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Empowering tomorrow : APEC women entrepreneurs in startups

Provided in Cooperation with:

Asia-Pacific Economic Cooperation (APEC), Singapore

Reference: (2025). Empowering tomorrow : APEC women entrepreneurs in startups. Singapore : Asia-Pacific Economic Cooperation Secretariat.

https://www.apec.org/docs/default-source/publications/2025/225_psu-apec-women-in-startups.pdf?sfvrsn=76412711_1.

This Version is available at:

<http://hdl.handle.net/11159/703131>

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Asia-Pacific
Economic Cooperation

Empowering Tomorrow: APEC Women Entrepreneurs in Startups

APEC Policy Support Unit

January 2025



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APEC#224-SE-01.22



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The views expressed in this paper are those of the authors and do not necessarily represent those of APEC Member Economies. The authors would like to thank the interviewees for their time and contributions and the members of the APEC Policy Partnership on Women and the Economy for their valuable comments.

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EXECUTIVE SUMMARY

In a highly policy-relevant finding, women entrepreneurs bring a range of valuable contributions to startups, such as fresh viewpoints, unique experiences, and sense of women customer segments. Women-led startups are also, in a number of studies, found to outperform men-led startups, for example in terms of revenue growth and export diversification. In addition, working in and building startups can be rewarding and lucrative for women and promote their earnings. However, there is to date very little quantitative and qualitative data on women entrepreneurs' participation and leadership in APEC economies' startups. This knowledge gap hampers the development of policy solutions to inequalities between women and men and the challenges facing women in startups.

This report examines, using census and survey data, interviews, and policy analysis, the prevalence and challenges of women entrepreneurs in APEC region startups, both as employees and especially as founders and leaders, and analyzes policies and best practices to promote women's entrepreneurship in the APEC region. There are four main findings.

First, following APEC economies and defining startups by age as firms of 0-3 years of age, there are 59.7 million startups in the APEC region in 2023, up from 41.8 million in 2017, making up 17 percent of the APEC region's firms. Of these, typically about one-tenth are in the information and communications sector.

Second, there are considerable data gaps in women's role as startup founders and employees. Private databases suggest that fewer than 10 percent of APEC economies' technology-driven startups are founded or cofounded by a woman. To be sure, there are inequalities in the APEC region – in some economies, women startups have blossomed, while in others they trail notably behind men-led firms.

Third, academic literature and interviews reveal five key barriers to women entrepreneurship in the APEC region:

- Inadequate access to finance at different stages of the startup's lifecycle.
- Inadequate access to peer networks and experienced mentors – and in some markets, difficulties navigating the many potential networks that do exist.
- Low share of women in STEM fields, which limits the pool of women founders and co-founders for technology companies.
- Women's mindset and perception of startup life as not accessible or possible for women.
- In some APEC markets, there are legal barriers and insufficient remedies for women in labor markets and workplace.

Fourth, governments in the APEC region as well as various associations have adopted a number of policies and programmatic approaches to support women-led startups in various stages, such

as ensuring that a larger set of women are able to become entrepreneurs; helping women in the early stages of their startups; enabling women-led startups to grow into mature companies; and helping women-led startups exit, such as to find a strategic investor. Some key approaches called for by the interviewees for this study include:

- Government grants for women-led startups in their early stages, for example to build a minimum viable product.
- Government grant support for startups' internationalization.
- Funds and investor syndicates focused on investing in women-led startups.
- Private sector-led networking initiatives and peer mastermind groups among women-led startups.
- Government procurement opportunities and contracts that the government reserves for women-led businesses.
- Laws that promote women-led startups, equality in the workplace, non-discrimination in credit applications, and maternity leave policies.
- Applied entrepreneurship education and promotion of young women's leadership in primary and secondary schools.
- Promotion of women's leadership in business and government, including in technical roles, for normalizing women's leadership across society.

Many of these solutions are already being pursued in various APEC economies. Nonetheless, APEC economies can play a key role in encouraging analysis on the impact of various efforts to promote women startups and enable member economies to share good practices in advancing women-led startups.

Introduction

In a highly policy-relevant finding, women entrepreneurs bring a range of valuable contributions to startups, such as fresh viewpoints, unique experiences, and sense of women customer segments. Working in and building startups can also be lucrative for women and promote their earnings. However, there is very little quantitative and qualitative data on women entrepreneurs' participation, role, impact, and gains in APEC economies' startups. This knowledge gap hampers the development of policy solutions to inequalities between men and women and other challenges confronting women's participation and performance in APEC economies' startups.

The purpose of this report is to start bridging this knowledge gap in women's entrepreneurship in the APEC region. Using census and survey data, literature reviews, interviews, and policy analysis, the report examines the experiences, challenges, and contributions of women entrepreneurs in APEC region startups, both as employees and especially as founders and leaders.

Section I defines startup, woman entrepreneur, and woman-led startup, and examines startups' prevalence across APEC economies. Section II analyzes challenges to women's entrepreneurship in APEC economies, while section III examines solutions pursued by governments in the APEC region. Section IV provides policy recommendations for APEC economies to optimally promote women entrepreneurs and women-led startups.

I. Defining and measuring the prevalence of startups, women entrepreneurs and women-led startups across APEC

The purpose of this section is to define “startup” and measure, based on official statistics, the prevalence of startups and women-led startups in APEC economies. We examine possibilities for experimental data to identify especially technology-driven and innovative startups. The section also discusses data gaps in the prevalence and performance of women-led startups.

a. Defining startups

Many APEC economies’ statistical agencies, ministries, and small business agencies have sought to define startups. In most APEC economies, startups are scalable and innovative young enterprises that use technology (tables 1-2).¹ For example, Malaysia defines startups as “new, attractive and profitable business model for a novel product or solution (usually disruptive)”;

Philippines as “any person or registered entity in the Philippines, which aims to develop an innovative product, process, or business model,” and Canada as “a business in the earliest stages of getting established.”² Altogether, 17 economies see startups as new and young companies. There are also 15 economies that consider startups as innovative companies, eight economies see them as technology-driven, while eight members as scalable. In addition, Malaysia considers startups as “disruptive” companies.

Table 1 – Definitions of “Startup” across APEC economies (official definitions and unofficial where official definition not found)

Elements	APEC economies mentioning	Economies mentioning
Young, new, early-stage	17	Australia; Canada; Chile; China; Hong Kong, China; Indonesia; Japan; Korea; Malaysia; Mexico; New Zealand; Russia; Singapore; Chinese Taipei; Thailand; United States; Viet Nam
Innovative	15	Canada; Hong Kong, China; Indonesia; Japan; Malaysia; Mexico; New Zealand; Peru; The Philippines; Russia; Singapore; Chinese Taipei; Thailand; Viet Nam
Technology-driven	8	China; Japan; Korea; Malaysia; New Zealand; Russia; Chinese Taipei; Viet Nam
Growth, growth potential	6	China; Indonesia; Japan; Malaysia; Mexico; Singapore; Viet Nam
Scalable	5	Hong Kong, China; Indonesia; New Zealand; Singapore; Thailand
Disruptive	1	Malaysia

Table 2 – Definitions of “Startup” Across APEC economies

Economy	Definition of “Startup”
Australia	“Firms 0-2 years of age.” ³
Brunei Darussalam	“Early-stage businesses.” ⁴
Canada	“A start-up is a business in the earliest stages of getting established.” ⁵
Chile	“High-impact ventures, from a validated idea to an early-stage prototype.” ⁶
China	“A newly established company, typically focusing on high-tech sectors, which has the potential for rapid growth.” ⁷ (not official)
Hong Kong, China	“A newly established business entity that is characterized by its pursuit of innovation, growth, and the potential for significant impact on.” ⁸ (not official)
Indonesia	“New businesses with potential for significant growth, focusing on innovative and scalable solutions.” ⁹ (not official)
Japan	“Emerging companies that create new businesses and innovations based on advanced technologies and business models, aiming to grow rapidly in a short period by investments from investors including venture capital firms (VCs) and angel investors.” ¹⁰ “Impact startups are companies that bring positive impact on the society through solving social issues and realizing new visions while achieving sustainable economic growth” ¹¹
Korea	“Entities that have been granted the legal status of a company, aged from one month to no later than 7 years after their establishment, regardless of the industry they operate in” ¹² (not official)
Malaysia	“New, attractive and profitable business model for a novel product or solution (usually disruptive).” ¹³ Startup is “Innovative - Technology-driven products, services or solutions that resolve challenges in novel way; Growth-oriented - Highly-scalable, fast-growing; “Move fast, break things.” Disruptive - Products, services or solutions are focused on new ways of solving problems; often disrupting the status quo and traditional businesses.”
Mexico	“Young, recently created company dedicated to developing unique products or services that appeal to a large market segment, creating a great opportunity for growth and expansion.” ¹⁴ (not official)
New Zealand	“Startups are innovative companies, often in the tech industry, with a scalable business model and strong potential to grow quickly and expand globally.” ¹⁵
Papua New Guinea	“Businesses that are less than 7 years old.”
Peru	“Innovative and high-impact ventures that have a competitive advantage based on innovation, with the potential to grow targeting regional and global markets.” ¹⁶
The Philippines	“Any person or registered entity in the Philippines, which aims to develop an innovative product, process, or business model.” ¹⁷

Russia	<p>“An entity complying with the following requirements:</p> <ul style="list-style-type: none"> - Generating or using the results of intellectual activity in R&D and production; - Operating in one of the sectors determined by the Government (decided in 2023); - The turnover for a financial year has not exceeded 4B rubles (around 60M USD); and - Has sufficient R&D capabilities and provides sufficient technical and institutional conditions for R&D, production and go-to-market (based on the results of independent audits).”¹⁸
Singapore	<p>“Innovative, high-growth potential companies that are typically in the early stages of development. Focused on developing new products, services, or business models that can scale rapidly and compete in global markets.”¹⁹</p>
Chinese Taipei	<p>“Innovative, high-potential businesses that are typically in the early stages of development with a focus on innovation, technological advancement, and potential for scalability.”</p>
Thailand	<p>“Innovative businesses with critical mass potential that can create change for the economy.”²⁰</p>
United States	<p>“Any company in its earliest stages of operations. Startups are typically founded by one or more entrepreneurs, and they focus on one product or service that its founder(s) wants to bring to market.”²¹ (not official)</p>
Viet Nam	<p>“New businesses with a focus on technology, innovation, and high growth potential.” (not official)</p>

Since there are no systematic indicators across the APEC region on such “technology-driven,” “scalable,” or “disruptive” companies, this report follows the 17 APEC economies that define startups by age. In particular, this report defines startups as companies that are three years old or younger. Age is chosen for the definition considering that most APEC economies define startups as young companies, and because defining startups by age also enables calculating the number of startups based on official sources that typically make data available on the number of firms founded by year. We choose three years as cut-off to balance between APEC members that define startups as nascent, newly established companies and those that define them as companies up to seven years of age. Furthermore, a subset of very early startups of up to 1 year of age are here defined as seed-stage startups. In turn, scale-ups are here defined as firms that are 4-10 years old, and mature firms are firms older than 10 years. Startups, scaleups and mature firms could be defined for example by their growth but defining them by age enables rigorous data analysis on the number and share of startups across APEC economies.

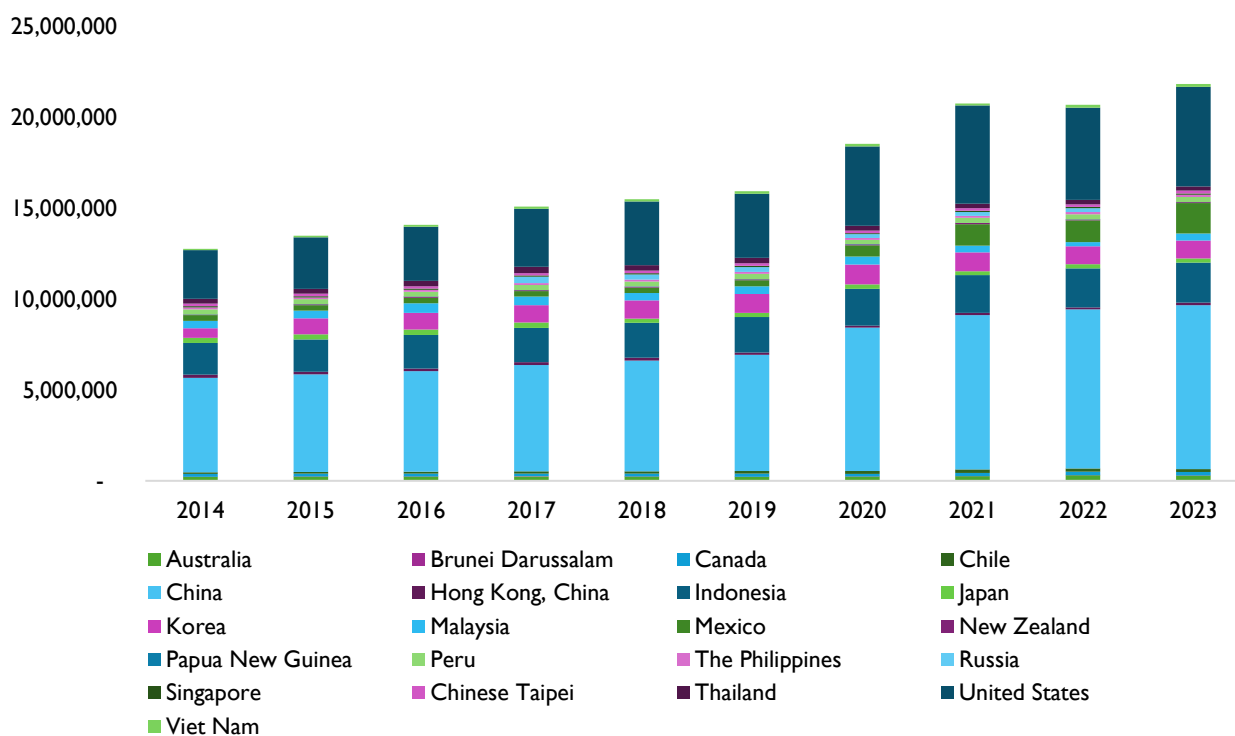
Conceptually, it is reasonable to use firm age rather than some other characteristic to capture “startup” for two reasons. First, innovative and scalable young firms can be found in any sector, so excluding a sector such as professional services or manufacturing could well exclude many startups, as defined by many governments in APEC. Second, firms that are today disruptive and scalable can be difficult to discern as such when they are founded, as young firms often pivot and change their focus and business model many times – they may start out as investing in technology-driven initiatives and be “startups” in that sense, only to change course and be less reliant on technology as they progress. Or vice versa – for example, a young law firm may decide to become more technology-driven, for instance by using artificial intelligence, and thereby evolve into a more scalable startup.

b. Number of startups across APEC economies

How many startups are there then in the APEC region? The calculations of the number of startups are based on official sources across the APEC region and selected private sources

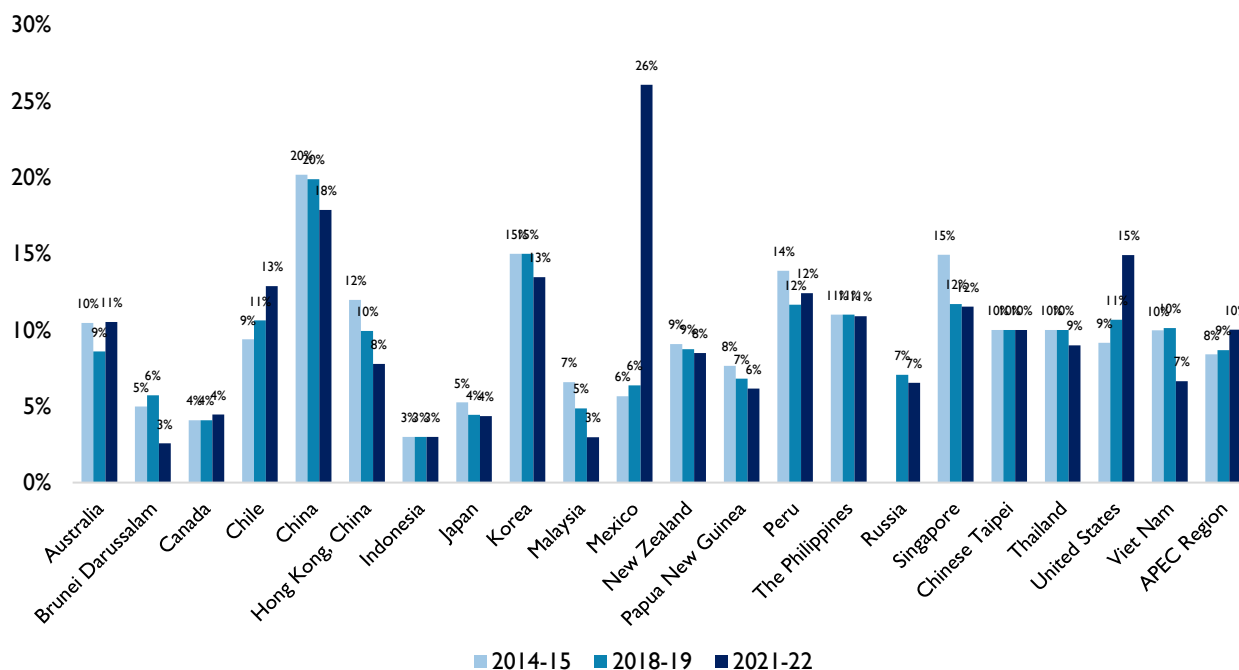
(Appendix I table 1). In 2014-23, altogether some 168.8 million firms have been formed across APEC economies, most of them in the largest economies (figure 1). The share of newly founded firms (seed-stage startups) is on average 12 percent of all firms per year, with China; the United States; Korea; and Chile having the highest shares of seed-stage startups (figure 2). Firm formation has intensified somewhat in the 2021-22 period, when many firms were founded both in response to the mass-layoffs resulting from the Covid-19 pandemic, and the new opportunities opened by digitization.

Figure 1 – Formation of firms in APEC economies, 2014-23, by economy



Source: Nexttrade Group on the basis of APEC region statistical agencies.

Figure 2 – Average rate of firm creation in APEC region in 2014-15, 2017-18, 2021-22, by economy



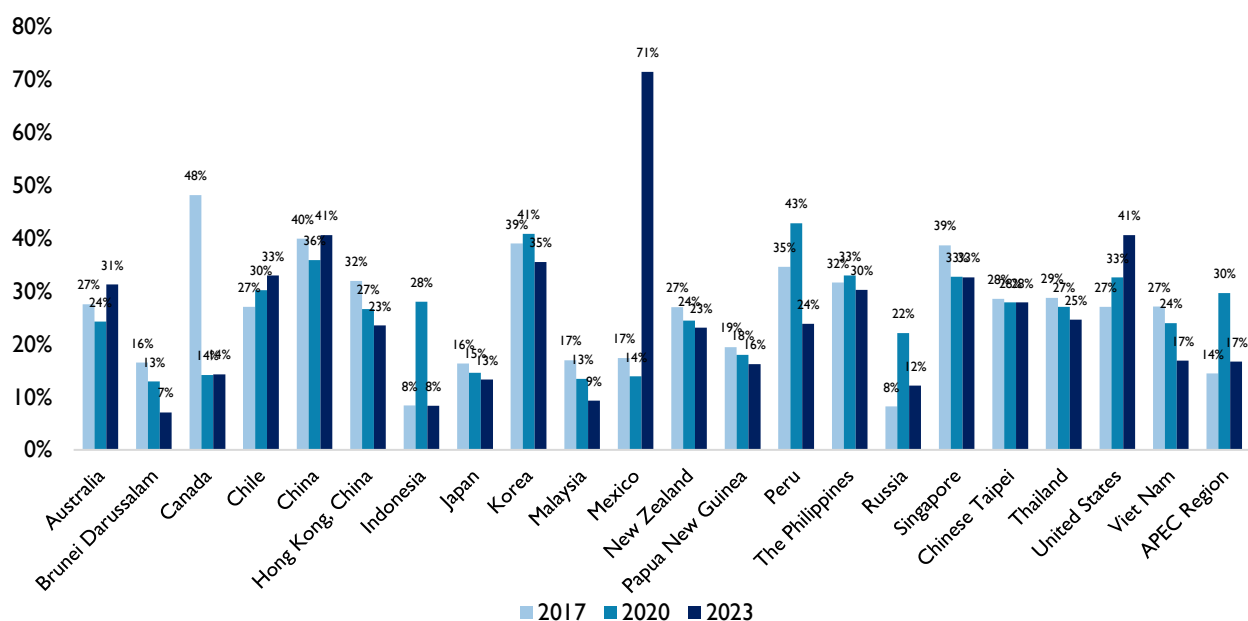
Source: Nextrade Group on the basis of APEC region statistical agencies.

Calculating the share of startups, or firms 0-3 years of age, of all firms in the APEC region, requires access to data on newly founded firms' survival rates. After all, many startups die after their formation – for example, in Australia, only 76.9 percent of startups born in year 0 survive in year 1, and further 60.5 percent of the startups born in year 0 survive in year 2, and 50.8 percent make it through year 3.²² Canada has performed a similar calculation by sex, finding stronger survival rates than in Australia (case 1).²³ Firm deaths level off and survival rate improves over time as firms establish themselves in the market, acquire customers, diversify, and secure profits that enable them to cushion themselves against downturns.

While most APEC economies publish annual data on all formal firms that exit and on firms founded (entries) as well as overall firm deaths (exist) by year, only Canada and Australia to our knowledge publish data on survival rates *by annual cohorts*.²⁴ In other words, while there is information on how many firms die each year in most APEC economies, it is typically difficult to know when the firms that die were born, and how many firms that were born in the past three years actually died before turning three. As such, the Australian data is used as indicative guidance to generate an approximate number of firm deaths by annual cohorts in each APEC economy, to arrive at a total number of startups that are still alive when turning three.

In addition, since in many economies, the number of firms founded in 2023 is still not available, we estimate the number of newly founded firms in 2023 based on prior natural growth rate in the number of startups.

