

# Global Entrepreneurship Monitor



## 2018/2019 Women's Entrepreneurship Report



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	GEM
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# Executive Summary

This year marks the 20th anniversary of Global Entrepreneurship Monitor (GEM) conducting entrepreneurship research in economies around the world through a system of rigorous data collection, extensive analysis, and widespread dissemination of results. Studies on women's participation in entrepreneurial behaviors have long been a part of this project, with reports developed approximately every two years. The 2018/2019 report provides analysis from 59 economies, aggregating data from two GEM data collection cycles: 10 economies reporting in 2017 and 49 reporting in 2018. For the purpose of analysis and to allow for comparisons, these countries are grouped into three levels of national income (adapted from the World Bank classification by GNI per capita)<sup>1</sup> and six geographic regions: East and South Asia and Pacific, Europe and Central Asia, Latin America and the Caribbean, Middle East and North Africa, North America, and sub-Saharan Africa. A total of 54 economies were surveyed in the *GEM Women's Entrepreneurship 2016/2017 Report* and in this report, providing the basis for calculation of rate changes between the two reports.

This report considers women's entrepreneurship within the context of entrepreneurship ecosystems. The concept of entrepreneurial ecosystems has achieved importance especially with regard to policy, regional clusters, innovation systems, context, and institutional frameworks that promote and support entrepreneurship. Entrepreneurship ecosystems comprise a number of interconnected elements that are mutually reinforcing, facilitating innovation and the growth of entrepreneurship.<sup>2</sup> By nature, entrepreneurship ecosystems are dynamic; actors and institutions are interdependent in that they are influenced by, and in turn influence, aspects of the ecosystem.<sup>3</sup> Entrepreneurship ecosystems include a conducive culture, available financing, the acquisition and development of human capital, new markets for products and services, and a range of institutional and infrastructure supports; all are factors present in the GEM ecosystem.<sup>4</sup> Underlying most entrepreneurship ecosystem frameworks is

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<sup>1</sup> For the purposes of this report, "low-income" refers to economies identified as low and low-middle income, while "middle income" refers to economies classified as upper-middle income.

<sup>2</sup> Stam, E., & Bosma, N. (2015). Growing entrepreneurial economies: Entrepreneurship and regional development. In Baker, T., & Welter, F. (eds.), *The Routledge Companion to Entrepreneurship*. New York: Taylor & Francis, 325–40. Spigel, B. (2017). The relational organization of entrepreneurial ecosystems. *Entrepreneurship Theory and Practice*, 41(1), 49–72.

<sup>3</sup> Acs, Z. J., Stam, E., Audretsch, D. B., & O'Connor, A. (2017). The lineages of the entrepreneurial ecosystem approach. *Small Business Economics*, 49(1), 1–10.

<sup>4</sup> Isenberg, D. (2010). How to start an entrepreneurial revolution. *Harvard Business Review*, 88(6), 40–50. World Economic Forum (2013). *Entrepreneurial Ecosystems Around the Globe and Company Growth Dynamics*. Davos: World Economic Forum.

the assumption that all entrepreneurs have equal access to resources, participation, and support, as well as an equal chance of a successful outcome (venture startup) within the entrepreneurship ecosystem. The reality is that ecosystem factors, such as regional culture, or economic context, such as country income level, may differentially affect women's perceptions, intentions and motivations, industry choice, and growth aspirations.<sup>5</sup>

This *Global Women's Report* considers how regional, country, and economic factors may highlight similarities and differences between women and men entrepreneurs. The report identifies countries and regions where the gender gap may be significant and where it may be closing. Further, it examines how structural factors such as demographics (age, education) and industry distribution/segregation influence women's entrepreneurship in complex ways across regions, countries, and level of national income. Next, the report explores how women are influencing ecosystems both as entrepreneurs and increasingly as investors. While this report does not specifically measure ecosystem influences on women's entrepreneurship, the descriptive data across 59 economies allow for comparisons across country and regional cultural contexts, as well as income level and thereby provide points of consideration for those launching, growing, or sustaining entrepreneurial ecosystems.

This report brings new findings for consideration by the diverse audience of researchers, policymakers, educators, and practitioners. The ultimate aim is to highlight areas where there are still gaps, challenges, and opportunities, where women entrepreneurs have made significant progress, and how ecosystems influence and are influenced by women entrepreneurs. The findings of this report provide a foundation for guiding future research, policy decision-making, and design of initiatives and programs to enhance growth and development of women's entrepreneurship within context. Overall, this report demonstrates the value women entrepreneurs bring to societies worldwide and suggests areas for improvement in conditions that encourage and support their aspirations.

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<sup>5</sup> Brush, C., Edelman, L., Manolova, T., & Welter, F. (2018). A gendered look at entrepreneurship ecosystems. *Small Business Economics*, 53(2), 393–408.

## KEY FINDINGS

### Entrepreneurship activity

#### Total Entrepreneurial Activity

- Total Entrepreneurial Activity (TEA) represents the percentage of the adult working-age population (18–64) who are either nascent or new entrepreneurs. Globally, the TEA rate for women is 10.2%, approximately three-quarters of that seen for men. Low-income countries show the highest rates of women's TEA at 15.1%. Low-income countries report the smallest TEA gender gap, in which women's TEA is over 80% of that of men. Women's TEA rate drops to 8.1% for high-income countries with a corresponding TEA gender gap of slightly more than two-thirds that of men.
- The highest rates of TEA for women are found in sub-Saharan Africa (21.8%) and Latin America (17.3%). The lowest rates are found in Europe (6%) and MENA regions (9%).<sup>6</sup>
- There are nine countries in which women report entrepreneurial behaviors at levels equal to (parity) or greater than those of men: Angola, Ecuador, Indonesia, Kazakhstan, Madagascar, Panama, Qatar, Thailand, and Vietnam. These countries represent all three levels of national income.

#### Entrepreneurial intentions

- The global average for women's intentions to start a business within the next three years is 17.6%, only about four points less than for men. The highest rates of women's entrepreneurial intentions are found among low-income countries (37.8%), followed by middle-income (21.3%) and high-income countries (12.6%).
- The highest rates of women's entrepreneurial intentions were reported in MENA (36.6%). The lowest rates were reported by women in Europe (8.5%).

- The gender gap for entrepreneurial intentions is closest to parity in low-income countries at 86% women-to-men ratio, increasingly substantial for middle-income and high-income countries with a gap of 26%.

#### Established business ownership

- Progress was also noted in terms of women's ownership of established businesses. GEM defines established businesses as those in operation for more than 42 months. Globally, 6.2% of women entrepreneurs own established businesses, about two-thirds the rate of men (9.5%).
- The highest rates are seen in sub-Saharan Africa (11.3%) and Asia (9.1%) with the lowest rates of established business ownership reported in MENA (4.5%), Europe (5.3%), North America (5.7%), and Latin America (6.5%).
- Four countries reported parity or greater of established business ownership: Angola, Kazakhstan, Saudi Arabia, and Vietnam.

#### Business discontinuance

- The average global rate for business discontinuance is about 10% lower for women (2.9%) than for men (3.2%).
- Business discontinuance rates are highest in low-income countries (approximately 5%) with the highest rates reported in sub-Saharan Africa (10.1%).
- Business discontinuance rates decrease as country-level income increases. The lowest discontinuance rates for women are found in Europe (1.4%).
- The causes of business discontinuance are attributed to a set of reasons including lack of profit, lack of finance, other job/business opportunity, retirement, sale or acquisition, personal/family reasons, government tax/regulations, and so on.
- Less than half of women's business closure reasons are directly attributed to financial reasons (45.8%), including 29.6% reporting closure due to lack of profit and 16.2% citing lack of financing.

<sup>6</sup> For the sake of brevity in this report, "Asia" refers to East and South Asia and the Pacific, "Europe" refers to Europe and Central Asia, "Latin America" refers to Latin America and the Caribbean, and "MENA" refers to Middle East and North Africa.



## Entrepreneur characteristics

### TEA by age

- As in past years, the highest participation rates in entrepreneurship among women are in the 25–34 and 35–44-year-old age groups, with gender parity among 18–24-year-olds in Asia and greater than parity for women aged 25–34 in sub-Saharan Africa.

### TEA by education

- Globally, TEA rates increase with level of education for both men and women, while the gender gap tends to increase.
- Notably, graduate education leads to lower TEA rates for women compared to men, except in sub-Saharan Africa, where women with graduate education are 30% more active in startups than men with graduate education.

### Entrepreneurs' perceptions

- Among women entrepreneurs, 63% perceive opportunities, a figure that is near parity (within five points) with that for men in all regions except Europe. Women entrepreneurs in high-income countries are slightly less likely to perceive opportunities.
- The gender gap in perceptions of startup skills is about 6%, with 79.5% of women perceiving they have skills to start a business compared to 84.2% of men. Only Europe, North America, and sub-Saharan Africa show parity.
- 67.9% of women, versus 72.3% of men, indicated they are undeterred by fear of failure. Europe is at parity, but the largest gap is in the middle-income countries (9%).
- Women entrepreneurs are nearly as likely to know an entrepreneur as men, 62.8% compared to 67.8% in all regions except Latin America and MENA.

## Impact and performance of women entrepreneurs

### Solo entrepreneurship

- Among women, 36.4% work as solo entrepreneurs, operating on their own without co-founders or employees, compared to 26.9% of men.
- A gender gap for these activities exists across all regions. Brazil has the highest percentage of women solo entrepreneurs (83%), while Colombia reported the lowest percentage (2.3%).
- Five countries are at parity with solo entrepreneurship: Brazil, Estonia, Latvia, the Republic of Korea and Slovenia. There are only 12 countries in which solo entrepreneurship rates are lower for women than men.

### Current employees

- GEM regularly reports on the number of businesses that have 20 or more employees. It should be noted that this level of employment is reported by only a small percentage of respondents, both women and men.
- Globally, 2.5% of women entrepreneurs and 5% of men entrepreneurs have more than 20 employees.
- Women are more likely than men to have larger businesses (20+ employees) in 10 countries: Angola, Canada, Colombia, Estonia, Iran, Latvia, Qatar, South Africa, Turkey, and Uruguay, while the employment numbers are at parity in Argentina and the United Arab Emirates (UAE). Women entrepreneurs in Iran are three times more likely to report having 20 or more employees compared to men entrepreneurs.

### Growth expectations

- Overall, fewer than 30% of all entrepreneurs expect to add more than six employees in the next five years, but there is a substantial gender gap in that 18.7% of women entrepreneurs expect high growth compared to 29% of men entrepreneurs.
- North America (26%) and MENA (21.8%) reported the highest number of women expecting high growth.

- The largest gender gap is in sub-Saharan Africa, where women reported high growth expectations half as often as men.
- In six countries, more women entrepreneurs than men entrepreneurs expect high growth: India, Indonesia, Kazakhstan, Latvia, the Republic of Korea, and the Russian Federation. In five countries, expectations of women are equal to those of men: China, Peru, Slovenia, Switzerland, and the UAE.

### Innovation

- Innovation rates tend to increase with economic development for both men and women entrepreneurs, from about 20% in low- and lower-middle-income countries to 30% in high-income countries.
- Men more often reported than women that their businesses are innovative, by about 30% across countries.
- In 24 countries women are more likely than men to describe their businesses as innovative.
- Eighteen countries show women being more innovative or at parity with men; most notably the Russian Federation, where women entrepreneurs are 2.1 times more likely than men to offer an innovative product.

### Internationalization

- The global rate of internationalization is within 10 percentage points of parity for women and men entrepreneurs: 26.1% compared to 28.2%.
- Women in high-income countries are the most likely to report a high percentage of international sales (14.3%), while those in middle-income (11.8%) and low-income countries (8.2%) are less likely to report a high percentage of international sales.
- Women entrepreneurs are more likely to report internationalization than men entrepreneurs in 18 countries, most notably in the Russian Federation, where women are twice as likely as men to report international sales over 25%. An additional three countries reported parity in the international entrepreneurial behaviors of women and men.

### Industry

- Globally, 53.4% of women's TEA is in wholesale/retail trade compared to 43.5% of men's activity. Women entrepreneurs are more likely to be present in government/health/education and social services. The largest gender gaps are in agriculture, mining, and information and communications technology (ICT), where men entrepreneurs are more than twice as likely as women to operate. Importantly, 16 countries reported no women in ICT.
- High-income countries have the lowest women's TEA in wholesale/retail trade by nearly 20%; and women entrepreneurs operate in financial, professional, and consumer services at twice the rate of women at other national income levels.

## Entrepreneurial ecosystem influences

### Expecting good opportunities

- Globally, opportunity perceptions by women (42.1%) and men (47.3%) represent a 10% gender gap, a 2% improvement from the last report.<sup>7</sup>
- Sixteen countries indicate equal levels of positive opportunity perceptions by women, while in two countries, Kazakhstan and Taiwan, women have higher opportunity perceptions than men.
- The largest gender gaps in opportunity perceptions are in Bosnia & Herzegovina, Egypt, France, Japan, and Slovakia.
- Women in high-income countries are less likely than men to report that they see opportunities, representing a 13% gender gap.

### Having the skills to start a business

- Women reported having lower confidence levels than men in their capabilities to start a business, and there is no region in which women rank higher than men. The gender gap has narrowed since the last report by 2%, with five countries moving to near

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<sup>7</sup> Ecosystem influences were measured for all respondents, both entrepreneurs and non-entrepreneurs.

parity: Cyprus, Israel, Kazakhstan, Saudi Arabia, and Vietnam.

- Globally, 43.4% of women and 55.6% of men reported that they believe they have the capabilities to start a business.
- Only one country reported women having a higher level of confidence in their capabilities than men: Angola, where women are 10% more likely than men to report having the skills to start a business.

#### Undeterred by fear of failure

- Overall, men are about 10% more likely to be undeterred by fear of failure than women; and, across all regions, men have a more positive response than women.
- Among the women surveyed, those in sub-Saharan Africa are the least deterred by fear of failure (66.5%), and there are 10 countries in which 65% or more reported no fear of failure.
- In all but 14 countries, the likelihood of women being undeterred by fear of failure declined compared to the last report and, globally, the gender gap increased by 2% on average.

#### Personally knows an entrepreneur

- Globally, approximately 33% of women reported knowing an entrepreneur compared to 42.2% of men, representing a global gender gap of about 17%.
- On average, across all regions women are more likely than men to personally know an entrepreneur.
- In six countries, women indicated they are equally likely as men to know an entrepreneur; the highest rates for women were reported in Indonesia and Saudi Arabia, both over 70%.

#### Ease of starting a business

- Globally, women (39.1%) and men (42.5%) are almost equally likely to believe in the ease of starting a business.
- In 16 countries, there is gender parity in the perception of the ease of starting a business; and, in 11 countries, women are more likely than men to report that starting a business

is easy. Luxembourg, Mexico, and Slovakia indicated the most positive perceptions for women, all over 70%.

#### Starting a new business is a good career idea

- Globally, women and men are equally positive that entrepreneurship is a good career, both with rates of about 62%. Gender parity is strikingly consistent across regions and income levels.
- For women, perceptions of new business as a good career are highest in low-income countries (70.6%), and lowest in high-income countries (58.8%). Among women, Sweden has the most positive perceptions about entrepreneurship as a good career at more than 95%.
- Perceptions of new business as a good career are equal for men and women in 10 countries. In 27 countries, women have more favorable perceptions than men, especially in Canada, where women are three times more likely than men to report new business as a good career.

#### Owning a business is a high-status job

- Entrepreneurship is viewed equally by about two-thirds of women and men worldwide as a high-status job. Gender parity in this perception is found in 15 countries and is consistent across regions and national income levels.
- The highest rate of perceiving business ownership as a high-status job was reported in China, where 87.4% of women agree with this statement, 1.3 times more than men. The lowest rate was reported in Ireland, where only 42.8% of women view owning a business as a high-status job, at about 60% the rate of men.
- In France, Morocco, and the Republic of Korea, women are more than 1.5 times more likely than men to view entrepreneurship as a high-status occupation.



Media is favorable to new businesses

- Women and men are equally likely to view media coverage as favorable (approximately 60% globally), and all regions show gender parity.
- High-income countries reported the lowest perceptions of good media coverage for new businesses at about 58%, compared to the low-income countries at 65%.
- Six countries show gender parity in favorable media coverage for new businesses, while 27 countries show more favorable reports for women than men, the highest being Croatia, where women are 2.2 times more likely than men to report favorable media coverage for new businesses.

## Entrepreneurial investors

Entrepreneurial investment rates

- Globally, 3.4% of women compared to 5.4% of men provide funding for entrepreneurial startups. There is no region in which the percentage of women investors exceeds that of men, and the Europe region reflects the overall lowest percentage of women investors at 2.6%.
- The highest rates of women's investment activity were reported in Chile and Sudan, where over 10% of women are active, compared to almost 20% of men.
- Median investment amount varies widely by region, country, and gender. There is no region in which the median investment rate of women exceeds that of men, although the range for women's median investment is a low of \$145 in Uruguay, compared to a high of \$27,187 in the Republic of Korea.<sup>8</sup>
- Women invest median amounts at parity with men in six countries: Colombia, Italy, Poland, Slovenia, Thailand, Turkey, and Uruguay. They invest a greater median amount compared to men in seven other

countries: Australia, Bulgaria, Cyprus, Greece, Indonesia, Madagascar, and the Russian Federation.

Investor relation to entrepreneur

- Women (64.2%) are much more likely to invest in a family member than men (51.9%), and this holds across all regions. The range of support varies from a high of 100% in Madagascar to a low of 25% in France. Women in North America are least likely to support family members with investment at almost 50%, compared to women in sub-Saharan Africa at 70%. Women in Ireland, Latvia, and Taiwan are twice as likely as men to invest in family members.
- Women are less likely to support work colleagues with investment compared to men; and only one region, Asia, displays gender parity, where about 11% of women and men invest in work colleagues. There are 14 countries in which no women invest in work colleagues, and only three countries in which women and men invest in work colleagues at the same level (Peru, Turkey, and Vietnam).
- Women are also less likely than men to invest in friends and neighbors in all regions except North America, where women are 10% more likely compared to men to invest in friends and neighbors. There are seven countries in which women invest in friends and neighbors at a greater rate than men, with the highest rates noted in India, Taiwan, and the United States at about 40% or more.
- Globally, women are less likely than men to invest in strangers with a good business idea (7.5% and 9%, respectively). However, in 15 countries women are more likely than men to invest in strangers — most notably Israel, where women are 13 times more likely than men to report investing in strangers with a good idea — but 13 countries show no evidence that women have funded strangers.

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<sup>8</sup> Median investment amounts are shown in US dollars.

## IMPLICATIONS

For 20 years GEM teams have collected, analyzed, and shared data and conclusions about entrepreneurial activities and behaviors around the world. The project has included more than 500 researchers in 112 economies, and the time frame has spanned critical global events and changes. Throughout this time, GEM has systematically included the consideration of women business owners and their businesses with a goal of providing objective information for others to guide practice and policy.

This latest special report on women and entrepreneurship suggests that significant work remains to be done to encourage and support women entrepreneurs and their ability to build economic security for themselves, their families, their communities, and their countries. The conclusion of this report considers the influences of entrepreneurial ecosystems on women entrepreneurs in terms of perceptions of opportunities, and intentions; the influences of women entrepreneurs and women investors on ecosystems; and structural factors, including demographics and industry. Three main recommendations are offered.

- 1. Address stereotypes of who are entrepreneurs and what is entrepreneurship.** From an economic development perspective, expanding societal views to embrace a more inclusive vision of entrepreneurship is a critical action that can be supported by all ecosystem participants. The GEM *Global Report* for this year focused on a theme of “entrepreneurship of all kinds” which embraces women entrepreneurs. This

inclusive approach is more beneficial and far-reaching than a continued emphasis on past models.

- 2. Change the dialogue about entrepreneurship to match the reality reflected in the data.** There is a long-standing pattern within entrepreneurial ecosystems of focusing on access to capital, which is indeed a critical concern for business owners. However, problems with capital may sometimes be symptoms rather than the underlying illness. This report looks at the global data to reveal that only 16.2% of women (15.4% of men) attributed the closure of their business to lack of access to capital. Other reasons for discontinuance were sale of the business or retirement. This finding suggests a need for more training on how to capture value when exiting a business.
- 3. Learn from each other about the best ways to build successful businesses and a vibrant entrepreneurial ecosystem.** The comparisons between women and men provided in this study are not intended to elicit “men’s numbers” as targets, objectives, or goals; rather, they are simply descriptive measurements. From an economic development perspective, the actual objective is to learn from the data, quantitative and qualitative, in order to guide the development of an ecosystem that works well for all, informed by social, cultural, political, and economic contexts, while also identifying what may need to be addressed in these contextual dimensions.

# Introduction

This year marks the 20th anniversary of the Global Entrepreneurship Monitor (GEM), the largest and longest active research collaboration exploring questions about entrepreneurship around the world. The scale and longevity of the GEM project make it possible to research patterns of entrepreneurship, innovation, and economic development in order to better inform policy, programs, and practice. Since 1999, the GEM research program has collected data about entrepreneurship in more than 100 economies. Studies on women's participation in entrepreneurial activities have long been a part of this global research project, with *Global Women's Reports* developed approximately every two years, comparing women and men entrepreneurs around the world.

GEM uses a proprietary system of rigorous data collection, extensive analysis, and widespread dissemination of results. The research is conducted by a consortium of teams of academic researchers from countries around the world. The teams use a shared methodology to ensure the comparability of the data, allowing authors of the report to combine all work in order to present this global picture (see Figure 1). The annual surveys collected by the GEM research teams focus on entrepreneurship broadly explored.

Entrepreneurial activities are considered from the time of intentions through the nascent stage when first building a business (not yet having paid more than three months in salaries), to new businesses (less than 3.5 years old), through ownership of established businesses (more than 3.5 years old), and discontinuation of others. GEM provides information on the age and education of business owners, along with their motivations for starting a business. The businesses owned by entrepreneurs are considered based on industry choice, job creation, innovation, growth expectations, and their participation in international markets.

