster than the computer or the internet was at similar points in time after being introduced. The adoption is phenomenal. The value is phenomenal. Yet only approximately 50 percent of women trust and use AI tools at work. Approximately 50 percent compared to approximately 70 percent of men. Despite accelerating their genAI adoption, women express less trust than men that genAI providers will keep their data secure. This "technology trust gap" could inhibit women's regular use of the technology and full participation in new genAI applications, as well as slow down their future purchasing of genAI products and services. To help overcome this trust gap, tech companies should enhance their data security, implement clearer data management practices, and provide greater data control.

AI model bias can also have a negative impact on trust. Women constitute less than one-third of the AI workforce, and most AI workers feel that AI will produce biased results as long as their field continues to be male dominated. Increasing women's presence in the field can help reduce gender bias in AI, as well as give women a greater role in steering the future of the technology.

These findings describe an iceberg. What is beneath the water line? We're seeing the tip of it, because what we're discussing here are symptoms of something deeper. And so I'd like to spend a bit of time talking about the most powerful and the least visible force below – culture. Culture is like the mass beneath the water line, it shapes what girls believe is possible, but importantly, it shapes what families support and what societies reward. Clearly, society isn't rewarding women pursuing and staying in STEM careers.

The question is therefore --- Why? If we raise boys and girls with different expectations, we shouldn't be surprised when they make different choices. We still overwhelmingly celebrate sons who choose the entrepreneurial path to build, innovate and focus on career.

This is a societal, cultural issue. We shouldn't be surprised with the above statistics, because we're shaping workforce choices before formal education begins. Some of us might say, well, is this not innate? Is this not because there is a biological difference? I disagree.

Let me share some personal reflections here. My mother was a mechanical engineer. When I had my first child I rang my grandparents to tell them that I had decided to extend my maternity leave from three months to a year. Now in Portugal, most women, take less than three months of leave. A few years ago, women took much less than three months. That is because, in my culture, a woman's independence was critical, as was financial independence. So she needed to return to the workplace.

We need public-private initiatives to tackle cultural barriers. For example, in Finland, an experiment led by the government, alongside the university sector, worked not just with students, but also with parents and teachers to reframe technology as a place where girls could thrive. In India, there is a program that built careers intentionality among underprivileged girls. But it didn't just focus on girls. It also worked with both school aged boys and girls. Girls were tasked with developing digital ideas, digital business pitches, and boys were responsible for designing campaigns to support the girls' ambitions.

So that would be my ask that we look at the deeper considerations here, so that we have more women choosing to study STEM and choosing to stay and work in STEM.

Tackling structural and institutional barriers

Samar Alrayyes, Co-chair, TechWomen New Zealand

Today, we confront a defining challenge, with structural and institutional barriers that suppress the extraordinary potential of women in high skill jobs like AI, FinTech and consulting. These barriers, from discriminatory regulations to entrenched cultural biases, are not mere obstacles. They are a betrayal of talent which cost the region billions and silence at least half of our visionaries.

At TechWomen New Zealand, we are part of a community of 12,000 members (in a small economy of five million people). We are a strong albeit small economy representing 10 percent of New Zealand's workforce and less than 29 percent of women in the digital tech workforce in New Zealand, and we have seen firsthand how these barriers stifle diversity. I will discuss some of the barriers we face and their impact on APAC's economic growth, and in the discussion, I will also present some recommendations on how to tackle them.

I would like for you to picture this: a lone woman coding in a corner, and at the same time cooking, because that's what we call 'remote work', and in the across the street, in contrast to picture a vibrant, male dominated tech conference with participants talking about new visions. This is the reality of APEC.