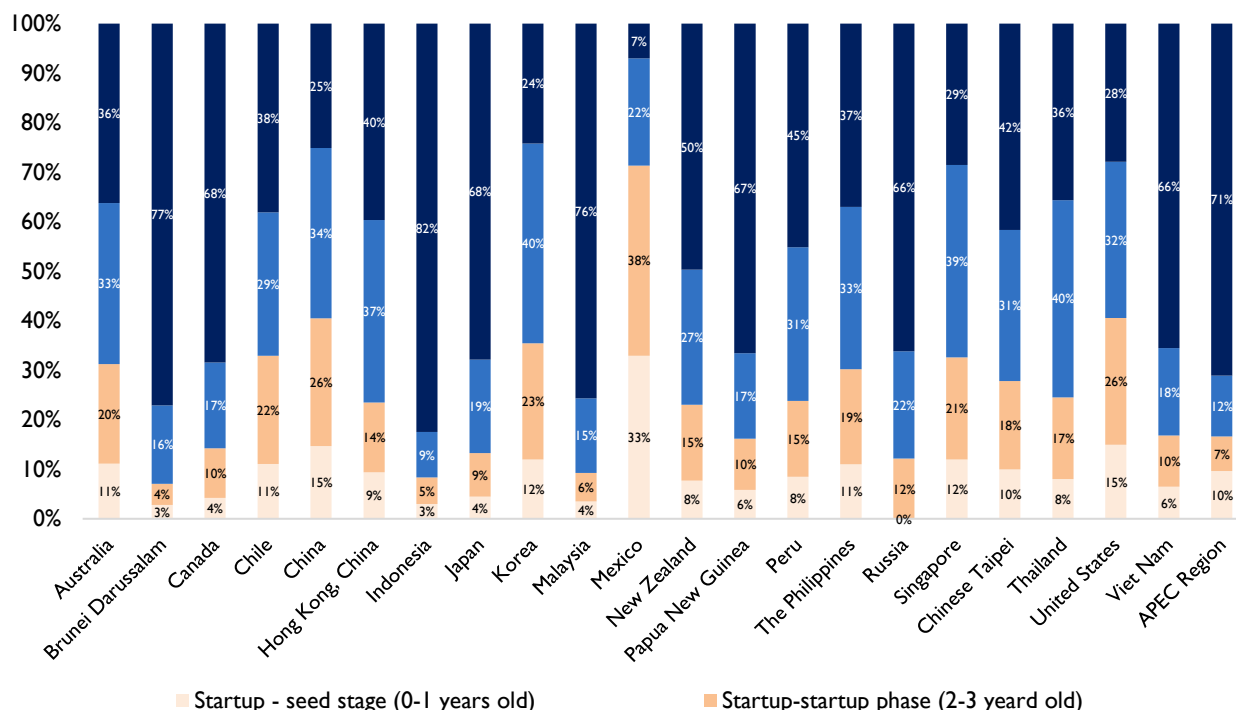
Figure 3 – Average share of startups in APEC economies in 2017, 2020, and 2023 - assuming survival rate of 77% year 1, 61% year 2, 51% year 3



Source: Nextrade Group on the basis of APEC region statistical agencies.

This calculation indicates that there are altogether about 59.7 million startups in the APEC region in 2023 (firms born in 2020-23), up from 41.8 million startups in 2017 (firms born in 2014-17), making up on average 17 percent of all firms in the APEC region (figure 3). In 2023, 21 million startups were seed-stage startups. Altogether, seed-stage startups made up 10 percent of firms and startups that are 2-3 years of age made up 16 percent, while scaleups (firms of 4-10 years of age) made up 24 percent and mature companies (older than 10 years) made up 50 percent (figure 4). The number of startups has expanded especially in Australia; Chile; and the United States in 2017-2023 (figure 5). In Brunei Darussalam; Hong Kong, China; and Japan, the number of startups has declined between 2017 and 2023.

Figure 4 – Startups, scaleups and mature firms in the APEC region in 2023, by economy

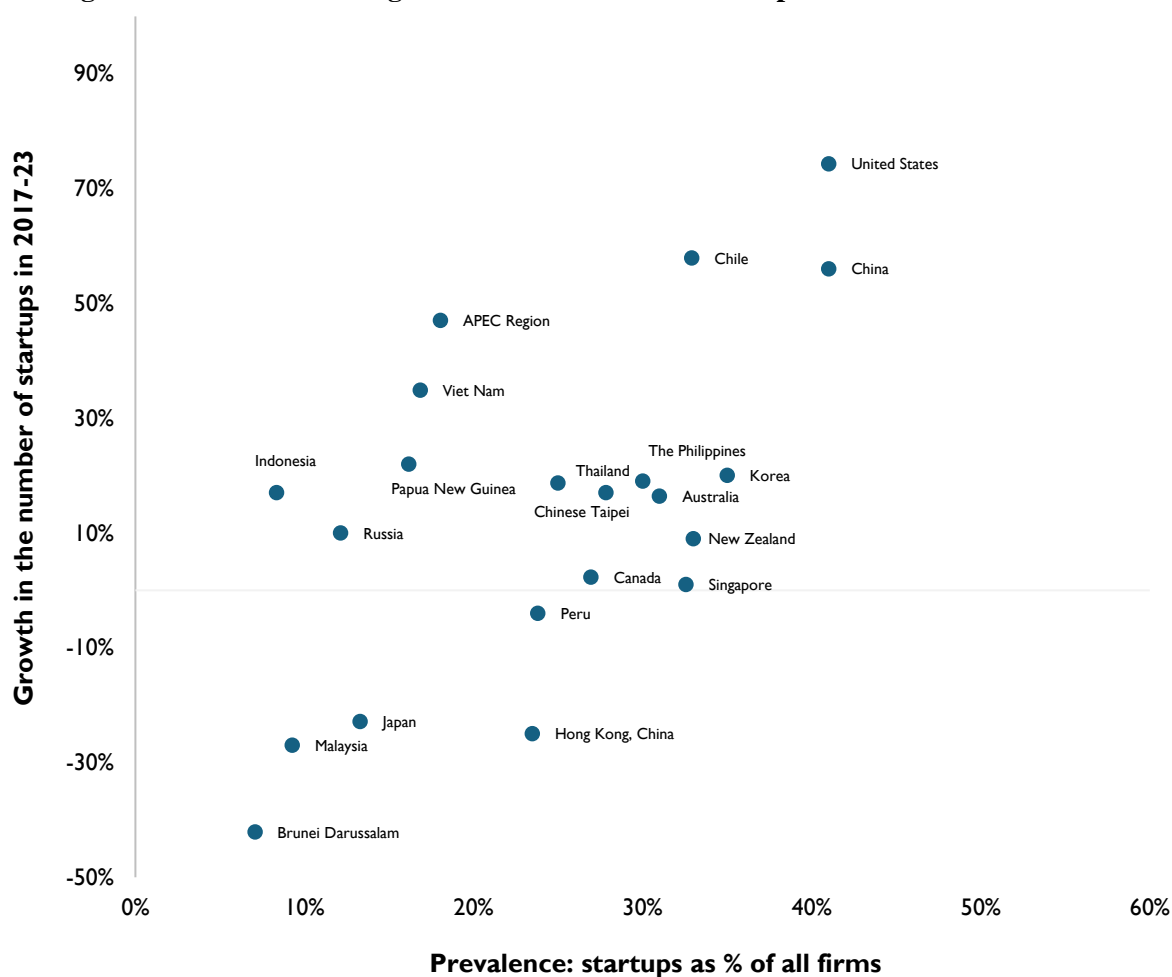


Source: Nextrade Group on the basis of APEC region statistical agencies.

Case 1 – Sex-disaggregated data on business continuity in Canada

Canada’s Statistical Agency has usefully developed data on the survival rates of firms by annual cohort, and furthermore, disaggregated the data by sex.²⁵

Firm survival rates are overall high in Canada: after three years from being founded, almost 90 percent of firms had survived and after 10 years, 57.6 percent of majority woman-owned businesses were still in business, compared with 61.9 percent for majority man-owned businesses and 68.6 percent for businesses equally owned by women and men. This may not mean that women do worse or go out of business; it may simply capture the finding that women exit earlier voluntarily. Interestingly, businesses owned equally by men and women had the highest survival rates in the data.

Figure 5 – Prevalence and growth of the number of startups across APEC economies

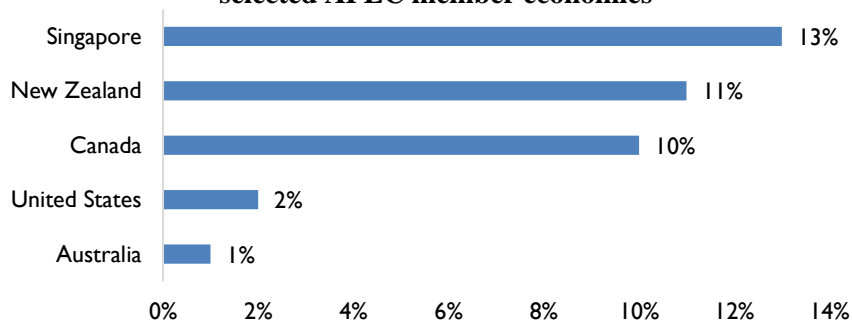
Source: Nextrade Group estimates on the basis of APEC region statistical agencies and private sources; estimates where data are not consistently available. Mexico is an outlier off the chart due to rapid growth for firms in 2023. The growth rate for Thailand reflects available data on limited liability company formation Nextrade Group on the basis of APEC region statistical agencies.

c. Share of “scalable” and “technology-driven” startups

How many of the startups in the APEC region might be the types of “innovative” and “technology-driven” firms that many APEC economies see as startups? This depends on the definition of such firms. One potential way to define innovative and technology-driven startups is young firms in the information and telecommunications sector (ISIC and NACE Section J). In Australian data, for example, 1 percent of the 288,159 firms founded in 2022-23 were in “information media and telecommunications” sector.

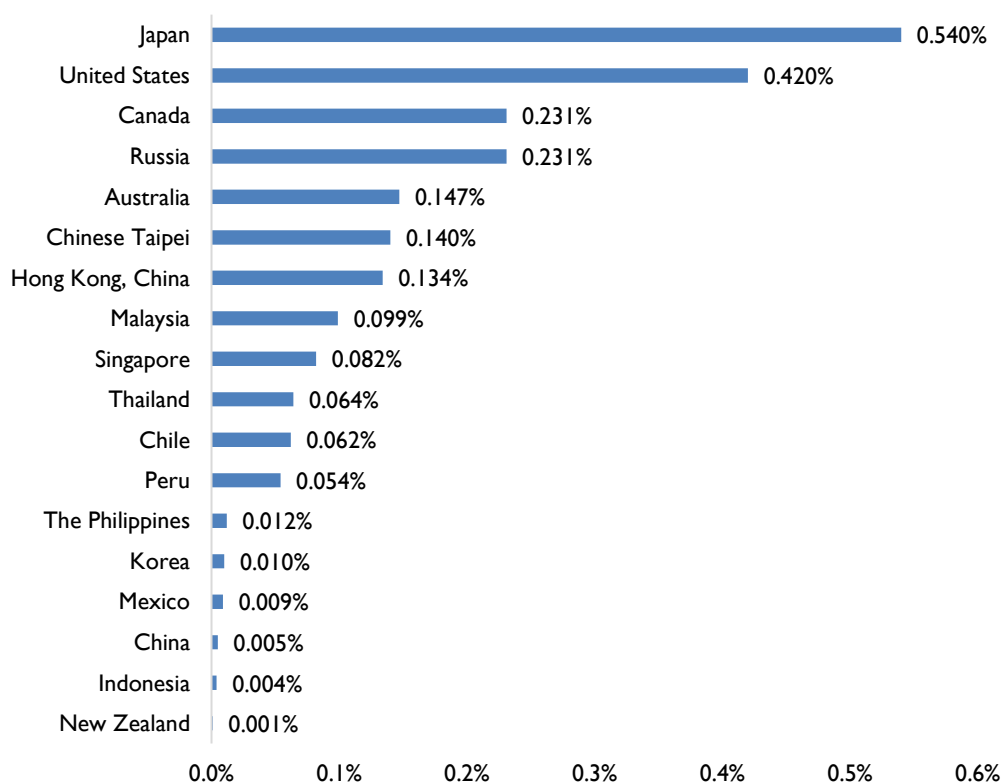
Data on firm entry disaggregated by sector is available in only some APEC economies. An initial calculation suggests that firms in the information and communications sector made up, assuming the same death rate of newly founded firms as applied above, some 1-13 percent of all new firms in 2023 in the economies for which data disaggregated by sector is available (figure 6). Some of the variation can be due to different industrial classification systems.

Figure 6 – Share of information and communications startups of total startups in 2023 in selected APEC member economies



Source: Nextrade Group on the basis of APEC region statistical agencies.

Figure 7 – Share of technology startups per Crunchbase data of total startups in 2023 in selected APEC member economies



Source: Nextrade Group on the basis of Crunchbase data.

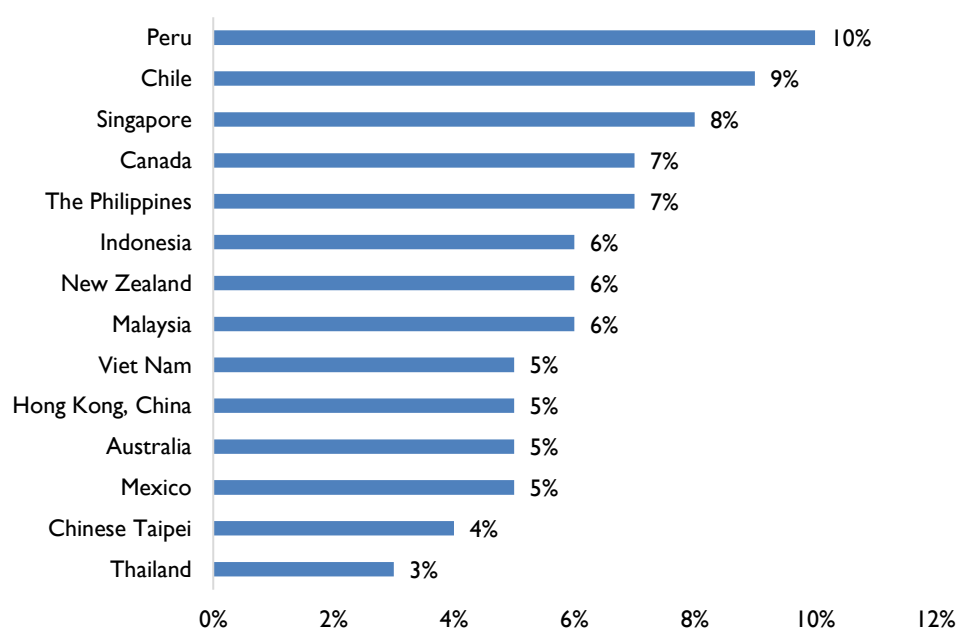
It could also be possible to identify “innovative” and “technology-driven” firms through private databases such as Crunchbase that catalogues the establishment of hundreds of thousands of new firms by year, location, and sector. Even though Crunchbase does not seek to capture all firms that have been founded, but rather focuses on technology-driven firms, it is a very comprehensive database of new firms around the world. It is still also highly selective: for example, there were in Crunchbase 1,192 Australian startups formed during 2020-23, or 0.2 percent of all Australian entries in 2023. These ratios are highest for Japan and the United States (figure 7). It should be noted that other private startup databases like CB Insights or Pitchbook may provide different results, depending on the coding methodology. The variation across economies may, however, be simply a matter of Crunchbase teams’ ability to identify data across various economies.

d. Women-led startups

What share of APEC economies' startups then are women-led? Here, "woman entrepreneur" refers to both a woman who works in startups, regardless of whether those startups are led by a man or by woman, and woman owners and/or CEOs of startups. "Woman-led startup" is here a startup that is owned by a woman, regardless of whether the CEO is a woman or a man. Often however woman-founded and -owned startups are also run by the owner.

Many APEC economies provide sex-disaggregated data on business owners, but to our knowledge, only Canada publishes sex-disaggregated data on firm entries. In general, economies also do not track, as Canada has done, women-led firms' survival rates over time. One way in which analysts appear to have overcome this critical shortcoming in official data is by running surveys with startups. However, the data is not necessarily representative. Another method is to draw on private databases such as Crunchbase, which catalogues startups by their year of foundation and provides for over one-third of startups the names of the founders that can be used to identify women founders. Of the 9,502 APEC region startups in the Crunchbase database for which there is easily accessible data on founders, typically fewer than 10 percent of startups in 2023 were woman-led or had at least one woman in the management team (figure 8).

Figure 8 – Share of women-led startups in various APEC economies per Crunchbase data



Source: Nexttrade Group on the basis of Crunchbase data.

Overall, data on women-led firms' entries and exits in the APEC region is very limited, along with data on entries and exits by sector.

e. Results in sum

This section has sought to establish the number of startups across APEC economies, defining startups as firms of 0-3 years of age. We have also developed alternative indicators to capture "scalable" and "technology-driven" startups and calculate the share of women-led startups or all startups. The results are as follows:

- There are an estimated 59.7 million startups in the APEC region in 2023, up from 41.8 million in 2017. In 2023, startups made up 17 percent of APEC region firms. Of these, about a tenth are in the information and communications industries.
- Official data on firm formation by sex appears to be very scarce; using Crunchbase data suggests that fewer than 10 percent of startups in the APEC region are women-led.
- Sex-disaggregated data on firm formation and survival would open opportunities to examine the relationship between women entrepreneurship and policies aimed to promote it. However, in the APEC region, there is inadequate official data in terms of the survival rates of annual cohorts of new firms, formation and survival of firms by sector and by sex.

II. Performance, success drivers and challenges of women entrepreneurs and women-led startups in APEC economies: survey and interview data

The purpose of this section is to develop qualitative and quantitative data across APEC economies to diagnose the performance, challenges, and needs of women entrepreneurs and women-led startups. The section leverages three elements:

- Literature review and meta-analysis of the literature on the performance, success drivers, and challenges of women entrepreneurs and women-led startups.
- Nextrade Group survey data prepared in 2023 with Visa and UPS on the challenges facing APEC region women-led firms.
- Interviews with startup association, investors, startups founders and government officials to (1) validate the insights from literature and the quantitative data, and (2) deepen the analysis on the challenges of women entrepreneurs and women-led startups as well as solutions to these challenges.

a. Review of literature

This literature review discusses studies on the importance, formation, performance, and success drivers and challenges of women entrepreneurs and women-led startups, to establish a baseline of current knowledge of women's entrepreneurship especially in the APEC region, identify policy-relevant gaps in the literature, and develop hypotheses for the subsequent data analysis and interviews.

Importance of women in startups

There has been a growing interest in the patterns, drivers, and challenges of women's entrepreneurship in the past decade. For example, in a meta-analysis, Cardella et al. (2020) identify 2,848 peer-reviewed articles focused on women entrepreneurship in 1950-2019, with a notable surge since 2005 in general, and since 2015 with respect to studies focused on women entrepreneurs in developing economies, in particular.²⁶

This work has been motivated by the growing pool of evidence that promoting women's entrepreneurship in startups and as business leaders benefits private sector development and economic outcomes. For example, research indicates that startups with women executives outperform their counterparts in terms of innovation and revenue growth, which could be due to their more diverse perspectives and deeper understanding of different customer segments, which promote the introduction of new products or services.²⁷ In addition, some studies have found that women-led startups have higher employee satisfaction, brand loyalty, and more sustainable business practices, which also supports business growth.²⁸ Women are found to reinvest a significant portion of their earnings into their families and communities, which amplifies the positive impacts they can have to their societies (Hughes et al. 2012; Minniti and Naudé 2010).²⁹

Formation

Why then do women become entrepreneurs and work in or lead startups – and are there considerable differences between women and men in entrepreneurship? Several studies have focused on women’s interest in forming companies and their intentions for doing so. To be sure, in many developing economies in particular, women as well as men start a business out of necessity rather than opportunity – the Global Entrepreneurship Monitor (GEM) finds that as many as 73 percent of early-stage entrepreneurs in Chile and some 67 percent in Canada agreed that starting a business is important “because jobs are scarce” (GEM 2024).

With firms formed out of opportunity, some studies have found a significant difference between men and women in the intentions to start a business (Shinnar et al. 2018).³⁰ This matters because intentions are found to be a key predictor of actual behavior in business (Delmar and Wiklund 2008).³¹ For example, while both women and men are seen to start firms in pursuit of financial opportunity, some studies have found that women are motivated also by work-life balance, personal fulfillment, and economic and social impact (Startup Genome 2018).

However, many studies have shown that the relationship between a person’s sex and business growth intention is not statistically significant – for example, Menzies et al. (2004), in a study conducted in Canada, found no statistically significant differences between women and men in their expressed preferences for business growth. Indeed, it could well be that other variables shape interest in pursuing a startup career and entrepreneurs’ growth intentions. For example, Gurel et al. (2021), surveying 215 women, argue that higher education significantly boosts entrepreneurial intentions and capabilities among women.³² What is however quite clear across studies is that women-led firms face greater hurdles (such as access to finance or support networks) to founding a startup than do men – and as such, are more likely to start businesses in sectors where they perceive fewer challenges and barriers to entry (Jennings and Brush 2013; DeTienne and Chandler 2007).

Performance of women entrepreneurs and startups

There is mixed evidence on the performance of women-led firms compared to men-led firms. Some studies suggest that women-led firms underperform relative to men-led firms, while other findings indicate that they perform better. Still, there are others that find that the sex of the CEO has little influence on firm performance. For example, data in many markets suggests that women-owned businesses have lower growth and remain smaller than men-owned businesses. One seminal work that shaped this thinking was Farlie and Robb (2009) who used microdata from the U.S. Census Bureau and found that women-led firms had systematically lower survival rates, profits, employment, and sales than male-owned businesses. The authors attributed this difference to women-led firms’ more limited startup capital and lower human capital acquired through prior work experience in a similar business.