The GEM framework pulls all these dimensions together to guide this analysis, including:

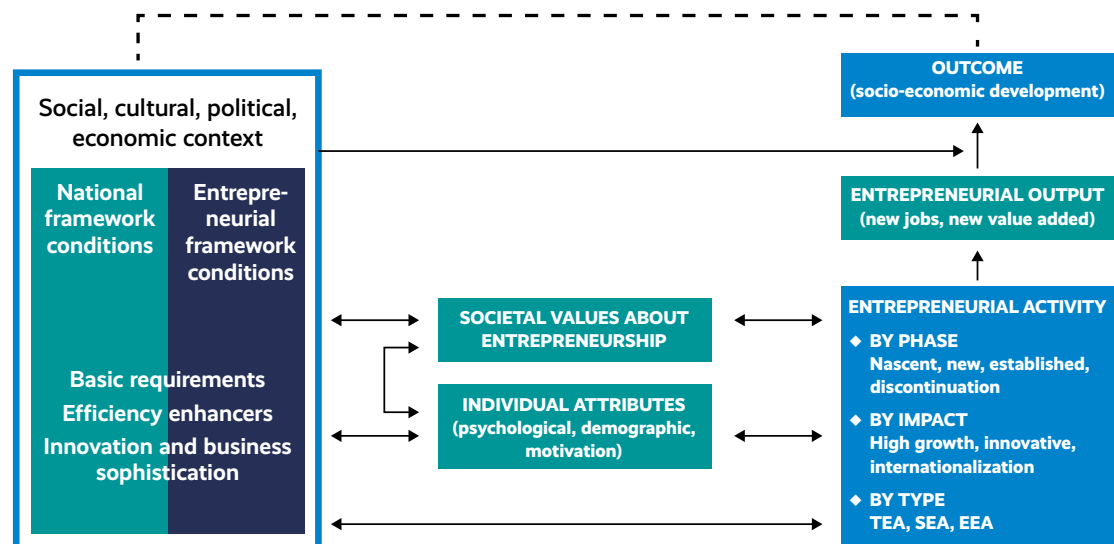
- Changes and trends over time in individual and business characteristics;
- Examination of the women–men gender gap with regard to rates of entrepreneurship and other dimensions;
- Changes and trends in societal attitudes; and
- Impact indicators and comparisons across businesses led by women and men.

Past reports have considered the importance and benefits of women's entrepreneurship globally and, in particular, have examined the

**FIGURE 1:**

The entrepreneurship process and GEM measures

Source: GEM 2018/2019 Global Report





## Uruguay

**Alice Otegui, Founder and Creative Director, CALMO (est. 2017)**

Launched in January 2017, Calmo is a slow fashion label based in Montevideo, Uruguay, which offers elevated sustainable clothing and home goods that are handmade locally by artisans. Every piece is one of a kind and crafted from noble materials, with production processes that minimize the use of toxic chemicals, such as natural dyeing and eco-printing. Calmo works to preserve traditional craftsmanship and produce authentic pieces with their signature modern twist. The company's method is based on timeless capsule collections, meaning no set seasons and no surplus stock.

Calmo targets the international sustainable luxury home and clothing markets. Currently, it is selling abroad by direct contact via Instagram and email, while building an online shop on its website.

In 2016, Alice participated in Socialab, an NGO acceleration program which supports social entrepreneurs. In 2017, she received seed funding from the National Agency for Development (ANDE). According to Alice, her challenge is "offering luxury products to a very small niche in Uruguay, and dealing with the production costs of pieces that have such high added value."



gender gap and its implications across economies and regions. Because GEM is the only multi-country survey of individuals and their attitudes, previous reports have uniquely been able to identify: significant deficits in perceptions about entrepreneurship as held by women and men entrepreneurs; where TEA rates differ across countries; and activity differences in businesses led by women and men.

This 2018/2019 report provides analysis from 59 economies, aggregating data from two GEM data collection cycles: 10 economies reporting in 2017 and 49 reporting in 2018. For the purpose of analysis and to allow comparisons, these countries are grouped into three levels of national income (defined by the World Bank based on GNI per capita) and six geographic regions: East and South Asia and the Pacific ("Asia"), Europe

and Central Asia ("Europe"), Latin America and the Caribbean ("Latin America"), Middle East and North Africa ("MENA"), North America, and sub-Saharan Africa (see Table 1). A total of 54 economies were surveyed in the *GEM Women's Entrepreneurship 2016/2017 Report* and in this report, providing the basis for calculation of rate changes between the two reports.

The 59 economies in this report represent an estimated 231 million women who are starting or running new businesses around the globe. The report considers women's entrepreneurship within the context of entrepreneurship ecosystems. The concept of entrepreneurial ecosystems has achieved importance especially with regard to policy, regional clusters, innovation systems, context, and institutional frameworks that promote and support entrepreneurship.

Regions	High income	Middle income	Low income
East and South Asia and the Pacific	<b>Australia</b> Japan <b>Republic of Korea</b>	<b>China</b> <b>Malaysia</b> <b>Taiwan</b> <b>Thailand</b>	<b>India</b> <b>Indonesia</b> <b>Vietnam</b>
Europe and Central Asia	<b>Austria</b> <b>Croatia</b> <b>Cyprus</b> <b>Estonia</b> <b>France</b> <b>Germany</b> <b>Greece</b> <b>Ireland</b> <b>Italy</b> <b>Latvia</b> <b>Luxembourg</b> <b>Netherlands</b> <b>Poland</b> <b>Slovak Republic</b> <b>Slovenia</b> <b>Spain</b> <b>Sweden</b> <b>Switzerland</b> <b>United Kingdom</b>	Bosnia & Herzegovina <b>Bulgaria</b> <b>Kazakhstan</b> <b>Russian Federation</b> <b>Turkey</b>	
Latin America and the Caribbean	<b>Chile</b> <b>Panama</b> <b>Puerto Rico</b> <b>Uruguay</b>	<b>Argentina</b> <b>Brazil</b> <b>Colombia</b> <b>Ecuador</b> <b>Guatemala</b> <b>Mexico</b> <b>Peru</b>	
Middle East and North Africa	<b>Israel</b> <b>Qatar</b> <b>Saudi Arabia</b> <b>United Arab Emirates</b>		<b>Arab Republic of Egypt</b> <b>Morocco</b> Sudan <b>Islamic Republic of Iran</b> <b>Lebanon</b>
North America	<b>Canada</b> <b>United States</b>		
Sub-Saharan Africa		<b>South Africa</b>	Madagascar Angola

**TABLE 1**

Economies featured in the 2018/2019 GEM Women's Report by income level

Note: the 54 countries from the prior GEM Women's Report (those in blue/bolder type) are used for direct comparison of rate changes.

Entrepreneurship ecosystems comprise a number of interconnected elements that are mutually reinforcing, facilitating innovation and the growth of entrepreneurship.<sup>9</sup> By nature, entrepreneurship ecosystems are dynamic. Actors and institutions

are interdependent in that they are influenced by, and in turn influence, aspects of the ecosystem.<sup>10</sup> Entrepreneurship ecosystems include a conducive culture, available financing, the acquisition and development of human capital, new markets for

<sup>9</sup> Stam, E., & Bosma, N. (2015). Growing entrepreneurial economies: Entrepreneurship and regional development. In Baker, T., & Welter, F. (eds.), *The Routledge Companion to Entrepreneurship*. New York: Taylor & Francis, 325–40; Spigel, B. (2017). The

relational organization of entrepreneurial ecosystems. *Entrepreneurship Theory and Practice*, 41(1), 49–72.  
<sup>10</sup> Acs, Z. J., Stam, E., Audretsch, D. B., & O'Connor, A. (2017). The lineages of the entrepreneurial ecosystem approach. *Small Business Economics*, 49(1), 1–10.

## Ecosystem conditions and gendered entrepreneurial activity

Using data from the GEM Adult Population Survey and the National Expert Survey, Diana Hechavarria and Amy Ingram analyzed the effect of entrepreneurial ecosystems on 75 countries between 2001 and 2014 on the rates of entrepreneurship for men and women. Their results showed that several ecosystem factors had no influence on rates of female and male entrepreneurship. However, they also discovered that the prevalence in entrepreneurship is highest for women when the entrepreneurial ecosystem features low barriers to entry, supportive government policy toward entrepreneurship, minimal commercial and legal infrastructure, and a normative culture that supports entrepreneurship. Further, social norms play a complex role influencing venturing depending on level of development of the economy. Conversely, this study also showed that prevalence rates for men are highest when there is supportive government policy but weak government programs aimed toward business creation.

Hechavarria, D. M., & Ingram, A. E. (2019). Entrepreneurial ecosystem conditions and gendered national-level entrepreneurial activity: A 14 year panel study of GEM. *Small Business Economics*, 53(2), 431–58.

### ENTREPRENEUR HIGHLIGHT

## Ireland

**Kylie Woodham, Co-owner,  
Manger's Farm (est. 2017)**



Kylie and her husband founded Manger's Farm in 2017. Passionate about sustainable agriculture, they are dedicated to growing ethical and innovative products. Kylie is grateful for the unbelievable help she received via their participation in Accelerating the Creation of Rural Nascent Start-ups (ACORNS), an Irish program designed to support early-stage female entrepreneurs living in rural Ireland and which runs for six months on a part-time basis.

products and services, and a range of institutional and infrastructure supports; all of these factors are present in the GEM ecosystem framework.<sup>11</sup>

Underlying most entrepreneurship ecosystem frameworks is the assumption that all entrepreneurs have equal access to resources, participation, and support, as well as an equal chance of a successful outcome (venture startup) within the entrepreneurship ecosystem. The reality is that ecosystem factors such as regional culture, or economic context such as country income level, may differentially affect women's perceptions, intentions and motivations, industry choice, and growth aspirations.<sup>12</sup> Overall, this report demonstrates the value women entrepreneurs bring to societies worldwide and suggests areas for improvement in conditions that encourage and support their aspirations.

There is no longer a question regarding the role that women play in contributing to global economic development. As a Pew Research Center analysis shows, women make up 40% of the workforce in 80 countries, covering a wide range from 13.4% in Qatar to 52.2% in Malawi.<sup>13</sup> It is

<sup>11</sup> Isenberg, D. (2010). How to start an entrepreneurial revolution. *Harvard Business Review*, 88(6), 40–50.

World Economic Forum (2013). *Entrepreneurial Ecosystems Around the Globe and Company Growth Dynamics*. Davos: World Economic Forum.

<sup>12</sup> Brush, C., Edelman, L., Manolova, T., & Welter, F. (2018). A gendered look at entrepreneurship ecosystems. *Small Business Economics*, 53(2), 393–408.

<sup>13</sup> Fetterolf, Janell (2017). In many countries, at least four-in-ten in the labor force are women. Pew Research Center, March 7, 2017. <http://www.pewresearch.org/fact-tank/2017/03/07/in-many-countries-at-least-four-in-ten-in-the-labor-force-are-women> (accessed November 8, 2019).



## ENTREPRENEUR HIGHLIGHT

### United States

**Sashee Chandran, CEO,  
Tea Drops (est. 2015)**

Sashee grew up around traditional loose-leaf tea and tea culture — her Chinese mother and Sri Lankan father kept the traditions when they immigrated to the United States. The idea of launching her own tea venture came to Sashee while at work. The process of making a cup of loose-leaf tea was cumbersome, and the quality of instant options were disappointing. After two years of experimenting with her product and a lot of grinding work (from writing patent applications to perfecting tea blends), Sashee developed an organic, dissolvable loose-leaf “tea drop” which is pressed into shapes using raw sugar. She used her savings and took out a line of credit on her home in order to turn her vision into reality, launching Tea Drops in 2015.



Tea Drop has experienced rapid growth, with over 1,600 retail locations now carrying her certified free-trade products. In May 2018, Sashee participated in a three-day workshop sponsored by the Tory Burch Foundation, and at the end Tea Drops was awarded a \$100,000 investment from the fashion entrepreneur. In June 2018, the company closed a \$1.9 million round of seed funding led by the women-owned venture capital fund AccelFoods.

projected that nearly one billion women will enter the global labor force between 2012 and 2022.<sup>14</sup> In addition, women control more than \$20 trillion in annual consumer spending, with this number to rise to nearly \$28 trillion in the next five years.<sup>15</sup>

This *Global Women's Report* considers how regional, country, and economic factors may highlight similarities and differences between women and men entrepreneurs. It identifies countries and regions in which the gender gap may be significant and where it may be closing. Further, it examines how structural factors such as demographics (age, education) and industry distribution/segregation influence women's entrepreneurship in complex ways across regions, countries, and level of national income. Next, it explores how women are influencing ecosystems both as entrepreneurs and increasingly as investors. While this study does not specifically measure ecosystem influences on women's entrepreneurship, the descriptive data across 59 economies allow comparisons across country and regional cultural contexts, taking into account the level of income by country as an important economic consideration.

This report brings new findings for consideration by the diverse audience of researchers, policymakers, educators, and practitioners. The ultimate goal is to highlight areas where there are still gaps, challenges, and opportunities, where women entrepreneurs have made significant progress, and how ecosystems influence and are influenced by women entrepreneurs. The findings of this study provide a foundation for guiding future research, policy decision-making, and design of initiatives and programs to enhance growth and development of women's entrepreneurship within context.

<sup>14</sup> *The Economist* (2012). Economic contribution of women. October 20, 2012. <https://www.economist.com/news/economic-and-financial-indicators/21564857> (accessed November 8, 2019).

<sup>15</sup> Silverstein, M. J., & Sayre, K. (2009, September). The female economy. *Harvard Business Review*. <https://hbr.org/2009/09/the-female-economy> (accessed November 11, 2019).

# Total Entrepreneurial Activity (TEA): Rates and Motivation

Total Entrepreneurial Activity (TEA) represents the percentage of the adult working-age population, aged 18–64, who are either in the process of starting a new business but have not

paid wages for more than three months (nascent entrepreneurship), or have businesses older than three months but younger than 42 months (early-stage business activity).

## TEA RATES

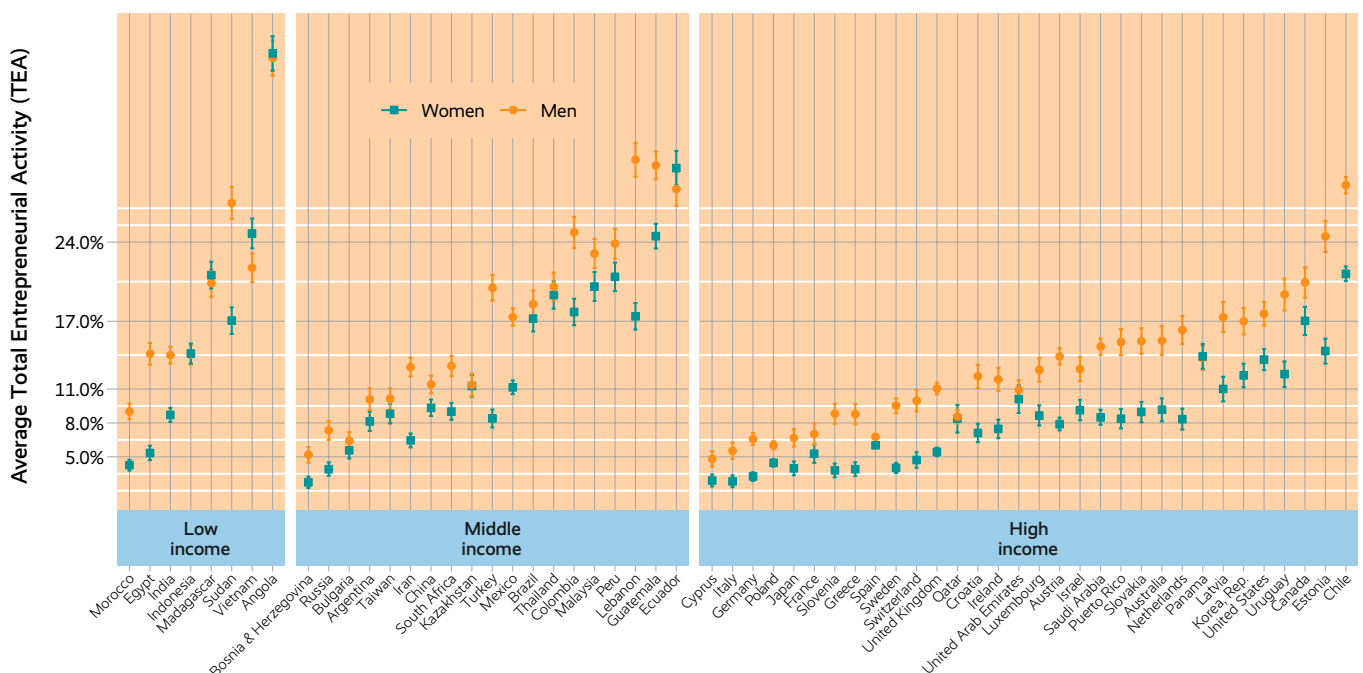
Globally, the average rate for women's TEA is 10.2%, over three-quarters the global rate for men's TEA. As shown in Figure 2, low-income countries show the highest TEA rates for women at 15.5% compared to only 8.4% women's TEA in high-income countries. The smallest gender gap in TEA is found in low-income countries (15%), where women's TEA is over 80% of men's TEA. In contrast, the largest gender differences are found in high-income countries where, consistent with prior GEM findings, women's TEA represents less than two-thirds of men's TEA. Recent years have seen an uptick in participation of low-income

countries in the GEM research program, which influences global, regional, and income-level calculations.

Figure 3 shows the variation in average TEA by gender and region. The highest rates of TEA for women are found in the sub-Saharan Africa (21.8%) and Latin America (17.3%) regions, representing a larger number of low-income countries in which necessity demands women's participation in income generation, even in contexts where conservative gender ideals place the breadwinning burden on men and relegate women to the household. Also consistent with

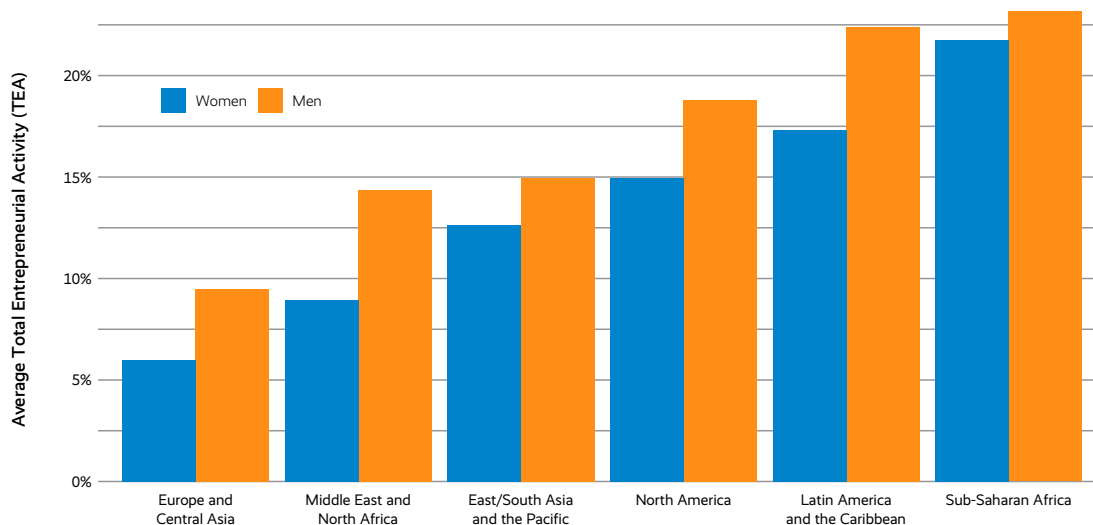
**FIGURE 2**

Average TEA rates by gender and country, grouped into three levels of national income  
Source: GEM 2017–2018



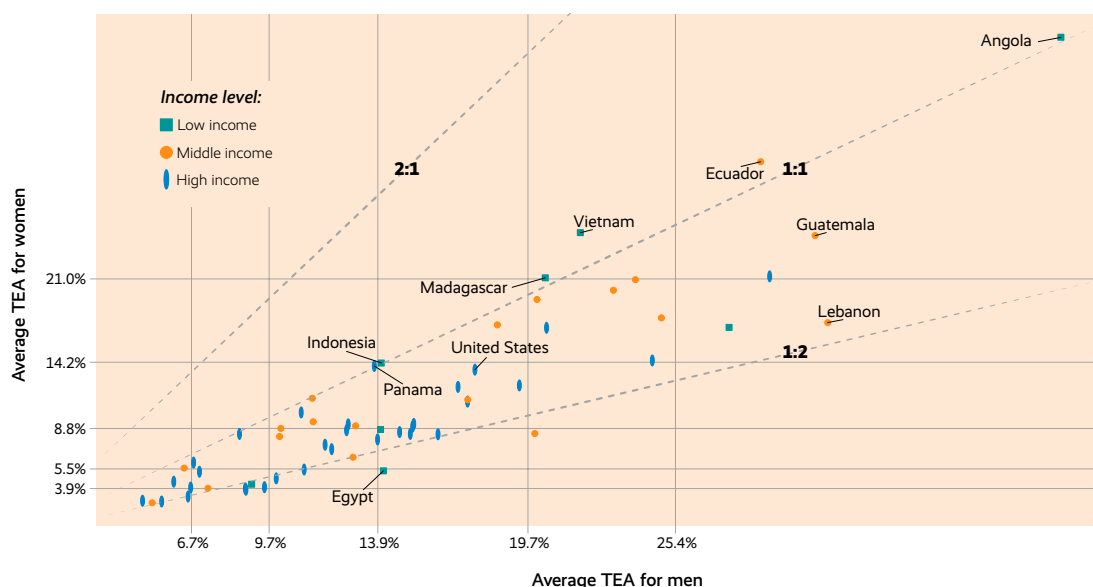
**FIGURE 3**

Average TEA by gender and region  
Source: GEM 2017–2018



**FIGURE 4**

Plot of average TEA rates for women and men by income level  
Source: GEM 2017–2018



prior survey years, the lowest rates of women's TEA and the largest gender gaps are found in Europe (6% and 0.63 W/M ratio) and MENA (9% and 0.63 W/M ratio).

While a gender gap persists in every world region in this report, at the country level there are nine countries in which women participate at levels equal to or higher than those of men. Notably, average TEA was about 10% higher for women than men in Ecuador and Vietnam, where women are very active in the economy and in new business creation. TEA rates are at gender parity in Angola, Indonesia, Kazakhstan, Madagascar, Panama, Qatar, and Thailand. As illustrated by the plot of women vs men TEA rates

(Figure 4), nine economies fall on or above the parity line indicating a 1:1 women-to-men TEA ratio. Most others fall below this line, with some falling below the 1:2 ratio line, where women start businesses at half or less than half the level of men. These findings stand in contrast to the last biennial report where only five countries reported women's TEA at parity with or higher than men's TEA (Brazil, Indonesia, Mexico, the Philippines, and Vietnam).

Low TEA rates for women and wide gender gaps decrease overall entrepreneurship rates at the national level, slowing economic growth, especially to underserved markets. Across countries this year, Bosnia & Herzegovina show



the lowest women's TEA rate at 2.7% compared to the regional average of 6%, while Angola reported the highest women's TEA rate at 40.7%. Further, the gender gap in TEA is as much as 60% in five very different countries, including Egypt, Greece, Slovenia, Sweden, and Turkey, suggesting that the underlying explanations may be complex. Importantly, contextual factors likely play an important role in stimulating entrepreneurial activity, including labor force participation, occupational and industry segregation by gender, cultural and religious beliefs, political stability, employment options, and family arrangements. These factors may combine in different ways to encourage or discourage women's entrepreneurship.