Women power over 60 percent of our services workforce yet hold less than 30 percent of STEM roles critical for digital services. What holds them back you ask? Some of the invisible chains are created by regulatory barriers, like restrictive licensing that lock women out. Think of rules demanding in person credentials for remote jobs or access to capital. Or the differences in access to venture capital for startups. I can tell you for a fact that women led tech startups secure 50 percent less capital than

male startups, 50 percent. I'm going to repeat it for the third time, 50 percent less than male founders. And women always struggle to have mentors. And most of the time that I've seen mentors trying to mentor women, they begin with the recommendation to have an imposter syndrome. Let's fix you. How many of the women heard the word imposter syndrome last year. You must have it. Let's help you. Let's help you look stronger and better.

Then there are structural gaps, like the absence of high-speed internet in rural areas. This cannot be something we're still talking about in 2025. It has to be mandated by policy makers that the internet is accessible for everyone, including every woman. For women, this means more and is essential. It means life, because they need to have the job.

And then women are expected, as everyone said, to take care of the family. Cultural narrative, branding STEM as a male area. It is discouraging for girls to try and see themselves in those pioneers jobs, and it's what we call in tech the “leaky pipeline”, which Sylvia has mentioned. This starts with a STEM degree. And we have a program called Shadow tech that we created in tech women, where we inspire students in the 9th to 11th school years to come and see how the tech industry works. It's not only coding in a dark room. I promise you, we do more than that. And almost always, I hear at the beginning of the session, we were here because my mates forced me. The school required me to come. I don't want to study Tech because it's not for me - it has to be for the boys. We hear that every time. But then when the girls leave the visit, what a change we observe, thinking “We might actually choose this. It's a great we love this. I want to work here”. This is something that we probably need to address and to make it part of the curriculum at many tech organizations,

I have also seen rigid policies with respect to flexible hours, biased promotions, what we call hiring mates. You probably would know what that means. Most of the hiring, which sometimes we call referral or networking with many names for it comes from mates. If we are in a male dominated industry, and most of the hiring happens, when this often takes place on the pub or in the golf course late at night. Who do you think will be hired? That's a problem, so maybe we need to question those referrals of hiring mates. How do we work on that?

The impact of these barriers is huge. APEC forfeits billions and billions of dollars annually by marginalizing women’s digital contribution. These chains do not just limit; they plunder our collective future. Non-diverse teams lose 20 percent of innovation potential, delivering weaker AI FinTech and consulting. Excluding women narrows our ability to design inclusive products. In talking about AI, we say that the data is non-inclusive. Of course, it is. Because women are not there. We have to be there for the data to be inclusive, and we have to work on fixing this. It also helps in having role models to help shape the next generation. In New Zealand initiatives like shadow tech, for example, have done this, namely raised the female tech leadership by 15 percent in the last five years.

Another important story is that women in high skill roles have seen to be reinvesting in education, health care, and communities, forging a more equitable and vibrant region and a better future. A few years back. I don't know if people remember, there was a Christchurch attack, and a certain community has lost around 50 men. We and other tech women created a program to empower the women left behind who were not the earners, and we created a partnership with tech companies to come and help.

The highlight of my career was a woman that called me after six months of mentorship, and she said, “I've just secured my first role ever in a government agency, and thanks to you, I can provide for my kids and I have a life”. This is what we're trying to create – identity - and it's very important for our culture and for the future of the world. Let's make 2025 the year APEC champions women building a prosperous, inclusive future.

Challenges in converting informality into the formal economy

Steven Tobin, ILO Regional Office for Asia and the Pacific

About a year ago, the ILO, in conjunction with the ADB, examined female and sectoral employment as well as the composition of jobs over a three-decade period. The study found that considerable gender gaps between male and female workers remain in Asia-Pacific labour markets, where women are not benefiting as much as men from employment opportunities in growing sectors offering higher pay and better conditions.

The report examined trends over the past three decades in the sectoral employment of men and women in the Asia Pacific region, discussing the broader implications for gender equality, inclusive growth, and social justice. It highlighted the gap in labour market participation rates between men and women, at close to 25 percentage points, which remains above the global average. This is largely due to the high and persistent gap of almost 50 percentage points in the South Asia subregion.