More recent research as well as meta-analyses challenge the idea that women-led firms underperform (Robb and Watson 2012; Justo et al. 2015). Moreover, recent official data from Canada cited in the above section indicates that newly founded women-led firms have lower survival rates than comparable men-led firms. Some studies argue that this is because of metrics that have been analyzed (Watson 2002); others attribute it to flawed assumptions and misinterpretation of the data – for example, closure rates may not be a good indicator of success

as women may exit voluntarily for personal reasons and not because they failed (Justo et al. 2015).

In addition, many empirical studies especially in the APEC region have conducted more rigorous apples-to-apples comparisons and introduced better econometric techniques and control variables to refute the notion that a person's sex predicts performance. In a study of Australian entrepreneurs, Watson (2002) finds that, after controlling for such variables as industry, age of business, and the number of days a business operated, there is no statistically significant difference in the performance of men- and women-led firms. In a study of Italian startups, Demartini (2018) finds that woman-led startups do not lag behind male ones in terms of profitability, efficiency, or financial management. However, she finds that women-led startups raise, on average, less capital than men.³³ There are similar findings on women's export opportunities and access to trade finance, including in Asia-Pacific (Reddy and Gopalan 2023, Di Caprio et al. 2017).³⁴

There is similar growing literature on women-led startups' participation in trade.³⁵ Some studies indicate that women-led startups are less likely to export than men-led firms, arguably due to more limited market information and export opportunities (Jennings and Brush, 2013), and because women's leadership may be questioned in some international settings (Minniti and Naudé, 2010).³⁶ However, women-led startups that do export tend to perform just as well as men-led startups (Korinek et al. 2023).

Challenges and constraints to women entrepreneurs' and startup's performance

While there are diverse findings regarding women's success as entrepreneurs and while findings may be quite specific to the context, recent studies, often applying rigorous econometric methodologies, do support the notion that women entrepreneurs perform just as well as men entrepreneurs – but also that women face higher hurdles than men to be able to work in, launch, and grow startups. For example, there are several studies that suggest women are not on an equal footing with men with respect to access to finance, networks, and technologies.

Women-led startups are found to face greater challenges than men-led startups in securing venture capital.³⁷ Women are also less likely to be approved for business loans and trade financing and, when they are, they often receive smaller amounts at higher interest rates compared to men-led firms (Alesina et al. 2013; Bellucci et al. 2010).³⁸ Women also tend to have lower initial funding, limited assets, and less favorable terms from financial institutions (Coleman and Robb 2009; Muravyev et al. 2009). Loan officers may see women entrepreneurs as higher risk and transpose societal expectations about women's role in business on women applicants (Marlow and McAdam 2013, Coleman and Robb 2009). Due to difficulties in accessing loans and venture financing, many women-led firms turn to their own funds, microfinancing, crowdfunding, and grants – but these sources do not typically offer sufficient funding to scale a business (Moss et al. 2015; Estrin and Mickiewicz 2011).

There are also opportunities. For example, several studies indicate that technologies can enable women to succeed. Several studies including in Asia-Pacific, have found that ecommerce and digital tools significantly enhance operational efficiency as well as the market reach of women entrepreneurs.³⁹ For example, Wiig et al (2022) study women-led firms in China, finding that

online learning and networking, among other digital tools, empower woman entrepreneurs to overcome traditional market barriers and expand their businesses.⁴⁰

Public policy to promote women entrepreneurs and women-led startups

What types of policy interventions then would work to support more women to become entrepreneurs and overcome many challenges, especially access to finance, and leverage solutions like technologies?

Policies within the startup ecosystems matter to women's success: ecosystems with more inclusive policies and role models have higher rates of successful woman-founded startups (Berger and Kuckertz 2016).⁴¹ Many economies have actively encouraged such inclusive ecosystems: Tran (2021) studied the impact of Viet Nam's governmental policies on women entrepreneurs, finding that women's entrepreneurship requires support through holistic approaches involving the government, nongovernmental organizations, and associations. The study also emphasized the importance of engaging women in policymaking related to policies on startups.⁴²

Investments in startup incubators tailored to women-led tech businesses, along with tax breaks and grants for woman-led startups, as well as networking opportunities for women have considerable impact on women startups.⁴³ Studies in the Asia-Pacific and beyond have shown that targeted economic policies and tailored initiatives can significantly boost the establishment and growth of women-led startups. For example, policies aimed at improving access to finance, offering international trade promotion services and training, and facilitating networking can mitigate some of the barriers that women face in the export sector (Korinek et al. 2023).⁴⁴

Good policies in general can also help women in startups. For example, equal employment has been found to support women's entry into entrepreneurship.⁴⁵ However, while many APEC economies have laws conducive to women in the economy, the reality on the ground can be quite different due to biases and challenges. Indeed, the effectiveness of policies often depends on the economy's commitment to implementation and resourcing.⁴⁶

In addition, support mechanisms tailored to overcoming the challenges faced by women can significantly influence their decision to start and sustain businesses. In turn, the effectiveness of these mechanisms crucially depends on thoughtful program design. A recent study from Australia finds that trade support should be better aligned with the needs of woman entrepreneurs, for example by providing increased support to better helping women to market their goods and services in international markets.⁴⁷ Ubfal (2024) finds that there is no one solution to promote women entrepreneurs; rather, contextualized sets of solutions that are appropriate to women's circumstances and economic conditions are needed.

These studies underscore the importance of targeted governmental policies in supporting women's entrepreneurship, particularly in sectors and activities where women have been historically underrepresented or facing systemic barriers. They provide insights for policymakers aiming to enhance the economic impact of woman entrepreneurs, demonstrating that well-structured policies can lead to substantial economic benefits and more inclusive economic growth. The findings are summarized in table 3.

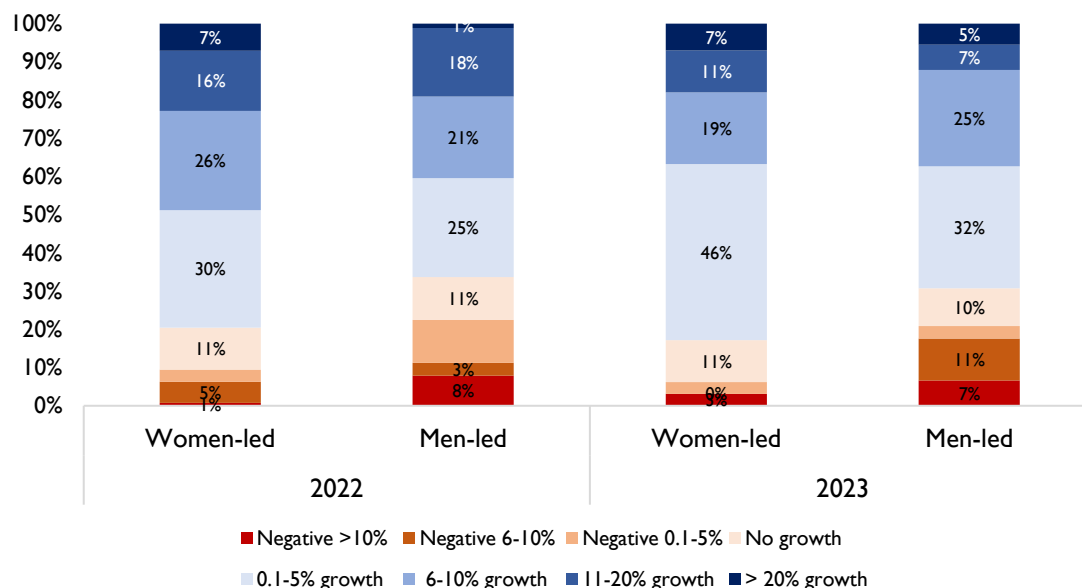
Table 3 – Major findings in academic literature on women in entrepreneurship

Main topics addressed		Key findings and challenges	Selected studies
Importance	Importance of women in startups	<ul style="list-style-type: none"> Startups with women executives outperform their counterparts in terms of innovation and revenue growth. Women-led startups have higher employee satisfaction, brand loyalty, and more sustainable business practices. 	Cardella et al. (2020) Post (2015) Khan (2024)
Entry and performance	Formation	<ul style="list-style-type: none"> Some studies have found a significant difference between men and women in intentions to start a business. However, more recent studies find that the relationship between gender equality and business growth intention is not statistically significant – rather, outcomes may be driven by other variables. For example, higher education significantly boosts entrepreneurial intentions and capabilities among women. As women-led firms face greater hurdles to entry, women may enter sectors where they perceive fewer challenges. 	Menzies et al. (2004) Berger and Maes et al. (2014)
	Performance	<ul style="list-style-type: none"> Early studies suggested women-led firms underperform, but more recent research and meta-analyses challenge this notion. Some studies indicate that women-led startups are less likely to export than men-led startups, but some survey-based studies also find that women-led startups that do export outperform men-led startups. 	Watson (2002)
Challenges	Challenges to access finance	<ul style="list-style-type: none"> Women-led startups raise, on average, less capital than men. Women-led startups face greater challenges than men-led startups in securing venture capital. Women-led firms that receive venture funding have significant growth. Women are less likely to be approved for trade financing and, when they are, they often receive smaller amounts at higher interest rates. Women have lower initial funding, low collateral, and less favorable terms from financial institutions. 	Alesina et al. (2013) Bellucci et al. (2010) DiCaprio et al. (2017) Malmström et al. (2020)
	Access to markets	<ul style="list-style-type: none"> Women may be discriminated against in international markets and business. Women-led firms face challenges accessing networks to internationalize. 	Korinek et al. (2023) World Bank (2022)

Opportunities and solutions	Technology	<ul style="list-style-type: none"> • Digital tools significantly enhance operational efficiency and market reach for women entrepreneurs • Ecommerce platforms empower woman entrepreneurs to overcome traditional market barriers 	Ubfal (2024) Tran (2021) World Bank (2022) Wiig (2022)
	Sex-neutral policies	<ul style="list-style-type: none"> • Tax incentives for small businesses • Supportive trade policies • Equal employment laws • Well-structured and consistently implemented programs are found to have a significant impact 	
	Sex-specific policies	<ul style="list-style-type: none"> • Investment in startup incubators that are specifically tailored to women-led tech businesses • Tax breaks and grants for woman-led startups • Tailored initiatives can significantly boost the establishment and growth of women-led startups • Export training programs and international trade fairs tailored for women entrepreneurs • Sets of solutions contextualized to women’s unique circumstances 	

b. Performance and challenges of women entrepreneurs: insights from data and interviews

Recent data by Nextrade Group for clients UPS and Visa covering over 6,000 firms in the APEC region, of which nearly 800 are startups, provides insight into women-led startups’ performance and challenges in the APEC region. The findings are quite positive. In particular, compared to their male counterparts, women-led startups have had stronger growth rates, with 83 percent of women-led startups reporting growth in 2023, as opposed to 69 percent of men-led startups (figure 9). Women- and men-led startups report similar technology adoption rates, with technology adoption appearing to accelerate especially among women-led firms over time (figure 10).

Figure 9 – Women- and men-led startups' revenue growth in APEC, 2022 and 2023

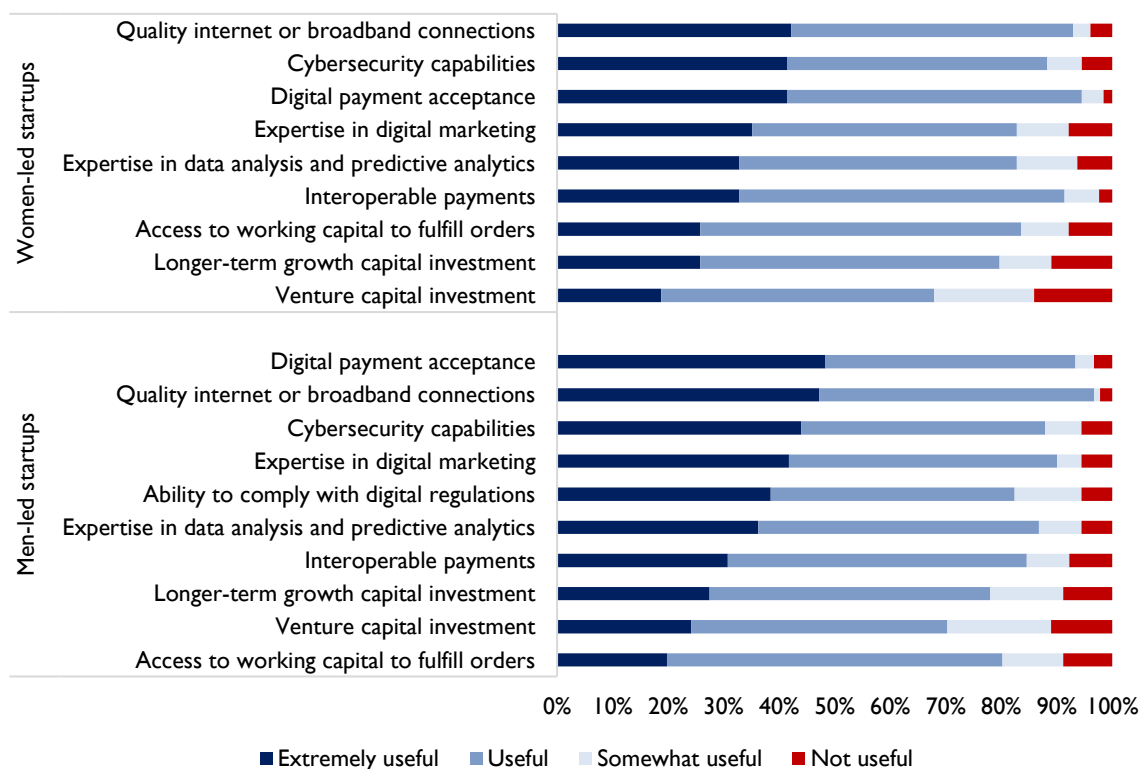
Source: Nextrade Group survey of 4,740 APEC region firms with Visa, 2023.

Figure 10 – Women- and men-led firms' use of various digital services, by firm age

		Social media	Digital invoicing	Global marketplace	CRM tools	Supplier relationship management system	Digital invoicing	ERP systems
Seed-stage startup	Women-led	40%	46%	32%	30%	26%	40%	40%
	Men-led	54%	46%	39%	29%	40%	46%	52%
Growth-stage startup	Women-led	81%	72%	59%	50%	58%	72%	74%
	Men-led	75%	73%	61%	53%	59%	73%	75%
Scaleup	Women-led	92%	88%	82%	78%	81%	88%	87%
	Men-led	92%	83%	75%	71%	74%	83%	81%
Mature	Women-led	88%	76%	77%	70%	74%	76%	80%
	Men-led	81%	68%	56%	58%	61%	68%	70%

Source: Nextrade Group survey of 4,699 APEC region firms with UPS, 2023.

Women- and men-led startups report similar rank-ordering of needs with the same intensities, including access to quality broadband, cybersecurity, and digital payment acceptance capabilities – which likely top the list as these are shared challenges shared by many firms regardless of their sector (figure 11).

Figure 11 – Needs of women- and men-led startups in the APEC region

Source: Nextrade Group survey with 4,740 APEC region firms with Visa, 2023.

These similarities among women- and men-led firms are echoed in multiple Nextrade Group surveys, where differences that exist are not necessarily statistically significant; typically, the significant differences in performance and needs are driven by firm age and size rather than by the sex of founders or CEOs.

However, in terms of access to finance, Crunchbase data indicates that there may be some differences between men and women. The data indicates that startup funding for women-led startups formed in 2020-23 in the APEC region is on average about one-half of the funding received by men-led firms, for firms with available data on the latest funding round. Men-led startups formed in 2020-23 have raised, on average, USD\$4.8 million, with median financing of USD\$500,000, while women-led startups formed in the same years had raised USD\$2.1 million, with median financing at USD\$250,000.⁴⁸ However, in the Crunchbase database, a larger share of women-led startups have raised funding compared to men-led startups.

To further deepen on the performance, challenges, and success-drivers of women in entrepreneurship, this study carried out interviews during the months of June-August 2024 with 21 startup associations, startups, startup investors, and APEC region government officials across 10 APEC economies (table 4) [note: further interviews pending in Mexico: Korea: and Australia]. In particular, the interviews discussed the following:

- **Startups associations.** The interviews gauged associations' views on the state and challenges of women entrepreneurs in startups as well as on programs and interventions that have been successful or could be developed to promote women's entrepreneurship.

- **Startup founders.** The interviews targeted mostly women startup founders across the APEC region, to deepen on their perceived success drivers, challenges, and ideas to promote women's entrepreneurship.
- **Investors.** The interviews with investors focused on angel investors (early-stage investors, often individuals, in a company) and venture capital investors (somewhat later-stage investors in a growing startup), most of them women and investing specifically in women-led startups, and focused on available opportunities to invest in women-led firms; lessons learned in investing in women-led startups; replicability of different funding mechanisms across APEC economies; and recommendations on best practices to unlock financing for women.
- **Government officials.** The interviews focused on government officials in relevant agencies in the APEC region and sought to learn officials' views on women's entrepreneurship and in particular about perceived good policies and practices, and further needs for policy reforms.

Interview questions are included in Appendix II.

The interviews sought to capture policy challenges and solutions in four phases of promoting women-led startups: (1) ensuring more women are able to become entrepreneurs; (2) helping women in their early stages of their startups; (3) enabling women-led startups to grow into mature companies; and (4) helping women-led firms exit, such as to find a strategic investor. The policy challenges could be thought of as a funnel – how to widen the funnel for more women to enter and establish a startup, and how to ensure that a larger set of women-led startups grow and get through to a successful exit.

These interviews yielded seven key challenges and several solutions to them, echoing the literature reviews.

1. Access to finance

Access to finance is a significant challenge for women entrepreneurs in the APEC region. Many women-led startups struggle to secure the funding that they need to launch and grow their businesses due to structural barriers, sex-based biases, and limited access to financial networks.

The interviews highlighted significant challenges for startups to access loans. Banks are reluctant to extend loans to businesses with scant collateral, and in general startups do not have collateral. In some APEC economies, high interest rates also limit access to finance. These gaps have, however, to an extent, been bridged by crowdfunding approaches. In addition, many APEC economies have established dedicated public funds to support women-led businesses, offering grants, tax incentives, and matching funds. For example, an interviewed startup in California highlighted access to local government grant fundings as essential for her to build the initial elements in her business and hire a developer (case 2). An entrepreneur in Indonesia similarly pointed to government grants as helping women-led firms get started. A startup founder in Singapore highlighted access to grants from Enterprise Singapore as key to fueling her company's internationalization.

Case 2 – Pairanything gets on the way with California grants

Pairanything is a California-based startup that has emerged as a force in the food and beverage industry. The company was founded by women founder and CEO Christy Serrato in 2019. It leverages advanced AI and machine learning technologies to provide personalized pairing recommendations that enhance a person's dining experience. The company's innovative approach and dedication to customer satisfaction has positioned itself as a leader in the culinary tech space.

Traditional pairing recommendations often rely on general, obscure guidelines, and personal preferences. They lack the precision, customization, and latest trends desired by modern consumers. Pairanything was created to fill this void by using AI to analyze a wide range of variables, including individual taste preferences, dietary restrictions, and the chemical composition of foods and beverages to give the best pairing recommendation.⁴⁹

As an AI-driven platform, Pairanything offers a variety of services for consumers and businesses. Some of these services include:

- Consumer app: A user-friendly mobile app that provides personalized pairing recommendations based on user input and AI analysis.
- Restaurant solutions: Tailored pairing suggestions for restaurant menus, enhancing the dining experience and boosting customer satisfaction,
- Retail partnerships: Collaboration with grocery stores and beverage retailers to offer pairing suggestions at the point of purchase.
- Event services: customized pairing recommendations for events, from intimate gatherings to large-scale functions.

Pairanything's success lies in its AI-driven platform. This platform utilizes a vast database of food and beverage profiles, incorporating factors such as flavor compounds, nutritional content, and user preferences. By continuously learning and adapting, the AI engine delivers increasingly accurate and personalized pairing suggestions.⁵⁰

Pairanything's expertise is rooted in the wine industry. Consumers are able to access wine pairing software using a QR code on products. In the Fall of 2023, Pairanything received a USD\$100,000 investment from Techstars of Boulder, Colorado, through Rising Stars, a pre-seed fund that provides promising underrepresented founders with access to capital at the start of their startup journey.⁵¹ As of 2024, Pairanything has reached 12,700 end-users and completed over 4,200 food and wine pairings. It has collaborated with over 225 enterprises and been operational in 49 states across the US.⁵²

Christy Serrato created Pairanything due to her personal desire to pair wine with Filipino cuisine, which led to her realization that the wine industry needed to engage with more culturally diverse consumers. For her, grants from local governments in California were essential to start her business and access developers; subsequent investments from Techstars have helped her go to market.

Pairanything plans to expand to new markets and explore further AI-driven applications. The company is researching potential partnerships with international food and beverage brands and exploring opportunities in the health and wellness sector.

As startups grow and seek venture capital, interviews discussed observing significant sex-based inequalities. The cited reasons centered on the fact that the venture capital industry is male-dominated and in general, lacks appreciation for women as founders and exhibits limited recognition for industries where women-led firms are prevalent such as consumer products, wellness, and women's health. In response to women's challenges to access venture financing, numerous funding groups, in the United States in particular, have emerged often led by women,

which invest exclusively on women-led startups. Some prominent ones include Astia, Plum Alley, and SoGal Ventures.

To be sure, there have been some positive changes in the APEC region – for example, in some economies like Chile, interviewees reported experiencing no inequalities and found that sex is irrelevant in raising capital. Some interviewees also noted the importance of using technologies such as AI to estimate a company’s odds to succeed and thereby reduce social biases in investors’ decision-making. For example, a large global fund called Astia, based in Silicon Valley, employs a process called the “Expert Sift,” which uses technology and a community of experts to eliminate bias in the investment process (case 3).