## CHANGES IN TEA RATES

Of all the economies surveyed in the last report and in this report, a total of 54 appear in both. Comparing changes in these countries, it is seen that TEA rates increased by 1% overall while the gender gap decreased by a modest three percentage points from 31% to 28%. Having the highest women's TEA among these 54 economies in both report years, the Latin America region show the smallest change in women's TEA over two years. Importantly, only one economy in this sample, South Africa, falls in the sub-Saharan Africa region, and this economy shows the largest change in TEA, a 53% increase in women's TEA from 5.9% to 9%. Asia also saw a high rate of change in women's TEA, increasing 35% from 9.9% to 13.4%. With many regions and countries still developing economically, Asia may have reached a peak in rates of entrepreneurship which, with further development, may start to diminish as work options increase. North America saw advances in both women's TEA and the gender ratio, with a 26% increase in women's TEA up to 15% and a 17% decrease in the gender gap. Europe exhibits a 7% reduction in women's TEA rates but an overall 5% decrease in the gender gap. Whatever the cause of these declines, it is important to understand that some changes affect both women and men while others appear to be gender-specific.

### ENTREPRENEUR HIGHLIGHT

## United States

**Vivian R. Sayward, Founder and CEO,  
Vivacity Sportswear Inc. (est. 2011)**

Vivacity Sportswear is an apparel company focused on sustainable and inclusive collections for women. Vivacity was born out of Vivian's need for comfortable, well-made, and stylish clothing for women on the golf course. The company has expanded into other markets, including resorts and cruise lines and has focused attention on more innovative, eco-friendly textiles and trims. In January 2019, Vivian launched Vivacity Advantage, providing consultancy to brands who need help in product development, sourcing, and manufacturing with a focus on sustainability.



When Vivian started Vivacity, she joined a female-focused co-working space, Hera Hub, where she was able to connect with other female entrepreneurs. She received mentoring and program resources and exchanged best practices with other members.

**Vivian's biggest challenges center on hiring and managing team members, which she says has got to be one of the toughest things to do.** One of her first employees was a woman who previously worked in retail, had some experience in designing, and talked a good game, but continuously missed deadlines. When Vivian finally reviewed the (lack of) progress, the employee realized she had run out of excuses and quit of her own accord.

## Thailand

**Chayanith Cindy Srinark, CEO, FINSTREET (est. 2017)**

FINSTREET is a technology company that understands how to design financial content that people stay engaged with and love. The company is driven by a passion to help Thais stay out of debt and master their finances. It believes financial literacy is the key to solving the debt problem and essential in building wealth. Currently, FINSTREET is in the process of managing the acquisition, activation, and retention of hundreds of thousands of users on its platform.

Creativity has been key to the firm's amazing organic growth. As users gradually become active community members, they then refer FINSTREET to a wider audience, fueling the company's expansion. FINSTREET is able to efficiently scale due to its proprietary technologies such as robo-advisor and Fintech A.I.

The National Innovation Agency Thailand (NIA) provided a grant to FINSTREET and continues to provide the company with advice and access to workshops. Cindy says that continuity and consistency have been a challenge, given the speed of their growth. **FINSTREET's goal is to be disciplined, overcome challenges, and increase financial literacy in a timely fashion for the people of Thailand.**

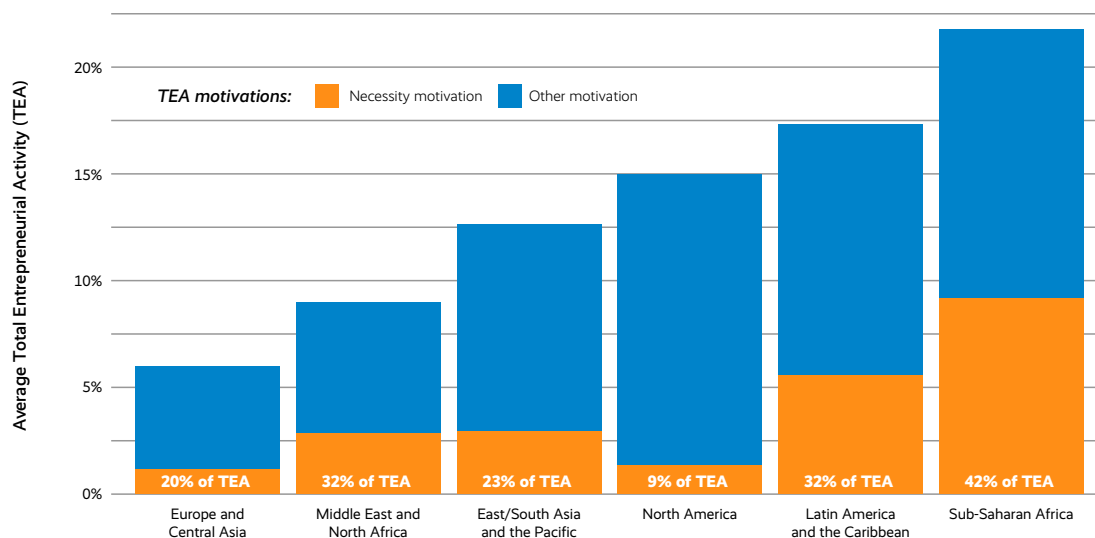


## NECESSITY-DRIVEN AND OPPORTUNITY-DRIVEN ENTREPRENEURSHIP

Around the world, people are prompted to start businesses mainly for one of two general, though not necessarily mutually exclusive, reasons: (1) because they have no other means of economic support or employment; or (2) because they are pursuing a business opportunity. TEA rates typically decline with higher levels of national income, as does the likelihood that those who start businesses are doing so out of necessity; while, at the same time, with higher levels of national income the opportunity motive increases. Women are disproportionately more likely than men to report a necessity motive in most countries. Globally, 27% of women entrepreneurs reported starting a business out of necessity

compared to 21.8% of men, constituting a 20% increased likelihood for women entrepreneurs compared to men. Similarly, across countries, women entrepreneurs are less likely to report an opportunity motive than men entrepreneurs. In this report, 68.4% of women entrepreneurs reported starting a business to pursue opportunity compared to 74% of men entrepreneurs, representing a 7% gender gap.

Across national income levels, necessity-driven TEA rates for women are highest among low-income countries at 37%, while opportunity-driven TEA rates for women are highest in high-income countries. These results are consistent across GEM report years, suggesting that necessity may drive higher TEA rates at



**FIGURE 5**  
Entrepreneurial motivations for women entrepreneurs by region  
Source: GEM 2017–2018

lower national income levels, while less *need* for entrepreneurship causes fewer people to start in high-income economies, with a few exceptions.

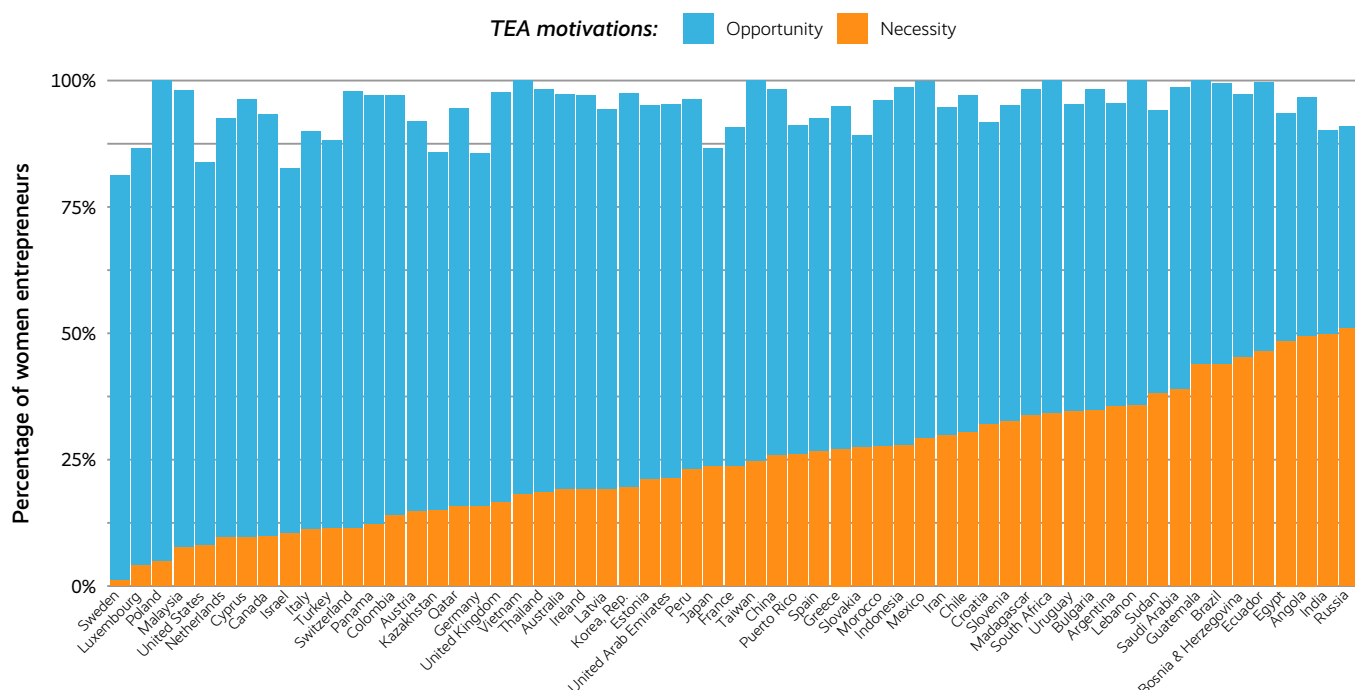
Differences in necessity and opportunity motives can be seen across the regions (see Figure 5). Only 9% of women entrepreneurs in North America started out of necessity, compared to 79% who started to pursue an opportunity. In sub-Saharan Africa, the pattern is the complete opposite, where 42% of women entrepreneurs cited necessity motives and 55.6% cited opportunity motives. Following North America, women entrepreneurs in Asia and Europe reported the highest opportunity motives and are at or close to parity with men entrepreneurs. The highest gender gap in opportunity motives was observed in sub-Saharan Africa where women entrepreneurs are more than 20% less likely than men entrepreneurs to report opportunity as the primary motive for starting a business. Sub-Saharan Africa also shows the largest gender gap in necessity motivations, with women entrepreneurs 64% more likely to report necessity motives than men entrepreneurs. The necessity motive also plays a large role in women's TEA in the Latin America region, where women entrepreneurs are 40% more likely than men entrepreneurs to report necessity as a primary motive for business startup.

Women entrepreneurs in North America are less likely than men entrepreneurs to report a necessity motivation. Indeed, both Canada and the United States have much lower necessity-driven TEA rates for women entrepreneurs

compared to men. The gender gap in necessity entrepreneurship in Canada is a large 50% compared to 10% for the United States. Notably, women entrepreneurs in Canada are 10% more likely than men to report opportunity as a motive for business startup, suggesting that women's entrepreneurship is well supported in Canada. Women entrepreneurs in the United States are about 10% less likely than men entrepreneurs to report opportunity as a motive. The differences between these two countries, categorized in the same income level and located in the same geographic region, raise interesting questions about context, or the entrepreneurial ecosystem.

Economies with the highest rates of necessity-driven TEA (which indicates lower levels of opportunity entrepreneurship) often also have high levels of TEA, possibly tied to lower levels of opportunities for wage-based work. The highest rate of necessity-driven entrepreneurship was reported by the Russian Federation at 51.2%, with women entrepreneurs 60% more likely than men to report necessity. Among the other economies with high necessity rates, the sub-Saharan Africa economies of Angola and Madagascar stand out with both high rates of women's necessity-driven entrepreneurship and large gender gaps. Women entrepreneurs in Angola were 80% more likely than men to report necessity as a motive, with about 50% citing necessity as a motive.

Some European economies were notable for having low TEA rates and wide gender gaps, but also very low rates of necessity-driven TEA. Less than 20% of women entrepreneurs in Europe reported necessity as a motive, but they did so



**FIGURE 6**

Percentage of women's TEA motivations in 59 economies

Source: GEM 2017–2018

20% more often than men. European countries with the highest rates of necessity-driven TEA include Bosnia & Herzegovina (46.4%), Bulgaria (34.5%), and Slovenia (32.4%). In all three countries, women entrepreneurs are substantially more likely than men entrepreneurs to report necessity as a motive, with the largest gap in Bosnia & Herzegovina, where women are almost two-and-a-half times more likely to cite necessity as a motive. Sweden, Luxembourg, and Poland reported the lowest rates of necessity-driven entrepreneurship in the European region at 1.3%, 4.7%, and 5.0%, respectively. Cyprus, Switzerland, and Poland reported the highest rates of

opportunity-driven entrepreneurship at 86% for Cyprus and Switzerland and an impressive 95% in Poland.

Regionally, after North America, Asia and Europe show the highest rates of opportunity motives for women entrepreneurs, potentially suggesting a base of support for women's entrepreneurship. Importantly, 21 economies in this year's report show parity with men in opportunity motives, compared to only 10 countries showing parity for necessity motives. Eight of these countries are at parity for both sets of motives: China, Germany, Ireland, Italy, Lebanon, Peru, Taiwan, and the UAE.

## Networks of women entrepreneurs

McAdam, Harrison, and Leitch begin with the premise that women are underrepresented in successful entrepreneurial ecosystems and, therefore, the creation of women-only entrepreneurial networks has been a widespread policy response. They examine the entrepreneurial ecosystem construct and suggest that it, and the role networks play in entrepreneurial ecosystems, can be analyzed using Bourdieu's socio-analysis model as field, habitus, and capital. Specifically, they develop the notion of gender capital as the advantage associated with femininity or from simply being recognized as feminine. They apply this to the development of women's entrepreneurial networks as a gender-capital-enhancing initiative. Using data from qualitative interviews with network coordinators and women entrepreneurs, they reflect on the extent to which formally established women-only networks generate gender capital for their members and improve their ability to participate in the entrepreneurial ecosystem. They conclude with contributions to theory, practice, and policy.

McAdam, M., Harrison, R., & Leitch, C. (2019). Stories from the field: Women's networking as gender capital in entrepreneurial ecosystems. *Small Business Economics*, 53(2), 459–74.



## CHANGES IN NECESSITY-DRIVEN ENTREPRENEURSHIP

Among the 54 comparison economies, women's necessity-driven entrepreneurship rates were up overall for low-income countries by 11% and for middle-income countries by 7%, compared to the previous *GEM Women's Entrepreneurship 2016/2017 Report*. High-income countries show a 3% decrease in necessity motives among women entrepreneurs. Regionally, the greatest reductions in women's necessity motives occur in North America (–30%) and Europe (–18%), seen mostly in high-income countries. These two regions also show the largest reductions in the gender gap, down 27% and 15% respectively. The MENA and sub-Saharan Africa regions show the largest increases in women's necessity motives for entrepreneurship at 35% and 27%, respectively. As indicated by an

increased gender gap (from 1.3 to 1.9 W/M ratio), the change in sub-Saharan Africa reflects the influence of factors that predominantly affect women entrepreneurs, while in MENA the gender gap has reached parity, suggesting that increases in women's necessity motives may be a result of higher overall TEA participation rates.

The necessity motive rate for women entrepreneurs in Saudi Arabia increased from 5.9% to 38.9%, representing a 559% increase in reports. A similar leap in necessity motives was also observed in Qatar, where women's necessity motives increased from 5.6% to 16.3% (a 116% change). Women's entrepreneurship activity is on the rise in this region, and the resulting patterns demand attention.

# Individual Characteristics, Perceptions, and Affiliations

## AGE

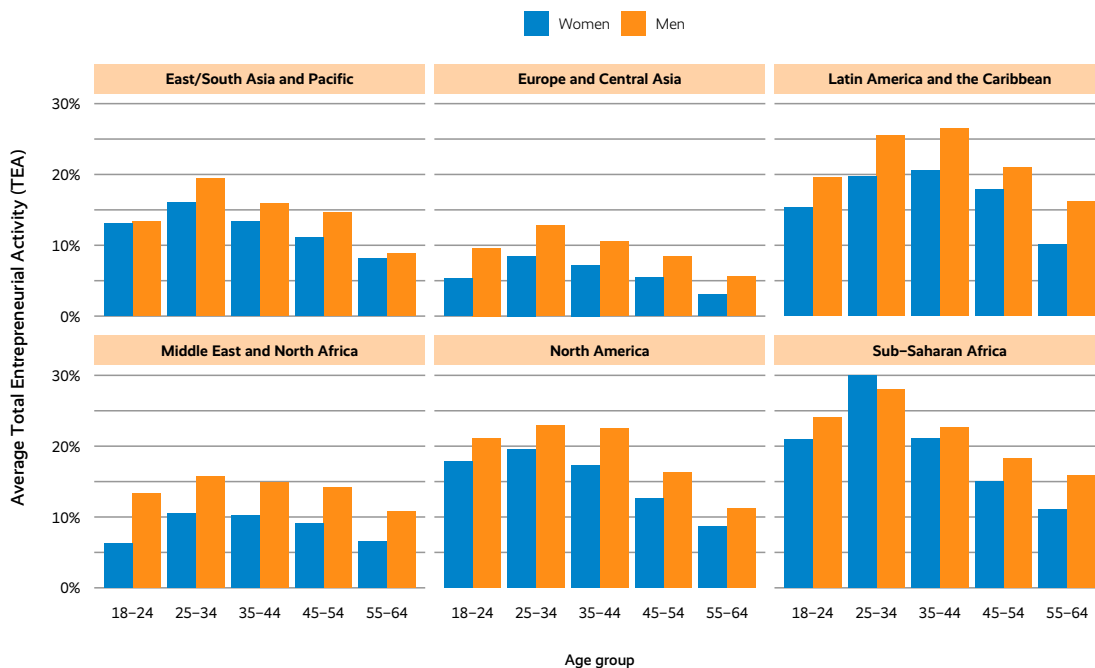
Findings related to the age of entrepreneurs have been fairly consistent over the years, and this report finds no exception. The highest participation in entrepreneurship among both women and men peaks in the 25–34 age range at 13.4% and 17.5%, respectively. The 35–44 age group is the second highest, at 15.2% for men and 11.6% for women globally. The lowest startup rates are within the 55–64 age group at less than 10% for both women and men. The trends are similar across all regions except that startup rates in the 25–34 age group are much higher in sub-Saharan Africa (30% for women and 28.1% for men) and in Latin America (19.7% for women and 25.6% for men), compared to other regions which are mostly under 20% for this age group. Notably, sub-Saharan Africa also has the highest startup rates for both women and men in the 18–24 age group (24% and 21%, respectively).

As shown in Figure 7, the gender gap of startup rates across regions is considerable for all age groups except for ages 25–34 in sub-Saharan Africa, where more women are involved in startups than men, and in Asia where women aged 18–24 are at gender parity around 13%. When analyzed by national income level, once again the highest startup rates are within the 25–34 age group for both women and men, and generally observed in low-income countries.

An examination of individual country data shows that younger women (18–24) are starting businesses at more than twice the rate of men in Bulgaria and Poland, while the opposite is true in Cyprus, Egypt, the Netherlands, Sweden, Sudan, and the United Kingdom, where women in this young age group are starting businesses at less than one-third the rate of men. In the 25–34 category, men in Germany

**FIGURE 7**

Average TEA rates by gender, age and region  
Source: GEM 2017–2018



and Slovenia also outpace women three to one, as they do in the 35–44 age group in Bosnia & Herzegovina, Egypt, Greece, and Slovakia. Men in the 45–54 age group in Italy outpace women in entrepreneurial activity by 10 times, while women in the same age group greatly outpace men in Madagascar, Qatar, and the UAE. On the other hand, women in the 25–34 age group in Ecuador, Italy, and Taiwan, and women in the 34–44 category in Brazil, China, and Qatar are at least 20% more active than men in entrepreneurship.

Generally, the data show that it is younger men and women under age 35 who are most active in starting businesses worldwide. Younger men and women are more inclined to engage in startups in low-income economies, while startup activities are more prevalent among older adults in higher-income countries. This trend is likely correlated with motivations, necessity versus opportunity, and the fact that older adults are more likely to have the resources to apply to a new venture in higher-income countries. Further, the patterns by gender, region, and income level are fairly consistent from year to year. Variations by gender are noticeable by country, with some of the biggest differences in Western and Eastern European countries (Bosnia & Herzegovina, France, Germany, Italy, the Netherlands, Poland, and Slovakia). A clear trend of younger women starting businesses is also emerging in MENA countries like Qatar, Saudi Arabia, and the UAE.

## EDUCATION LEVEL

Startup activity rates vary by gender, age group, and education level in predictable ways from year to year. Generally, entrepreneurial activity rates go up with education level for both women and men, but the gender gap also tends to grow with education. These findings indicate that, globally, women may realize higher returns compared to men, based on level of education, in other job opportunities, both financial and nonfinancial. Globally, participation rates for women range from 9% to 11% across age groups, compared to rates for men from 11% to 16%. The largest gender gap is seen at the graduate level of education where women start businesses at two-thirds the rate of men. In fact, men are consistently more likely to be involved in TEA at all education levels, with

### ENTREPRENEUR HIGHLIGHT

## Croatia

**Dr. Milena Mičić, Director and Owner, Aquarium Pula (est. 2000)**

Aquarium Pula is a public aquarium located in a historic Austro-Hungarian fortress built in 1886. Aquarium's exhibitions complement and embellish the fortress, making it a powerful and innovative attraction for visitors. The guiding principle of the company is to valorize and promote national and global nature protection. Initially launched as a small aquarium that educated the public and school groups through an oceanological program, the company expanded in 2015 to offer wide-ranging activities that promote the need for nature protection, including a Marine Turtle Rescue Center, international actions, and nature conservation projects. Aquarium Pula attracts more than 150,000 visitors per year.