Women’s work continues to be concentrated in low value-added sectors such as agriculture and retail trade, where decent work deficits are among the highest. The most dynamic sectors for job growth over the past three decades in the Asia Pacific region have almost all seen significantly more job gains for men than women. In the sector with the most dynamic growth—IT and other information services—only one in four jobs (25 percent) went to women. Only in accommodation and food services did more than half of the job growth accrue to women.

Turning to the issue of informality, underlying these sectoral composition changes is the prevalence of informal employment within the broader Asia-Pacific region. Approximately 1.3 billion workers are informal, accounting for about two-thirds of the world's total, with men slightly overrepresented in informality in the region.

Due to cultural nuances and gender-segregated sectors, it is clear that women are overrepresented in lower-skilled and more vulnerable segments of informal employment. This means they are predominantly employed in domestic and home-based work, which, of course, reinforces some of the stereotypes we've been discussing.

This is particularly the case for women. Now, the challenging question is: what can we do to address issues related to access and inclusion, especially in the context of high-skilled digital services?

We need to look at this in the context of how poorly we've managed to support women, and particularly over the past three decades, which have been marked by significant sectoral transformation as people moved out of agriculture and into manufacturing and services.

However, we are now witnessing a complete transformation across all occupations and sectors through the application of generative AI. Digital skills will be at the crux of success in the future labour market. Our policies will need to reflect this shift. So, what does that mean concretely?

I would first reiterate the importance of addressing cultural norms that are really at the forefront and centre, especially as they relate to informal employment and domestic work, and consider how we can break these norms in lower-skilled occupations.

We will then need to focus on how to move women into higher-skilled occupations, such as digital services, recognizing that we will see a major transformation in skill requirements across occupations and sectors. Digital access must be expanded, and the digital divide addressed. Issues related to role models and mentorship are also important.

There are two overarching employment policies I consider worth mentioning.

The first is the shift from education and qualifications hiring to skills-based hiring. This has significant implications for how we design employment policies to help women shift from one occupation to another, or - if they are already in a STEM occupation - to acquire the skills needed to move to higher or parallel roles. We have been talking about the skills-based approach for at least five or ten years but have failed to institutionalize it in our policy and program thinking. As we know, women often apply only to jobs where they feel fully qualified. If we can move to a skills-based approach to hiring and training, this should help reduce some bias—though not all.

The second is that, when designing programs to support women entering difficult sectors, we need to place greater emphasis on designing programs around the disadvantage, not the disadvantaged. We should design measures to address the actual barriers that are in place, whether that is childcare, transportation or whatever. Moving away from the generic approach of designing policies for certain groups and really focusing on designing programs around addressing the barriers that we have been talking about in the previous panels is key.

My final point is that this is a complex issue. Any single program or support mechanism, in isolation is fine, but will only yield marginal benefits. What we should try to encourage is a more holistic approach, following a comprehensive strategy that tries to addresses multiple barriers women are facing, from cultural issues to skills, attitudes, and perceptions. Only a comprehensive response will be sufficient to address what is truly a complex and multi-tiered challenge.

Our policies will really need reflect that. So, what does that mean? Concretely?

I would reiterate the comments that have been made in terms of addressing the cultural norms that really are forefront and center, especially when I think about informal employment and domestic work, and how can we sort of break those norms into lower skilled occupations.

We need to consider how we can then move women into higher skilled occupations, such as digital services, obviously, with this notion that we will see a complete transformation of the need for skills across occupations and sectors. There needs to be digital access, and the digital divide needs to be addressed. There are issues related to role models and mentorships.

There are two overarching employment policies I consider worth mentioning.