Several interviews highlighted the role of investor syndication in driving financing to women-led firms. In this model, multiple investors, especially investors that are interested in investing in women-led startups and are led by an anchor investor, pool their resources, distributing risk and making it easier for women-led ventures to secure larger investments per round and access a broader network of financial backers and advisors. Syndicates like OSEA Angel Investors in Southern California also drive women toward investing, by systemically encouraging women to become investors and coaching women investors on ways to evaluate investment opportunities. Some APEC governments, most prominently Canada and Australia, have made significant efforts to crowd in funding for women-led firms by co-funding women-led startups and creating syndicates, or groups of multiple smaller investors.

There is also a need in the advanced APEC markets such as the United States that already have various funding windows available, to educate nascent women entrepreneurs about various financing options available for them at their stage of development and help them navigate the different options available.

In addition, feedback is particularly useful for women-led startups seeking capital; for example, Astia provides feedback to all companies that go through its investment process, which helps entrepreneurs improve and refine their business strategies, even if they are not selected for investment initially.

Case 3 – Astia funding women-led tech companies

Astia is a venture capital firm that was founded more than twenty years ago in San Francisco and today is a global organization that invests, advises, and partners to level the investment playing field. Astia focuses on investing in firms with at least one woman in a position of significant equality anywhere in the world. Between 2013 and 2023, Astia invested USD\$33 million into 62 companies, with 13 exits returning capital.

Astia has operated with intentionality and transparency as it seeks to address and mitigate some of the systemic barriers found within the venture capital ecosystem that historically have limited venture capital investments in women entrepreneurs from securing funding. A major barrier is that venture capital has relied heavily on networks and relationships that are often controlled by men.

Astia has implemented several strategies to address these barriers. Their “Expert Sift” process through which they review applications and decide on which companies to invest in is designed to eliminate bias from investment decisions, starting with an easily accessible online application for funding. Rather than relying on the networking and relationships to find and secure investment opportunities – activities which disproportionately benefit men – Astia requires all potential investees to apply through an online application.

Each application that is submitted is reviewed, and in the early stages, Astia also ensures to ask the same questions to each applicant, to remove any subjectivity and bias and ensure everyone starts on a more even playing field. Astia brings in their global network of expert advisors to review the successful applications, choosing advisors based on the sector of the company and expertise of the advisors. After the advisor review, the final phase of the process is the investor screening, which can include showcasing companies to other investors.

By using a diverse community of advisors and “wisdom of the crowd”-techniques and leveraging their online platform to ensure an equal review of every company that applies, Astia’s investment process prevents groupthink and subjective decision-making, which often disadvantages underrepresented founders. Additionally, Astia’s process to review each application and provide detailed feedback to all applicants, whether or not they secure funding, helps businesses refine their strategies and pitches and increase their chances of securing funding in the future. Astia’s advisors can also choose to connect with companies that they have reviewed, further strengthening the ecosystem.

Astia understands the bias and barriers historically found in the venture capital system and operates with intentionality and constructive reflection to overcome these barriers. The firm also considers issues of intersectionality to ensure promotion of diversity within their portfolio. For example, in 2018, the firm reflected on the lack of racial diversity within their portfolio, and through efforts including targeted investments and increased advocacy for companies led by women of color, Astia has improved its diversity metrics significantly.

2. Peer networking and mastermind groups

All women interviewed for the study saw access to peer groups as especially important for women startup leaders to share experiences, gain insights, and access resources. In many APEC economies, there are informal women peer groups that are organized by one key investor or startup leader that often communicate on WhatsApp and periodically get together to discuss challenges and share tips and contacts (case 4).

In some economies like the United States, banks and various associations organize peer networking that the interviewed entrepreneurs find energizing. Also, many associations and organizations in the APEC region systematically encourage networking among women founders (Appendix II table 1). For example, the Chicago-based Women Entrepreneurs Grow Global (WEGG) uses a cohort model to create small, intimate groups where women can engage in WEGG-facilitated monthly mastermind groups to share ideas and tips about growing and internationalizing their businesses. However, in some APEC economies such as Thailand and Indonesia, the interviewed individuals saw a gap in peer networking for women and voiced support for it in their economies.

The interviewed funders and leaders agreed that APEC governments that want to support women-led startups should support existing, well-working peer network groups, rather than building new government-led programs from scratch. The Singapore government has done exactly this, collaborating with organizations such as the Singapore Council of Women’s Organization (SCWO), the Women in Sustainability & Environment (WISE), and the Women Entrepreneurship Committee (WEC) to promote women entrepreneurs. These collaborations aim to empower women through networking, mentoring, and increased visibility in leadership roles.

Case 4 – Peer networking via AVV in Viet Nam

Ascend Viet Nam Ventures (AVV) is a prominent early-stage venture capital firm based in Ho Chi Minh City, Viet Nam. Founded by Binh Tran and Eddie Thai and with a women partner Hau Ly, AVV aims to empower and invest in tech entrepreneurs in Viet Nam and beyond to positively transform the lives of people all around the world.⁵³ Before starting the venture capital firm, the founders launched the Viet Nam-focused fund of Silicon Valley-based early-stage investor 500 Startups. Their experiences validated their hypotheses and thoughts about startup and venture capital (VC) opportunities in Viet Nam and decided to launch AVV in 2020.⁵⁴ AVV was launched to address the growing need for early-stage investment and strategic support tailored to the unique challenges and opportunities that firms experience in Viet Nam specifically.

AVV typically invests between USD\$500,000-\$2 million in startups from the idea stage to pre-product market fit. Their focus sectors include fintech, edtech, blockchain, SaaS, and the future of work. Smaller strategic investments allow AVV to support startups through their critical early stages, providing capital and hands-on guidance and resources to help them scale. The strategy is meant to help foster long-term partnerships and drive sustainable growth for these startups.

Since its founding, AVV has created a robust portfolio that includes successful startups like Axie, Infinity, ELSA, and Trusting Social. These companies have attracted global investors like Sequoia, Founders Fund, and more.⁵⁵ AVV has invested in a few promising startups including:

- *Virtual Internships*: A platform for remote internship placements and management for companies in over 70 economies.⁵⁶
- *T&C Logistics*: An e-commerce fulfillment platform starting in Viet Nam⁵⁷
- *Mandu*: A social commerce platform focused on reseller enablement.⁵⁸
- *Mfast*: A digital agent banking network that aims to democratize financial access to the underserved in rural areas of Viet Nam.⁵⁹
- *Copper Cow Coffee*: A brand of single-use portable Vietnamese-style pour-over coffee⁶⁰

AVV has a commitment to empowering women in tech. Indeed, supported by a grant from the Australian Department of Foreign Affairs and Trade’s “Investing in Women” initiative, Hau Ly has developed a program called Shine that focuses on providing technical assistance, mentorship, and community support tailored specifically for women-led startups. The program emphasizes the importance of sustained mentorship, where mentors build long-term relationships with entrepreneurs, offering continuous guidance and support. This approach contrasts with typical short-term mentorship arrangements and allows for a deeper, more impactful experience.

Shine is also a community of women entrepreneurs who support one another, both personally and professionally, creating a network that is particularly crucial in the male-dominated tech industry. The program also offers tailored support, focusing on the incubation of early-stage businesses rather than acceleration, and includes specialized programs such as bootcamps on preparing for business exits. This practical support extends to educating participants on various financing options, helping them navigate the broader financial landscape beyond just venture capital. Shine has successfully supported over 60 women entrepreneurs across Viet Nam.

3. Mentorship about building a startup and growing as a leader

While the ranks of women entrepreneurs are expanding globally, women in any APEC economies still lack role models and awareness as well as contacts with peer woman entrepreneurs. This networking also shapes women’s interest in engaging in entrepreneurship.

Across the interviews, mentorship was identified as crucial for many woman entrepreneurs, as mentors can offer guidance, support, and essential connections. Ideally accomplished

entrepreneurs themselves, mentors guide women entrepreneurs through the complexities of building and scaling a business.

There are formal mentorship organizations in the APEC region. For example, Springboard, which started in the U.S. in the 1980s has focused on supporting and mentoring women entrepreneurs in the tech sector where social biases are particularly pronounced. It provides long-term, continuous support by pairing women entrepreneurs with mentors who have local and international expertise. In many economies, mentorship programs are also integrated into tech centers and innovation hubs, providing women entrepreneurs with access to seasoned industry professionals and potential investors. In New Zealand, interviewees highlighted organizations such as the Ministry of Awesome and Archangels, which supports woman entrepreneurs through structured mentorship programs. In Russia, the Zerno VC has a special focus on supporting women-led projects (case 5).

Case 5 – Venture capital and startup promotion in Russia

Despite the overall decline in venture capital investment in Russia, projects led by women have proven to be more resilient. In general, the number of deals with woman startups in Russian venture capital market has increased by 14 percent in 2023. By the end of the year, \$9 million has been invested in women-led projects. The most popular sectors for these projects are education technology (EdTech) and retail, accounting for 31 percent and 15 percent of all deals, respectively. The average investment in a project led by a woman from the top five deals is \$1.5 million, while the average investment in an entirely woman-owned startup from the same group is USD\$200,000.

Zerno VC is Russia's first impact fund for startups, with a special focus on supporting women-led projects. The fund sustains a portfolio of venture projects, at least half of which are led by women. The fund supports projects with a significant social and environmental impact, while also being attractive to investors financially. Based on their own methodology and impact assessment results, the fund and the startups involved are preparing an individual impact monitoring system and an impact report.

Women-led startups in Russia also benefit from the Skolkovo Fund, which provides partial reimbursement of costs to individuals who invest in participants of the Skolkovo project, a business and innovation campus. The maximum amount that an investor can receive is 50 percent of their investment. The maximum compensation for one investor for investing in one project is up to \$200,000. Companies that become residents are exempt from income tax and pay reduced contributions to the Pension Fund and Social Insurance Fund of Russia. The contribution rate for residents is 15 percent compared to the regular rate of 30 percent. Resident companies also do not pay property taxes.

The Skolkovo ecosystem provides project participants with a range of tools to support their technological entrepreneurship and research efforts, including programs that provide comprehensive support for projects, from idea to market launch; micro grants, which are available to Skolkovo participants to help them solve specific challenges within their research activities and product commercialization, up to a maximum of \$41,000 per calendar year; access to a unique R&D platform for finding experts to assist with reengineering, prototyping, industrial design, testing, and biomedical research; and customs clearance services using remote release technology and assistance with import customs duties and value-added taxes.

Mentorship needs to be tailored to a woman leader's stage and needs. Women startup leaders interviewed for this study indicated that they would not need a mentor to help them in their businesses, but they did perceive a need for mentorship among women who were still uncertain about entrepreneurship and were in early stages of their startup journeys. For this segment, mentorship programs build confidence and resilience, empowering women entrepreneurs to succeed in male-dominated industries. As women advance as startup leaders, a different type

of mentor may be needed: for example, many interviewees expressed interest in gaining broader leadership opportunities in chambers of commerce and securing advice from prominent women leaders, such as heads of large multinational companies.

4. Women in tech and as cofounders

Women interviewed for this study indicated challenges in identifying co-founders, especially women co-founders; the challenge intensifies in technology fields that are still dominated by men. On average, globally, 22 percent of computer science graduates are women; the Philippines has the highest share at 40 percent and Japan the lowest at 18 percent.⁶¹ Per the APEC Women and the Economy Dashboard, on average, women make up fewer than 35 percent of graduates in STEM fields on average across APEC economies.⁶² Women founders interviewed for this study indicated that it was entirely possible to find good male co-founders, but that it may be faster and easier to partner with a woman co-founder, if only there were more of them, especially with technology backgrounds (case 6).

Encouraging more women to enter and succeed in technology fields will require systemic changes in schools and workplaces. Some solutions in the APEC region include Korea's Women in Science, Engineering, and Technology (WISET) Program that aims to increase the participation of women in science and technology by offering scholarships, mentorship, and career development programs; Australia's Boosting Women in STEM Scholarships provides undergraduate and postgraduate scholarships to women in science, technology, engineering and mathematics; and Singapore's Girls in Tech educates women in technology fields through workshops, hackathons, and mentorship programs (Appendix II table 1).

Case 6 – SPUN to revolutionize global permit and visa creation

SPUN (www.spun.global) is a women-owned early-stage startup based in Jakarta, Indonesia that is committed to modernizing the global permit and visa creation process. Founded in January 2024 by Christa & Dilla, and backed by Antler Indonesia, SPUN aims to simplify the complex and often daunting process of obtaining permits and visas for businesses and individuals.⁶³

Obtaining permits and visas is a challenging process, filled with bureaucratic hurdles, lengthy waiting times, and intricate legal requirements. For businesses expanding internationally and individuals seeking travel, or possible residency abroad, these challenges can lead to significant delays and financial losses. In Indonesia, where the regulatory environment is particularly strict and the passport is also in the lower ranks, the need for an efficient and reliable solution is critical.

SPUN offers a comprehensive suite of services designed to streamline the permit and visa application process. Their platform integrates advanced technology with human assistance to ensure recency, accuracy, efficiency, and compliance. SPUN has services such as a self-serve commerce platform, personalized consultation, visa & permits processing dashboard corporate services, document preparation with real-time review, application tracking, and a global network to coordinate across different jurisdictions. SPUN also has an AI-powered assistant to help with verification and executing permit needs.⁶⁴

Clients can create an account on SPUN's online commerce platform, where they are asked to provide essential information and upload required documents. SPUN's technology then conducts a thorough review and offers eligible visa options. The platform's real-time tracking feature keeps clients informed throughout the process, providing further transparency. Moreover, SPUN has invested heavily in its customer support team, ensuring that clients have access to expert assistance whenever needed. Its combination of technology and personalized service sets SPUN apart in the industry.

Since its platform launch in March 2024, SPUN has supported over 15 visa and permit types, helping 198 economies to create visas and permits to Indonesia, and over 77 destination economies from Indonesia.⁶⁵ SPUN also showcases happy customer testimonials from all different visa types and services offered.

Mba Christa highlights that one of the main challenges for the company in promoting women's entrepreneurship is assembling the right team and fostering a culture of finding ways to innovate every single day. This involves going the extra mile to assist customers in the most effective ways while continuously challenging the status quo. Additionally, she notes that women often have a tendency towards perfectionism and that may hinder their progress especially from the fundraising standpoint.

SPUN's success is a significant example of women's entrepreneurship in Indonesia. The startup's leadership includes strong women representation, with women holding key positions in its founding team. In the future, SPUN aims to expand its services to cover more economies in Southeast Asia, diversify its offerings to include citizenship applications and B2B SAAS travel companies and government in immigration verification solutions.

5. Entrepreneurship education

Across the APEC region, fewer women than men enter into entrepreneurship. This, based on interviews, is partly because of women's perception, formed in early age, that entrepreneurship and leadership are not for women.

Many interviewees underscored the need to integrate entrepreneurship education into school curriculums, including for young students, as a means to introduce young women as well as men to entrepreneurship and to demystify the process of starting a business, which is often a more exploratory and nonlinear journey than a typical learning experience. Entrepreneurship programs can also teach young women about networking, collaboration, and teamwork that women are often less accustomed to than men, which often lead them to pursue startups alone. In addition, entrepreneurship education can encourage young women to see starting a business as a means to have impact, something the interviewees highlighted as being important to women.

A number of interviewees also discussed as critical for their careers the space afforded by their experiences in all-girls schools for them to repeatedly practice leadership skills from early on and to work closely together with other women (case 7). In this regard, entrepreneurship programs in co-ed school environments should more consciously encourage women's leadership.

Case 7 – Accredify to promote digital credentialing solutions

Accredify is a tech company founded in Singapore in 2019 that specializes in innovative digital credentialing solutions. The company's main mission is to transform the issuance and verification of documents through blockchain technology.⁶⁶ Accredify's solutions are especially relevant in a world that increasingly demands secure, verifiable, and easily accessible digital records. The company was founded by Quah Zheng Wei and his co-founders with a vision to address the inefficiencies and vulnerabilities in traditional document verification processes. The founders recognized the challenges with paper-based credentials, such as the risks of forgery, loss, and the cumbersome verification process. Their goal was to create a solution that would streamline these processes while enhancing security and trust.

Accredify operates on a Software-as-a-Service (SaaS) model, providing institutions a platform to issue tamper-proof digital credentials. These credentials are stored on the blockchain, ensuring they remain immutable and authentic.⁶⁷ The company provides various products tailored to different sectors including education, healthcare, and corporate businesses.

In the education sector, Accredify allows educational institutions to issue digital diplomas, transcripts, and certificates. These credentials can be instantly verified by employers or other educational institutions, reducing the time and effort typically associated with manual verification.

In the healthcare sector, Accredify provides a solution for issuing and verifying medical documents such as vaccination certificates and test results. This was particularly relevant during the COVID-19 pandemic, where the company played a critical role in managing and verifying health records.⁶⁸

Accredify also offers solutions for the corporate sector, where companies can issue and verify employment records, compliance certifications, and other important documents.

The company has partnered with numerous prestigious institutions in Singapore and beyond, such as top universities, healthcare providers, and government agencies, including to internationalize the business. During the COVID-19 pandemic, Accredify's technology became essential in the safe and efficient management of health credentials, which significantly raised its profile.

According to Accredify's woman COO Tan Jing Yi, Singapore has a history of positive government support in the startup ecosystem with grants, programs, and accessible resources for startups. One of the key challenges was navigating uncharted paths. As a startup with a breakthrough solution like Accredify, it is difficult to make decisions without establishing best practices or tested methods for success. Another challenge is social biases in entrepreneurship. While Tan Jing Yi noted she has not personally been affected by any discrimination, she acknowledged that this is not a universal experience for all women entrepreneurs. Her background in all-girls school and her family's encouragement from early on helped her grow with the mindset that women can do anything and to expect to be treated equally with men, and have been key for her to build a thriving career in a male-dominated tech sector.

In addition, schools can invite successful women entrepreneurs to discuss their experiences and open the eyes of both young women and men about women as leaders in societies and startups (case 8). This exposure can also help normalize the idea of women in leadership positions and in technological fields and encourage more young women to see themselves as future business leaders.

Case 8 – HULA driving sustainable fashion

Sarah Fung worked for luxury store Lane Crawford in Hong Kong, China, for almost ten years before starting the sustainable online fashion retail store HULA. The HULA marketplace provides pre-owned designer women's clothing and accessories from luxury brands like Chanel, Balenciaga, Phillip Lim, Dior, Gucci, and Louis Vuitton, among many others – at discounted prices of up to 95 percent off retail.⁶⁹

Sarah started her business after seeing waste in the fashion business.⁷⁰ She initially raised HK\$2 million from her husband and supplemented it with an additional HK\$1.4 million from her own savings. She also had to borrow HK\$200,000 from her sister for warehouse deposits and renovation. To change the mentality on second-hand clothes, she worked to build a community in her walk-in space and all along benefited from international brands calling for sustainability.

For sellers on the two-sides marketplaces, HULA enables women to monetize their wardrobe and promote circularity. Buyers are able to refresh their wardrobes at low cost.

In her journey motivated by reducing waste in fashion, Sarah has come to grow her leadership skills and promote a productive workspace. Like any other women, she believes the business could have grown faster had it been even more technology-driven with a tech founder.

6. Promoting women in business and society

Many interviewees highlighted the importance of women in leadership roles in societies as helping to promote women's entrepreneurship. For example, interviewees in Chile noted that the rise of women to prominent positions has been essential to promoting women's entrepreneurship and awareness that women can run economies and companies. Women's leadership also socializes men to seeing women as leaders, helping to break down biases and opening doors for women to be considered seriously for leadership roles. Senior leaders have become role models, inspiring young women to pursue leadership roles, including in entrepreneurship.

In the same vein, many interviews emphasized that equal opportunity laws, such as equal access to credit and access to maternity leave, are essential for creating a safe environment for women in the workforce, including in startups. In the APEC region, data from the APEC Women and the Economy Dashboard 2023 shows that only 9 out of the 21 member economies have laws prohibiting discrimination in credit access based on sex, while 14 economies provide at least 14 weeks of paid maternity leave.

7. Using technology to bridge inequalities between men and women

Some interviews also noted that AI and other technologies can significantly benefit women entrepreneurs by enhancing their business operations, improving efficiency, and opening up new opportunities for growth and innovation. For example, AI-powered tools can automate routine tasks such as inventory management, customer service, and data analysis, freeing up time for women entrepreneurs to focus on strategic decision-making and business development and promote scaling without new investments.

Real-world applications of AI can also enhance the marketing and sales efforts of women-led businesses. AI-driven analytics can provide valuable insights into customer behavior, enabling entrepreneurs to tailor their marketing strategies to target specific audiences more effectively. Personalized marketing campaigns powered by AI can lead to higher conversion rates and improved customer satisfaction, boosting sales revenues for women entrepreneurs. For example, while Xingzhan TV did not start its journey using AI, the company was able to adapt and integrate technology into their business ventures (case 9). E-commerce platforms powered by AI can help women entrepreneurs expand their reach beyond local markets, allowing them to tap into regional and global customer bases. By leveraging technology to overcome geographical barriers, women entrepreneurs can increase their competitiveness and access new revenue streams.

Case 9 – Xingzhan TV in China

Xingzhan TV (Star Station TV) is a leading platform in the Chinese digital media environment. Zhu Feng is the founder of the innovative tech startup in China, Xingzhan TV.⁷¹ Zhu became a visionary entrepreneur with a passion for innovation and media. She began as a talented football commentator after producing *Julie's Football Show* in 2014. The show became popular on the internet, reaching a click rate of over 4.7 billion on Youku, a Chinese video hosting service that allows users to upload, share, and view videos. During her football show, Zhu explained tactical analysis of football that gained recognition from a famous football commentator. She was invited to become a co-host. Over the next months, Zhu continued to produce her program on Youku, Sohu, and Iqiyi, popular video websites, and created her studio to transform the way content is created and consumed in China. Xingzhan TV has grown from a micro digital studio with goals to become similar to American video producer, Maker Studio.