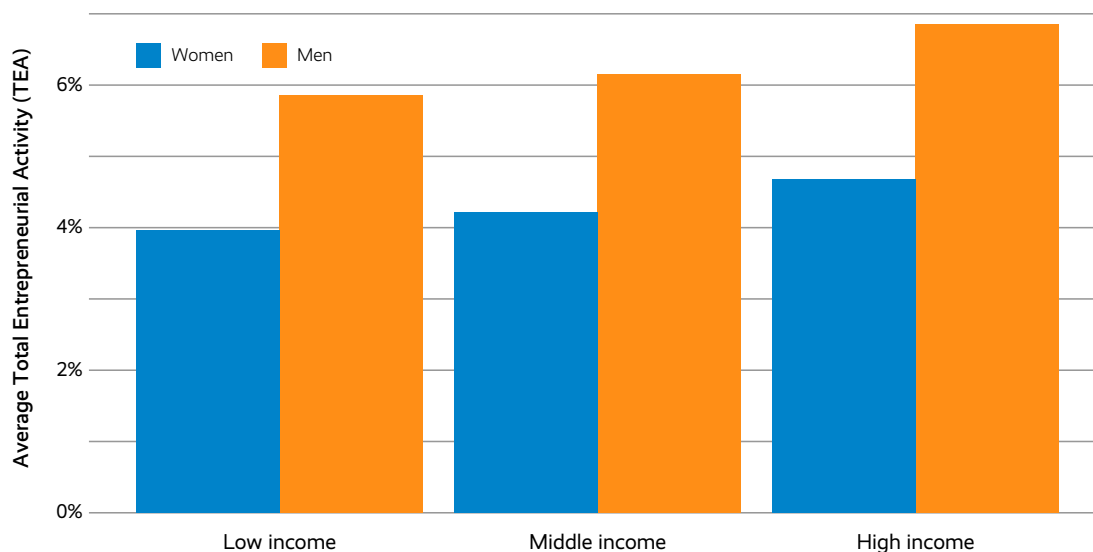


Dr. Mičić, a scientist who lacked any entrepreneurial or managerial training, joined the European Union of Aquarium Curators in 2003. From her mentors, she has received invaluable support in all aspects of running her venture. Her biggest challenge remains confidence in her daily decision-making. She also faced difficulty in obtaining financial support for developing the business in accordance with her passion and vision. Dr. Mičić says, “I really feel that constantly facing challenges is important as they keep us going. Overcoming them, we become more aware of our own abilities and unexpected strength.”

**FIGURE 8**

Percentage of entrepreneurs with post-secondary degree or higher by gender and national income level

Source: GEM 2017–2018



one important exception in this report. Women with graduate experience in sub-Saharan Africa were 2.5 times more likely than men to be active in entrepreneurship. Likewise, women with graduate education in low-income countries were 1.5 times more likely to start a business than men with a graduate education.

Figure 8 compares educational attainment among entrepreneurs by gender and national income. It shows that men with post-secondary education or higher are more likely to start businesses than women in low-income countries, while there is parity among men and women in high-income countries. In some sense, like the necessity motive for entrepreneurship, education is a great equalizer driving gender parity or better in certain groups.

A closer examination of these relationships by country shows that education is differentially associated with startup rates by gender. For instance, women with some secondary education are more than 1.5 times more likely than men to start businesses in Bulgaria, Kazakhstan, and Switzerland, while women at this education level are not active at all in Bosnia & Herzegovina, Japan, and Lebanon, and only about one-fifth as active as men in Ireland. Women with secondary education are almost 1.5 times more likely than men to start businesses in the Russian Federation, while in Qatar no women or men with a secondary degree reported entrepreneurial activity. Three countries show gender parity in entrepreneurship rates at the

secondary degree level of education: Angola, Spain, and the UAE. At the post-secondary level of education, only five countries show parity or better (Angola, China, Ecuador, Kazakhstan, and Vietnam), while the rest reported lower entrepreneurship rates for women compared to men. The lowest rates of entrepreneurship activity for women at the post-secondary level were found in Bosnia & Herzegovina and Egypt, with gender gaps of about 70%. Among those with graduate education, 10 countries have no individuals involved in startups: Angola, Bosnia & Herzegovina, Brazil, Ecuador, Germany, Guatemala, India, Indonesia, the Russian Federation, South Africa, and Sudan. Turkey reported no activity for women at the graduate education level; and only one country, Thailand, shows gender parity in TEA rates. Six countries show greater than parity, most notably Vietnam, where women with graduate education are 2.7 times more likely than men to be actively starting a business.

This analysis suggests that women with less education are more likely to start businesses regardless of the income level of a country. On the other hand, when women are more highly educated, they are generally less likely to start businesses except in low-income countries. It is possible that motivations, opportunity, and necessity are also factors explaining these differences. At the same time, women with more education in high-income and middle-income countries may find more options for employment.



## PERCEPTIONS AND AFFILIATIONS

### Opportunities

Entrepreneurial action is influenced by individual perception of opportunities, by startup skills, fear of failure, and whether one knows an entrepreneur. GEM analysis examined these perceptions among those who started businesses by country, region, and national income level. The global average of women entrepreneurs who perceived opportunities was 63%, compared to over 85% for women entrepreneurs in North America and over 70% for women entrepreneurs in MENA. In other regions, opportunity perception levels are lower but still exceed 55%. Overall, women were only slightly less likely than men to perceive opportunities (63.0% to 66.3%); and parity exists across all regions except in Europe, which shows 58.9% for women and 64.3% for men. The pattern across national income levels is similar with women in high-income countries less likely to perceive opportunities. Past GEM reports suggest that more developed economies and those with higher income might offer greater opportunities for all entrepreneurs to create new ventures because of market development, infrastructure, and resources. Current statistics show women entrepreneurs are less likely than men to see business opportunities in the near future. These results are consistent with findings in prior GEM *Women's Reports*. Notable variations occur in Germany and Slovakia, where

### ENTREPRENEUR HIGHLIGHT

## India

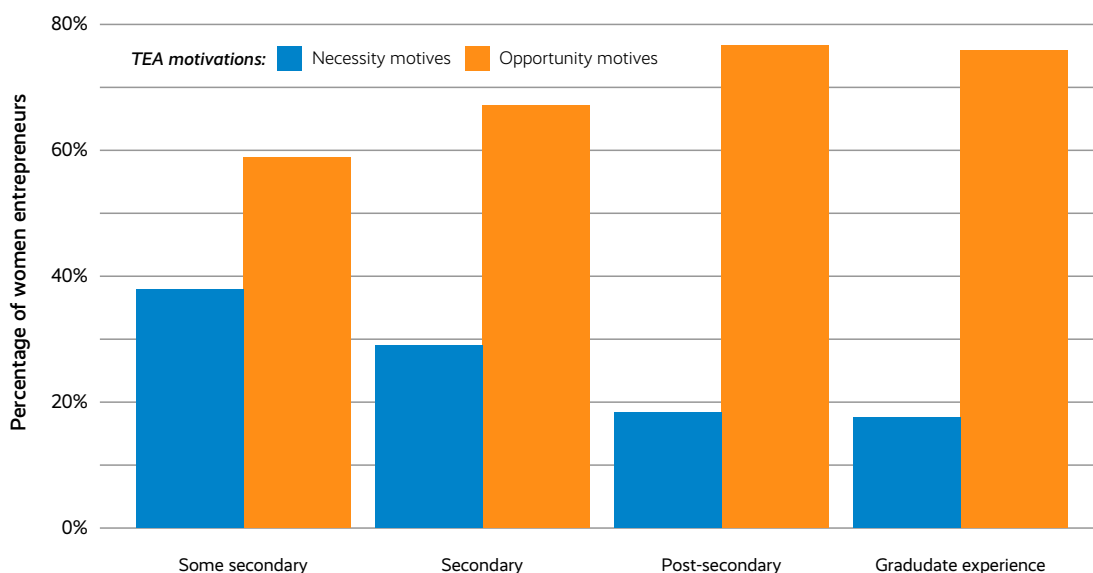
**Richa Kar, Founder and Board Member,  
Zivame: Actoserba Active Wholesale  
Private Limited (est. 2011)**



Richa conceived of Zivame while she was conducting research on the lingerie market in India. She realized that lingerie shopping in India was more of a headache for women than a pleasant experience. That is when she decided to start a platform for lingerie shopping for women. Despite the fact that Richa's family thought her interest in launching an online company was a passing fad, they initially supported her as she ventured

into entrepreneurship. However, once her parents learned about the plan to launch an online lingerie store, they could not fathom the decision. **Her father was unable to understand the idea behind this business, while her mother was afraid of the embarrassment it would cause.**

In fiscal year 2016, Zivame reported an 84% decrease in net income. As a result, Richa stepped down from her position as CEO in February 2017, though she continues to advise the company as a board member.



**FIGURE 9**  
Opportunity and necessity motivation rates among women entrepreneurs by education level for those with secondary education or more  
Source: GEM 2017–2018

**FIGURE 10**

Perceptions of opportunity, startup skills, no fear of failure and personally knowing an entrepreneur for entrepreneurs by gender and region

Source: GEM 2017–2018



women are only two-thirds as likely as men to see opportunities. On the other hand, women in six countries — Egypt, India, Latvia, Poland, Switzerland, and Turkey — are slightly more likely than men to perceive opportunities.

### Startup skills

A key factor influencing startup is the extent to which entrepreneurs believe they have the skills to act on opportunities. This capability is part of the bundle of human capital that an entrepreneur brings to a startup. It can be linked to education level, experience in the industry, or general startup experience.<sup>16</sup> Perceptions of whether one has the startup skills to start a business are generally very high in all countries, well over 75%, with global averages of 79.8% for women and 84.2% for men. In three regions — Europe, North America, and sub-Saharan Africa — women are as likely as men to perceive themselves as having startup skills. There are only five countries in the study in which women entrepreneurs have a higher perception than men of their startup skills: Angola, Argentina, Bosnia & Herzegovina, Estonia, and Germany. Another 26 countries are at parity. Women entrepreneurs have much lower perceptions than men of startup capabilities in

Japan, showing the largest gender gap at 32%. Surprisingly, 100% of women entrepreneurs in Bosnia & Herzegovina reported having the skills to start a business compared to 90% of men entrepreneurs. It is not clear why these perceptions exist, whether women are generally less optimistic about their business skills and men are more optimistic, or if the perceptions relate specifically to confidence in startup skills.

### Being undeterred by failure

Perceptions of failure can result from a variety of concerns about the consequences of a business not succeeding. For instance, it can be social (what will others say?), economic (how much money will I lose?), and/or family-related (how will I care for my family?). Fear of failure may be linked to the opportunity cost of going forward, especially if there are other possibilities for employment. In less developed countries where entrepreneurship is motivated by necessity, fear of failure may be lower, whereas in innovation economies fear of failure may be higher. Perception of startup capabilities tracks consistently with the extent to which entrepreneurs are undeterred by fear of failure. The global average is 67.9% of women entrepreneurs not deterred by fear of failure, compared to 72.3% of men entrepreneurs not deterred by fear of failure. Both women and men in higher-income countries reported the highest rates of being undeterred by fear of failure, while low-income countries show the lowest rates. Only

<sup>16</sup> Davidsson, P., & Honig, B. (2003). The role of social and human capital among nascent entrepreneurs. *Journal of Business Venturing*, 18(3), 301–31.

two regions — Europe and sub-Saharan Africa — show gender parity in perception rates of being undeterred by fear of failure; and two countries, Kazakhstan and Panama, show exact parity. In six countries — Iran, Madagascar, Poland, Qatar, the Russian Federation, and Sweden — women are at least 5% more likely than men to be undeterred by fear of failure. In 11 other countries, women are at least 15% less likely to be undeterred by fear of failure.

## Knowing an entrepreneur

It is widely acknowledged that knowing an entrepreneur can be a motivator because this provides a role model or even peer support for entrepreneurial activity. An entrepreneur's connections to other entrepreneurs in the community are considered a positive influence. GEM captured the extent to which women starting a business personally know an entrepreneur. The global average is slightly lower for women, 62.8% compared to 67.7% for men; and, in half of all countries in this study, there is gender parity. In the Latin America and MENA regions, women are slightly less likely to know an entrepreneur. In seven countries (Croatia, Cyprus, Greece, Japan, Kazakhstan, Luxembourg, and Switzerland) women entrepreneurs are more likely than men entrepreneurs to know an entrepreneur. However, in 11 countries women are at least 15% less likely to know an entrepreneur; four of these countries are in Latin America (Brazil, Colombia, Guatemala, and Uruguay), five in Europe (France, Italy, Latvia, Slovakia, and Slovenia), and the remaining three in MENA (Iran, Egypt, and the UAE).

In summary, entrepreneurship research shows that startup skills and being undeterred by failure are both linked to self-confidence. Studies show that women are less confident in their entrepreneurial skills overall, and that this is most likely related to perceptions that being an entrepreneur is a male or masculine occupation,<sup>17</sup> which results in women having lower self-efficacy in their perceived ability to be entrepreneurs.<sup>18</sup>

<sup>17</sup> Greene, P., & Brush, C. (2018). *A Research Agenda for Women and Entrepreneurship: Identity through Aspirations, Behaviors and Confidence*. Northampton, MA: Edward Elgar Publishing.

<sup>18</sup> Eddleston, K., Veiga, J., & Powell, G. (2006). Explaining sex differences in managerial career satisfier preferences: The role of gender self-schema. *Journal of Applied Psychology*, 91(3), 437–56.

## ENTREPRENEUR HIGHLIGHT

### Croatia

**Jadranka Boban Pejić, CEO,  
Biovega (est. 1990)**

Biovega is a pioneering Croatian organic food and agriculture business. Jadranka registered the company in 1990 and started doing business in 1994. **Biovega's mission is to be a positive example and influence its surroundings with 3 "Es": ethics, ecology, and economy.**

Biovega is a parent company with many subsidiaries which represent a unique synergy of activities and positioning in the market. Together, the companies operate an organic retail chain,



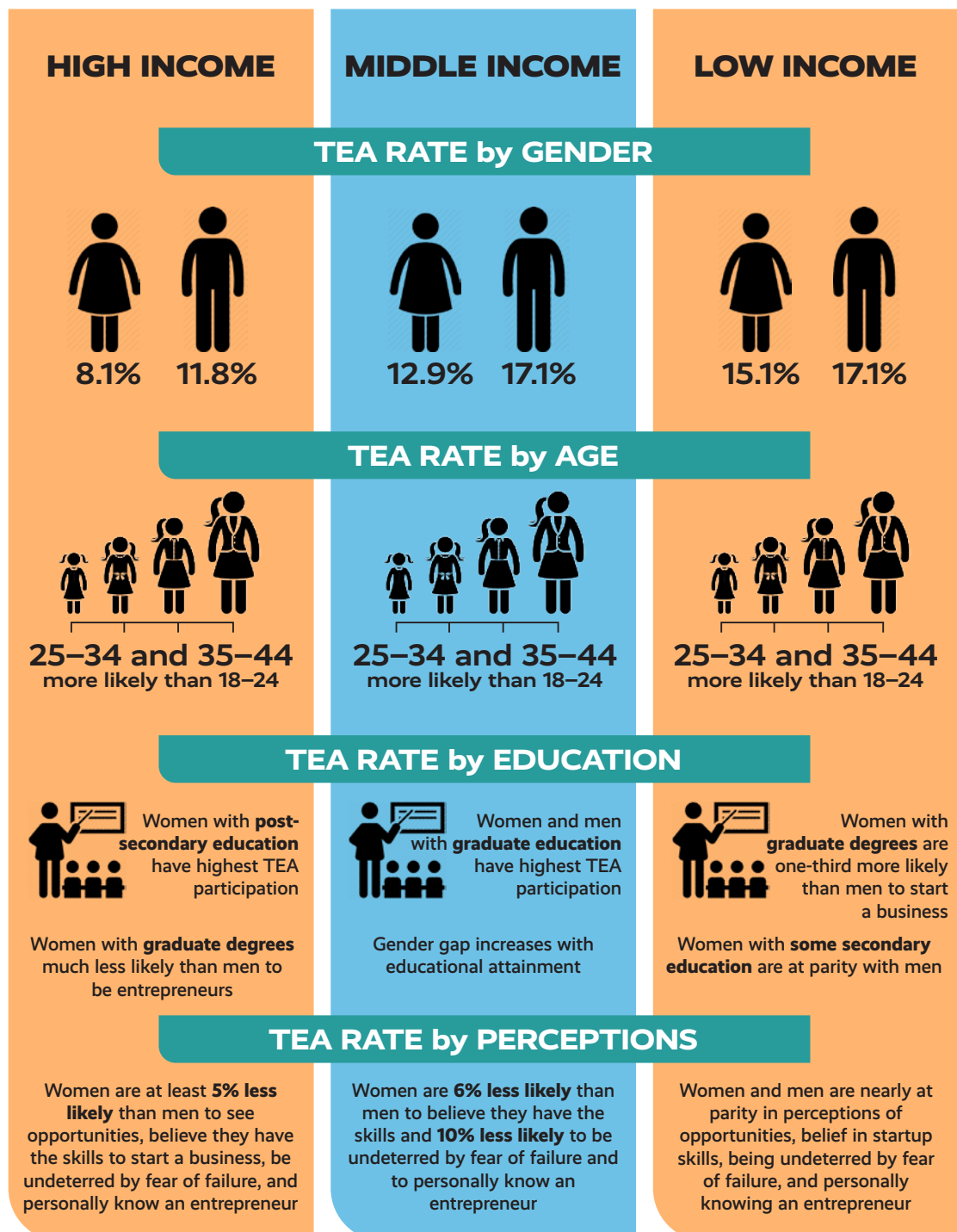
control distribution of organic products in eight countries, and sustain organic agriculture and production on the oldest organic farm in Croatia. Under this umbrella there is also an organic restaurant and bakery, a publishing enterprise, and a bookstore, as well as an institute committed to educating the general public and delivering training to the company's 200+ employees.

Jadranka's biggest challenge has been financing the growth of the company during a difficult economic environment in Croatia characterized by high taxes and bureaucratic obstacles. In 2000, Jadranka participated in the Netherlands Management Cooperation Program, organized by the Croatian Employers Association. Through the program, she received mentorship and pro bono support from retired managers.

Furthermore, knowing an entrepreneur provides examples, and in many cases role models, for being an entrepreneur. In countries where women are less likely to know an entrepreneur, they may

believe that this pursuit is less possible; and they may be less confident in their skills and more susceptible to fear of failure. The results of this GEM report seem to support previous research.

### Profile of women entrepreneurs by national income level





# Stages of the Entrepreneurial Process

Entrepreneurship is a dynamic process, with individuals and teams starting, growing, and exiting businesses in a continuous process. All phases of the entrepreneurial process are important from both a practice and a policy perspective; and, therefore, they require a closer look at trends across the pipeline from those willing and interested in starting a business, to those who have grown their businesses to maturity, and in many cases discontinuance at some point along the way. Examining rates of new business interest, activity, growth, maturity, and discontinuance (including the two most common reasons for business closure) provides important insights into the health and function of the entrepreneurial ecosystem at national, regional, and different levels of national income.

GEM methodology measures entrepreneurial activities as a continuous process rather than as single events. Specifically, the Adult Population

Survey (APS) was designed to measure and assess individual participation across phases of entrepreneurial activity, including intentions, nascent activity, new businesses, established businesses, and business discontinuance. Entrepreneurial intentions are defined as the intention among working-age adults to start a business within the next three years. Nascent activity represents entrepreneurs who are currently in the process of starting a business but have not yet paid three months' wages. New business ownership counts businesses older than three months and younger than 42 months, while established businesses are those that are 42 months or older. Business discontinuance is defined as business closure that has occurred within the past 12 months. Respondents who reported business closure were also asked the reason why the business was discontinued.

## ENTREPRENEURIAL INTENTIONS

The global average rate for women's intentions to start a business within three years is 17.6%, only about four points less than for men. Entrepreneurial intentions follow a pattern similar to that of TEA across levels of national income. The highest rates of women's intentions are found among low-income countries (37.8%), followed by middle-income (21.3%) and high-income countries (12.6%). Importantly, the gender ratio is at parity in low-income countries, increasing substantially for middle-income and high-income countries with a 26% gender gap. These findings suggest that women, much like men, report high intentions, but that not all intentions translate into startup activity.

Regionally, the highest rates of women's entrepreneurial intentions were observed in MENA at 36.6% with one of the smallest regional gender gaps in intentions to start a business. Latin

America and sub-Saharan Africa also show high rates of women's intentions at almost 30%, but with Latin America presenting a much higher gender gap in intentions at about 15%. Europe showed the lowest rate of women's intentions at 8.5% with the largest gender gap (29%), suggesting that women in this region tend to have or value alternatives other than business startup. North America also shows lower women's intentions (11.4%) and a larger gender gap (13%). Asia shares a gender gap similar in size to that of Latin America (about 15%), but a lower rate of women's intentions (18.3%).

Importantly, as illustrated in Figure 11, intentions, nascent activity, and early-stage activity represent an entrepreneurial pipeline into established ownership with higher intentions reducing to a small rate of nascent activity and an even lower rate of early-stage business

## United States

**Hannah Choi, CEO,  
Baby Tress (est. 2019)**

Baby Tress is a new beauty brand of hair tools designed to elevate the beauty ritual for African American women. Baby Tress believes the beauty ritual is an individual's moment to focus on oneself, and the tools used are the magic wands to spark one's own expression of self-care and self-love. Its first product, the Edge Styler, is an ergonomically crafted, three-in-one styling tool.

Hannah received support from her business coach — who helped develop a viable business strategy — and her team, who supported her through execution. She believes she would not have been able to accomplish what she has in such a short period of time without them. She has also worked with many other expert mentors in retail sales, email marketing, brand strategy, and everything in between.

**The biggest challenge Hannah has faced is having to walk into the unknown every single day, with little to zero experience to fall back on.** Though there have been moments where she has questioned herself, being able to persist and keep moving forward has been gratifying. At a more concrete level, another challenge has been figuring out how to manage inventory as efficiently as possible and she is still working through that.



development. Globally, women follow a pattern similar to that of men as they progress through the pipeline, but with variations by region and country.

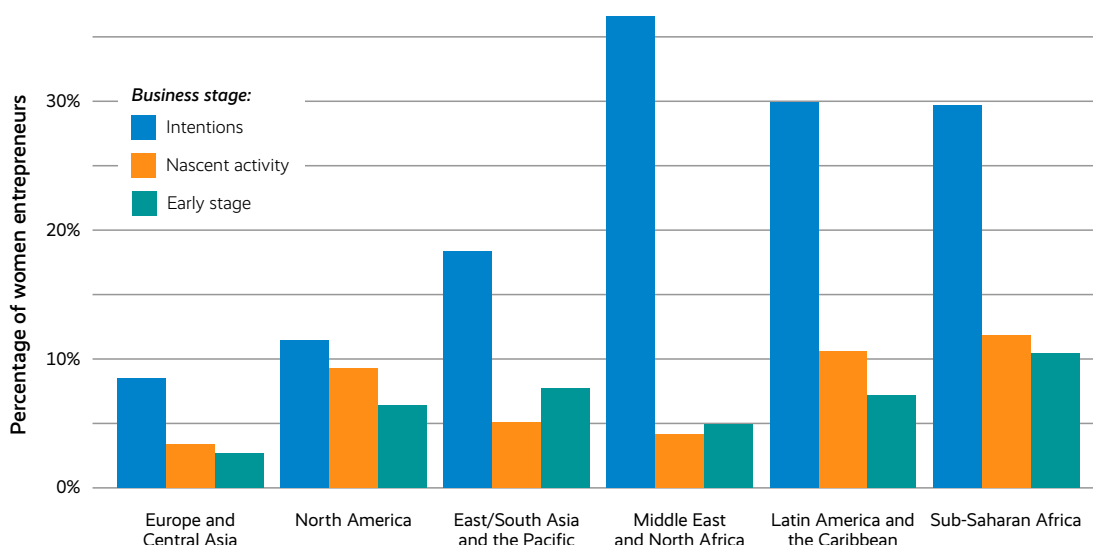
Women's intentions are highest in Angola (77.9%), Sudan (66.5%), and Egypt (57.7%), which speaks directly to the nature of work and employment in these economies where new/small businesses dominate the opportunity structure.