- The first one is the shift from education and qualifications to skills-based hiring. This has significant implications for how we design employment policies to help women shift from one occupation to another, or if they are within an existing STEM occupation, what are sort of the skills that they may require to either shift to higher or parallel occupation? We've been talking a lot about the skills-based approach for at least five or ten years, but we failed to institutionalize it in our policy and program thinking. And as we know and have been highlighting that, you know, women often apply to jobs where they feel they are qualified for. And I think if we're able to move to sort of a skills-based approach to hiring and training, this should at least help to reduce some of the bias, although not all.
- The second policy shift I would like to highlight is to recommend placing a greater emphasis on designing programs around the disadvantage, not the disadvantaged when we think about designing programs to support women entering challenging service sectors. All too often, governments have designed measures to help address the actual barriers that are in place, whether that's childcare, transportation or whatnot. Moving away from this generic approach of designing policies for certain groups and instead focusing on designing programs around addressing the barriers that we've been talking about in the last two panels is key.

My final point would be that, clearly, this is a complex issue. And, you know, any one program or support mechanism in isolation, I think is fine, but we should only expect marginal benefits from that. And so I think what we would like to try to encourage is a more holistic approach, where we see a comprehensive strategy that at least tries to address some of these multiple, multiple barriers that are facing from cultural to skills to attitudes, perceptions and really something which is much more comprehensive is needed in order to address what is really a complex and multi-tiered challenge.

What can services companies' members of the Asia-Pacific Services Coalition do to contribute to promoting women's status in digitally delivered services

Devi Ariyani, Executive Director, Indonesia Services Dialogue Council

When discussing women and skills in the digital era, the key question is: what do corporations need today? What are the most critical skills required of the workforce?

In 2023, we conducted a study asking companies about the skills they need. We received responses from around seventy companies—large, medium, and small enterprises—across FinTech, EduTech, ICT, media, HealthTech, and manufacturing services. Our survey found that communication and teamwork are the most dominant skills needed across all sectors, with the top three being communication, teamwork and team management, and time management.

This is particularly interesting as we enter the post-pandemic era, where the business operating model is shifting from working in the office to working from home, and now even to working from anywhere. Companies are offering more flexible working arrangements, and time management is cited as a particularly important skill.

We also asked the firms canvassed for the study about the hard skills needed across sectors. These were cited as sales and marketing, information technology and data-related services, financial services, human resources, and research and development.

We further inquired about the soft skills needed. Here we found a changing landscape of critical skills: while in 2016, skills in STEM (science, technology, engineering, and math) accounted for about 42 percent of the need, these had dropped to the bottom of the list by 2025.

We also observed that the need for basic computer skills and software application skills is declining. These are now considered the least critical by corporations, while time management, the ability to work in a team environment, and communication have become the top three.

These findings are aligned with our own research, even though there was no direct communication between our study and the corporations —the results are profoundly aligned. While industry- and occupation-specific skills remain important to increasing women's representation in services sectors, especially digital-intensive sectors, having the required soft skills is critical to closing the advancement gap.

Session 3: Artificial Intelligence and its impact on women in services

AI is being adopted faster than PCs or the Internet were in the previous technological revolutions. Data from many sources indicate that by the year 2030, there will be a seismic shift in job skill requirements as AI accelerates change in the workplace, and particularly in the services areas. It is unclear at present what type of impact AI technologies will have on women. What is clear is that ingrained attitudes and biases exist in the development and application of AI tools, which may influence women's ability to apply these. This session discusses these issues and offers insights not only into the rapidity of technological change but also into what types of education and professional skills will be needed by women to be able to participate and thrive in the future high-skill, digitally delivered service sectors.

Inherent biases in the creation of AI tools

Peter Lovelock, Chief Consulting and Innovation Officer, Access Partnerships

I will discuss research my company has conducted on generative AI—specifically, its effects on economic participation and workforce dynamics. I will also address what these findings suggest about women's participation and economic contribution in the services sector.