Xingzhan TV has grown to a dozen employees and obtained twenty-three video shows with topics like film, finance, fashion, and sports. The original football show remains one of the most popular. Altogether, Xingzhan TV has attracted more than 1.2 billion views.⁷² “” To date, Xingzhan TV has secured over USD \$1.4 million in investments.⁷³

In 2016, Zhu's co-founder, Heng Cai, conducted an interview with University of Southern California (USC) Annenberg Clinical Assistant Professor, David Craig and graduate student Junyi Lv, where he went into depth about Xingzhan TV and the digital media landscape in China. In the interview, he describes Xingzhan TV as a “social media entertainment management firm that partners with advertisers and creators to produce and distribute content across multiple platforms.”⁷⁴ Heng Cai considers the company more as an advertisement company because they partner with brands to promote their products and services online, but instead of making commercials, Xingzhan TV produces short-form videos in multiple formats, like short documentaries, sitcoms, talk shows, and animations, that feature these brands across multiple platforms.

Over the years, Xingzhan TV has constantly integrated new, innovative, and interactive features into its programs like real-time feedback, live voting, and social media integration, which has created a unique viewing experience for viewers. Investors have seen this as a major growth opportunity in the entertainment industry. While Xingzhan TV's first vertical started with sports commentary, they have grown to include many more and are seeking verticals around topics that are not overly exposed and where there is a gap in the marketplace. While creating viral content is a challenge, Xingzhan TV continues to produce content and upload across platforms to have higher odds of success.

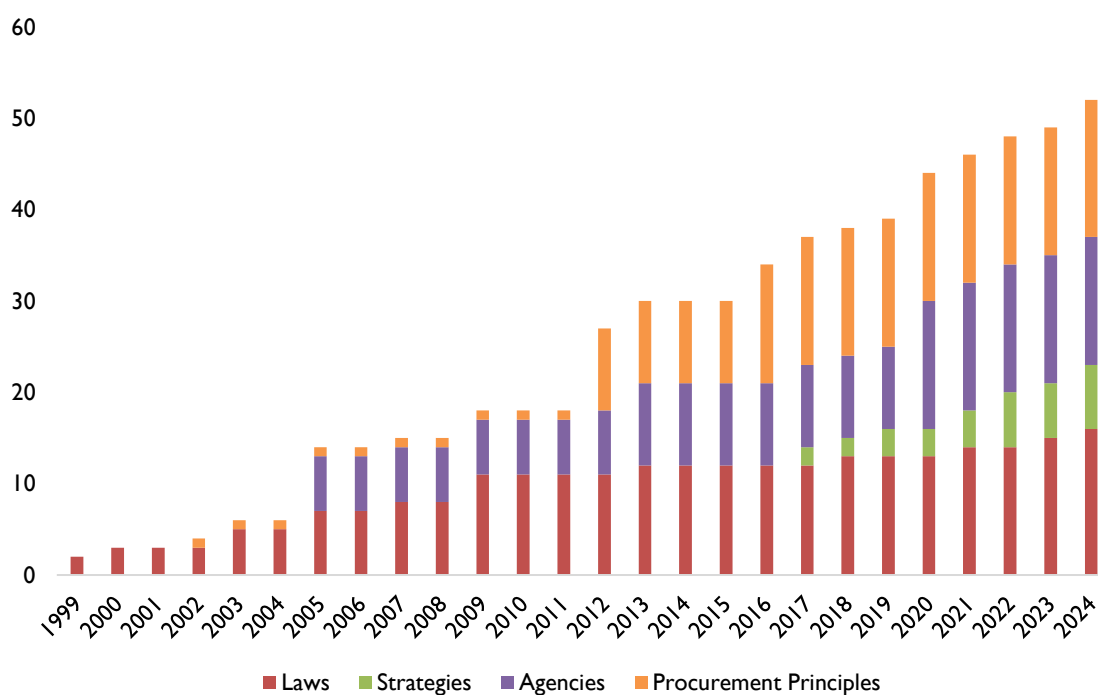
III. Policy solutions to enable women entrepreneurs and women-led startups in APEC economies: laws, bills, programs and initiatives in the past five years

The previous section highlighted a number of challenges faced by women entrepreneurs in the APEC region, such as access to capital and peer networks. This section analyzes how the challenges facing women entrepreneurs are being addressed through policy interventions and government-led programs across APEC economies and discusses initiatives that could be replicated more broadly across the region.

Laws, agencies and programs to support women

The methodology consists of a comprehensive mapping of domestic policy and programmatic interventions that have been targeted at and/or may have affected women entrepreneurs and women-led startups. The various mapped interventions consist of laws to promote women in the workplace and as entrepreneurs; strategies aimed at promoting women entrepreneurship; government agencies that support women, including programs and initiatives such as financing, training, and trade missions aimed at supporting women entrepreneurs; and government procurement principles that favor women-led firms.⁷⁵ Also mapped are laws that protect equal access to credit and maternity leave, support programs, and government contracting opportunities.

Figure 12 – Adoptions of laws, agencies and strategies to enable women entrepreneurs across APEC in the past 25 years, by type and year (cumulative, not including women entrepreneurship support programs)



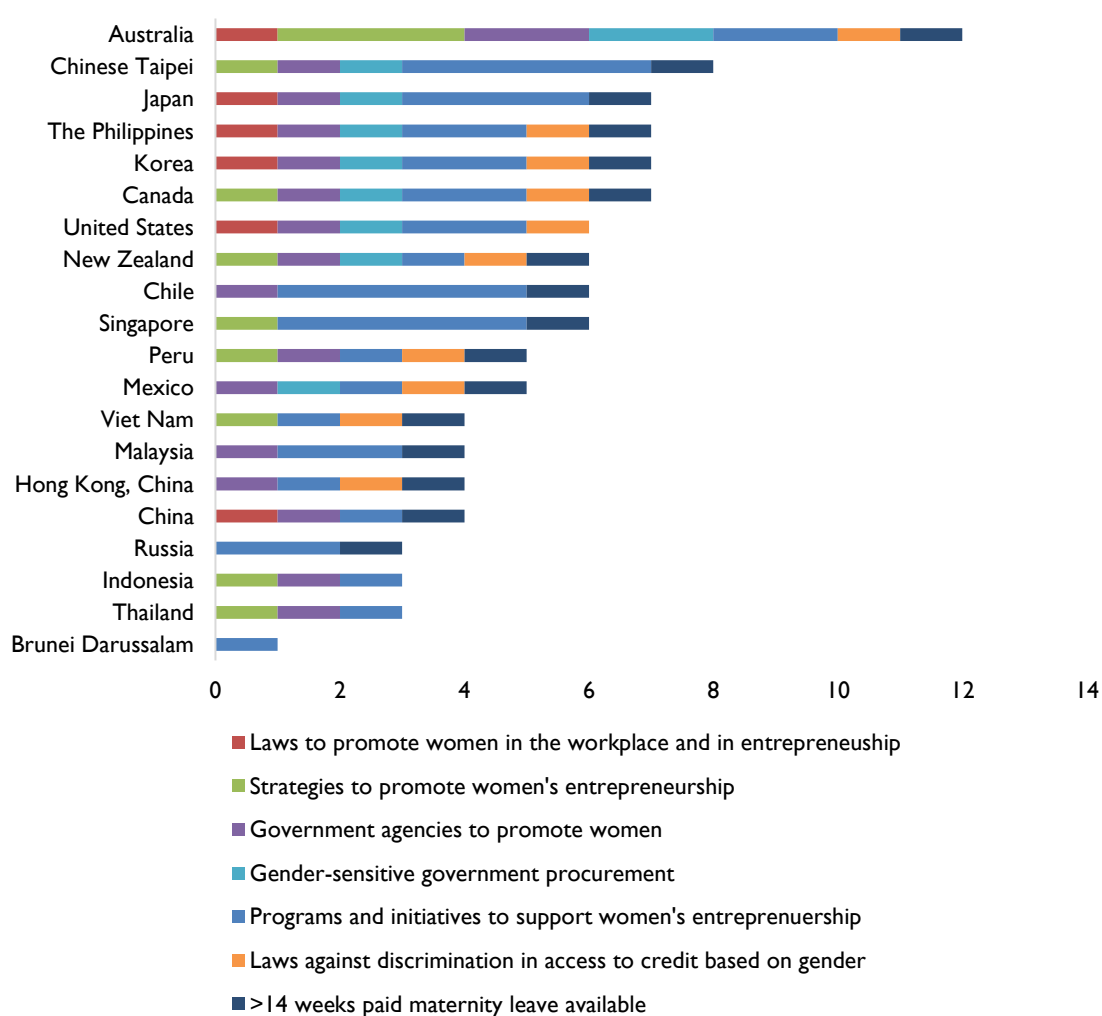
Source: Economy sources.

The information was catalogued in a qualitative format on excel, and subsequently converted into a quantitative score that enables a fast review of the number of laws, strategies, and

initiatives affecting women in entrepreneurship and women-led startups across APEC economies.

The data indicate that there have been altogether 94 measures to promote women in the workplace and women-led startups in the APEC region in the past 25 years. Around 35 percent are government programs and initiatives such as financing or training programs, while 10 percent are strategies to support women's entrepreneurship, and 5 percent are laws that promote women in the workplace and as entrepreneurs (figure 12). The adoption of instruments for which there is a specific year has grown steadily over the years, including in Australia; The Philippines; Korea; Canada; and the United States.

Figure 13 – Adoption of policies, laws, programs and approaches to enable women entrepreneurs in the past 15 years, by type and APEC economy



Source: Economy sources.

There are six further findings. First, APEC region economies have passed a number of laws in support of women's entrepreneurship (figures 12 and 13, table 4). These include Korea's Act on Support for Female-Owned Businesses (case 10) and China's Law on the Protection of Women's Rights and Interests (case 11).

Table 4 – Laws, policies, and strategies to enable women entrepreneurs in the past 15 years, by APEC economy

Law or strategy	APEC Member Economy	Year	Description
Women's Economic Equality Taskforce	Australia	Not specified	Established to provide advice to the Australian Government to support the advancement of women's economic equality and achieve equality between men and women.
South Australian Women's Leadership and Economic Security Strategy	Australia	Not specified	Focuses on empowering women and girls to fully participate in the economy, start and grow businesses, and engage in employment without discrimination or barriers.
Australia-UK Free Trade Agreement	Australia	2023	Australia's first FTA to feature a dedicated chapter on equality between men and women that provides for cooperation to promote women-led businesses accessing markets, technology, financial services, and business and leadership networks.
Working for Women: A Strategy for Gender Equality	Australia	2024	Sets out a path towards the vision of equality between men and women with focus on 5 priority areas: violence against women, unpaid and paid care, economic equality and security, health, and leadership, representation and decision-making.
Women Entrepreneurship Strategy (WES)	Canada	2018	A \$2 billion initiative aimed at increasing women-owned businesses' access to financing, networks, and expertise to start up, scale up, and access new markets.
Law on the Protection of Women's Rights and Interests	China	Enacted 1992, Amended 2005, 2018, 2023	Aims to promote equality between men and women in various areas including political rights, personality rights, cultural and educational rights, employment, property rights, and marriage and family rights.
National Strategy for Women's Financial Inclusion (SNKI-P)	Indonesia	2020	Aims to increase access to funding for women and ensure that every woman can access information, skills, resources, and economic opportunities.
Basic Policy on Gender Equality and Empowerment of Women	Japan	2024	Focuses on expanding women's participation in all fields of society, including policy decision-making, promoting work-life balance for both sexes, addressing inequality between men and women in the community, and advancing women's roles in science and technology sectors; with a key goal to create a society where "all women shine" by actively engaging women in all aspects of life, including leadership positions.
Act on Support for Female-Owned Businesses	Korea	1999 (with several amendments)	Seeks to support woman-owned businesses, facilitate women's economic activities, and elevate the status of businesswomen, with various amendments to strengthen the act over the years.
Women's Employment Action Plan	New Zealand	2022	Provides steps to support all women in New Zealand, including reducing barriers to exporting, increasing access to funding, and enhancing mentoring and digital connectivity for women entrepreneurs.
National Strategy for the Woman Entrepreneur	Peru	2023	Aims to promote the participation of women in all levels of the economy, contribute to economic recovery with equality, and support women-led ventures, companies, and business associations.
Magna Carta of Women (MCW)	The Philippines	2009	Comprehensive women's rights law that eliminates discrimination by recognizing, protecting, fulfilling, and promoting the rights of Filipino women, especially those belonging to marginalized sectors.
National Strategy Action for Women for 2018-2023	Russia	2018	Key areas of the strategic focus included economic empowerment, social protection, political participation, and cultural and educational development. The strategy seeks to increase women's participation in the workforce, reduce women's pay gap, improve

			access to healthcare and education, protect women’s rights, and promote women’s equality in all aspects of society.
National Strategy of Action for Women for 2023-2030	Russia	2023	The main goals include ensuring the realization of the principle of equal rights and freedoms for men and women; creating equal opportunities for women to realize their rights and freedoms in all spheres of life; increasing women’s economic independence, political activity, and self-realization opportunities, supporting women’s entrepreneurship, creating conditions for women to combine family responsibilities and work.
Reference Document for Gender Impact Assessments in International Treaties, Agreements	Chinese Taipei	Not specified	Formulated by the Department of Gender Equality to ensure policy makers incorporate sex perspectives into every stage of the planning, decision-making, implementation, monitoring, evaluation, and review of international treaties and agreements.
Women’s Development Action Plan 2023-2027	Thailand	2023	Focuses on promoting equality between men and women and empowerment for women, including economically and through promoting women entrepreneurship.
Promoting Women in Entrepreneurship Act	United States	2017	Authorizes the National Science Foundation to focus on recruiting and encouraging women to pursue careers in science, technology, engineering, and mathematics fields.
Decision 939/QD-TTg Approved the Project “Supporting women to start up a business in the period 2017 - 2025”	Viet Nam	2017	Provides initiatives to encourage women to engage in entrepreneurship, including supporting 20,000 women to start new businesses and establishing 100,000 new women-owned enterprises.

Case 10 – Support for Women Entrepreneurs Act (Korea)

In Korea, the Support for Women Entrepreneurs Act, enacted in 2014, represents a pivotal effort to address the unique challenges faced by women in the business sector, such as limited access to finance, inadequate networking opportunities, and societal biases against women in leadership roles. This legislation was crafted to provide comprehensive support to women entrepreneurs through financial aid, networking opportunities, and programs to enhance women’s business skills, digital literacy, management, and leadership development.⁷⁶

One of the Act’s primary components is its financial support for women entrepreneurs. The government offers a range of financial products specifically designed to meet the needs of women-led enterprises, including low-interest loans and grants. Korea Credit Guarantee Fund plays a significant role in offering these tailored financial solutions, which have promoted women’s entrepreneurship.⁷⁷

The Act also facilitates networking by connecting women entrepreneurs with successful business leaders and industry experts, providing them with valuable insights and mentorship. It has enhanced women’s business acumen and leadership skills, contributing to a more diverse business ecosystem in Korea.

Case 11 – Law on the Protection of Women’s Rights and Interests in (China)

China’s *Law on the Protection of Women’s Rights and Interests* was first enacted in 1992 as part of the economy’s broader commitment to equality between men and women and women’s empowerment. The law was considered a landmark legislation that aims to safeguard the rights of women in various aspects of life, including politics, education, employment, property, and personal safety.⁷⁸ The law has been amended in 2005, 2018, and 2022 to reflect the evolving societal values and the need to address persistent challenges faced by women in China.

The law was created due to the increasing recognition of sex-based inequalities and barriers faced by women to access equal education, employment opportunities, and political representation. The *Law on the Protection of Women's Rights and Interests* outlines rights and protections for women across various domains, such as:

- **Political rights:** The law guarantees women's equal right to participate in government and political activities, encouraging women representation in political decision-making processes.⁷⁹
- **Educational rights:** The law mandates equal access to education for women, prohibiting education institutions from discriminating against women students during admissions or within the classroom setting.
- **Employment rights:** The law addresses workplace discrimination, ensuring women have equal access to employment and career advancement. It also includes protections related to maternity leave and fair wages.
- **Personal safety:** The law criminalizes sex-inequality-based violence, including domestic abuse, sexual harassment, and human trafficking. It emphasizes the importance of women's personal dignity and physical safety.
- **Property and economic rights:** The law ensures that women are entitled to equal property rights, including the right to inherit and own property independently of their male counterparts.

Since its implementation, the *Law on the Protection of Women's Rights and Interests* has promoted equality between men and women in terms of access to property, economic, and educational rights. The law has helped reduce workplace discrimination, although challenges still remain.

Viet Nam's "Supporting women to start a business in the period of 2017-2025" project, approved through Decision 939/QD-TTg in 2017, seeks to empower women by providing the necessary tools and resources to start and grow their businesses, particularly in rural and underdeveloped areas. This includes supporting 20,000 women to start new businesses, supporting the establishment of 1,200 women-led cooperatives, and establishing 100,000 new women-owned enterprises (case 12). There are also general laws in key areas affecting women-led startups and women's ability to work in startups. For example, less than half of the economies in the region prohibit discrimination in access to credit based on sex, while not all APEC member economies provide paid maternity leave of at least 14 weeks.

Case 12 – Supporting Women to Start a Business Project (Viet Nam)

Viet Nam's "Supporting Women to Start a Business in The Period Of 2017 – 2025" project, championed by the Vietnam Women's Union and approved through Decision 939/QD-TTg in 2017, is a strategic government initiative aimed at fostering women's entrepreneurship. This comprehensive project seeks to empower women by providing the necessary tools and resources to start and grow their businesses, particularly in rural and underdeveloped areas.⁸⁰

The project offers financial assistance in the form of microloans and grants, enabling women to overcome financial barriers to entrepreneurship. By 2023, the scheme is reported to enable 80,000 entrepreneurial initiatives, support 70,000 women in launching their own businesses, and offer 60,000 newly established enterprises capability-building.⁸¹ A significant component of the project is the support for cooperative enterprises, with a target to establish 1,200 women-led cooperatives and 100,000 new women-owned enterprises by 2025.⁸²

Second, some governments in the APEC region have drafted strategies that promote women's entrepreneurship. Canada's Women Entrepreneurship Strategy (WES) involves almost \$7 billion in investments and commitments to increase women-owned businesses' access to financing, networks and expertise they need to start, scale up and access new markets (case 13). Meanwhile, Peru's National Strategy for the Woman Entrepreneur aims to promote the participation of women in all levels of the economy, contribute to economic recovery by ensuring equality between men and women, and support women-led ventures, companies, and business associations.

Case 13 – Women Entrepreneurship Strategy (WES) (Canada)

Canada's Women Entrepreneurship Strategy (WES), launched in 2018 by Innovation Canada, is a nearly \$7 billion-initiative aimed at increasing the economic impact of women-led businesses. This comprehensive strategy seeks to enhance access to loans and venture capital, networks, and expertise for women entrepreneurs across the economy.⁸³

A key element of the strategy is the Women Entrepreneurship Fund, which provides funding of up to \$50,000 to women-led businesses to support their growth and expansion into new markets. This fund addresses one of the most significant barriers to women's entrepreneurship; access to capital. The strategy also includes the Ecosystem Fund, which invests in organizations that support women entrepreneurs by facilitating networking and mentorship opportunities.

The WES also emphasizes regional development initiatives that target specific challenges faced by women entrepreneurs in various regions, ensuring that support is tailored to local needs. This approach has been instrumental in addressing the unique challenges faced by women entrepreneurs across Canada's diverse landscape. By 2022, WES offered almost 9,000 loans and helped 11 women-led companies access venture capital.⁸⁴

Third, many governments in the APEC region have launched initiatives that offer investment and financial support to women entrepreneurs (table 5). These include Canada's Women Entrepreneurship Loan Fund which provides up to CAD 50,000 to women entrepreneurs; Malaysia's Ministry of Women, Family and Community Development's *Bangkit@KPWKM MyKasih Kapital* Programme, designed to empower women through entrepreneurship, exports and ecommerce (case 14); Australia's Boosting Female Founders Initiative, which provided co-financing to help businesses scale into domestic and foreign markets (case 15); Chile's Capital Bee Entrepreneurship fund, which co-finances a business plan; China's regional women's federations, which provide loans to entrepreneurs in rural regions; and Mexico City's Financing for Women Entrepreneurs Program, which provides loans at a low interest rate (case 16). There are also multilateral efforts such as the Women Entrepreneurs Finance Initiative (We-Fi) that supports financial institutions to fund women-led businesses and implement frameworks like the "WeFi Code."

Case 14 – *Bangkit@KPWKM MyKasih Kapital* Programme (Malaysia)

The *Bangkit@KPWKM MyKasih Kapital* Programme, managed by Malaysia's Ministry of Women, Family and Community Development, is a government initiative designed to empower women through entrepreneurship.⁸⁵ The program focuses on enabling women to start and expand small businesses, particularly in the ecommerce and small trades sectors.

The program provides financial incentives, including grants and low-interest loans, to enable women entrepreneurs to overcome initial financial barriers to business creation. It also offers training in digital skills, business management, and e-commerce, equipping women with the skills needed to succeed in the modern economy.

By facilitating access to domestic and international markets, the program helps women expand their business reach and tap into new opportunities. This market access component has been particularly effective in integrating women entrepreneurs into the digital economy, with over 60 percent of participants engaging in e-commerce by 2023.

Since its inception, the Bangkit@KPWKM MyKasih Kapital Programme has significantly impacted women entrepreneurs in Malaysia. By 2023, 79,300 participants had benefited from the program, contributing to increased business sustainability and growth.⁸⁶ Of participants that were monitored after six months of receiving support and attending courses from the National Welfare Foundation, 90 percent were able to continuously generate income by doing business at home.⁸⁷ Participants reported an average income increase of 35 percent, which has enhanced their economic independence and family welfare.

The Bangkit@KPWKM MyKasih Kapital Programme has played a crucial role in empowering women economically and promoting inclusive growth in Malaysia, aligning with the economy's broader development goals.

Case 15 – Boosting Female Founders Initiative (Australia)

Australia's Boosting Female Founders Initiative was a AUD 52.2 million program launched by the Australian government to support woman entrepreneurs in overcoming financial challenges associated with startup growth. The initiative targeted women-led startups, particularly those focused on innovation, by providing financial support and fostering private sector investment.