These countries are also at or very close to parity. The lowest rates of women's intentions were reported by Bosnia & Herzegovina, Bulgaria, Germany, Japan, and the Russian Federation, which all show women's intentions less than 5%. Importantly, the gender ratio in the Russian Federation is actually above parity, indicating that women are more likely than men to have plans to start a business in this country.

## CHANGES IN INTENTIONS

Across the 54 economies participating in this and the previous report, entrepreneurial intentions decreased among women by 19% from 2016 to 2018 and show a 9% reduction in the gender gap. In all regions, average intentions decreased except in sub-Saharan Africa, with the largest decreases in Europe and North America. Among countries,

the largest changes were reported by Austria, Germany, the Netherlands and Sweden, where rates fell by four or five times. Asia, Latin America, and MENA saw modest increases in women's entrepreneurial intentions from 3% to 5%. The gender gap narrowed in all regions except North America.



**FIGURE 11**  
Intentions, nascent, and early-stage business rates for women aged 18–64 by region  
Source: GEM 2017–2018

## NASCENT ENTREPRENEURSHIP

Globally, 5.5% of women are in the process of starting a business, having not yet paid three months' wages, compared to about 7.5% of men. Of note is the increased gender gap from 18% for intentions to start a business to 29% involved in nascent activity. Regionally, sub-Saharan Africa show the highest rate of women involved in nascent activity (11.8%) and the smallest gender gap (13%). In contrast, Europe and MENA show the lowest rates of women involved in nascent activity, 3.4% and 4.1% respectively, and the largest gender gaps, 37% and 38% respectively. Consistent with overall TEA rates, the highest rates of women's nascent activity (6.5%) and

the smallest gender gap (24%) are observed in low-income countries, while the lowest rates of women's nascent activity (4.7%) and the largest gender gap (33%) are observed in high-income countries. Among the 59 countries in this report, five countries are at gender parity (Bulgaria, Kazakhstan, Panama, Peru, and the UAE) and three are above parity for women compared to men (Angola, Brazil, and Vietnam). Angola has the highest rate of women's nascent activity (23.4%), while Cyprus shows the lowest rate (0.7%). The countries with the largest gender gaps in nascent activity, around 60%, include Cyprus, Egypt, Germany, and the United Kingdom.

## EARLY-STAGE BUSINESS ACTIVITY

About 6.1% of women globally have active early-stage businesses between three and 42 months of age, compared to 5.5% who report nascent activity and 17.6% who report intentions to start. In contrast, 6.1% of men are active in early-stage businesses, 7.8% in the nascent stage, and 21.7% with intentions to start a business. While based on a single-time point of data (correlation does not mean causation), these findings suggest that women may be slightly more likely to survive the earliest stages of business development compared to men. This trend in the data is also reflected in the shift of the gender gap from 18% in intentions to 29% for nascent activity and 23% for early-stage activity. This pipeline view of the earliest stages of

entrepreneurial activity among women and men illustrates the stages at which these groups face barriers or constraints to progress in the first few years of the startup process.

Across regions, the highest rate of early-stage activity for women is found in sub-Saharan Africa (10%) and the lowest in Europe (2.6%). Both Asia and sub-Saharan Africa show gender parity in early-stage activity. The u-shaped pattern of gender gaps from intentions through nascent activity to early-stage businesses is consistent across regions and most pronounced in Asia where the gender gap went from 14% to 29% to 3%. The same pattern is also apparent across income levels as well, and most pronounced in

## ENTREPRENEUR HIGHLIGHT

### Angola

**Lisa Videira, Founder & Managing Director,  
LV Digital, Lda (est. 2017)**

LV Digital offers digital products and services in Angola's online training market. Its e-learning platform, "Nzaji Academy," provides short-term training for continuous learning of new skills and competences. In addition, the company offers a process for transforming training materials into audiovisual content thus keeping their platform up to date with digital-era content.

Lisa participated in the first class of the *Orange Corners Angola 2019* incubation program, an initiative of the Dutch Embassy with Angolan partners, where she gained knowledge in the field of entrepreneurship. The six-month program helped her adapt LV Digital's business plan to the needs she discovered in the Angolan market and devise a successful implementation strategy.



**The biggest challenge Lisa faces as an entrepreneur is staying focused on the mission to which she initially committed: revolutionizing education in Angola.** While there are many opportunities she would like to undertake, she often feels as if she is swimming upstream. Few corporate customers are willing to partner with a nascent company in the digital education market, while potential individual customers either lack the ability/digital literacy to easily join e-learning platforms or the financial means to pursue the opportunity due to Angola's ongoing economic crisis.

low-income countries, where 8.6% of women are involved in early-stage businesses compared to 9.7% of men. As seen at other business stages, high-income countries show the lowest participation rates for women (3.4%) and men (4.8%) and the largest gender gap (28%).

Five countries are at gender parity in early-stage activity rates: Angola, Argentina, Canada, Luxembourg, and Thailand. Ten countries show more activity among women than among men: China, Ecuador, Indonesia, Israel, Kazakhstan, Madagascar, Panama, Qatar, Taiwan, and Vietnam. Vietnam reported the highest rate of women's early-stage activity (22%), while Poland and Sweden reported the lowest rates at 0.9%. Sweden also has the highest gender gap at 74%.

## ESTABLISHED BUSINESS ACTIVITY

GEM data show that, as national income level increases, established business activity among women declines and the entrepreneurial gender gap tends to increase. Lower startup rates result in fewer businesses advancing to the established business stage. Additionally, if fewer women relative to men are starting businesses, the gender gap will persist among established business owners. However, while certain factors affect all businesses regardless of entrepreneur gender, some conditions may differentially affect established business rates for women compared to those for men, especially given gender stratification across industries.

As widely reported and consistent with prior GEM reports, women tend to own established businesses at about two-thirds the rate of men. About 6.5% of women surveyed in the 59 economies reported owning a business more than 42 months old, compared to 9.5% of men. The lowest rate of women established business ownership is found in MENA (4.5%), while the highest rate is seen in sub-Saharan Africa (11.3%). The rates of established business ownership for women are also high in Asia (9.1%) and lower in Latin America (6.3%), North America (5.7%), and Europe (5.4%). The largest gender gaps are found in MENA and North America at over 40%. Meanwhile, Asia and sub-Saharan Africa present the smallest gender gaps in established business ownership rates for women at 24% and 16%, respectively.



## Innovative women entrepreneurs

Women are taking the lead as change agents and innovators in society. The participation of women in economic activities occupies a prominent place in the list of strategic priorities and national development plans in the Kingdom of Saudi Arabia. Fostering the development of the entrepreneurship sector in this country is one of the initiatives on the political women's empowerment agenda. The country has a very young population and a growing youth bulge, and this demographic reality lends itself well to the rise of women entrepreneurship. Florabel Nieva has highlighted the status of social entrepreneurship in Saudi Arabia and described how and why its ventures are implemented. Her descriptive and qualitative study utilizes a number of secondary data sets to focus on the social entrepreneurship activities in the Kingdom, the challenges faced by women social entrepreneurs, and the strategic measures needed to support sustainable social entrepreneurship. Results show that women entrepreneurs practicing social entrepreneurship are receiving training and development, but, at the same time, there are challenges with financing, regulatory frameworks, and technical support. Most importantly, women social entrepreneurs need support and collaboration with regard to scaling their ventures. The strategic measures recommended in pursuit of fostering social entrepreneurship in the Kingdom of Saudi Arabia focus on access to funding, entrepreneurship culture, tax and regulation, education and training, and coordinated support.

Nieva, F. O. (2015). Social women entrepreneurship in the Kingdom of Saudi Arabia. *Journal of Global Entrepreneurship Research*, 5: 11.

Among the 59 countries in this report, Vietnam boasts the highest rate of established business ownership for women at 26.3%, compared to only 22.9% for men. In fact, four economies in the sample actually show rates at gender parity or better (Angola, Kazakhstan, Saudi Arabia, and Vietnam). Of these countries, Kazakhstan and Saudi Arabia have very low rates of business ownership for both women and men, below 4%, while Angola shows parity for women and men with rates at about 15%. The

largest gender gaps in business ownership are found in Egypt, Iran, and the UAE, ranging from 79% to 86%. The UAE shows the lowest rate of established business ownership for women at less than 1%. Notably, these results align closely to women's labor force participation rates in the following countries: Angola (75.4%), Kazakhstan (65.1%), Saudi Arabia (92.4%), and Vietnam (72.6%), and, at the other end of the spectrum, Egypt (22.8%), Iran (16.8%), and the UAE (51.1%).

## CHANGES IN ESTABLISHED BUSINESS ACTIVITY

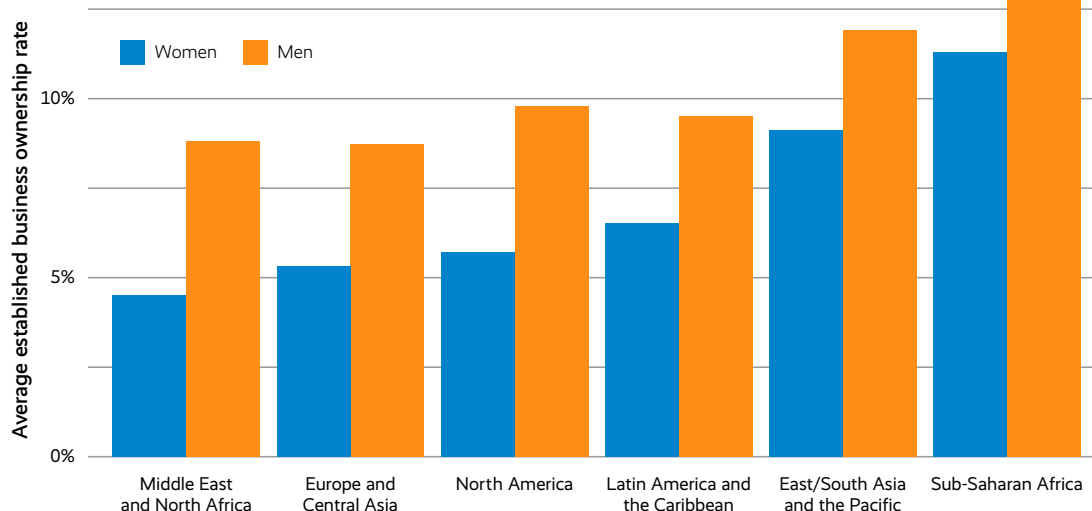
Among the 54 comparison countries, established business rates for women have remained stable since the 2016–2017 *Global Women's Report*, increasing globally by an average of 1%. High-income countries show an average increase of 22% in established business ownership rates for women, while middle-income and low-income countries both saw average decreases in the range of 11% to 13%. The global gender ratio improved by 12%, driven largely by improvements in high-income and low-income countries. Women's rates increased by 21% in MENA and sub-Saharan Africa, accompanied by big changes in the gender ratio from about 0.3% to 0.5% women/men. These changes indicate the promising influence of high rates of intentions and TEA on established business ownership in these regions. Europe also shows an increase in women's established ownership rates (14%) and an improvement in the

gender ratio (11%). Asia, Latin America, and North America all show decreases in this indicator; however, only North America shows a larger gender gap, dropping from 80% to 68%.

Among the countries in this comparative analysis, Qatar has made an impressive jump in established women's business ownership rates from 0.3% to 2.7%, accompanied by a reduction in the gender gap in established business ownership from 83% to 42%. These results suggest that women in Qatar are starting and successfully managing businesses beyond the 42-month age cutoff for established businesses. A number of other countries also show big increases in the established business rate for women, including Peru, Poland, Saudi Arabia, Taiwan, and the UAE, with more than double the rate from the last biennial report. Changes in the women's established business rate can occur

**FIGURE 12**

Established business ownership rates by gender and region  
GEM 2017–2018



not only from the survival of new businesses beyond 42 months of age, but also via transfer of ownership through business acquisition/purchase, inheritance, and in some cases the official recognition of women partners or family members as business owners. Notably, women's entrepreneurship and business ownership appear to be growing at a very rapid rate in several Muslim countries, suggesting some important shifts in cultural and institutional barriers to women's business participation.

Several countries show trends in exactly the opposite direction. China and Mexico have both seen women's established ownership rates drop by 60% or more. Mexico also shows a significant decrease in the gender ratio, while China has seen a more modest 8% drop in the gender ratio. In fact, over half the countries have seen an increase in the gender ratio of established business ownership, while the other half have seen a decrease, suggesting a fair amount of volatility in this indicator over a short two-year period.

## BUSINESS DISCONTINUANCE

Importantly, business exits occur through all stages of the organizational life cycle. Indeed, new and/or small businesses in many ways are more susceptible to both positive and negative exit events. Conditions in the environment may make it difficult to sustain a business. Startup activity may be unusually high in some countries or contexts because people need to generate their own incomes, or because they jump too readily into new business activity without the ability or inclination to sustain it.

Across the 59 countries in this report, the average global rate for business discontinuance is about 10% lower for women (2.9%) than for men (3.2%). This gender difference in business discontinuance is consistent through the GEM program years. In fact, women entrepreneurs are generally known for strong survival skills in business compared to men entrepreneurs,

perhaps as a result of a more conservative approach to business strategy or due to the industry context in which they tend to run businesses, including a higher tolerance for more modest profit margins.

Business discontinuance is highest in low-income countries at around 5% and with gender parity. Discontinuance rates decrease and the gender gap increases as national income goes up. High-income countries have an average women's business discontinuance rate of 2.1% and a gender gap of 20%. Regionally, sub-Saharan Africa has the highest discontinuance rate at 10.1% and the largest gender ratio (1.5), contrary to the global trend. Women in sub-Saharan Africa tend to face a much higher likelihood of business discontinuance than men. Women in North America also report a higher rate of

discontinuance than men in the region, though the difference is only half a percentage point, at 3.8% for women and 3.1% for men. Asia, Latin America, and MENA show gender parity in business discontinuance rates, with women's rates ranging from 2.7% to 4.7%. Europe shows the lowest rate of women's business closures at 1.4% and a much lower ratio of business discontinuance for women compared to men.

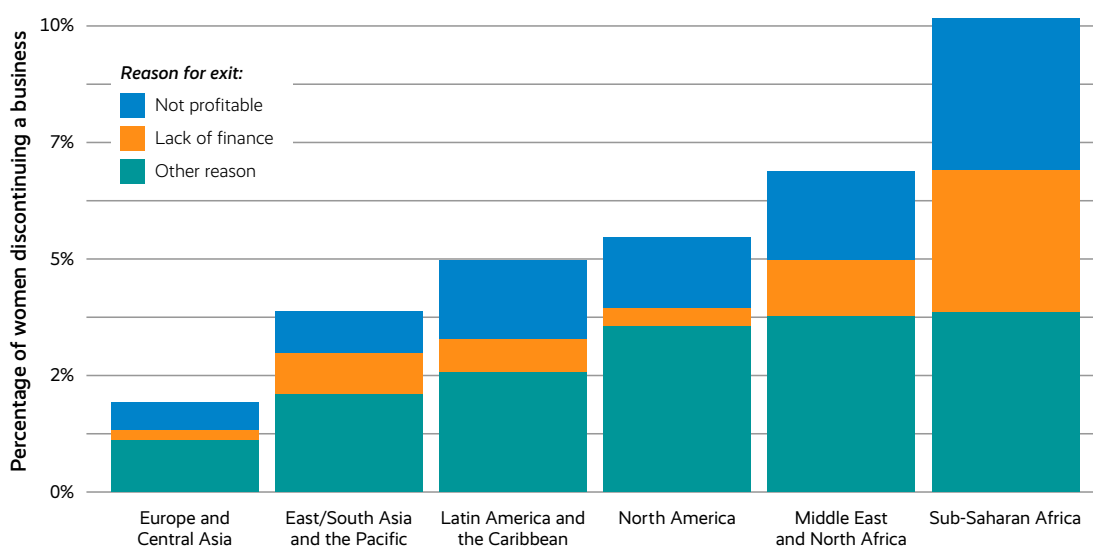
Angola reported the highest rate of business closure for women at 22.6%, about 50% more than men in Angola. At the opposite end of the spectrum, Switzerland reported the lowest rate of business closure for women at 0.3%, as well as the largest gender gap at 80%. These findings suggest that women in Switzerland start and manage the types of business that endure over time. Two countries, Slovakia and Sudan, show gender parity in business discontinuance, while 38 countries show gender ratios less than parity, indicating that women are less likely than men to discontinue their businesses.

While business discontinuance can occur for a number of reasons, almost half reported primarily lack of profit and lack of finance. Globally, women and men tend to report each reason at similar rates. As shown in Figure 13, about 30% of women who discontinued a business in the past year cited lack of profit as the primary reason, while another 16.2% cited lack of financing. Lack of profit was cited almost three times more often than lack of financing by women owners in high-income countries and two times more often by women in middle-income countries. Lack of profitability and lack

of financing were cited equally by women in sub-Saharan Africa, as shown in Figure 13.

Other reasons for business closure include sale/acquisition of the business, retirement, pursuit of another opportunity, or exit for personal reasons. Not all reasons are negative, demonstrating that business discontinuance is not necessarily bad or an indication of failure, but rather reflects a natural life-cycle process in any given economy. In fact, if avoiding failure were of prime importance in a society, there would be few new business startups and little business growth. Fortunately, new opportunities appear and each generation produces a fresh group of skilled and optimistic entrepreneurs willing to take calculated risks to create and grow new businesses.

Lack of profit was cited as the primary reason for business closure by two-thirds of the women who closed businesses in the Russian Federation, about 10% less often than by men. Women who have recently closed businesses in Vietnam and the Netherlands are the least likely to cite lack of profitability as the reason for business closure, at 6.8% and 7.1% respectively. Eleven countries show gender parity in rates of business closure attribution to lack of profitability: Chile, Croatia, Estonia, Guatemala, Kazakhstan, Lebanon, Morocco, Puerto Rico, Saudi Arabia, Slovenia, and the UAE. In 30 countries, women are much less likely to cite lack of profit as the reason for business closure, compared to 18 countries where women are more likely than men to cite lack of profit as the primary reason for discontinuance. Women are twice as likely to attribute recent business closures to lack of profitability in



**FIGURE 13**  
Percentage of women discontinuing a business in the past year by reason and region  
Source: GEM 2017–2018

Luxembourg and the United States and three times as likely in Italy. These findings raise important questions about how entrepreneurs define lack of profitability and how industry stratification contributes to reasons for business closures.

In the world of women's entrepreneurship, access to finance is an important topic of research and public debate, yet globally only 16.2% of women cited lack of capital as their reason for discontinuing. However, women overall continue to face significant barriers to business financing, both debt and equity. Most of the inequity that women business owners face is explained by business characteristics such as business size, age, and industry sector, but also by individual characteristics, like personal credit history. While many studies suggest that it is the type of business rather than the individual that fails to qualify for common forms of business financing, evidence from the world of equity investment suggests that women business owners and leaders do face discrimination in the equity investment pipeline.

Lack of financing is cited with relative gender parity at most income levels. Women in low-income countries are 10% more likely than men to cite lack of finance as a reason for business closure. Regionally, women are actually less likely to cite lack of finance as a reason for business closure in Latin America (7% gender gap), sub-Saharan Africa (12% gender gap) and

North America (43% gender gap). Furthermore, women in North America are the least likely to cite lack of finance as the reason for business closure at 7.4%, compared to women in sub-Saharan Africa at about 30%. Women in Asia and MENA are just as likely as men to cite lack of financing as the main reason for business closure, although the rate for women in Asia was about double that for women in MENA. Women in Europe cited lack of financing about 10% more often than men, at 11.3% compared to 10%.

Across the 59 economies, France and Turkey have the highest rates of women citing lack of financing leading to business closure, at 46.2% and 39.2% respectively. Women in France are almost twice as likely as men to report lack of financing as a reason for closure. Lack of financing was reported as a reason for business closure by 1.9% of women in the United States, compared to 10.7% of men, representing a huge gender gap difference of about 82%. Moreover, in Luxembourg, Japan, and Slovenia, only men cited lack of funding as a reason for business closure. Only two countries show gender parity in lack of financing as a reason for business closures: Brazil (7.1%) and Peru (12%). Meanwhile, women are more likely than men to cite lack of finance as a reason for closure in 28 countries, ranging from 5% more likely in Saudi Arabia to almost four-and-a-half times more likely in Switzerland.



# Impact and Performance of Women Entrepreneurs

Entrepreneurs influence and are influenced by the actors and institutions in an ecosystem. This section reviews the impact and performance of women entrepreneurs in their regional and country ecosystems: specifically, employment, growth expectations, innovation, and internationalization. It also examines the effects of industry structural factors and how these influence impact and performance. Women entrepreneurs create value for their societies in many different ways. When they self-employ, they create a source of income for themselves

and their families, often involving other value network participants who benefit from their work. Those who endeavor to grow and employ others create jobs in their communities and beyond. Innovative women entrepreneurs bring new solutions to market, with new sources of value that have not been offered by competing options. In venturing beyond their national borders, internationalizing entrepreneurs contribute to their economy's global competitiveness. Finally, women entrepreneurs play critical roles starting businesses in a diverse mix of industries.

## SOLO ENTREPRENEURSHIP

A major tenet of economic development is for entrepreneurs to create jobs when they launch a business. When entrepreneurs declare no intentions to grow, their businesses may be viewed less favorably because they are not contributing to employment of others. However, there may be good reasons why a business does not grow, including a lack of education and the capabilities needed to expand on the part of the owner. An owner may be using family members to perform work in unsalaried roles, contracting temporary workers for various tasks, or intentionally creating a job for themselves doing something they enjoy. In such situations, their societies may be losing opportunities to create workforce employment or missing out on other benefits from the pursuit of larger, high-growth ventures.