Our research examined the potential impact of generative AI on economies across Asia, particularly regarding jobs in APEC. We found that generative AI presents significant potential economic opportunities for economies in the region. For example:

- $79.3 billion for the Philippines, equivalent to 20 percent of GDP
- $113.4 billion for Malaysia, equivalent to 25 percent of GDP
- $621 billion for India, equivalent to 18 percent of GDP
- $1.1 trillion for Japan, representing a 27 percent additional contribution to GDP

These benefits can be realised if economies are able to capture the opportunities that generative AI offers. Moreover, this growth is not stagnant; the economies would continue to grow annually if we could seize these opportunities.

We also found that only 1 percent of workers will have their jobs significantly impacted, while the vast majority will see an impact of less than 10 percent. The primary effect will be augmentation, not replacement. Improvements and gains are expected through unleashing creativity—especially in content and design—accelerating discovery in research and science and enhancing productivity and business opportunities. This is the positive side, and the research is robust.

I stand by these findings, which are well supported in the literature. The issue, however, is that realising these benefits requires coordinated government action, focused and targeted reskilling, and behavioural change.

In the meantime, there will be job losses and dislocation as progress unfolds. According to the ILO, 21 million jobs are at risk in high-income economies, and without intervention, this will disproportionately impact women. Of that 21 million, 11.2 percent of women in high-income economies are at high risk, compared to 9 percent of men.

According to the WEF, only 40 percent of women in vulnerable roles are receiving any form of reskilling. McKinsey research estimates that up to 85 million women globally may need to transition occupational categories due to AI by 2030, particularly in Southeast Asia. Moreover, ADB and LinkedIn estimate that 2.5 million women need digital or AI-related skills to remain competitive.

Much of this shift was already underway, but AI is accelerating and amplifying these trends, increasing the gaps in opportunities.

We see this in the US, Australia, Singapore, and other high-income economies, where roughly nine in ten employed women work in services. In Japan and the Republic of Korea, about 82 percent of female employment is in services. By contrast, in Thailand and Viet Nam, only about 55 percent and 40 percent of women, respectively, are concentrated in services, reflecting the fact that many women in these emerging economies still work in agriculture or industry.

So, we are seeing a transition. However, AI is having the greatest impact on clerical and administrative roles, customer service, sales, and routine jobs in food and hospitality—all areas where female employment is overrepresented in the APEC region.

Currently, our estimates suggest that closing gender gaps in the digital economy could unlock an estimated $94 billion in untapped economic capital—even before fully considering the impact of digitalization and AI. The gender gap is profound, and my suggestion is that AI risks accelerating and amplifying current divides unless we act quickly to get ahead of these changes.

Let me briefly discuss the financial sector and, for illustrative purposes, the adult content sector. Historically, over the last 30 years, these two sectors have led technological transitions and often foreshadow broader economic trends.

They are the canaries in the coal mine. For example, algorithmic bias in financial systems is a critical concern. AI is increasingly used in hiring, promotions, lending decisions, trading strategies, and

performance evaluations within the sector. If algorithms learn from historical data, they can perpetuate discriminatory patterns. A good example is Apple's credit card algorithm, issued by Goldman Sachs, which used an automated model to determine credit limits. Multiple cases emerged where women were given significantly lower credit limits than their husbands with similar or even weaker financial profiles. One tech entrepreneur reported receiving 20 times the credit limit of his wife, despite her higher credit score and joint assets.

Even Apple's co-founder, Steve Wozniak, was offered ten times his wife's credit line, despite sharing all finances. Goldman Sachs denied using gender as a factor, but this illustrates the key point: the algorithm did not see gender explicitly, yet produced biased outcomes.

This occurred because it learned from data where structural factors, income patterns, and credit histories reflected gender disparities, thus indirectly disadvantaging women. Similar AI-driven hiring algorithms in finance have screened resumes or predicted fit for roles using past hiring data from investment banks where men were preferred, resulting in lower rankings for female candidates.