A key element in the program was co-contribution grants, which range from AUD\$25,000 to \$480,000. These grants were designed to encourage private sector investment in innovative startups led by women, helping them scale their businesses and expand into global markets. The program also offered access to mentorship and industry networks, providing women entrepreneurs with the skills and connections needed to thrive.

Case 16 – Mexico City's Financing for Women Entrepreneurs Program

Mexico City's Financing for Women Entrepreneurs Program is a pioneering initiative designed to support women entrepreneurs by providing them with financial resources at a low fixed interest rate. Launched in 2019, the program aims to promote women's access to capital and foster economic empowerment among women in Mexico City.⁸⁸ It is structured to offer loans to women entrepreneurs with interest rates that are significantly lower than those available through traditional financial institutions. The goal is to provide women with the financial means to launch or expand their businesses, thereby increasing their participation in the economy and contributing to job creation and economic development in Mexico City.

The loans are available to women across various sectors, with a particular focus on small and medium-sized enterprises (SMEs). The program also includes financial literacy training, which helps participants develop the skills needed to manage their businesses effectively and make informed financial decisions.

Fourth, most APEC governments have programs that offer training, networking, and sharing of best practices to support women entrepreneurs and startups. Chile's Women Entrepreneurs Program provides personal and technical training tools, while the Women Heads of Household Program seeks to provide resources to promote the economic autonomy of women heads of households including through entrepreneurship (case 17). On the other hand, Japan's Ministry of Economy, Trade, and Industry has built support networks for women entrepreneurs across Japan and implemented support programs aimed at matching them with supporters. In addition, Tokyo's APT Women program provides knowledge and skills to manage and scale businesses. Moreover, Canada's Women Entrepreneurship Knowledge Hub provides 10 regional hubs with a network of over 300 partners for a one-stop source of knowledge, data and best practices for women entrepreneurs.

Case 17 – Chile's Women Entrepreneurship Program

Chile's Women Entrepreneurs Program is a comprehensive initiative aimed at empowering women through entrepreneurship by providing personal and technical training tools.⁸⁹ Launched in 2015 by the Chilean Ministry of Women and Gender Equality, the program seeks to address the structural barriers faced by women entrepreneurs, such as limited access to training, mentorship, and resources. It includes a range of training workshops that cover business management, marketing, financial planning, and digital skills.

In addition to technical training, the program offers personal development resources, including leadership training and networking opportunities. This holistic approach aims to build women's confidence and equip them with the tools needed to overcome barriers in business. The program also collaborates with the Women Heads of Household Program, which focuses on providing resources to promote the economic autonomy of women heads of households through access to childcare services, and assistance in navigating legal and financial challenges.⁹⁰

The Japanese government has many programs as well, such as to set a target to increase women entrepreneurs to 20 percent or more in the public-private J-Startup program; providing global expansion support for women entrepreneurs and inviting top-performing firms to accompany minister-level visits overseas; expanding regional support programs for women entrepreneurs nationwide, in collaboration with other support agencies; and providing financial support for women entrepreneurs through the Japan Finance Corporation (JFC) and investments by the Japan Investment Corporation in private funds that recruit and develop women capitalists as well as those that actively invest in women entrepreneurs.⁹¹

In Russia, young women are increasingly interested in entrepreneurship, supported by initiatives and mechanisms for women-led SMEs under the National SME Project. This project involves implementing measures to provide a comprehensive range of services and support to SMEs in "My Business" centers, including financial services (credit, guarantee, leasing), consulting and educational, support for the creation and modernization of production, social entrepreneurship, and exporting.

There are also favorable loan terms and annual regional awards to celebrate the achievements of women entrepreneurs. Russia has also had, since 2012, the "Mother-Entrepreneur" program designed for women on maternity leave, mothers of minor children, and women registered with the employment service. The program's goal is to assist these women in starting their own businesses and realizing their entrepreneurial potential. Participants receive free intensive five-day training, including business plan development and mentorship. The "Mother-Entrepreneur" program, implemented across 73 regions across Russia between 2016 and 2021,

provided training to 6,706 aspiring women entrepreneurs through 252 workshops. Since 2023, the program has garnered support from a diverse range of partners, including the Ministry of Agriculture of Russia, Russian Export Center, the All-Russian Public and State Organization “Union of Women of Russia”, the Women’s Movement of “United Russia”, the “Nashe Buduschee” Foundation, Wildberries, VK, Sletat.ru, and others.

In 2023, the “Mother-Entrepreneur” program was conducted in 63 regions of Russia, with over 250 workshops training approximately 2,000 women. Sixty-four winners were selected. In 2024, the program will be implemented in 69 regions of Russia. Over 1,500 women will undergo training, with more than 6,000 applications already submitted.

Table 5 – Selected programs to support women entrepreneurs, by APEC economy

Program	APEC Member Economy	Description	Supporting Agency/Ministry
Boosting Female Founders Initiative ⁹²	Australia	Provided targeted support on a co-contribution basis to women founders of startup businesses to scale into domestic and global markets, with grants from \$25,000 to \$480,000. The program also offered expert mentoring and advice to a select number of eligible applicants.	Department of Industry, Science and Resources
Women in STEM and Entrepreneurship Program ⁹³	Australia	Supports investment in equality initiatives that aim for lasting systemic change by eliminating barriers for women’s participation in STEM education and careers, and entrepreneurship.	Department of Industry, Science and Resources
Proudly Brunei Business Awards ⁹⁴	Brunei Darussalam	Recognizes and celebrates outstanding Brunei-based companies for their excellence and contributions to their respective sectors, including a category for women entrepreneurs. Winners receive promotional opportunities, collaboration with strategic partners, and bonus prizes.	Ministry of Finance and Economy
Women Entrepreneurship Loan Fund ⁹⁵	Canada	Provides loans of up to \$50,000 to women entrepreneurs, particularly for start-ups, underrepresented groups, or sole proprietorships which may experience more difficulty in accessing financing.	Innovation, Science and Economic Development Canada (ISED)
Women Entrepreneurship Knowledge Hub ⁹⁶	Canada	A network of 10 regional hubs with over 300 partners that provides a one-stop source of knowledge, data, and best practices for women entrepreneurs.	Ryerson University (with support from the Government of Canada)
Female Founder Factor ⁹⁷	Chile	Part of Start-Up Chile, this initiative supports woman entrepreneurs by giving them special support to break into the Start-Up ecosystem.	CORFO (Production Development Corporation)
Women Seed Start and Seed Expand Programs ⁹⁸	Chile	Seeks to support female entrepreneurs in Chile who have business ideas with social, economic and environmental impact, as part of its gender equality strategy.	CORFO (Production Development Corporation)
Women Heads of Household Program ⁹⁹	Chile	Seeks to promote the economic autonomy of women heads of household through tools that allow them to generate and manage their income and resources from paid work, access to public services, and opportunities to reconcile paid work, domestic work, and care.	National Women’s Service and Gender Equality (SernamEG)

		Provides support for business plans, knowledge of the entrepreneurship support network, and more.	
Capital Bee Entrepreneurship ¹⁰⁰	Chile	A fund executed by Sercotec with financing from SernamEG to assist women entrepreneurs with implementing a business project, co-financing a work plan that includes business management actions and investments in assets necessary to meet the project objective.	Sercotec (Technical Cooperation Service) and SernamEG
Loans for Women Entrepreneurship	China	Aims to increase the number of loans for women's entrepreneurship. The People's Bank of China has guided its various branches to strengthen their liaison with local women's federations, and has promoted the introduction of financial products by commercial banks aimed at women's entrepreneurship; for example, the Guangdong branch has created 104 women's special loan products, such as 'Women's Treasure' and 'Golden Key for Female Farmers,' while the Shandong branch has created 'Shandong Women's Loan' and 'Women's Loan for Agriculture and Enterprises'.	The People's Bank of China and various commercial banks; All-China Women's Federation
Women Empowerment Fund ¹⁰¹	Hong Kong, China	Subsidizes projects that support women in balancing their jobs and family life, brings awareness to women's physical and mental health, and empowers them to unlock their full potential in their respective roles.	Women's Commission (under Labour and Welfare Bureau)
Joint Commitment on Women's Digital Financial Inclusion ¹⁰²	Indonesia	The Ministry of Women's Empowerment and Child Protection (PPPA) and other ministries have committed to realizing women's digital financial inclusion. The PPPA Ministry has issued digital transformation guidelines to address inequality between men and women in digital access and adoption.	Ministry of Women's Empowerment and Child Protection (PPPA)
APT Women ¹⁰³	Japan	A program by the Tokyo Metropolitan Government that provides the knowledge and skills necessary for women to manage and scale up their businesses, along with networking opportunities with other entrepreneurs, partners, and supporters.	Tokyo Metropolitan Government
J-Startup ¹⁰⁴	Japan	Aims to make winning startups in the global market and increase the number of woman entrepreneurs by 20 percent. Companies of the J-Startup program will be assisted in entering the overseas market through the Startup Tour and JETRO Global Acceleration Hub.	Public-private partnership also supported by multiple companies, Ministry of Economy, Trade and Industry, New Energy and Industrial Technology Development Organization, and Japan External Trade Organization Startups Support Division, and Global Acceleration Hub
Fund of Funds ¹⁰⁵	Korea	The Ministry of SMEs and Startups announced a 2024 budget for a fund of funds, including a KRW 16.7 billion fund for women.	Ministry of SMEs and Startups
Korea Women Entrepreneurs Association (KWEA) ¹⁰⁶	Korea	Dedicated to supporting and empowering women entrepreneurs in Korea through resources, networking, advocacy, training, mentoring, and financial support to help women start and grow their enterprises.	Korea Women Entrepreneurs Association (KWEA)

Women Exporters Development Programme (WEDP) ¹⁰⁷	Malaysia	A 3-year export support program involving business coaching, skills enhancement training, international business exposure, networking, mentoring, and financial support for women entrepreneurs.	Malaysia External Trade Development Corporation (MATRADE)
Bangkit@KPWKM MyKasih Kapital Programme ¹⁰⁸	Malaysia	Aims to empower women by providing them with tools to start and expand small businesses, particularly in e-commerce and small trades, with financial incentives and support to generate sustainable incomes.	Ministry of Women, Family and Community Development (KPWKM)
Financing for Women Entrepreneurs	Mexico	Promotes the economic autonomy of women and reduces the gender equality gap through credit for entrepreneurship, micro-business creation, asset expansion, and access to technology. Offers loans up to 500,000 pesos with a 6% fixed annual interest rate for up to 60 months.	Mexico City Government
Startup and Founder Support Program	New Zealand	Helps develop ideas into successful businesses, with a focus on supporting Māori and women founders. Offers opportunities to pitch to investors.	Callaghan Innovation
Mujer Produce ¹⁰⁹	Peru	Seeks to enhance the entrepreneurial and productive skills of women business leaders, promoting their economic autonomy and equal opportunity.	Ministry of Production
GREAT Women Project ¹¹⁰	The Philippines	Aims to improve the economic empowerment of women micro-entrepreneurs by enhancing the competitiveness and sustainability of women's micro-enterprises and improving the enabling environment for women's economic empowerment.	Philippine Commission on Women (PCW)
Women-Helping-Women Innovating Social Enterprise Program (WHWise) ¹¹¹	The Philippines	Provides incubation and funding support to women-led social enterprises, including technology purchases, R&D, technical assistance, and mentoring. The program provided over \$900,000 USD to 14 enterprises in 2021–2022.	Department of Science and Technology (DOST)
Mother-Entrepreneur ¹¹²	Russia	Designed for women on maternity leave, mothers of minor children, and women registered with the employment service. It is to assist these women in starting their own businesses and realizing their entrepreneurial ideas. Participants receive free, intensive five-day training, including business plan development and mentorship. The “Mother-Entrepreneur” program	Several government agencies and companies
Support for Women Entrepreneurs Program	Russia	Implemented by Russia Export Center to support and promote women's entrepreneurship in Russia by providing access to financing, training, and networking opportunities.	Russia Export Center
SG Women in Tech (SGWIT) ¹¹³	Singapore	An initiative by the Infocomm Media Development Authority (IMDA) in partnership with the tech industry and community to attract, inspire, and develop girls and women to pursue careers in the tech sector.	Infocomm Media Development Authority (IMDA)
HerCareer	Singapore	Provides programs and services to help women gain skills and confidence to re-enter the workforce.	Singapore Council of Women's Organisations (SCWO)
Council for Board Diversity ¹¹⁴	Singapore	Aims to increase the representation of women on the boards of listed companies and organizations in the public and people sectors.	Singapore Government

Women Entrepreneurship Program ¹¹⁵	Chinese Taipei	Removes obstacles in the entrepreneurial journey of women by providing a supporting counseling mechanism, government incentives, and entrepreneurial resources to help develop and expand their businesses.	Small and Medium Enterprise and Startup Administration, Ministry of Economic Affairs
Women's Business Network ¹¹⁶	Chinese Taipei	English-language platform that showcases product information from women business owners, allowing international buyers to quickly browse and search for collaboration opportunities, and promoting quality products to global markets through the website.	The International Trade Administration, Ministry of Economic Affairs
Micro-Enterprise Phoenix Program ¹¹⁷	Chinese Taipei	Provides entrepreneurial support services, loan interest subsidies, and credit guarantee projects for women, middle-aged citizens, and residents of Chinese Taipei's offshore islands.	Workforce Development Agency, Ministry of Labor
Girls in ICT ¹¹⁸	Thailand	Enhances the digital literacy of girls and young women, particularly in cybersecurity, ICT application, and digital technology, supporting Thailand's Digital Economy plan and Thailand 4.0.	Ministry of Digital Economy and Society
Office of Women's Business Ownership (OWBO) ¹¹⁹	United States	Helps women entrepreneurs through SBA district offices with programs including business training, counseling, federal contracts, and access to credit and capital through Women's Business Centers (WBCs).	Small Business Administration (SBA)
Women's Global Trade Empowerment program ¹²⁰	United States	An initiative by the U.S. International Trade Administration to support women entrepreneurs in growing their businesses internationally, offering skills training to build export strategies and develop valuable business connections.	U.S. International Trade Administration (ITA)
Viet Nam Association of Women Entrepreneurs (VAWE) ¹²¹	Viet Nam	Aims to unite and promote women entrepreneurs in economic development, providing a center for connecting women entrepreneurs with organizations that support the improvement of business efficiency, contributing to national development, and promoting equality between men and women.	Viet Nam Association of Women Entrepreneurs (VAWE)

Chinese Taipei's Women's Entrepreneurship Program has also helped women overcome obstacles through counseling support system, government incentives, and essential entrepreneurial resources to assist in developing businesses and expanding opportunities for growth (case 18).

Case 18 – Chinese Taipei's Women Entrepreneurship Program

Chinese Taipei's Small and Medium Enterprise and Startup Administration under the Ministry of Economic Affairs launched the Women Entrepreneurship Program in 2013 to offer diversified resources to support women entrepreneurship and create an inclusive, equal, and friendly entrepreneurial environment. The program focuses on the different challenges that women entrepreneurs face in different stages of their entrepreneurship journey, from the preparation stages of starting a business, to the start-up stage, to women entrepreneurs with established businesses.¹²² The program aims to help women overcome obstacles through a robust counseling support system, government incentives, and essential entrepreneurial resources to assist in developing their businesses and expanding opportunities for growth.

The objectives of the program include:

- Create a business-startup knowledge platform along with training courses designed specifically to help women entrepreneurs to bolster their entrepreneurial skills and establish local resource networks.

- Connect with renowned international corporations or accelerators to cultivate women entrepreneurs' capacity to utilize technologies to strengthen their entrepreneurial competitiveness.
- Identify and assist high potential enterprises to receive in-depth business development assistance, support exemplary women enterprises, and promote benchmark examples of successful women entrepreneurs.
- Assist women enterprises in acquiring startup funding.
- Promote international collaboration with international women's entrepreneurial resources and initiatives, including promoting local businesses' participation in international events and expansion into new markets.
- Build a one-stop-shop for aspiring women entrepreneurs to find relevant information and resources.

The Women Entrepreneurship Program has various components. The program's Women Startup Knowledge Course is designed to help women entrepreneurs to boost their startup knowledge and relevant vocational skills, with a variety of topics and contents developed to accommodate the varying needs of women entrepreneurs. The course is accessible to trainees across Chinese Taipei in order to reach women even in remote areas, with dedicated organizations that provide relevant entrepreneurial resources and advisory services.¹²³ The course is taught in diverse formats and covers a variety of topics, facilitating connection with relevant local organizations and agencies for resource sharing and network building.

The Program also offers an International Brand course with a hybrid online/in-person format to help women entrepreneurs cultivate the digital marketing skills necessary for successful international branding and expansion.¹²⁴

The program's Women Entrepreneurship Accelerator aims to help new startups access financing and expand into new markets after 4-6 months of in-depth assistance.¹²⁵ The accelerator offers guidance on fundraising techniques and information on various fundraising channels to promote exchanges between startups and investors. The Accelerator holds a Demo Day every year, giving enrollees a chance to introduce their companies in English to invited venture capitalists.¹²⁶

The Women Entrepreneurship Program has achieved several notable milestones: more than 22,000 participants have completed courses, more than 600 women entrepreneurs who were advised in the program went on to start companies, and more than 1,450 women found employment opportunities.¹²⁷ The program's Accelerator has assisted more than 100 startup companies and facilitated almost \$8 million in investment.¹²⁸

The Women Entrepreneurship Program in Chinese Taipei has had a positive impact on the economy's entrepreneurial landscape. It has empowered numerous women to start their own businesses and has contributed to a more diverse and inclusive economy.

Fifth, almost three-quarters of governments in the region have created agencies and offices that are dedicated to equality between men and women and improving women's socio-economic status (table 6). Among these are Australia's Office for Women and Workplace Gender Equality Agency; New Zealand's Ministry for Women; and Chile's Ministry of Women and Gender Equity.

Table 6 – Government agencies to support women and women entrepreneurs, by APEC economy

Agency Name	APEC Member Economy	Year Founded	Description
Office for Women	Australia	1983	The Office for Women is located within the Department of the Prime Minister and Cabinet and works to advance the Government's commitment to achieve gender equality and improve the lives of people in Australia.
Workplace Gender Equality Agency	Australia	2012	An Australian Government statutory agency created by the Workplace Gender Equality Act 2012, focused on promoting and improving equality between men and women in workplaces.
Department for Women and Gender Equality (WAGE)	Canada	2018	Committed to advancing equality with respect to sex, sexual orientation, sex identity or expression through the inclusion of all sexes in Canada's economic, social, and political life. "Committed to advancing equality with respect to sex through the inclusion of both sexes in Canada's economic, social, and political life"
Ministry of Women and Gender Equity	Chile	2016	Aims to promote and ensure equal rights and obligations between women and men, ensure zero tolerance for violence against women, and promote women's economic autonomy and leadership.
All-China Women's Federation	China	1949	Undertakes tasks of connecting and serving women, representing and safeguarding women's rights and interests, and promoting equality between men and women and women's all-round development.
Women's Commission	Hong Kong, China	2001	Takes a strategic overview of women's issues, develops a long-term vision and strategy for women's advancement, and advises the Government on policies and initiatives concerning women.
Ministry of Women Empowerment and Child Protection	Indonesia	2009	Responsible for formulating and implementing policies related to equality between men and women, women's rights, and child protection, with initiatives aimed at increasing women's economic empowerment.
Gender Equality Bureau Cabinet Office	Japan	2001	Dedicated to promoting equality between men and women and empowering women across various sectors, formulating policies, coordinating with other organizations, and implementing programs to achieve equality between men and women.
Ministry of Gender Equality and Family	Korea	2001	Focuses on increasing women's employment and social participation, achieving work-life balance, and supporting woman-owned businesses through various programs and policies.
Ministry of Women, Family and Community Development	Malaysia	2001	Dedicated to the advancement of women's rights, family development, and community well-being, including economic development initiatives for women.
National Institute of Women (INMUJERES)	Mexico	2001	Formulates and implements policies to improve the social, economic, and political status of women in Mexico.

Manatū Wāhine Ministry for Women	New Zealand	1984	The Government's principal advisor on improving the lives of wāhine women and kōtiro girls in New Zealand, working across government and with stakeholders to enhance outcomes for women.
Ministry of Women and Vulnerable Populations	Peru	2012	Aims to design, establish, promote, execute, and supervise public policies for equality between men and women and the well-being of vulnerable populations, including women.
Philippine Commission on Women (PCW)	The Philippines	1975 (Renamed in 2009)	Reviews, evaluates, and recommends measures to ensure the full integration of women in economic, social, and cultural development and to promote equality between men and women.
Ministry of Economic Development	Russia	2008	Formulates and implements policies aimed at facilitation of women entrepreneurship
Department of Gender Equality	Chinese Taipei	2012	Established the "Gender Equality Committee", tasked with driving equality between men and women policies and coordinating equality between men and women work across ministries, consolidating expert knowledge from public and private sectors to offer policy planning, counsel, supervision, and resource integration to promote equality between men and women and women's rights.
Department of Women's Affairs and Family Development	Thailand	2002	Focuses on improving the socio-economic status of women, ensuring equality between men and women, and providing support to families through various initiatives and policies.
Women's Bureau	United States	1920	The Department of Labor's Women's Bureau safeguards the interests of working women, advocates for equality, and promotes quality work environments.

Sixth, APEC governments have supported women entrepreneurs and women-led startups through targeted government procurement policies (table 7). Procurement processes that incentivize applicant companies to adhere to equal standards between men and women. The United States stands out for its Women-Owned Small Business certification that enables women-led programs to access set-asides – contracts reserved to small businesses owned and controlled by women. The Inclusive Trade Action Group (ITAG) is an alliance of economies committed to promoting trade policies for greater inclusivity, sustainability, and economic growth (case 19). These types of groups further support women entrepreneurs in becoming more successful.