However, there is more to consider in terms of the impact on society from self-employed entrepreneurs. Self-employed entrepreneurs are, de facto, creating jobs, even if only for themselves, jobs that will often support families. To the extent this form of entrepreneurship reflects work preferences and perhaps work-life balance, a contribution to societal well-being is implied. At the same time, self-employment may be a side business or part-time endeavor that supports an individual who is working elsewhere. Self-employment has the

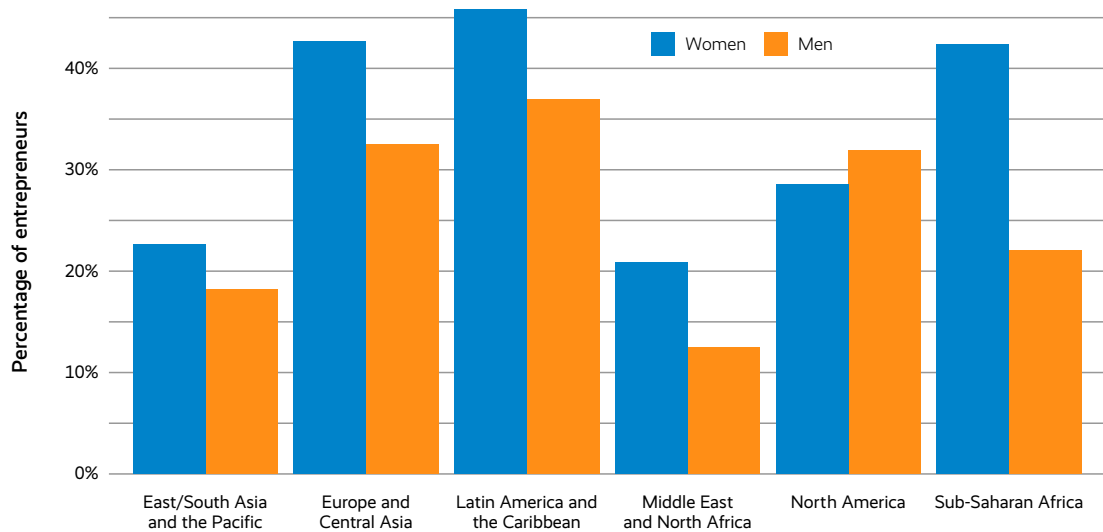
benefit of providing flexibility in allowing one to work when and where it is most convenient, engage in part-time work, and perhaps pursue shorter-term opportunities such as working on specific projects or filling in temporary employment gaps.

Women's share of sole proprietorships (non-employer firms or self-employed individuals) is 37.6% worldwide compared to 27.8% for men's sole proprietorships. Data in this report show that there is no region in which men outpace women in owning sole proprietorships, although the gender gap varies (see Figure 14). In Latin America, nearly half (48.9%) of women are self-employed, compared to 36.6% of men. Similarly, in Europe and in sub-Saharan Africa, the rates of self-employed women are nearly as high, 43.3% and 45.1% respectively. The gender gap is largest in sub-Saharan Africa where nearly twice as many women as men are self-employed. When data are analyzed by income level, the same trends appear, with all three income levels reflecting at least 32% self-employment rates for women compared to less than 30% self-employment rates for men.

Countries with the highest rates of self-employment, more than 45% for both women and men, include: Brazil, which has the highest rates for both men (74.8%) and women (80.8%);

**FIGURE 14**

Proportion of entrepreneurs who are self-employed with no current job (non-employer firms) by gender and region  
Source: GEM 2017–2018



Ecuador, with 51.6% for men and 62.12% for women; and Spain, with 48.8% for men and 64.5% for women. Generally, countries with the highest rates of self-employment are located in Latin America (with the exception of Mexico) and Europe. Lower rates of self-employment are located in Asia (China, India, Indonesia, Malaysia, and the Republic of Korea).

Countries with the biggest gender gaps in self-employment rates for women compared to those for men are Angola, Bosnia & Herzegovina, Bulgaria, China, Egypt, Malaysia, Taiwan, and Qatar, where 18.4% of women have sole proprietorships compared to 1.7% of men. On the other hand, there are 10 countries in which self-employment for men is greater than for women, notably Indonesia, Iran, Japan, Poland, and Puerto Rico.

While it is difficult to determine why self-employment rates vary by gender, the higher rates of self-employment for women and men in Europe and Latin America are likely connected to government policies and regulations on hiring and taxes, or access to resources and in particular capital that can foster growth. Finally, it is important to note that research shows children with self-employed parents are more likely to have entrepreneurial intentions. It is fair to say that self-employed women entrepreneurs influence the next generation of entrepreneurs.<sup>19</sup>

<sup>19</sup> Zellweger, T., Sieger, P., & Halter, F. (2011). Should I stay or should I go? Career choice intentions of students with family business background. *Journal of Business Venturing*, 26, 521–36.

#### ENTREPRENEUR HIGHLIGHT

### India

**Vishwa Patel, Founder,  
VAP GruhUdhyog (est. 2018)**



Vishwa was incentivized to launch her own company because of the limited options available for working women in India. Her company makes traditional Gujjus — snacks that often accompany lunch or dinner. In order to launch her nascent venture, Vishwa participated in programming offered by the Entrepreneurship Development Institute of India. She is currently working to have her product sold in local retail shops, which is especially challenging for a female entrepreneur who has to rely on male general-store owners.

## Implications of policy in entrepreneurial ecosystems to foster women's entrepreneurship

A core component of entrepreneurial ecosystems is policy; and how this may influence women's entrepreneurship is of interest. Foss, Henry, Ahl, and Mikalsen conducted a systematic literature review (SLR) approach to critically explore the policy implications of women's entrepreneurship research according to gender perspective: feminist empiricism, feminist standpoint theory, and post-structuralist feminist theory. They sought to determine whether there is a link between the nature of policy implications and the different theoretical perspectives adopted, and whether scholars' policy implications have changed as the field of women's entrepreneurship research has developed. They concentrated on empirical studies published in the "Big Five" primary entrepreneurship research journals (SBE, ETP, JBV, JSBM, and ERD) over a period of more than 30 years (1983–2015). Their analysis shows that policy implications from women's entrepreneurship research are mostly vague, conservative, and center on identifying skills gaps in women entrepreneurs that need to be "fixed," thereby isolating and individualizing any perceived problem. Despite an increase in the number of articles offering policy implications, they found little variance in the types of policy implications being offered by scholars, regardless of the particular theoretical perspective adopted, and no notable change over the 30-year review period. They offer recommendations for improving the entrepreneurial ecosystem for women from a policy perspective and suggest new avenues for future research.

Foss, L., Henry, C., Ahl, H., & Mikalsen, G. (2019). Women's entrepreneurship policy research: A 30 year review of the evidence. *Small Business Economics*, 53(2), 409–29.

## CURRENT EMPLOYEES

The GEM study captured the number of businesses that have 20+ employees in their current operations. Globally, 5% of men entrepreneurs have more than 20 employees compared to 2.8% of women entrepreneurs. There is no single region in which a greater percentage of women than men has more than 20 employees, although the disparity is smaller in MENA and North America (2%), while the other regions show at least a 5% to 6% differential. Individual-country data show 10 countries in which women have 20 employees more often than their male counterparts and an additional two in which the numbers are equal. It should be noted that less than 5% of respondents overall reported having more than 20 employees.

Notably, women in Brazil, India, Lebanon, Morocco, and Slovenia reported businesses with more than 20 employees, at least five times more often than men. This suggests women entrepreneurs in these countries are making a substantial contribution to job growth and employment. In fact, 14.4% of women entrepreneurs in Morocco reported having more than 20 employees, compared to only 1.1% of men. Similarly, in Slovenia, 10.9% of women have more than 20 employees compared to 1.1% of men. There does not seem to be any regional or country income-level pattern where women have larger businesses.

At least 40 countries show a significant gender gap where women are much less likely than men to have businesses of more than 20 employees. The countries with the smallest number of businesses that have over 20 employees and are run by women are Argentina, Egypt, Latvia, Mexico, Netherlands, Panama, Saudi Arabia, Switzerland, Taiwan, and Uruguay. It is difficult to know which factors may constrain growth among those such as access to resources (funding, people, information) or women deciding to keep their businesses more manageable and therefore smaller. Likewise, it is difficult to know whether services are being contracted and/or family members are working in the businesses to enhance capacity. Further, GEM does not capture the extent to which women have taken time off for child-rearing, which can interrupt growth of a woman's business.<sup>20</sup> Taking this factor into account might provide a slightly different picture of current size and performance of businesses.

<sup>20</sup> DeTienne, D. R. & Chandler, G. N. (2007). The role of gender in opportunity identification. *Entrepreneurship Theory and Practice*, 31, 365–86.

## Colombia

**Gaby Carolina Muñoz, CEO and Co-founder,  
Taxia Life (est. 2013)**



Taxia Life is an automatic taxi dispatch system that integrates the value chain of taxi companies with owners, drivers, and users. It was founded on the notion that drivers have a need for dispatching services while customers need to know a driver's background.

Taxia Life's modular system provides companies and owners real-time, optimized management and control of their fleet of vehicles and drivers, which includes safety controls and operating metrics. The company also provides users with a unique safety feature: the constant verification of a driver's authorization to operate a vehicle. Its platform, in addition to its mobile app, supports the dispatch of taxis through multiple channels including a call center, interactive voice response (IVR), WhatsApp™, and Facebook™.

**Taxia Life is fully immersed in Colombia's entrepreneurial ecosystem, which has supported its growth.** In 2012, the company won the "Discovery" category in the first iteration of *Apps.co* in Medellín. In 2013, it was the recipient of \$500,000 in financing through the government program *iNNpulsa Colombia*, through which it was able to launch 680 vehicles in the city of Manizales. In 2015, Taxia Life was accepted by Manizales Mas and Wayra Colombia's accelerator and as a result expanded its services to nine cities. In 2019, the company was selected by *Seedstar* and *Apps.co* for the government's international expansion and acceleration program *Internationalization*. Additionally, Taxia Life has formed numerous strategic alliances with local businesses, who offer access to discounted services and products to Taxia Life's drivers and users.



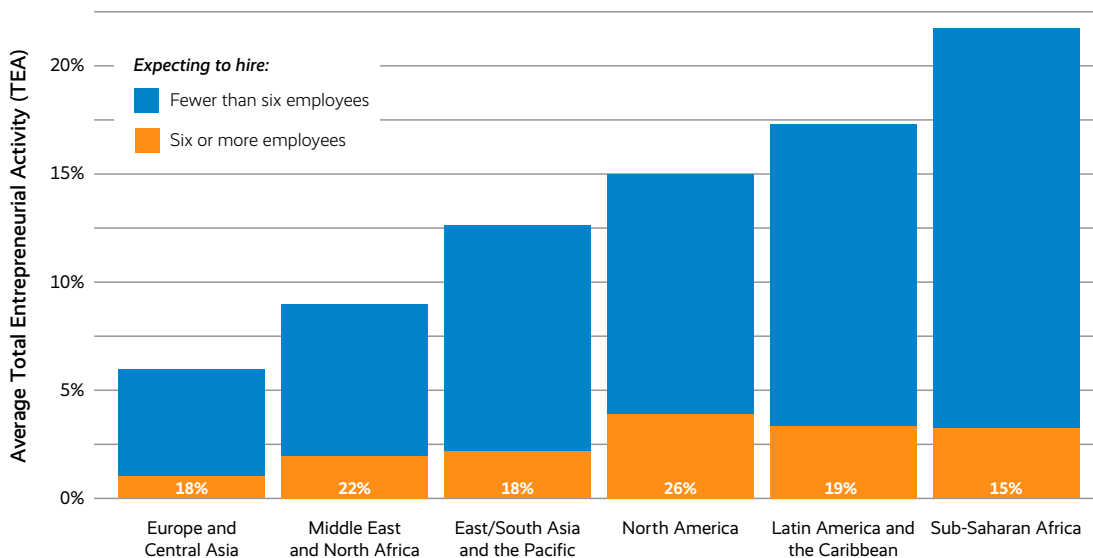
The company currently does business in 12 cities in Colombia and in Argentina, and provides 830,000 services per month with more than 11,500 taxi drivers. Its growth goals are to strengthen Taxia Life's presence in the Colombian market in cities such as Bogotá, Cali, Medellín, Barranquilla, and Cartagena, and to grow its Latin American presence in countries such as Peru, Panama, the Dominican Republic, and Mexico.

## GROWTH EXPECTATIONS

Entrepreneurs may seek a certain level of growth due to their personal ambitions and preferences, the type of business, and/or conditions in their environment. For example, such conditions may include market demand, competition, skilled labor availability, labor laws, or regulations. Generally, higher-income countries are more

likely to show projections for hiring six or more employees in the next five years. The GEM survey asked respondents to report their expectations of hiring more than six people in the next five years. Less than 30% of both women and men respondents reported they were planning such growth, but there are wide variations across





**FIGURE 15**  
Proportion of women entrepreneurs who expect to hire more than six employees in next five years by region  
Source: GEM 2017–2018

regions and countries. More than 40% of all entrepreneurs in Colombia, Iran, Turkey, and the UAE expect to grow their businesses, while less than 10% of those in Bosnia & Herzegovina, Brazil, Bulgaria, Indonesia, and Madagascar have this expectation. The regions in which entrepreneurs expressed the greatest desire to grow were Latin America, MENA, and North America. The highest percentage of women expecting growth was 25% in North America.

There is a substantial gender gap, with 17.6% of women entrepreneurs expecting to grow compared to 28.4% of men entrepreneurs. As with the analysis of business size, there is no region in which women expect to grow more than do men. In this regard, the largest gender gap is in sub-Saharan Africa at 10% (24.4% for men to 12.1% for women). All other regions reflect at least a 7% gender gap.

Analysis of individual countries shows that women entrepreneurs expect to grow more than men entrepreneurs in Bosnia & Herzegovina, Indonesia, Kazakhstan, Morocco, and the Russian Federation. In four countries (Iran, Latvia, the Republic of Korea, and the UAE), women and men entrepreneurs have equal expectations of job growth. It is important to note that percentage gaps are more striking in countries with higher growth expectations. For example, 25.3% of women in Qatar expect to grow by more than six employees compared to 46.6% of men. Similar patterns exist in South Africa (40.7% for men and 27.6% for women) and Taiwan (59.1% for men and 38.8% for women).

In summary, the analysis of growth aspirations is consistent with previous GEM studies and with other research on women's entrepreneurship.<sup>21</sup> Growth is widely considered a measure of entrepreneurial success.<sup>22</sup> A key point, growth may be a consequence of industry dynamics and resources: in particular, access to capital.<sup>23</sup> It is hard to know why women entrepreneurs have lower growth aspirations than their male counterparts — possibly because of a wish to control and manage their businesses more carefully, because of constraints on access to resources, or because family members or temporary contract employees work in the business. Country context factors may also influence growth aspirations, especially programs and support for women entrepreneurs specifically, including childcare options.<sup>24</sup>

<sup>21</sup> Jennings, J., & Brush, C. (2014). Research on women entrepreneurs: Challenges to (and from) the broader entrepreneurship literature. *Academy of Management Annals*, 7(1), 661–713.

<sup>22</sup> Wiktor, R., & Laguna, M. (2018). Dimensions of entrepreneurial success: A multilevel study on stakeholders of micro-enterprises. *Frontiers in Psychology*, 9, 791–802.

<sup>23</sup> Hechavarria, D., Bullough, A., Brush, C., & Edelman, L. (2019). High growth women's entrepreneurship: fueling social and economic development. *Journal of Small Business Management*, 57(1), 5–13.

<sup>24</sup> Brush, C., & Greene, P. (2016). *Closing the Gender Gap in Entrepreneurship: A New Perspective on Policies and Practices*. Report prepared for the OECD.

# Turkey

**Sevginar Bastekin, Chairwoman of the Board,  
1K Kimya Corporation (est. 2010)**

1K Kimya is a wholly owned Turkish company that develops original, innovative, multifunctional cleaning products. Its household brand HighGenic® aims to make cleaning easy and enjoyable. The company manufactures more than 50 types of domestic and industrial products in several product categories: special and general-purpose cleaning, professional stain removers, room and ambient odors, car care products, personal care, and maintenance. These products are produced in a fully equipped factory with high-tech automation systems and sold in more than 15,000 markets in 81 cities in Turkey.

1K Kimya products are innovative and differentiated from the market norm. Sevginar, a chemist, developed one of its newer and most successful products, “Multi-Functional Cleaner with Silicone.” It was named the “Most Innovative Product of the Year” in 2017 by *Marketing Turkey* magazine due to its unique functions, high performance, and customer satisfaction. The company continues to sell millions of bottles of this special product each month.

Sevginar has built a well-organized, well-equipped laboratory facility that is paramount to the sustained growth the company has enjoyed in production, R&D, employment, capacity, sales, and revenue as well as profits. For 10 years, since launch, annual average growth in gross sales is 30–35%.

Currently, 1K Kimya Corporation exports to more than 15 countries including Germany, France, the Netherlands, Austria, Belgium, the Russian Federation, Cyprus, Saudi Arabia, Libya, Moldova, Kosovo, Ukraine, Azerbaijan, Bulgaria, and Iraq. Sevginar, who founded the company with her own capital, has received free mentoring support



and participated in a financial literacy and leadership program offered by the Entrepreneurial Winning Women Program run by Ernst & Young (EY). Sevginar was selected as one of the most successful entrepreneurs in Turkey by EY in 2018 and was nominated as “The Woman Entrepreneur of 2017” by Garanti Bank, KAGIDER and *Ekonomist* magazine.

1K Kimya is Sevginar’s second venture. **Her first company was also very successful in the household cleaner sector; however, after eight years, due to poor financial conditions the company shut down. Resilient, Sevginar did not give up, she founded 1K Kimya and now HighGenic products have been used by millions of consumers.**

## INNOVATION

In GEM reports, innovation represents newness to customers and offerings not generally available from the competition. Innovation may be based on unique features or novel elements, and it may be influenced by a variety of factors: intensity of competition, offerings of competing businesses, availability of the latest technologies and knowledge, expectations of customers, and so forth. It is also judged from the perspective of entrepreneurs — what they regard as novel and unique. What may appear innovative in one country or region may be commonplace in another.

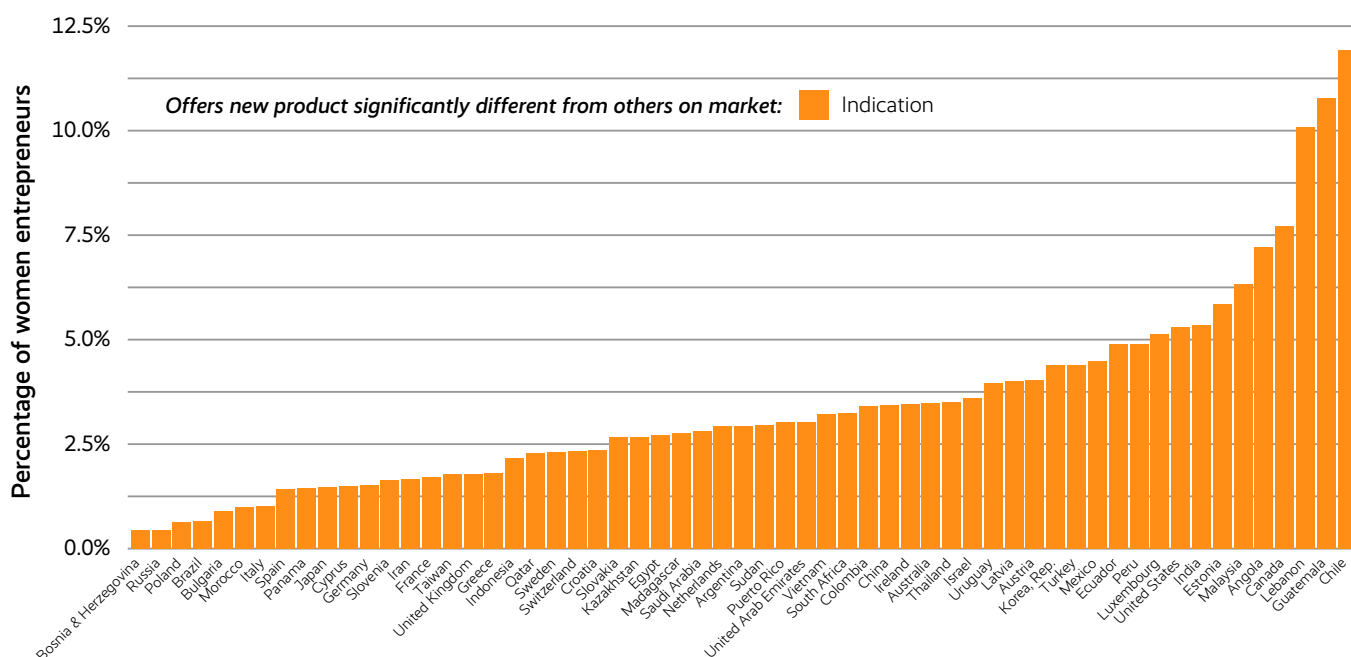
Innovation levels tend to increase with economic development, as innovation catalyzes the substantial jump from one level of development to the next. This progression typically reflects factors such as investments in advanced knowledge, higher education levels, legal institutions that protect ideas, and sophisticated customers willing to try new things. The MENA region stood apart, having the highest innovation rate overall, followed by North America. Countries reporting the highest innovation rates were the UAE (over 60%), Qatar (over 40%), Luxembourg (over 40%), and Saudi Arabia (over 35%), while Austria, Bulgaria, and Croatia also reported high levels of innovative products. In contrast, Argentina, Brazil, Ecuador,

Guatemala, and Iran reported very low levels of innovation.

Global innovation rates show women to be less innovative than men by approximately 6% (12.6% compared to 18.7%). This differs significantly from past years when gender parity was greater. Women reported lower levels of innovation across all regions, with a deficit ranging from 2% to 7%. Across income levels, there is no country in which the rate of women's innovation exceeds that of men, although innovation rates in high-income countries are almost twice as high as rates in countries in the low-income and middle-income levels.

Countries in which women entrepreneurs reported high levels of innovation include Canada, Chile, India, Lebanon, and Luxembourg. Eighteen countries show women being more innovative or at parity with men: most notably the Russian Federation, where women entrepreneurs are 2.1 times more likely than men to offer an innovative product. Four countries show innovation rates for women entrepreneurs under 10%: Bosnia & Herzegovina, Brazil, Bulgaria, and Panama. Eight countries show significantly low relative levels of innovation for women entrepreneurs, with a gender gap of 50% or more compared to men: Bosnia & Herzegovina, Bulgaria, Ecuador, Indonesia, and Iran.