There is evidence that women in algorithmic-intensive trading roles face biases as well. Performance metrics are skewed when an AI-driven evaluation values certain aggressive trading behaviours historically exhibited by men. These systems are intended to be gender-neutral, assessing individuals based on their performance and background. However, because of the way we are building algorithmic assessment systems, they are automatically skewing toward male profiles and behaviours.

These jobs are influential in the economy and perpetuate cycles of hiring based on existing biases.

APEC data show that women comprise anywhere from 19 to 50 percent of the gig workforce across member economies. This is an important statistic, especially as we transition from generative AI to agentic and transformative AI. We are likely to see a significant increase in gig economy work and greater flexibility in emerging opportunities.

If the gig activities are where we see profound opportunity, and if those opportunities are now being shaped by AI, they are also becoming less secure, less protected, and more transient. As job cycles accelerate, protections for gig workers shrink, potentially leading to more aggressive and problematic behaviours in the workforce.

Turning to the adult content industry, where women have traditionally been prominent and sometimes held an advantage, we see that income distribution remains highly unequal. What we are seeing now, with digitalisation accelerated by AI, is a winner-takes-all pattern emerging. For example, on the platform OnlyFans, the average creator earns $150 to $180 per month, while the top 1 percent of creators capture about one-third of all revenue.

Top earners can make five to six figures monthly, but the vast majority of women are seeing only modest, supplemental income increases. We begin to see the same patterns of inequality and bias, now exacerbated by AI-driven algorithmic bias and content moderation. Women in the online adult industry also contend with algorithmic biases in how their content is moderated, which has broader implications for the economy.

Major social platforms use AI content moderation systems that often penalize female bodies and sexual content more harshly. One study found that AI vision algorithms rate images of women as far

more suggestive or racy than similar images of men, leading to routine suppression of women's posts— even when these are not sexually explicit. AI models deployed by Google, Microsoft, and Amazon frequently flag even benign images of women in swimwear, fitness wear, or breastfeeding as explicit, whereas men's images are less likely to be flagged. The result is that countless photos of women's bodies are shadow-banned or hidden, hurting female-led businesses and content reach.

Of course, this bias has been devastating. Educational or promotional posts by women, especially women of colour and LGBTQ creators, are disproportionately removed or down-ranked by algorithms before they even know about it. Such moderation biases reinforce social stigma around female sexuality.

While I strongly advocate for digitalisation and the levelling of opportunities, AI currently risks reinforcing existing barriers and inequalities. Looking at these two sectors, we find clear parallels: both reinforce existing biases. AI systems tend to mirror and sometimes amplify society's preexisting gender biases.

We get power imbalances and exploitations, formal versus informal work dynamics, roles of representation and inclusion, and cross-border and policy harmonization challenges from AI systems at present. These challenges will likely increase due to both conservative pushback against regulation and the complexities of cross-border data linkages. The broader trend is recognition that AI cannot be value-neutral.

AI governance must actively safeguard against the exploitation of vulnerable groups, including women. A debate around that would be most interesting.

Role of AI in preparing women for next generation careers

Gareth Tan, Associate Direct and Technology Lead, APCO

Today, I am representing the Secretariat of the Digital Prosperity for Asia Coalition (DPA). The Coalition is an alliance of digital startups and small and medium enterprises from across the Asia-Pacific region. It aims to foster a stronger understanding of digital regulations coming online across the region, most recently the AI rules regional governments are exploring.

Half of the DPA's work is in education, where we do our best to keep small digital companies updated on developments in the policy space through regular explanatory sessions and monitoring briefs. The other half focuses on advocacy, where we represent members' perspectives at policy-oriented discussions like this one, or at the World Trade Organization (WTO), for example. We have worked with Singapore's Ministry of Trade and Industry (MTI) to provide training to the negotiators on WTO-related issues and have supported discussions on the JSI on e-commerce and the ongoing ASEAN Digital Economy Framework Agreement. I often say the DPA functions like a government affairs department for companies too small to afford their own—until they are large enough to build their own capabilities.