Table 7 – Government procurement policies addressing women entrepreneurs and businesses, by APEC economy

Procurement policy	APEC Member Economy	Year	Description
Working for Women: A Strategy for Gender Equality	Australia	2024	The Government announced it will introduce a new legislative requirement for businesses with >500 employees to commit to targets to improve equality between men and women in their workplaces, with compliance mandatory to access Australian Government procurement opportunities over a certain threshold. This addresses a key recommendation from the 2021 review of the Workplace Gender Equality Act 2012.
Workplace Gender Equality Procurement Principles	Australia	2012	Designed to ensure that companies supplying goods and services to the government adhere to equality between men and women standards as defined by the Workplace Gender Equality Act 2012.
Ethical Procurement Certification, Art. 4; Supply Manual, Sec. 4.45	Canada	2006	Promotes procurement processes that encourage fair employment practices, which can include measures to support women's employment and advancement in the workplace.
Act on Support for Female-Owned Businesses	Korea	1999 (with several amendments)	Mandates public institutions to include specific goals for procuring products from woman-owned businesses, setting minimum purchase targets of five percent for goods and services and three percent for construction works. Articles 90 and 19 of the PPS Regulations outline fair and transparent procurement guidelines, promoting inclusivity and supporting the participation of woman-owned businesses in public contracts.
Ley de Adquisiciones, Arrendamientos y Servicios del Sector Público, Art. 14	Mexico	2016	Awards additional points in the evaluation of public tenders to companies that implement equality between men and women policies and practices.
Government Procurement Rules, Rule 18A	New Zealand	2021	When procuring goods, services, or works, agencies must consider how they can create quality employment opportunities, particularly for displaced workers and groups with traditionally high rates of unemployment or low labor force participation (specifically women, Māori, Pacific peoples, disabled people, and youth).
GPPB Resolution No. 01-2023	The Philippines	2023	Aims to promote the participation of women-owned and women-led businesses in public procurement, including measures to analyze the current procurement ecosystem, review existing procedures, and implement practices that support equality between men and women.
Regulations on Supporting Small and Medium-Sized Enterprises in Government Procurement	Chinese Taipei	2002	The Public Construction Commission established these regulations which serve as a basis for government agencies to help SMEs, including women-owned SMEs, secure contracts or subcontracts for a certain percentage of government procurement projects, including blacklisting companies that discriminate based on sex, and evaluating whether a company

			has a friendly and equality-supportive workplace in the selection process.
Women-Owned Small Business (WOSB) Federal Contract Program	United States	2000	Provides set-aside and sole-source contract opportunities to small business concerns owned and controlled by women. The purpose is to ensure that WOSBs have an equal opportunity to participate in Federal contracting and to help attain the Federal government's goal of awarding five percent of its prime contract dollars to WOSBs.

Case 19 – Inclusive Trade Action Group (ITAG) to promote equality between men and women

The Inclusive Trade Action Group (ITAG) was formed during the APEC meeting in Port Moresby, Papua New Guinea, in November 2018.¹²⁹ The founding members included Canada; Chile; and New Zealand. One of ITAG's first significant achievements was the Joint Declaration on Inclusive Trade, which outlined the group's commitment to developing trade policies that support equality between men and women, environmental sustainability, and economic inclusiveness. In its early years, ITAG focused on advocating for inclusive trade within international forums and in negotiations for new trade agreements. The Group has since added Australia; Costa Rica; Ecuador; and Mexico as members. The members collaborate on areas of mutual interest to progress sustainable and inclusive trade action, including through:¹³⁰

- Bilateral, multilateral and plurilateral fora (such as the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP), APEC forum, OECD, the Pacific Alliance, the United Nations, and the World Trade Organization).
- Advancing sustainable and inclusive trade research and policy analysis to improve trade policy and ensure that the benefits of trade and investment are shared inclusively and equally.
- Supporting the Global Trade and Gender Arrangement (GTAGA) which aims to promote action toward mutually supportive trade and gender equality policies and increase the number of women entrepreneurs in trade, with APEC members including Canada; Chile; Mexico; New Zealand; and Peru.¹³¹
- Enabling and empowering Indigenous Peoples, promoting Indigenous Peoples' perspectives and voices, and facilitating trade and investment opportunities for Indigenous Peoples.
- Promoting mutually supportive policies in inclusive trade and environment and exploring opportunities for trade-related initiatives that address sustainability challenges and support greener economies.
- Upholding and promoting labor rights in international trade, pursuing innovative inclusive trade policy and promoting responsible business conduct.

ITAG members also aim to collaborate to reduce the barriers that MSMEs – including MSMEs that are led and owned by women, persons with disability or other marginalized groups – face in accessing opportunities and benefitting from digitalization and cross-border e-commerce, as well as financing, and international trade and investment.¹³²

IV. Summary of findings and recommendations

This section summarizes key findings and makes recommendations on policies, programs and interventions for the different sets of APEC economies and for APEC as a whole, to promote an enabling environment where women entrepreneurs can survive, scale, and become sustainable.

a. Summary of findings

Startups, or firms three years of age or younger, have proliferated in APEC economies, with an estimated total of 169 million firms formed in 2014-2023 in the APEC region. There were around 59.7 million startups (firms 0-3 years of age) in the APEC region in 2023, or 17 percent of all firms. There are considerable data gaps both in the survival rates for firms, firm formation by sector, and women's role as founders and employees in startups. However, private data suggests that possibly fewer than 10 percent of APEC economies' technology-driven startups are founded or cofounded by a woman. To be sure, there are still gaps between women and men in the APEC region – in some economies, women startups have blossomed, while in others they trail notably behind men-led firms.

Based on quantitative and qualitative data, this report has identified five major barriers to women entrepreneurship in the APEC region:

- Inadequate access to finance at different stages of the startup's lifecycle.
- Insufficient availability of peer relationship and mentorship initiatives – and in some markets, navigating potential support systems that exist.
- Low share of women in computer science and STEM fields, which limits the pool of founder and co-founders in tech.
- Prevailing mindset and perception of startup life and leadership as being for men.
- In some markets, there exist legal barriers and lack of protections for women in labor markets and workplace.

The interviews conducted for this report highlighted a number of policies and programmatic approaches to support women-led startups in various stages, such as ensuring that a larger set of women are able to become entrepreneurs; supporting women in their early stages of their startups; enabling women-led startups to grow into mature companies; and helping women-led startups exit, such as to find a strategic investor. Some key approaches include:

- Government grants for women-led startups in their early stages, for example, to build a minimum viable product.
- Government grant support for startups' internationalization.
- Funds and investor syndicates focused on investing in women-led startups.
- Private sector-led networking initiatives and peer mastermind groups among women-led startups.
- Government procurement opportunities for women-led startups.
- Laws that promote women-led startups, equality in the workplace, non-discrimination in credit applications, and maternity leave policies.
- Applied entrepreneurship education and promotion of young women's leadership in primary and secondary schools.

- Promotion of women's leadership in business and government, including in technical roles, toward normalizing women's leadership across society.

This report has shown that many of these solutions are already being pursued in various APEC economies: there are considerable efforts by both the private sector and governments to promote women's equality in the workplace and in entrepreneurship, and many programs and initiatives championing women entrepreneurs' access to training, mentoring, and finance.

b. Policy recommendations for APEC governments

What policies, programs and interventions could APEC economies adopt, to further enhance the enabling environment for women entrepreneurs to survive, scale, and become sustainable?

The interviews, surveys, literature review, and policy analyses highlighted concrete policy recommendations to promote women-led startups (table 8):

- **Enhancing access to grants.** Government grants can be a particularly useful mechanism to enable women-led startups to get started and access technologies and developers that they may need to build a minimum viable product. Governments can also promote partnerships with financial institutions to provide lower interest rates for women-led startups, which could also help level the playing field. In markets with financing options, awareness campaigns that educate women entrepreneurs about available financing can empower them to make informed decisions about their business development. In addition, women startups are often quite quickly looking to scale their companies beyond their home markets, but face challenges to access networks, travel, and secure trade finance. Governments can support women startups with grants for trade missions, expanding their networks as well as setting up meetings with foreign buyers for potential partnerships.
- **Access to venture capital.** Interviews and data suggest that women-founded startups are much less likely to receive venture capital than their male counterparts, and when they do, they receive less funding, which limits their ability to hire talent and scale their businesses.¹³³ Funds led by women to invest in women and syndicates among private investors as well as those led and organized by governments are powerful means to crowd in capital to women-led startups. Some APEC governments, most prominently Canada and Australia, have already made significant efforts to usher in private investment in women-led firms.
- **Peer network programs and leadership coaching.** Women entrepreneurs place a high value on networks and mastermind groups that offer support, camaraderie, useful contacts and tips. There are many well-working networking groups in the APEC region; however, they often struggle to scale and service the needs in the market. Governments could most usefully partner with these peer networks and help scale models that work.
- **Laws to promote women in the workplace, women entrepreneurship, and equal opportunity.** APEC governments such as Korea and Viet Nam have passed laws that promote women in the workplace and women's entrepreneurship. Some APEC economies also have laws on equal access to credit and legal protections for maternity leave. These types of instruments, if implemented well, help women to enter the

workforce and build a career, including in startups. APEC plays an important role in helping governments share information on the impact of these laws on women's entrepreneurship.

- **Entrepreneurship education for young women.** Integrating entrepreneurship education into school curriculums and systematically coaching young women to take leadership roles in entrepreneurship courses can inspire the next generation of women entrepreneurs. Highlighting successful women across different industries and societies as role models can normalize women's leadership and encourage more women to pursue entrepreneurial ventures and challenge existing social stereotypes.
- **Promoting women in STEM fields.** Women remain underrepresented in STEM and computer science fields, which limits the pool of women founders and co-founders in technology fields. Governments need to implement targeted scholarship programs to increase women's participation in STEM fields. These initiatives could include supporting partnerships between educational institutions and tech companies to create internship opportunities for women in STEM, and outreach programs that highlight career opportunities in STEM for young women, emphasizing the importance of equality and inclusion in these fields.
- **Government procurement opportunities.** Allocating resources for firms promoting the advancement of women, along with conducting digitized, transparent bidding processes can enable women-led startups to get started on working with governments, a potentially lucrative and large market that can be difficult to break into as a young and untested company.
- **Leveraging technology and innovation.** Supporting women to access and learn about technological tools that streamline their operations can help overcome initial needs for hiring. In addition, digital platforms and online communities can extend the reach of support programs for women, especially in regions with limited physical infrastructure, enabling women entrepreneurs to access resources and opportunities regardless of location.
- **Data on women-led firms and startups need to be improved.** Sex-disaggregated data on business formation, survival, and continuity is very limited across the APEC region. Canada has provided an excellent example, by disaggregating firm formation and survival data by sex and age. In addition, there is a need for governments to track progress on a range of factors affecting women-led startups, such as access to finance (grants, loans, and growth capital to women-led firms), technologies, and markets.
- **Meeting women-led startups where they are and tailoring support.** There are as many segments of women-led startups as there are women-led startups. Governments need to provide an enabling environment that facilitates access to support by many distinct types of women startups to enable business growth and help women to navigate opportunities in the marketplace. Support also needs to be contextualized to the entrepreneurs' economy and location; often, women in poorer economies and rural areas have completely different experiences and opportunities than their peers in advanced economies and major cities.

- **Countering harmful social stereotypes and biases.** It is imperative to challenge stereotypes and socio-cultural norms that view women as less capable than men in owning and running businesses. These perceptions often suggest that women should be confined to traditional roles such as homemakers or limited to traditionally feminized careers. These sex-based biases contribute to funding inequalities, where male-led or male-owned businesses are favored over women-led enterprises, perpetuating inequality in access to resources and opportunities for women entrepreneurs.

There are varied experiences across the APEC region on promoting women-led startups. However, good practices have yet to be well-analyzed and widely shared. APEC economies can encourage analysis on the impact of the various women startup promotion initiatives that they implement and enable member economies to share good practices in advancing women-led startups.

APEC economies can also pool resources and encourage peer networking among women-led startups across the APEC region.

Table 8 – Policies to promote women's entrepreneurship in the APEC region and solutions

Challenge	Solutions	Good practices from APEC region
Grants for seed-stage companies	<ul style="list-style-type: none"> • Establish dedicated grant programs targeting women-led startups, focusing on early-stage development. • Simplify application processes and provide guidance to help women entrepreneurs access funding. • Collaborate with private sector partners to amplify the reach and impact of grant initiatives. 	<ul style="list-style-type: none"> • Australia's Boosting Female Founders Initiative: Provided cofinancing to help women-led businesses scale domestically and internationally. • Chile's Capital Bee Entrepreneurship Fund: Offers cofinancing for women entrepreneurs to develop business plans. • Canada's Women Entrepreneurship Loan Fund: Provides up to CAD 50,000 to women entrepreneurs to support business growth. • Russia's Skolkovo Fund: Provides grants to participants to help them solve specific challenges within their research activities and product commercialization, up to a maximum of RUB 40,000 per calendar year.
Co-investment for investors and syndicates investing in women-led startups	<ul style="list-style-type: none"> • Create co-investment schemes where governments or development agencies match private investment in women-led startups. • Offer tax incentives to investors who support woman entrepreneurs. • Develop partnerships with venture capital firms to encourage investment in women-led businesses through matching funds or risk-sharing mechanisms. 	<ul style="list-style-type: none"> • Chile's Capital Bee Entrepreneurship Fund: Supports women entrepreneurs by cofinancing innovative business plans. • China's Regional Women's Federations: Provide loans to entrepreneurs in rural regions, supporting co-investment in women-led businesses.
Support to ongoing peer networking with	<ul style="list-style-type: none"> • Establish women-specific business networks and mentorship programs 	<ul style="list-style-type: none"> • Chile's Women Entrepreneurs Program: Offers personal and technical training

<p>other women in startups and mentorship</p>	<p>that connect woman entrepreneurs with experienced mentors.</p> <ul style="list-style-type: none"> Organize regular events, workshops, and networking opportunities to facilitate peer learning and collaboration among women entrepreneurs. Utilize digital platforms to expand the reach of networking and mentorship opportunities, allowing women in remote areas to participate. 	<p>tools along with networking opportunities for women entrepreneurs.</p> <ul style="list-style-type: none"> Canada’s Women Entrepreneurship Knowledge Hub: Provides a network of over 300 partners for knowledge sharing and best practices. Malaysia’s Women Exporters Development Program: A 3-year program offering customized business coaching, training, and networking to expand internationally. Russia’s initiatives: APEC BEST Award, BRICS Women’s Startup Contest, Russia-ASEAN Women Entrepreneurs Network are all aimed at distinguishing best women-led business practices and building partnerships.
<p>Applied entrepreneurship education in school systems</p>	<ul style="list-style-type: none"> Integrate entrepreneurship education into school curriculums to inspire the next generation of women entrepreneurs. Highlight successful women as role models to encourage more women to pursue entrepreneurial ventures and challenge existing stereotypes. Conduct awareness campaigns that educate women entrepreneurs about various financing options, empowering them to make informed decisions about their business development. 	<ul style="list-style-type: none"> Viet Nam’s Supporting Women to Start a Business Project (2017/2025): Focuses on providing tools and resources to women, particularly in rural areas, to inspire entrepreneurship from a young age. New Zealand’s Ministry for Women: Works to integrate women’s perspectives into educational programs and policies, promoting women’s entrepreneurship.
<p>Promoting women in computer science and STEM fields</p>	<ul style="list-style-type: none"> Implement targeted scholarship programs to increase women participation in STEM fields. Encourage partnerships between educational institutions and tech companies to create internship opportunities for women in STEM. Develop outreach programs that highlight career opportunities in STEM for young women, emphasizing the importance of equality and inclusion in these fields. 	<ul style="list-style-type: none"> United States’ Promoting Women in Entrepreneurship Act: Focuses on increasing women’s participation in STEM through educational initiatives. Korea’s Act on Support for Female-Owned Businesses: Includes components to boost women’s involvement in STEM fields. Canada’s Women Entrepreneurship Strategy (WES): Involves investments to encourage women’s participation in STEM and tech entrepreneurship.
<p>Promoting women-led startups in government procurement</p>	<ul style="list-style-type: none"> Implement sex-equality-aimed -sensitive procurement policies that encourage government contracts with women-led businesses. Simplify and digitize procurement processes to make it easier for startups to participate. Provide training and support to help women entrepreneurs comply with government contracting regulations. 	<ul style="list-style-type: none"> United States’ Women-Owned Small Business (WOSB) Federal Contracting Program: Offers set-aside and sole-source contract opportunities for women-owned businesses to increase their participation in government procurement. Chile’s Gender-Equality-Sensitive Procurement Policies: Incentivize companies to adhere to equality between

	<ul style="list-style-type: none"> Establish mentorship programs to guide women-led startups through the procurement process. 	<p>men and women standards in procurement processes.</p> <ul style="list-style-type: none"> Mexico City's Financing for Women Entrepreneurs Program: Provides financial support to women-led businesses participating in government contracts, helping them meet compliance requirements. Australia's Workplace Gender Equality Procurement Principles: Encourage government agencies to engage with women-led startups by integrating equality between men and women considerations into procurement decisions.
<p>Promoting women-led firms' digital transformation and efficiencies through technology</p>	<ul style="list-style-type: none"> Introduce practical technological tools that streamline operations and improve efficiency to enhance business performance. Emphasize real-world applications of AI and other technologies in order to demonstrate their benefits to women entrepreneurs. Utilize digital platforms and online communities to extend the reach of support programs, especially in regions with limited physical infrastructure. 	<ul style="list-style-type: none"> Tokyo's APT Women Program: Provides knowledge and skills to manage and scale businesses for female entrepreneurs in a wide range of fields, including digital transformation. Malaysia's Women Exporters Development Program: Offers customized training and technology-driven solutions for internationalization.
<p>Generate sex-disaggregated data</p>	<ul style="list-style-type: none"> Publish sex-disaggregated data on entry and exit of firms by each annual cohort and by sector Track women-led firms access to capital, markets, and government contracts. 	<ul style="list-style-type: none"> Statistics Canada: Provides sex-disaggregated data on new firm creation and survival rates by cohort.

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Appendix I – Data sources

Business statistics source	Data on firm sizes	Data on sex of owner	Data on business closures by year	Businesses in place (URL)	New business formation source	New business formation URL
Australian Bureau of Statistics	Yes	Yes	Yes	https://www.abs.gov.au/statistics/economy/business-indicators/counts-australian-businesses-including-entries-and-exits/jul2019-jun2023	Australian Bureau of Statistics	https://www.abs.gov.au/statistics/economy/business-indicators/counts-australian-businesses-including-entries-and-exits/jul2019-jun2023
Ministry of Finance and Economy Brunei Darussalam	No	No	No	https://www.mofe.gov.bn/Divisions/statistics.aspx	World Bank's Entrepreneurship Database	https://data.worldbank.org/indicator/IC.BUS.NREG
Statistics Canada	Yes	Yes	Yes	https://www150.statcan.gc.ca/t1/tb11/en/tv.action?pid=3310071701	Statistics Canada	https://www150.statcan.gc.ca/t1/tb11/en/tv.action?pid=3310027001
National Institute of Statistics (INE)	Yes	No	Yes	https://regiones.ine.cl/bio/bio/estadisticas-regionales/economia/economia-regional/estadisticas-de-numero-de-empresas	Central Bank	https://regiones.ine.cl/bio/bio/estadisticas-regionales/economia/economia-regional/estadisticas-de-numero-de-empresas
National Bureau of Statistics of China	Yes	No	Yes	https://data.stats.gov.cn/english/easyquery.htm?cn=C01	National Bureau of Statistics of China	https://www.stats.gov.cn/english/PressRelease/202402/t20240228_1947918.html#:~:text=In%202023%2C%20the%20e%2Dcommerce,established%20per%20day%20on%20average.
Companies Registry	Yes	Yes	Yes	https://www.cr.gov.hk/en/publication/fact-stat/statistics/local-companies-registered/in-2014.htm	Companies Registry	https://www.cr.gov.hk/en/publication/fact-stat/statistics/local-companies-registered/in-2014.htm
Badan Pusat Statistik (Statistics Indonesia)	Yes	No	Yes	https://www.bps.go.id/en/publication/2022/12/19/3220c5de821adde8bd6c7f87/statistics-of-business-characteristics-2022.html	Badan Pusat Statistik (Statistics Indonesia)	https://www.bps.go.id/en/publication/2022/12/19/3220c5de821adde8bd6c7f87/statistics-of-business-characteristics-2022.html
Statistics Bureau	Yes	Yes	Yes	https://www.stat.go.jp/english/data/e-census/2021/index.html ; editions of Statistical handbook https://www.stat.go.jp/english/data/handbook/	Statistics Bureau	https://www.statista.com/statistics/1372830/japan-business-entry-rate/#:~:text=In%20the%20fiscal%20year%202022,based%20on%20employment%20insurance%20data.
Statistics Korea	Yes	Yes	Yes	https://kosis.kr/statHtml/statHtml.do?orgId=101&tblId=DT_2KI2001&vw_cd=MT_ZTITLE&list_i	Ministry of SMEs and Startups	https://www.mss.go.kr/site/eng/02/2020400000002019110624.jsp

				d=J1_3_001_001_001_001_001&scrId=&seqNo=&lang_mode=ko&obj_var_id=&itm_id=&conn_path=MT_ZTITLE&path=%252FstatisticsList%252FstatisticsListIndex.do&orderBy=ASC		
Companies Commission of Malaysia	Yes	Yes	Yes	Pages - Company-and-Business-Registered-Statistic-2021 (ssm.com.my)	Companies Commission of Malaysia	https://data.gov.my/dashboard/business-creation-destruction
National Institute of Statistics and Geography (INEGI)	Yes	Yes	Yes	https://www.inegi.org.mx/temas/directorio/	National Institute of Statistics and Geography (INEGI)	Estudio sobre la Demografía de los Negocios (EDN) 2023 (inegi.org.mx)
Stats New Zealand	Yes	Yes	Yes	https://www.stats.govt.nz/information-releases/new-zealand-business-demography-statistics-at-february-2023/#:~:text=New%20Zealand%20had%20605%2C000%20enterprises,3.0%20percent%20from%20February%202022.	Companies Office	https://www.companiesoffice.govt.nz/insights-and-articles/latest-company-statistics/
National Statistical Office (Papua New Guinea)	No	No	No	https://www.nso.gov.pg/statistics/economy/business-statistics/	World Bank's Entrepreneurship Database	https://data.worldbank.org/indicator/IC.BUS.NREG
National Institute of Statistics and Informatics (INEI)	Yes	No	Yes	https://m.inei.gob.pe/biblioteca-virtual/boletines/demografia-empresarial-8237/1/#lista	Instituto Nacional de Estadística e Informática (INEI)	https://m.inei.gob.pe/biblioteca-virtual/boletines/demografia-empresarial-8237/1/#lista
Philippine Statistics Authority	Yes	Yes	Yes	https://rssocar.psa.gov.ph/establishment/node/56271	Philippine Statistics Authority	https://rssocar.psa.gov.ph/establishment/node/56271
Federal State Statistics Service (Rosstat) [data found from Statista]	Yes	No	Yes	https://www.statista.com/statistics/1235243/number-of-legal-entities-in-russia/	Statista	https://www.statista.com/statistics/1255142/russia-new-business-registrations/
Statistics Singapore	Yes	Yes	Yes	https://www.singstat.gov.sg/find-data/search-by-theme/industry/enterprises/latest-data	Accounting and Corporate Regulatory Authority (ACRA).	https://www.singstat.gov.sg/publications/reference/ebook/industry/formation-and-cessation-of-business-entities
Statistical Bureau	Yes	Yes	Yes	https://eng.stat.gov.tw/News_Content.aspx?n=2395&s=214631	Statista	https://www.statista.com/statistics/320571
National Statistical Office of Thailand	Yes	No	Yes	https://www.nso.go.th/nsoweb/main/summano/Pf ; https://www.worldbank.org/en/programs/entrepreneurship	Business Development Department	https://www.dbd.go.th/
U.S. Census Bureau	Yes	Yes	Yes	https://www.census.gov/data/tables/2021/econ/susb/2021-susb-annual.html ; for non-employer firms, https://www.census.gov/programs-	U.S. Census Bureau	https://www.census.gov/econ/bfs/index.html

				surveys/nonemployer-statistics.htmlhttps://www.census.gov/data/tables/2021/econ/susb/2021-susb-annual.html; for non-employer firms, https://www.census.gov/programs-surveys/nonemployer-statistics.html		
General Statistics Office	Yes	No	Yes	https://www.gso.gov.vn/en/px-web/?pxid=E0503&theme=Enterprise	General Statistics Office	https://www.gso.gov.vn/en/px-web/?pxid=E0501&theme=Enterprise/