**FIGURE 16**  
Proportion of women entrepreneurs with innovative offerings in 59 countries  
Source: GEM 2017–2018





## INTERNATIONALIZATION

Entrepreneurs may operate ventures internationally because they believe their opportunities are globally relevant and they have the ambition to sell into markets beyond their home countries. A business environment may stimulate these ambitions, perhaps because a domestic market is too small or crowded with competition. Infrastructure and other factors — regulatory, geographic, or cultural — may enable or encourage entrepreneurs to sell outside their national borders. As might be expected, entrepreneurs from high-income countries have higher rates of internationalization, likely because they have more access to distribution channels, technology, and international markets. Similarly, entrepreneurs from smaller countries are slightly more likely to sell products internationally because of limited market size in their home countries.

The global rate of internationalization is 26.1% for women and 28.2% for men entrepreneurs. Regions with the greatest internationalization are North America and MENA (both at over 25%). Entrepreneurs with women's export activity over 40% are found in Canada, Croatia, Lebanon, Morocco, and Qatar. Ten countries report internationalization rates for women under 5%, the lowest being Angola, Ecuador, and Guatemala, while Brazil and Chile reporting no international sales for women entrepreneurs. Women in high-income countries are equally likely to have international sales, while women are less likely in middle-income and low-income countries.

In North America, women entrepreneurs are as likely as men to operate internationally, while women entrepreneurs in MENA are more likely than men to sell products or services internationally. In 32 countries, women entrepreneurs are at parity with men or exceed men in international sales. Women in Argentina, Bulgaria, the Russian Federation, and Vietnam are more likely than men to have international sales. Low rates of internationalization for women occur in Croatia, India, Japan, Poland, and South Africa.

### ENTREPRENEUR HIGHLIGHT

#### India

**Nishi Jain, Founder and CEO,  
Vibes Good (est. 2018)**



Vibes Good is an e-platform with a user-friendly interface which provides easy solutions for hygiene-related issues for women in India. Not only does the company offer comfortable products, but they also provide information for women to enhance their knowledge about their products. This online venture seeks to deliver quality products to its customers in a timely fashion, often a challenge for online distributors in India. As a venture fully owned and operated by women, the company is committed to making all women feel welcome. Nishi not only holds a postgraduate diploma in management from the Entrepreneurship Development Institute of India, she was one of a small cohort of women who participated in India's Centre for Advancing and Launching Enterprises (CrAdLE), whose motto is *Mentor, Nurture, Grow*.

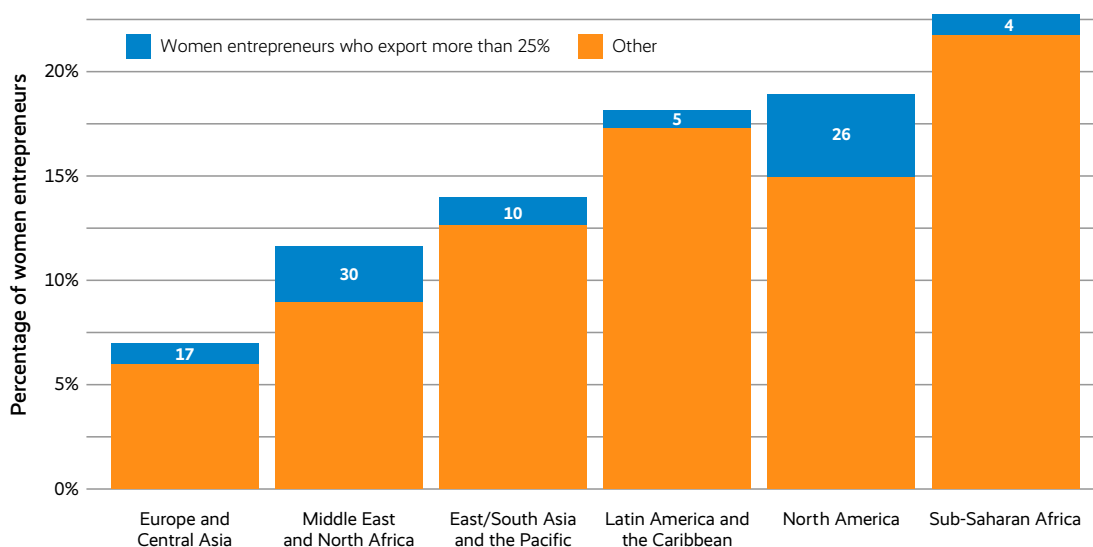
According to Nishi, "offering contemporary Indian women choices for lingerie, intimate wear, feminine hygiene products, and contraception is forbidden territory with social stigmas that present societal and family challenges." The biggest challenge, however, is talent sourcing. Qualified marketing employees often get embarrassed about Vibes Good's products, and Nishi has to help them overcome their shyness.



## Financing women entrepreneurs

Crowdfunding is a new form of financing, but there is a question about whether it actually helps or hinders women's access to finance. Marom, Robb, and Sade explored crowdfunding to gain an understanding of whether it reduces barriers for female entrepreneurs in raising capital. Specifically, they investigated whether gender dynamics and biases exist in the process of raising funding for new projects via the leading crowdfunding platform Kickstarter. Their results show that women make up about 35% of the project leaders and 44% of the investors on the platform. On average, men seek significantly higher levels of capital than women for their projects and also raise more funds than women. However, women enjoy higher rates of success in funding their projects, even after controlling for category and goal amount. Only about 23% of projects in which men invested had female project leads. Conversely, more than 40% of projects in which women invested had female project leads. A follow-on survey of investors from the Kickstarter platform showed evidence that some of the lower investment in female-led projects by men can be attributed to taste-based discrimination.

Marom, D., Robb, A., & Sade, O. (2016). Gender dynamics in crowdfunding (Kickstarter): Evidence on entrepreneurs, investors, deals and taste-based discrimination. Paper published on SSRN. <http://dx.doi.org/10.2139/ssrn.2442954>



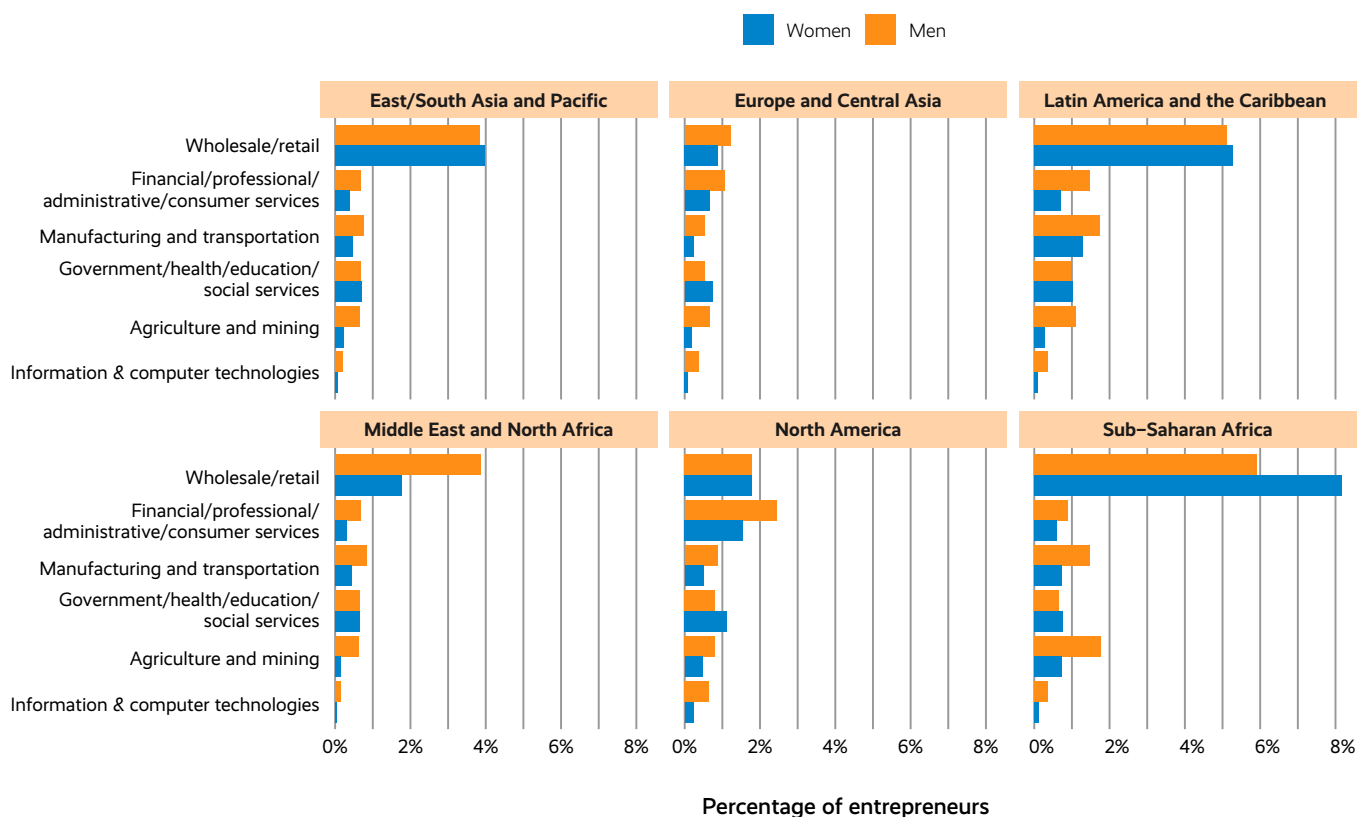
**FIGURE 17**  
Percentage of women entrepreneurs with sales of 25% or more to international customers by region  
Source: GEM 2017–2018

## INDUSTRY

Industry participation differs across countries and regions, as shown in Figure 18. Generally, the largest number of businesses, over 40%, operate in the wholesale/retail trade sector. The next largest sectors are financial/professional/administrative, consumer services, government/health/education, and social services. Over 50% of women's entrepreneurial activity is in wholesale/retail trade compared to 42.6% of men's activity, down from the last report which showed 60% of women's businesses in this sector. Women's participation in government/health/education and social services measures 17.2% compared to 10.1% for men, while in

financial/professional/administrative and consumer services women are slightly lower at 13.0% versus 16.9% for men. The percentage of women (11.3%) in manufacturing and transportation is nearly equal to that of men (12.9%). The largest gender gaps are evident in agriculture and mining, where 5.4% of women participate versus 12.5% of men, followed by information and computer technology (ICT) with 1.7% and 4.9% respectively. Twelve countries reported no women-owned firms in ICT, although Croatia and Japan indicated rates greater than 10% for this sector.

Similar to past years, at a regional level, Europe and North America have relatively low



**FIGURE 18**

Industry sector participation for entrepreneurs by gender and region  
Source: GEM 2017–2018

participation among women entrepreneurs in wholesale/retail; the low rates are half or less than the levels reported in Asia, Latin America, and sub-Saharan Africa. Women dominate wholesale/retail for all regions except MENA, where women have a lower percentage of participation at 49.8% compared to 54.7% for men. North America reports the highest percentage of businesses in financial/professional/administrative and consumer services at more than 30% for both women and men. Europe and North America show the highest percentage of businesses in government/health/education and social services. Women dominate this sector for all regions of the world. In manufacturing and transportation, women are more present in the sector in Latin America and MENA. Men dominate agriculture and mining with a gender gap ranging from 3% to 9% depending on the region, even though this is a low participation sector for all respondents.

Europe and North America show the most ICT participation, although women in North America make up the largest percentage, about one-half the rate of men. Women have greatest ICT presence in Croatia, Israel, Japan,

Luxembourg, and Ireland (5% compared to 10%). No women entrepreneurs are reported in this sector for 10 countries and only fractional participation is observed in another 10 countries. In five countries women are at parity or have greater presence compared to men: Cyprus, Ecuador, Japan, Switzerland, and Turkey.

With regard to women's participation in industry by country income level, high-income countries have the lowest participation in wholesale/retail by nearly 20% compared to other income levels, but women outnumber men. For example, the United States, the United Kingdom, Canada, Australia, and many countries in Western Europe exhibit participation rates for women of 23% to 28% in this sector. In contrast, women in Vietnam, Thailand, Peru, Mexico, Guatemala, and Ecuador participate at rates from 70% to 85% in this sector.

Women in high-income countries participate in financial/professional and consumer services at twice the rate of women in countries at other income levels. In 20 countries, women's participation in this sector is at parity with men or greater. Women's rates are at least

# Iran

**Haide Shirzady Gilani-Lempges, CEO,  
Recycling and Composting Kermanshah Company  
(est. 1998)**

The Recycling and Composting Kermanshah Company (RCK Co.) was established as a special joint company in cooperation with the Kermanshah Municipality, to provide waste management services in Kermanshah, Iran. Every day, RCK Co. processes approximately 600 tons of waste through the Kermanshah Waste Recycling Project. Organic waste is converted into compost, recyclable waste is separated, and waste with calorific value is stored in order to be used as Refuse Derived Fuels (RFDs) in cement factories.

RCK Co. also provides consulting and monitoring services for implementation of waste management plans for other cities in Iran. The Kermanshah waste processing experience is derived from technical, scientific, and practical principles using innovative technology. In accordance with Iranian political, social, and economic standards, waste is processed by special machinery. The process is both environmentally and economically



significant, and less costly than other methods. Many cities in Iran have used this methodology, which can serve as a model for Asia, Africa, and other countries that are at the initial stages of standard waste management processes, as these processes can be adapted for countries with different populations and different climates.

Though the company has not participated in a formal acceleration program or other mentoring support programs, Haide and her husband, who is German, were both educated in Germany. They have participated in numerous seminars and exhibitions in Germany and Austria to ensure their knowledge of best practices and new techniques is always current. Haide has won numerous national



and international awards including the 2016 Women Entrepreneurs Award from European Union for EBC\*L 2016 (European Business Competence License) in Paris, France, and in 2017 the Brand Reputation and Competent Company Award from European Union for EBC\*L 2017 (European Business Competence License) in Vienna, Austria.

One obstacle RCK Co. has faced for more than two decades is acceptance of recycling practices in Iran. Environmental projects provide social benefits, such as reducing environmental pollution and converting organic waste into compost for healthy agriculture. Yet, in Iran, this work is still not accepted or considered a necessary public service. But change is on the horizon. Waste management has recently become approved as law. RCK's challenge now is to provide waste management services within the limits of municipal funding that may not completely cover their costs until Iran develops a comprehensive plan for funding waste management projects.





# Poland

**Jolanta Kreczmańska, Managing Director,  
Kalmar (est. 1991)**

Kalmar is a leader in the distribution of decorative and artistic radiators in Poland. It offers its clients, including architects and interior designers, the largest selection of radiators in the region. The company has created a unique line of products called Kalmar Radiators, which aims to provide customers with functional products featuring interesting design. More than half of its offerings are available only in the network of Kalmar showrooms and authorized representatives. The first to conceptualize a boutique radiators distributorship in Poland and Europe, the



venture remains unique in the field of specialized partner services for designers.

Jolanta says that two of her biggest challenges were the creation of a network of external partners and the creation of a unique sales concept. Kalmar developed proprietary CRM and B2B software systems which strengthened the firm's inner planning processes, sales management, and employee motivation program. In 2016, Kalmar celebrated its 25th anniversary. According to Jolanta, each year brings new challenges. **She is most proud of the fact that the company does not imitate, it creates. And with passion.** The fact that there are people in the company who have been working with them for almost two decades is the best review of team management.





a third to two times greater in Bulgaria and in Bosnia & Herzegovina, while the opposite is true for Angola, Egypt, Greece, and the Russian Federation. Women have participation rates similar to those of men in manufacturing/transportation (12.5% compared to 11.8%), with the highest participation rates for women (18% compared to 24%) in Sudan, Morocco, the Republic of Korea, Iran, and the Russian Federation. The lowest rates occur in Italy, France, and Poland.

Women's participation by industry is similar to the above rates in middle-income, low-income, and lower-middle-income regions. Exceptions are the sectors of financial/professional and consumer services, where women in middle-income countries have greater presence; and also the agriculture and mining sectors, where women participate more often in low-income countries. The highest percentages of women in this sector are in Madagascar (21.1%), Latvia (18.7%), and Sweden (17.3%). However, Ecuador, Egypt, Greece, Italy, and Sweden show gender

parity. Puerto Rico and Qatar reported no women in agriculture and mining, although male participation rates are 13.5% and 9.8% respectively.

Women's participation in the sector of government/health/education and social services is greatest in high-income countries and in the Europe region (27.3%). Women outpace men in this sector at all income levels in all regions. Women's participation is three times or greater than that of men in Argentina, Croatia, Estonia, France, the Netherlands, and Poland. Only six countries show a gender gap for women, with the largest gap in Indonesia at participation rates of 9.9% for women and 13.6% for men.

In summary, most participation worldwide among women entrepreneurs is in wholesale/retail, but this sector attracts men as well. Gender gaps are widest in ICT, where women compete at one-third the rate of men on average, and in government/health/education and social services, where women compete at more than twice the rate of men.

## IMPACT OF WOMEN ENTREPRENEURS

This section details the impact of women entrepreneurs and their significant influences on countries, regions, and economies worldwide. Women launch and grow businesses, create and sell innovative products and services, and take part at every level of international trade and commerce.

By any measure, these statistics reflect the strong influences women entrepreneurs are having in their countries and ecosystems. While

there are variations by country and region across these dimensions, considering the impact and performance of women entrepreneurs requires a careful look at the influences of structural factors, age, education, and industry. Structural factors include laws (labor market regulations, capital requirements), demographics (age and education), and industry sectors which influence supply and performance of entrepreneurial ventures. These structural factors are

**TABLE 2**  
Impact of women entrepreneurs around the world  
Source: GEM 2017–2018

	GEM 2019 % women	GEM 2019 count	Global estimate
Number of women worldwide engaged in entrepreneurship	10%	8,990	252,053,113
Number TEA women with >20 employees	3%	108	6,335,490
Number TEA women with growth expectations	19%	1,681	47,389,466
Number TEA women with innovative offerings	26%	2,348	66,142,517
Number TEA women >25% export customers	12%	1,019	31,170,612

## ENTREPRENEUR HIGHLIGHT

### Colombia

**Angela Mejia, Co-founder**  
**San Martin Lácteos (est. 2015)**

San Martin Lácteos is a family business — run by Angela (pictured right), her father Fernando Mejía, her mother Olga Jiménez (pictured left), and her husband Javier Guevara — which manufactures innovative handmade, all-natural dairy products. Named for their son, Martin, San Martin Lácteos seeks to contribute to a healthy lifestyle by developing products for its customers' entire family that even their own child would eat! Currently, the company offers three unique products in the Colombian market, one of which is its specialty fat-free Greek yogurt which contains no sugar, carrageenan, or gums.



In 2017, San Martin Lácteos received mentoring and training from Manizales Mas and Babson College, and has been constantly supported by the local Chamber of Commerce. The company strives to continuously learn and grow in order to serve a market beyond Manizales and Colombia's borders. **According to Angela, “as an entrepreneur, every day is a challenge — to build a company that is sensitive to our customers’ needs while at the same time being innovative.”** Her goal is to build a company with a strong market presence, and a strong labor force who are able to support their families, while supporting her own as well.

contextualized by region, sociocultural considerations, and ecosystem influences, which will be discussed in the next section.<sup>25</sup>

As noted in earlier sections, the most common age groups for both women and men to start businesses are 25–34 and 35–44. For both age groups, there is parity or near parity, with only a slight difference for North America of less than 1.5%. Asia and North America are the only regions in which women are as likely as men to be starting a business in the 18–24 age group. Greater differences are notable in the older age groups. Hence, it is fair to say that the influence of age on startup rates for men and women is similar.

Education level also influences entrepreneurial startup and performance. For this GEM report, the vast majority of both women and men have secondary or post-secondary education, nearly 69% of women and 71% of men. While the overall percentage is somewhat small, there are gender gaps by region. Specifically, the overall trend shows that, at higher education levels, fewer women are starting businesses compared to men. Women with some secondary education are more likely than men with this same level of education to start businesses across all regions except Europe. This finding suggests that it is possible these women are starting businesses because they may not have any other career options. It is possible that, because women starting businesses are somewhat less educated, this may be related to their propensity to hire employees or to have growth aspirations. For instance, formal education provides general skills and knowledge that lead to confidence in managing an organization.<sup>26</sup> For women starting businesses with less education, this may inhibit their growth aspirations because they may have less confidence in management skills. Furthermore, greater levels of formal education provide different networks of resources vis-à-vis classmates and students. For less educated women, this could be a detriment.

<sup>25</sup> Brush, C. G., de Bruin, A., & Welter, F. (2014). Advancing theory development in venture creation: Signposts for understanding gender. In Lewis, K., Henry, C., Gatewood, E., & Watson, J. (eds.), *Women's Entrepreneurship in the 21st Century: An International Multi-Level Research Analysis*. Northampton, MA: Edward Elgar Publishing, 11–31.

<sup>26</sup> Chrisman, J. J., Bauerschmidt, A., & Hover, C. W. (1998). The determinants of new venture performance: An extended model. *Entrepreneurship Theory and Practice*, 23(1), 5–29.

Also related to education is the fact that the largest gender gap was for individuals with a graduate level of education in most regions (except Europe and North America), where men are more likely to be starting businesses. It is possible that women with greater levels of education may be better qualified for careers other than entrepreneurship because they will have more career choices.

The third structural factor is industry. Industry has a major impact on women's participation rates by sector, business size, and growth rate. In particular, there is evidence that sectoral segregation exists where some industries are perceived as either more women-dominated or men-dominated. For instance, a study in Australia identified certain industries that are traditionally female or male depending on concentrations. In the United States, the Small Business Administration identified concentrations for women-owned sole proprietorships in service, retail, and wholesale, and for men-owned businesses in services, mining, manufacturing, and construction.<sup>27</sup> Industries are concentrated differently with men- and women-led businesses, and some are easier to enter but more competitive, while the opposite is true of others. For example, launching a manufacturing business requires capital assets, money, distribution channels, and labor, while launching a service business may only require a phone, a website, and a computer. Retail and wholesale are easier to enter but highly competitive, and they often have lower margins

because it is difficult to differentiate and achieve a competitive advantage. Some sectors require more education such as financial services, telecommunications, or agriculture, whereas other sectors such as foods and retail do not. Women entrepreneurs may have insights into new product innovations in retail and wholesale, or other areas such as foods, education, or health care, because they are often the primary customers in these industries and linked to running a household or caring for a family.