This is relevant because my work with the DPA brings me into contact with the region's startup space, including founders developing or deploying AI, as well as founders who are women or who support gender equality.

I won't pretend that the DPA membership base is a vision of egalitarianism. We are a good representation, I think, of the digital startup ecosystem across this region, which does tend to skew towards male dominance, but I am pleased to say that we do have a number of very active female founders and representatives with whom we often consult on matters concerning gender and technology, and more recently, gender and AI. It is to them, particularly Christa Sabatali of Indonesia-based online visa service provider Span Global and Mustang Yi of Singaporean trust tech firm Accreditor, that I owe a debt for informing many of my perspectives today.

Turning to the questions we face today: First, as already mentioned, most people engaging with AI acknowledge it can channel inherent gender biases. This is because AI is trained on raw data—linguistic, audio, or image-based—drawn from societies which are, on the whole, still gender-biased. However, from our discussions with startups, including those run by women, this is unfortunately not their primary consideration. As startups, their main imperative remains understanding how to better use the technology and deploy it in innovative and monetisable ways.

I want to clarify that many of my points come from a position of accepting that AI presents social risks and threats that may impact women more than men. However, given the context I just provided, I am primarily addressing AI as an economic factor—an enabler and mechanism that must be engaged with, regardless of the outcome, due to its economic impact.

This brings us to the question of education—specifically, what education or professional skills are necessary for women to adapt to a more AI-driven world. Fundamentally, this is part of the broader question of what skills anyone, regardless of gender, would need to adapt to that world.

Many of the key actions needed are incredibly basic. It is literally about educating people on what AI can and cannot do. This may seem elementary, but our AI startups have noted that this lack of understanding can seriously inhibit meaningful conversations about how to implement AI, both internally within teams and externally with investors or policymakers.

Just last year, we organised a panel at the WTO Public Forum and brought one of our AI startup founders, who ran a tutorial on what exactly generative AI could and could not do. This was very well received, and people were surprised at how little they knew about the technology’s limits and capabilities.

Understanding AI will also affect how women or men entering industries enhanced by AI can adapt and use AI tools effectively. I am encouraged to see that many policymakers are already recognising this and taking proactive steps.

In Singapore, for example, the Ministry of Education recognizes that "AI" is a catch-all term for a wide range of technologies with very different applications and outcomes. They plan to roll out a phased introduction to AI by education level: early education will provide a surface-level introduction, secondary education will outline what AI can and cannot do, and tertiary education will involve practical training on AI skills such as prompt engineering.

Demystifying AI is essential so that learners see beyond the surface and understand how answers are generated, rather than perceiving AI as a mysterious tool. This is a great pathway to introduce future users to AI, allowing for a deepening of understanding and culminating in students who have a realistic

and proportionate expectation of what AI can accomplish, as well as a strong foundation to innovate with it. Before pushing a technology further, we must first understand where its real boundaries lie.

An aspect strongly emphasized in the Singapore framework, which I think is very important, is a continual degree of guided exposure across a variety of ages. AI is ultimately evolving into a general-purpose technology that eases aspects of the human-machine interface. It is likely to be integrated into products, services, and tools that are not explicitly labelled as AI, in the same way that Internet of Things (IoT) services have been integrated into products that no longer carry that name.

In summary, as basic precepts to prepare workers to adapt to a more AI-driven society, I believe that awareness and engagement are very important: awareness of what the technology is and can do, and engagement to aid in the process of constant demystification and familiarization.

Women remain a clear minority in the AI sector. There are several ways to interpret this persistent gap. One perspective involves survivorship bias. However, by focusing on the visible success stories, we may overlook the structural barriers that have prevented many talented women from advancing or even entering the field.