Appendix II – Interviews

Table 9 – Illustrative questions per interviewee group

Group	Illustrative interview Questions	Demographic data collected
Associations	<ol style="list-style-type: none"> 1. Could you describe the current state of women entrepreneurship in the startup ecosystem? Are there any trends you have observed in recent years compared to the past? 2. What are women entrepreneurs' biggest challenges in a. working in startups and b. starting and growing their own businesses today? 3. Has your association created any specific programs or partnerships to assist women with these challenges? 4. How does your association support women entrepreneurs? Are there any specific programs or resources that your association provides to help women entrepreneurs to a. work in startups and b. start startups? 5. Has your association been involved in any advocacy work to influence policy changes that benefit women entrepreneurs? 6. What are some changes you would like to see? 7. What advice would your association give to women who are just starting their entrepreneurial journey? 	<ul style="list-style-type: none"> • Economy • Location • Gender • Focus on organization • Size of organization (employees)

<p>Government officials</p>	<ol style="list-style-type: none"> 1. What is the state of women's entrepreneurship in your economy? Can you describe recent examples that highlight either improvements, stagnation, or regression for women entrepreneurs? 2. Does your agency or the government in general track support entrepreneurs and monitor the outcomes? Is this information disaggregated by sex? 3. Does your agency have specific programs or initiatives to support entrepreneurship generally and women entrepreneurs more specifically? What have been the outcomes of these programs? 4. Which good policy practices that support and encourage women entrepreneurs? Does your government or agency implement these practices? 5. In your experience, what are the most important barriers to women's entrepreneurship in the economy? Is access to finance a major constraint for women? Are there policies or programs in place to help women entrepreneurs overcome this barrier? 6. What types of reforms or programs would be ideal to support women entrepreneurs? 	<ul style="list-style-type: none"> • Economy • Location • Gender • Focus on organization • Role in APEC
<p>Startups</p>	<p>For women</p> <ol style="list-style-type: none"> 1. What motivated you to start your own business and how did you identify the opportunity in the market? 2. What were the biggest challenges you experienced when starting your business? More generally, what do you think are the biggest challenges facing women entrepreneurs today? 3. Have you or other entrepreneurs you know experienced sex-based discrimination in accessing funding, resources, or markets? 4. What types of support (financial, mentorship, etc.) have been most beneficial to you as an entrepreneur? What do you wish you had? 5. What kind of government support or resources could further enhance the success of startups for women in general? 6. What advice would you give to women entrepreneurs who are just starting their journey? 7. Is there anything else you would like to share about your experience? <p>For men</p> <ol style="list-style-type: none"> 1. What motivated you to start your own business and how did you identify the opportunity in the market? 2. What do you think are the biggest challenges facing women entrepreneurs today? 3. Have you observed challenges specific to women, such as bias or discrimination, that women face in accessing funds, resources, or markets? What did they look like? 	<ul style="list-style-type: none"> • Economy • Location • Gender • Sector • Size of organization (employees) • Age of organization

	4. Based on your observation, what kind of government support or resources do you believe would further enhance the success of women-led startups?	
Inventors	<ol style="list-style-type: none"> 1. What are common reasons for women entrepreneurs to historically apply for funding less frequently and receive less funding than male entrepreneurs? Is this changing? 2. What do you see as the biggest challenges and barriers facing women entrepreneurs today, and how do you see investors being able to help overcome these obstacles? 3. What is the investment process like at your firm? What criteria do you use to select women entrepreneurs and women-led businesses for investment? 4. What does your firm do to ensure diversity and inclusion in your investment decision-making process? 5. Are there forms of support that your firm provides outside of financial investment that are especially beneficial for women entrepreneurs? (for example, mentorship, networking, other resources) 6. Have you received any feedback from women entrepreneurs that can help improve your support and investment strategies? 7. What do you see as the benefits to promoting and encouraging women to seek and receive funding, on both the micro and macro level? 8. Can you share any success stories or case studies of women entrepreneurs you have supported, and what were the key factors in their success? <p>Additional questions for funds that invest in both women and men:</p> <ol style="list-style-type: none"> 1. Are there any notable differences between men and women entrepreneurs that apply for funding at your firm? What do you think are the reasons for this? 2. Does your firm have specific initiatives or programs to promote diversity? What have been the outcomes of these initiatives? 3. What challenges have you seen or experienced in promoting diversity in funding? How can these challenges be addressed and overcome? 	<ul style="list-style-type: none"> • Economy • Location • Gender of interviewee • Gender focus of fund • Stage of investee • Sectoral focus

Table 10 – Mentorship entities in the APEC region that encourage more woman startups

Economy	Initiative	Description
Australia	Springboard Enterprises Australia	Provides mentoring and resources for women-led startups in tech and life sciences, helping them access capital and expand globally.
Canada	Women in Tech World	A community-driven initiative offering mentorship, networking events, and resources to support women in tech and entrepreneurship across Canada.

Chile	Laboratoria	A tech social enterprise that offers training and mentorship for women in web development and digital careers, aiming to close the gap between women and men in the tech sector.
China	She Loves Tech	A global startup competition focused on women-led and women-impact tech startups, providing mentorship, networking, and funding opportunities.
Hong Kong, China	Women Who Code Hong Kong, China, China	Provides mentorship, technical workshops, and networking events for women in technology to enhance their skills and career opportunities.
Indonesia	Ladies in Tech	Offers mentorship, workshops, and networking opportunities to empower women in tech and support woman entrepreneurs.
Japan	Women's Startup Lab Impact Foundation Japan	Offers mentorship, workshops, and networking opportunities for women entrepreneurs in technology to foster innovation and business growth.
Korea	WISET (Women in Science, Engineering, and Technology)	Provides mentoring, career development, and networking opportunities to increase the participation of women in STEM fields and entrepreneurship.
Malaysia	Girls in Tech Malaysia	Provides mentorship, training, and community support for women in technology, encouraging women's entrepreneurship and leadership in tech.
Mexico	Victoria 147	Offers mentoring, networking, and training for women entrepreneurs, helping them grow and succeed in their business ventures.
New Zealand	ArcAngels	An angel investment network that supports and mentors women entrepreneurs, focusing on providing access to capital and business growth opportunities.
Papua New Guinea	PNG Women Entrepreneurs Connect	A network that provides mentorship and support for women entrepreneurs in Papua New Guinea, focusing on business growth and development.
Peru	Girls in Tech Peru	Provides mentorship, events, and educational programs for women in tech, fostering innovation and leadership in the industry.
The Philippines	Connected Women	A platform that connects women entrepreneurs with mentorship, training, and networking opportunities to empower them in technology and business sectors.
Russia	Women in Tech Russia	Focuses on empowering women in technology through mentorship, training, and community support to increase women participation in tech startups.
Singapore	Mums@Work	Offers mentorship and support for mothers looking to start or grow their own businesses, with a focus on flexible work arrangements and entrepreneurship.
Chinese Taipei	Women in Tech (TWIT)	Offers mentorship, networking, and support for women in technology to enhance their careers and entrepreneurial ventures.

Thailand	Thai Women in Tech Entrepreneur Network (TWIT)	A community that provides mentorship, networking, and support for women entrepreneurs in technology to promote diversity in the tech industry.
United States	Astia	A global organization that offers mentorship, investment, and advisory support to women-led startups, focusing on high-growth sectors, including tech.
Viet Nam	Viet Nam Women Entrepreneurs Council (VWEC)	Provides mentoring, training, and support for women entrepreneurs to enhance their competitiveness in the global market.

Table 11 – Innovative solutions across the APEC region that encourage women to enter and succeed in technology fields

Economy	Initiative	Description	Source
Australia	Tech Girls Movement Foundation	Encourages girls to pursue STEM careers through workshops, competitions, and mentorship programs, including the Tech Girls Are Superheroes program.	Tech Girls Movement Foundation
China	She Loves Tech	Global startup competition focused on women-led and women-impact technology startups, providing mentorship, networking, and funding opportunities.	She Loves Tech
Japan	Women Who Code Tokyo	Offers technical workshops, networking events, and career development resources to increase diversity in tech by supporting women at all career levels.	Women Who Code Tokyo
Korea	Women in Science, Engineering, and Technology (WISET) Program	Offers scholarships, mentorship, and career development programs to increase women's participation in science and technology.	WISET
Malaysia	Women in Tech Malaysia and National Association of Women Entrepreneurs of Malaysia	Provides networking opportunities, mentorship, and training to support women in technology.	NAWEM
The Philippines	TEKTONIK Innovation Summit	Gathers tech startups, investors, and innovators to empower women entrepreneurs through workshops and sessions focused on women in technology.	TEKTONIK
Singapore	Girls in Tech	Empowers, engages, and educates women in technology fields through workshops, hackathons, and mentorship programs.	Girls in Tech Singapore
Viet Nam	STEM Education Initiatives	Programs like Teach for Viet Nam and partnerships with UNDP to promote equality between men and women in STEM education for girls.	Teach for Viet Nam / UNDP Viet Nam

The following organizations contributed to the interviews:

Table 12 – Contributors to interviews

Organization	Type	Description
Springboard Enterprises	Association, Network	A network aiding women-led enterprises to grow by providing essential resources and support business.
Women Entrepreneurs Grow Global (WEGG)	Association, Network	Supports global growth for women entrepreneurs through education and community.
Digital Prosperity Alliance	Association, Network	Focuses on fostering digital economic growth and prosperity through collaborations and policy advocacy.
Women's Business Council Philippines	Association, Network	Advocates for the advancement of women in business and leadership in the Philippines.
Women in Business Program	Association, Network	Advocate for advancing the role of women, Sue partnered with Bank of New Zealand in delivering her Women in Business program to over 5500 women.
For Good Viet Nam Network	Association, Network	Provides funding and support for social enterprises in Viet Nam focused on creating positive social impact.
Startup Grind Peru	Association, network	Organizes events and provides a community for entrepreneurs to connect, learn, and grow their businesses.
Consulate General of the S-Korea in SF	Government	Supports SMEs and startups from Korea in their international expansion and operations in the US market.
Enterprise Singapore	Government	Government agency that supports Singapore businesses in international expansion and facilitates innovation.
WeFi	International organization	Supports women entrepreneurs globally by providing networking opportunities and business development programs.
Osea Angel Investors	Investor	Connects angel investors with women-led startups to facilitate funding and mentorship.
Astia Fund	Investor	Invests in high-growth companies with women leaders, following their successful completion of our Expert Sift™ process.
AVV	Investor	Provides venture capital and strategic advice to high-potential startups in Viet Nam.
SoGAL Ventures	Investor	Invests in early-stage startups with diverse teams, focusing on empowering underrepresented founders.
Kiwibank	Investor	Board Director & Advisor, investor, Member New Zealand APEC Business Advisory Council (ABAC)
Independent	Investor	Investor in Mexican ecommerce and fintech startups.
SPUN	Startup	Early-stage start-up committed to modernizing the global permit & visa creation process for a more delightful global mobility experience.

Adara	Startup	Software development company focused on enhancing e-commerce conversion rates, improving customer experience, and automating processes.
MundoMaritimo	Startup/Mature	Invests in maritime and logistics startups to drive innovation in the shipping industry.
Pairanything	Startups	A wine pairing app that helps users find the perfect wine to pair with their meals.
Accredify	Startups	COO of Accredify, providing digital credentials and certifications for educational programs.
Thailand e-Business Center (TeC)	Startup	Supports the growth of Thai e-businesses by providing investment and strategic guidance.

References

¹ Estimates have been made when there are gaps in time series.

² See [https://www.mosti.gov.my/wp-content/uploads/repository/penerbitan/2021/\(SUPER\)%20Malaysia%20Startup%20Ecosystem%20Roadmap%202021-2030.pdf](https://www.mosti.gov.my/wp-content/uploads/repository/penerbitan/2021/(SUPER)%20Malaysia%20Startup%20Ecosystem%20Roadmap%202021-2030.pdf); Republic Act No. 11337; and Business Development Canada

³ Department of Industry, Science, Energy and Resources

⁴ Darussalam Enterprise (DARE)

⁵ Business Development Canada

⁶ Startup Chile

⁷ [China Briefing](#)

⁸ Invest Hong Kong, China, China

⁹ Indonesian Chamber of Commerce and Industry

¹⁰ https://www.boj.or.jp/en/research/wps_rev/rev_2024/data/rev24e05.pdf

¹¹ https://www.meti.go.jp/english/press/2023/1006_006.html

¹² <https://www.econstor.eu/bitstream/10419/219393/1/1700587404.pdf>

¹³ [https://www.mosti.gov.my/wp-content/uploads/repository/penerbitan/2021/\(SUPER\)%20Malaysia%20Startup%20Ecosystem%20Roadmap%202021-2030.pdf](https://www.mosti.gov.my/wp-content/uploads/repository/penerbitan/2021/(SUPER)%20Malaysia%20Startup%20Ecosystem%20Roadmap%202021-2030.pdf)

¹⁴ <https://www.tiendanube.com/blog/startup-mexico/#:~:text=Una%20startup%20es%20una%20compa%C3%B1a%20de%20estas%20compa%C3%B1as%20en%20M%C3%A9xico.>

¹⁵ <https://www.mbie.govt.nz/business-and-employment/economic-development/startup-advisors-council>

¹⁶ <https://startup.proinnovate.gob.pe/>

¹⁷ Republic Act No. 11337

¹⁸ Ministry of Economic Development of Russia

¹⁹ Startup Singapore also defines startup as “Has not received funding from another government organisation (for the same business idea); Has minimum 51% of issued shares are owned by Singapore Citizen (SC) /Singapore Permanent Resident (PR); Be registered as a private limited entity in Singapore for less than 6 months; Key HQ activities (e.g. management, product development) should be conducted wholly or mainly in Singapore;

Its proposed business idea does not fall under the list provided below: Cafes, restaurants, night clubs, lounges, bars, foot reflexology, massage parlours, gambling, prostitution, social escort services, employment agencies (including recruiting foreign work permit holders and workers/support staff, relocation services, and manpower services), and geomancy.” Startup SG - The Singapore Startup Ecosystem

²⁰ <https://www.nia.or.th/strategy>

²¹ <https://www.uschamber.com/co/start/startup/micro-businesses-vs-startups>

²² Data cube 1: Tables 1-20 of counts of Australian businesses, including entries and exits, in <https://www.abs.gov.au/statistics/economy/business-indicators/counts-australian-businesses-including-entries-and-exits/latest-release>

²³ <https://ised-isde.canada.ca/site/sme-research-statistics/en/key-small-business-statistics/key-small-business-statistics-2023>

²⁴ Of course, deaths by year can be calculated by deducting the total number of firms in year 1 from that in year 0 – for example, if in year 0 there are 1000 firms and in year 1 there are 1150 when also 250 new firms were created, the death rate of firms must be 100, and net gain is 150 firms. But we still would not know which of the 100 deaths are deaths from the cohort of 250 born in year 0.

²⁵ <https://ised-isde.canada.ca/site/sme-research-statistics/en/key-small-business-statistics/key-small-business-statistics-2023>

²⁶ <https://www.frontiersin.org/journals/psychology/articles/10.3389/fpsyg.2020.01557/full>

²⁷ See, for example Khan et al (2024)

https://www.researchgate.net/publication/381740174_Gender_Diversity_Innovation_and_Economic_Growth_A_Multi-Country_Analysis

²⁸ See, for example, <https://onlinelibrary.wiley.com/doi/abs/10.1002/job.2031>

²⁹ <https://www.scirp.org/reference/referencespapers?referenceid=3017818> and Hughes, K. D., Jennings, J. E., Brush, C., Carter, S., & Welter, F. (2012). Extending Women’s Entrepreneurship Research in New Directions. *Entrepreneurship Theory and Practice*, 36(3), 429-442. <https://doi.org/10.1111/j.1540-6520.2012.00504.x>; GEM (Global Entrepreneurship Monitor) (2023). Global Entrepreneurship Monitor 2023/2024 Global Report: 25 Years and Growing. London: GEM.

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³⁰ <https://journals.sagepub.com/doi/abs/10.1177/0266242617704277>

³¹ Delmar, Frédéric and Johan Wiklund. 2008. “The Effect of Small Business Managers’ Growth Motivation on Firm Growth: A Longitudinal Study.” *Entrepreneurship Theory and Practice* 32 (3). <https://doi.org/10.1111/j.1540-6520.2008.00235.x>

³² Gurel, E., Madanoglu, M. and Altinay, L. (2021), "Gender, risk-taking and entrepreneurial intentions: assessing the impact of higher education longitudinally", *Education + Training*, Vol. 63 No. 5, pp. 777-792. <https://doi.org/10.1108/ET-08-2019-0190>

³³ <https://www.mdpi.com/2076-3387/8/4/70>;

³⁴ DiCaprio, Alisa, Kijin Kim, and Steven Beck. 2017. 2017 Trade Finance Gaps, Growth, and Jobs Survey. ADB Briefs, no. 83. <https://www.adb.org/publications/2017-trade-finance-gaps-jobs-survey>.

³⁵ See, for example, <https://www.worldbank.org/en/topic/trade/publication/women-and-trade-the-role-of-trade-in-promoting-womens-equality>

³⁶ Jennings, Jennifer E. and Candida G. Brush. 2013. “Research on Women Entrepreneurs: Challenges to (and from) the Broader Entrepreneurship Literature?” *The Academy of Management Annals* 7 (1). <https://doi.org/10.1080/19416520.2013.782190>

³⁷ For a review, see <https://www.csis.org/analysis/addressing-gender-imbalance-venture-capital-and-entrepreneurship>; <https://www.sciencedirect.com/science/article/abs/pii/S2352673419301295>; <https://journals.sagepub.com/doi/10.1111/etap.12275>

³⁸ https://www.researchgate.net/publication/274711659_Does_gender_matter_in_bank-firm_relationships_Evidence_from_small_business_lending?_cf_chl=tk=jzei_Qwj1RucShOJnXac9tONuPJNxM_BKmuCFqYNFHA-1731956884-1.0.1.1-whFI1f_nT_HYQBmWsDkSStsmPBp1Eb64HtMyKKrYXk

³⁹ See for example <https://www.ifc.org/content/dam/ifc/doc/mgrt/202105-digital2equal-women-and-e-commerce-southeast-asia.pdf> and <https://usa.visa.com/content/dam/VCOM/regional/na/us/sites/documents/veei-women-small-business-in-the-digital-age.pdf>

- ⁴⁰ <https://www.tandfonline.com/doi/full/10.1080/08985626.2023.2261393>
- ⁴¹ https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2779709
- ⁴² <https://www.brookings.edu/wp-content/uploads/2021/11/BrookingsBrief1-Vietnam-FINAL-1.pdf>. See also <https://www.emerald.com/insight/content/doi/10.1108/jabs-03-2024-0127/full/html?skipTracking=true>
- ⁴³ See , for example, <https://www.weforum.org/stories/2021/01/gender-finance-gap-startups-accelerators-entrepreneurs/#:~:text=It's%20not%20about%20the%20quality,investing%20in%20female%20led%20startups> and <https://www.brookings.edu/wp-content/uploads/2021/11/BrookingsBrief1-Vietnam-FINAL-1.pdf>
- ⁴⁴ See <https://cepr.org/voxeu/columns/women-are-less-engaged-trade-why-and-what-do-about-it>, <https://www.worldbank.org/en/topic/trade/publication/women-and-trade-the-role-of-trade-in-promoting-womens-equality>
- ⁴⁵ See, for example, <https://wbl.worldbank.org/content/dam/sites/wbl/documents/2021/02/WBL2022%20Chapter%201.pdf>
- ⁴⁶ For impacts in Korea on women entrepreneurs' work satisfaction, see <https://onlinelibrary.wiley.com/doi/abs/10.1111/j.1540-627X.2011.00338.x>
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