I shall end with a slightly controversial note, perhaps by reflecting that if there has been one common theme in my discussions with DPA female entrepreneurs on AI and other topics, it is that they have always been quick to clarify that while they face challenges, they have not felt those challenges to have been significantly magnified because they are women.

They tell me that they have benefited from mentors of either gender and that they been afforded opportunities, which they won despite competing with men.

I have consistently found that, despite these obstacles, the female startup founders in the DPA network are acutely aware of the challenges they face and navigate them with determination. This awareness offers optimism—there are still pathways into AI and digital entrepreneurship for women, and opportunities for allies to actively support their participation alongside men.

Insights from LinkedIn latest research on AI's impact on women's work

Silvia Lara, Gender Research Lead, LinkedIn Economic Graph Research Institute

LinkedIn has an economic graph, a digital map of the global labour market. It tracks work across one billion LinkedIn members, tens of millions of companies, and jobs as it collects significant big data. This data, viewed through the lens of data science, helps us understand what jobs are growing, which skills are in demand or changing, and how workers adapt, region by region, and sector by sector.

The world of work is changing. Our team estimates that 25 percent of the skills needed for a job have changed. This means that even if you stay in the same job, the requirements for that job have changed. AI, especially generative AI, is accelerating that change.

In the fall of 2024, we asked LinkedIn members whether they agreed that AI would help them in their careers. This question was asked across occupations. Over half of the surveyed members agreed that AI would be helpful—an increase of 10 percentage points compared to one and a half years earlier. This demonstrates growing optimism, at least among LinkedIn members.

For example, in Australia, 61 percent of women agreed that AI would help them in their careers, compared to 55 percent of men. In this case, women seem to be more optimistic about how AI will influence their working future.

Different APEC economies show different gender dynamics in terms of who agrees more, but in general, the key takeaway point is that optimism is growing, and more than half of the surveyed members share that optimism.

It's clear that this new technology is reshaping how we work, what we do, and what skills are needed to perform our jobs. At the Economic Graph Research Institute, my colleagues and I examined thousands of occupations in our taxonomy to understand how AI affects them. We categorized the occupations into three main groups based on the key skills required for each:

- Disrupted occupations, where AI might automate core tasks;
- Augmented occupations, which would benefit from AI-enhanced productivity;
- Insulated occupations, which are unlikely to be affected.

For example, translators and paralegal associates might face high disruption, while veterinary nurses are mostly unaffected. My own job as a data scientist is likely to be augmented. AI probably won't replace me, at least for now, but it will definitely change the way I work. However, the impact of AI isn't the same for everybody, which brings us to gender.

In the ten APEC economies for which we had data to analyse, we found that women are more likely than men to work in jobs at high risk of disruption. Women are less likely to be in AI-augmented or AI-insulated roles. This pattern is visible not only in current job holders but also in job applications, indicating future labour force trends.

Men are 8 percent more likely than women to apply to AI-augmented roles. This is a concern because these roles are expected to be more stable, grow faster, and pay more. The gap is closing only slowly; over the past seven years, it has narrowed by two percentage points, so progress is very slow. This progress precedes the advent of generative AI.

The burning question at present is: How do we close this gap faster? The answer is skills, and the good news is that reskilling is happening. We have seen an increase in people learning AI-related skills, especially those foundational ones like prompt writing and using tools like ChatGPT, Claude, or Copilot. In fact, over the last year, the number of LinkedIn members adding AI literacy skills to their profiles has tripled. Of course, we started from a very low baseline, but again, there is a gender gap here, too. Men hold two-thirds of AI literacy skills globally on LinkedIn, outnumbering women two to one. There is momentum, however; women are catching up in many places, giving us hope.

It is important to put into place targeted interventions to keep that momentum going. Right now, AI is transforming the world of work, and women face both risks and opportunities. With the right policy investment and a commitment to inclusive reskilling, we can help ensure this transformation is equitable before these gaps become as entrenched as those in STEM fields. The moment to act is now.