Women entrepreneurs are concentrated in retail and wholesale at a much greater rate than men worldwide. It is not clear if they enter this industry sector because they see more role models due to women's concentration in this sector, because of lower levels of education and skills, or because male concentrations in other sectors such as ICT, mining, agriculture, and manufacturing do not fit with their entrepreneurial identity, as these are stereotypically male industries. Similarly, industry segregation may limit women's ability to achieve growth, if they find themselves one among few women in the industry, because it might be more difficult to acquire resources to grow. Conversely, women entrepreneurs in retail and wholesale, or financial/professional/administrative and consumer services, may be able to disrupt or innovate in these industries because they have networks of support. In sum, structural factors, age, education, and industry may differentially influence women's participation, growth, and performance in entrepreneurial activities.

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<sup>27</sup> ICT/DIST (1996). *A Portrait of Australian Business: Results of the 1995 Business Longitudinal Survey*. Small Business Research Program, Industry Commission, and Department of Industry, Science and Tourism, AGPS, Canberra. Small Business Administration Office of Advocacy (2003, March). *Dynamics of Women-Operated Sole Proprietorships, 1990–1998*. Washington, DC.

# Entrepreneurial Ecosystem Factors: Societal Perceptions and Investment Activity

## ENTREPRENEURIAL ECOSYSTEM INFLUENCES ON ENTREPRENEURSHIP

All entrepreneurial activity is highly dependent on the specific contexts within which it occurs. The context for entrepreneurial activity varies by country, region, and level of income. Context is widely considered in economic development frameworks that focus on institutional structures and environmental factors: in other words, basic economic factors such as money, markets, and management or more broadly conceived entrepreneurial ecosystem dimensions.<sup>28</sup> Every entrepreneurial ecosystem is embedded in an institutional context which includes formal regulatory influences as well as informal institutions such as networks. Further, entrepreneurial ecosystems directly and indirectly influence the supply of all the types of resource (human, social, technology, physical, and financial) that make it possible for entrepreneurs to launch businesses. An important aspect of entrepreneurial startup is that it depends on the social structures and social relations that are rooted in every society's norms, beliefs, ideologies, and conventions.<sup>29</sup> It is well documented that cultural context can differentially influence women's entrepreneurship

through family role expectations for housework and family responsibilities, as well as gender stereotyping of roles which may lead to occupational segregation.<sup>30</sup> In some societies, the stereotype of an entrepreneur is more often a man, while in others women may be more likely to be perceived as entrepreneurs. In essence, societal attitudes can be a marker of potential entrepreneurs in society, as well as a signal of the encouragement and support these individuals receive.

Because of the influence of societal perceptions, GEM captures attitudes including how people regard their surroundings (whether they believe there are good opportunities around them), how they perceive themselves (whether they think they have the ability to start a business), and the extent to which those who perceive opportunities are undeterred by fear of failure. GEM also tracks affiliations with entrepreneurs and the extent to which people know an entrepreneur personally. Generally, these attitudes and affiliations are more favorable in the earliest economic development stages, consistent with rates of participation in this activity.

<sup>28</sup> Brush, C., Edelman, L., Manolova, T., & Welter, F. (2018). A gendered look at entrepreneurship ecosystems. *Small Business Economics*, 53(2), 393–408.

<sup>29</sup> Welter, F. (2011). Contextualizing entrepreneurship: Conceptual challenges and ways forward. *Entrepreneurship Theory and Practice*, 35(1), 165–84.

<sup>30</sup> Brush, C., & Greene, P. (2016). *Closing the Gender Gap In Entrepreneurship: A New Perspective on Policies and Practices*. Report prepared for the OECD.



## SOCIETAL PERCEPTIONS

### Opportunity perceptions

Opportunity perception is linked to startup rates in that those perceiving opportunities are often more likely to start a business. GEM asks all respondents to indicate the extent to which they perceive opportunities in the environment regardless of whether they actually start a business.

The global average for perception of opportunities is nearly at parity, with women at 42.1% and men at 47.3%. The gender gap in opportunity perception has narrowed in that women's perception of opportunities improved from 39.2% to 41.2% since the last report, a 5% increase. For all regions and income levels, women's perceptions are at 0.9% of men's perceptions, with the highest perceptions of opportunities in North America and the lowest perceptions in Europe. Sixteen countries indicate equal levels of opportunity perception for men and women, while in two countries, China and Kazakhstan, women are more likely to have higher perceptions. Women in five countries — Angola, Sweden, Sudan, the UAE, and the United States — have more than 65% who perceive opportunities. Other countries with high perceptions include Canada, Chile, Poland, and the Netherlands. It is interesting that women respondents indicate high perceptions of opportunities in Poland, the Netherlands, and Sweden when the rates of entrepreneurship are very low in these countries.

The biggest gender gaps exist in Slovakia, France, Egypt, Japan, and Bosnia & Herzegovina, with the latter two countries indicating the lowest overall rates worldwide of positive perceptions of opportunities for women at 6.8% and 10.2%. Countries with low perceptions also include Brazil, Bulgaria, Greece, Iran, the Russian Federation, and Spain, all of which are associated with overall low rates of women's entrepreneurship based on TEA.

### Capability perceptions

Capability perceptions refer to one's belief that one is prepared and has the skills to start a new business. Compared to opportunity perceptions, capability perceptions are more standard across countries and regions, with women lower across all regions and income levels. Globally, women

#### ENTREPRENEUR HIGHLIGHT

### Poland

**Daria Prochenka, Co-founder and President of the Board,**  
**Justyna Szuszkiewicz, Co-founder,**  
**Clochee (est. 2013)**



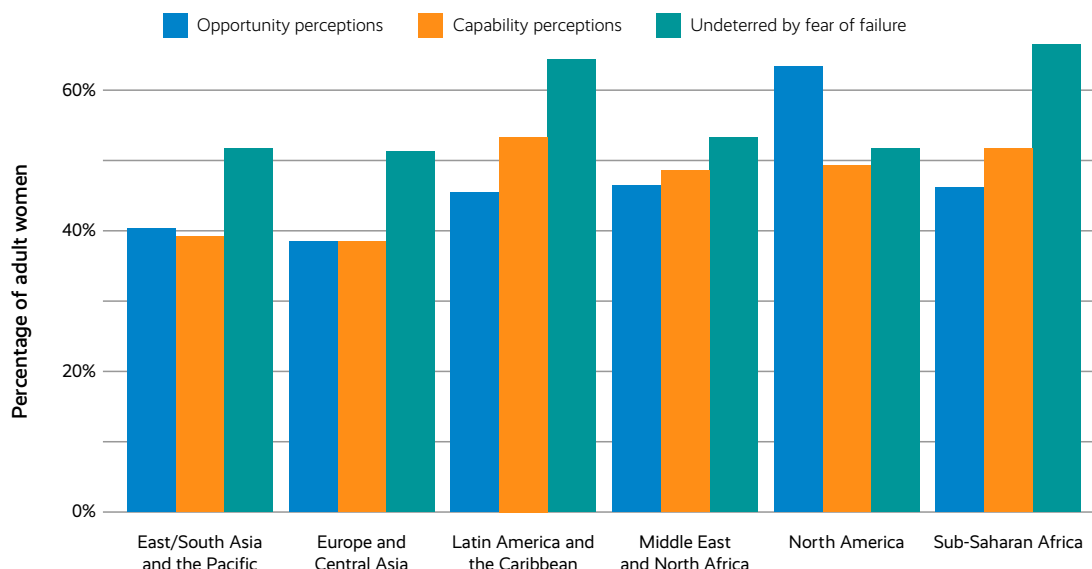
Clochee creates natural products for the face, body, and hair, and was the first company in Poland to focus on ecological and vegan cosmetics. The company's philosophy is to combine nature with tradition and innovation by blending valuable raw materials with modern science and technology. Clochee packages all products in an ecological way, using exclusive glass bottles and 100% recycled plastics. It seeks to demonstrate that healthy, natural products can simultaneously be elegant and beautiful.

**In just five years, Clochee has grown from a small startup into a leading natural care company in the highly competitive Polish cosmetics industry.** Initially offering just six cosmetics, the company now manufactures and distributes over 90 product items via 200 channels in Poland, including online through Sephora. Clochee also has major foreign partners in Canada, the UAE, Taiwan, and the United Kingdom. While the team is proud that their small Szczecin company has attracted the attention of large distributors and foreign partners, Daria (pictured left) says that their biggest challenge has been to make their "no name" company visible in the Polish and international markets.



**FIGURE 19**

Perceptions about entrepreneurship for women aged 18–64 by region  
Source: GEM 2017–2018



have a 43.4% confidence rate in their capability to start a new business compared to 55.6% for men. In fact, there is no region in which women rate higher than men. Only in one country do women have higher perceptions than men (Angola), and 10 countries show women at parity. Since the last report, the worldwide gender gap has narrowed 2%, with Cyprus, Israel, Kazakhstan, Saudi Arabia, and Vietnam moving to near parity or at parity with men. Countries with the highest rates for women, more than 65% positive capability perceptions, are: Angola, Ecuador, Peru, Saudi Arabia, and Sudan, while the lowest were China and Japan.

Over time, women's perceptions of opportunities have more than doubled in Luxembourg, Sweden, Switzerland, Taiwan, and the United Kingdom. Notably, these countries all have startup rates for women under 9%, but perhaps this is a positive trend and startup rates will increase in the future. On the other hand, there were significant declines in Canada, Ecuador, Indonesia, and Iran of 50% or more, with TEA rates near 14% or more except in Iran at 6.4%. The gender gap widened the most in Indonesia (33%) and Iran (54%).

### Undeterred by fear of failure

The GEM survey captures perceptions of the extent to which individuals might be undeterred by a fear of failure related to the business process. Across all regions and income levels, men reported being less deterred by failure than

women. In sub-Saharan Africa, both men and women are less likely to be concerned about failure than in other regions, 70.1% for men and 65.5% for women. Countries with the highest rate (more than 65% of women) of confidence in overcoming failure are Angola, Qatar, Puerto Rico, Panama, Mexico, Chile, the Republic of Korea, and Kazakhstan. Yet Bulgaria, Israel, Greece, and Morocco reported that less than 40% of women believed they would be undeterred by failure.

The likelihood of being deterred by failure declined for women entrepreneurs in Austria, Colombia, India, and Puerto Rico by more than 32% for all four countries. In other words, women in these countries are more concerned about failure now than in the previous study. Puerto Rico recently endured a devastating hurricane, so this is not surprising. By contrast, women in Greece and Switzerland are more confident, by 40%, in overcoming failure than they were in 2015–16.

### Personally knows an entrepreneur

Affiliations with entrepreneurs can inspire others to consider entrepreneurship. GEM captures the extent to which respondents personally know an entrepreneur. Once again, men are more likely worldwide to know an entrepreneur personally at 42.2% compared to women at 34.9%. The averages across income levels are fairly constant from 40% to 48% for men and 33% to 42% for women, with the lowest rates in high-income countries. The largest gap is in Egypt and Turkey where men are

## India

**Ruzan Khambatta, Founder, Wizz O Tech (est. 1996)**



Wizz O Tech (WOT) is a customer-oriented, quality-driven company that delivers IT solutions for clients in India as well as abroad. For more than two decades, WOT has built a reputation for creating websites that help its clients to accelerate their own business growth. According to Ruzan, “the only thing which works forever is customer loyalty. It is more important to earn customer loyalty than to earn money. Money is a short-term gain, whilst customer loyalty is a long-term benefit.”

Ruzan is a serial entrepreneur who often brings new technologies to market. Her biggest challenge has been to introduce new concepts to the market and then work to make them acceptable. Ruzan is also committed to the movement for women’s empowerment. She sees to it that women are mobilized to understand, identify, and overcome economic, social, and professional hurdles. She firmly believes that small steps taken today will lead to a giant leap tomorrow. Ruzan often serves as a sounding board for other women, guiding them in their careers and businesses, believing that mentorship gives women the courage to stand up for themselves, voice their opinions, and excel in their field.

twice as likely to know an entrepreneur, while six countries show gender parity: Vietnam, Saudi Arabia, Taiwan, Madagascar, Kazakhstan, and Indonesia.

In seven countries, women exceed 53% in knowing an entrepreneur, with the highest being Saudi Arabia at 77.3% and Indonesia at 70.5%. Countries reporting the lowest rates for women knowing an entrepreneur are Egypt at 7.5%, Puerto Rico at 17.23%, and Turkey at 17.8%. All three countries have relatively low rates of TEA for women. Despite high visibility of entrepreneurs in American society, only 33.7% of women in the United States know an entrepreneur. Further, the lowest rates are associated with European countries where the vast majority of women indicate associations with entrepreneurs at under a rate of 30%, far below the global average and consistent with low rates of women’s entrepreneurship in these countries generally.

## Perceptions of ease of starting a business

An important ecosystem influence is the perception about how easy it is to start a business. Starting a business includes several steps from managing the regulatory and business registration process, to acquiring funding and other resources, building the customer base, and managing the operations. Different cultural contexts can be viewed as more favorable, meaning it is easier to launch, or less favorable. For this survey, 39.1% of women felt it was easy to start a business compared to 42.5% of men. There is gender parity in this belief across three regions: Asia, Latin America, and sub-Saharan Africa. Only in high-income countries do women believe it is more difficult to start a business than do men.

Twenty-seven countries are at parity or greater, and in 11 countries women perceive it to be easier to start than do men. In five countries — South Africa, Turkey, the UAE, the United States, and Vietnam — at least 1.3 times more women than men believe it to be easier. In contrast, the largest negative gap is in four countries, China, Egypt,

Poland, and Sudan, where women believe it to be easier at nearly half the rate of men. The countries in which the highest percentages of women believe it easy to start a business are Mexico, Luxembourg, and Slovakia, all with more than 70%.

### Starting a new business is a good career idea

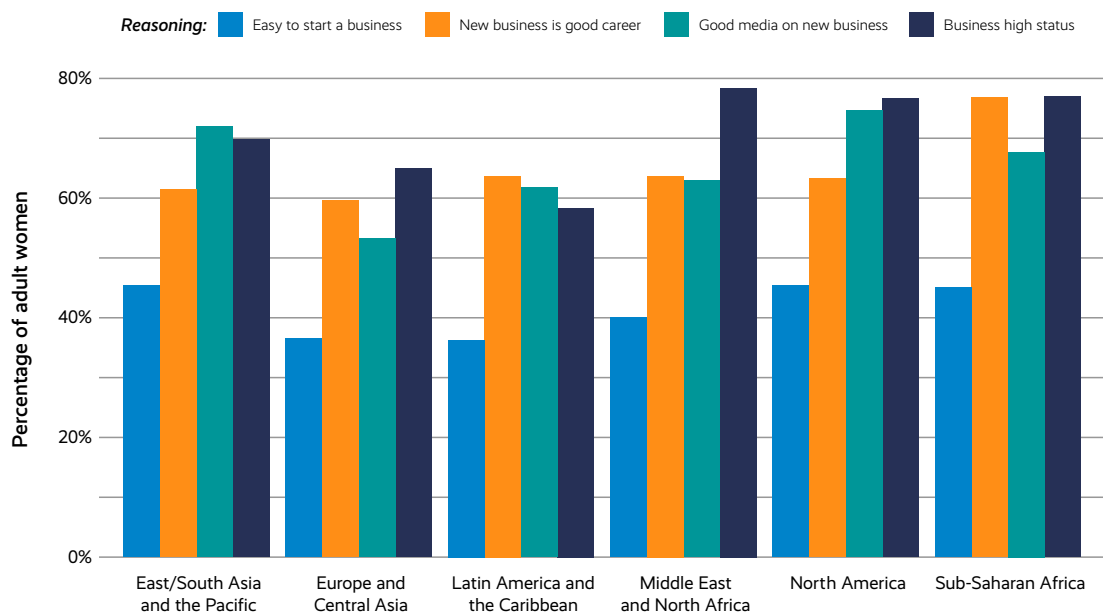
Social perceptions of careers have a very strong influence on whether entrepreneurs will choose to launch a new venture. Importantly, if starting a business or being an entrepreneur are not viewed as a good career idea, this might discourage potential founders. Global data show that both men and women believe entrepreneurship is a good career: 61.9% for women and 62.2% for men. All regions reflect gender parity as do all income levels. However, Europe has the lowest perception of entrepreneurship as a good career for both women and men (59%), while in sub-Saharan Africa the percentage is 76% for both genders. Ironically, high-income countries indicate the lowest perception of entrepreneurship as a good career (58–59%). This is likely because these countries offer many other opportunities for careers (opportunity motivation), whereas in lower-income countries necessity is often the motivation and therefore entrepreneurship might be perceived as a better way to support one's family.

Ten countries demonstrate gender parity, while in 27 countries women outpace men. Countries in which more women than men see entrepreneurship as a positive career are Canada (3.3 times greater), India (2.4 times greater), and Slovenia (1.8 times greater). The largest negative gap is in Brazil, where women are three times less likely than men to describe entrepreneurship as a good career choice, followed by Colombia and Ireland, where women were two times less likely than men to be positive about this career choice. The most positive perceptions of entrepreneurship as a career are in Sweden at 95.4%, which is surprising given that the startup rate for women is quite low (3.3%). A similar pattern is evident for Egypt, Israel, Puerto Rico, and the United Kingdom with high perceptions about career choice but relatively low TEA rates.

### Owning a business is a high-status job

Similar to perceptions of whether an entrepreneurial career is a good idea are perceptions about owning a business and whether this is seen as a high-status job. Once again, there is gender parity, with 66.7% of women and 68% of men believing entrepreneurship is a high-status occupation. The rates across most regions exceed 70%, except for Europe and MENA. Surprisingly, perceptions about entrepreneurship have the lowest rating in high-income countries. Across

**FIGURE 20**  
Societal support for entrepreneurship for women aged 18–64 by region  
Source: GEM 2017–2018





# Germany

**Anna Yona, Founder and CEO,  
Wildling Shoes (est. 2015)**

Wildling Shoes was founded in April 2015 but the company's research and development phase started in 2013 when Anna, her husband, and their three children moved back from Israel to Germany. The kids had run around in bare feet in their early years, but in Germany Anna found she had to buy them shoes for the first time. They couldn't find a pair that would allow their children to continue to walk naturally, or that they were happy to put on feet that were so used to freedom. Thus, Wildling Shoes was born.

Wildling wants to move people: *literally*, by offering minimal shoes infused with a sense of freedom; and *figuratively*, by finding new ways to work more sustainably, fairly, and innovatively, and thus encouraging others to do the same. From move to movement.

As a sports therapist, trainer, and passionate barefoot runner, Anna's husband and co-founder had always been a fanatic when it came to natural movement and the biomechanical background. Anna loves the challenge of implementing new ideas and of communicating in a way that gives Wildling Shoes its very own identity. Despite all their passion, neither had any experience of making shoes. Without the knowledge and support from shoe designers and modelers, their vision would have remained a dream.

Financial support came from the company's first customers. Wildling was launched via a crowdfunding campaign on Kickstarter in August 2015 and received sufficient funding to produce an initial batch of 2,000 pairs of shoes. They also received government funded loans to launch the project.



**What helped a great deal navigating the turbulent first years of their startup enterprise was the exchange with other founders, especially those with a few more years of experience.** They sought that input and inspiration whenever they had the chance, and still do so today.

One of the bigger challenges in the beginning was finding a partner who could not only produce Anna's innovative shoe concept but also embrace the company's values of using fairly traded and ecologically sound materials and committing to socially fair manufacturing conditions.

Wildling's carefully sewn shoe is produced almost completely by hand. The production facilities that still master this art are traditional Portuguese companies that have specialized in the production of high-quality shoes for decades. "When we were selecting Wildling production partners, it wasn't only the quality of the craftsmanship and the adherence to fair working conditions and environmental standards that convinced us, but also the friendly and cheerful atmosphere in the businesses," says Anna.





all countries, 20 show gender parity and three — France, Morocco and the Republic of Korea — show women to be over 1.5 times more likely than men to believe entrepreneurship is a high-status occupation. Similarly, women in Canada, Chile, Poland, and the Russian Federation have highly positive perceptions.

The largest negative perceptions are in Greece, Iran, Ireland, Mexico, and Spain, where women are much less likely to view entrepreneurship as a high-status job. Countries in which women are most likely to see entrepreneurship as a high-status occupation are China, Egypt, Panama, Poland, Thailand, and the United States, all with rates over 80%.

## Media is favorable for new businesses

Media influences opinions and perceptions by favorable or unfavorable treatment of entrepreneurship. GEM asked the extent to which media coverage was perceived as positive or negative for entrepreneurship, and results show that exactly 59% of women and men believe it is favorable. All regions and income levels indicated gender parity, but the lowest perceptions of favorable media coverage were in high-income countries. Women in six countries indicated more favorable perceptions of media coverage of entrepreneurship than men, the highest being Croatia, where the women's rate is 2.2 times greater. The biggest gender gaps exist in South Africa, followed by India, Iran, Madagascar, and Spain. The highest overall positive perceptions of favorable media coverage by women are in Uruguay (85.4%), with Angola, Canada, Germany, and Guatemala all rating above 80%.

## ENTREPRENEURIAL INVESTMENT RATES

Personal investment in entrepreneurship is critical in enabling this activity to thrive. In all countries, individuals provide seed capital for startup businesses. As the *2015 GEM Global Entrepreneurial Finance Report* shows, direct investment in entrepreneurship plays a large role worldwide across all regions and development levels. For example, 12% of respondents in sub-Saharan Africa and 11% in North America have provided funding to entrepreneurs.<sup>31</sup> Around the world, there are also new funding vehicles, especially digital platforms such as crowdfunding, via which individuals may offer funding support in exchange for debt, gifts, equity, or some combination of these. In the United States alone, crowdfunding is expected to reach \$6.9 billion in 2019, the average investment being slightly less than \$800.<sup>32</sup> By 2022, the total amount is projected to reach \$89.72 billion worldwide.

Women investors have the potential to contribute to entrepreneurial ecosystems in their societies by providing financial support. Further, investors often convey more than financial support, as they may provide guidance, strategic advice, and mentorship, or even take on roles as advisers or board members as a result of their investment. Questions in the GEM survey relating to investments in entrepreneurs include whether a respondent has invested in any entrepreneurs in the past three years, the total amount invested in these entrepreneurs, and the respondent's relationship to the most recent entrepreneur invested in.

Overall, 3.4% of women and 5.4% of men in the 59 economies provided finance to entrepreneurs in the past three years. This ranges from a fraction of a percentage in Bosnia & Herzegovina, Japan, Mexico, and Puerto Rico, to more than 12% in Chile and Sudan. There is no region or income level where the percentage of women investors exceeds that of men, although the region with the greatest percentage is MENA. High-income countries are only slightly more likely to have investors than low-income countries. Asia reflects the lowest percentage of investors overall, with 2.9% for women and 3.9% for men. MENA shows the highest percentage of women investors (5.3%) but still at

<sup>31</sup> Daniels, C., Herrington, M., & Kew, P. (2016). *Global Entrepreneurship Monitor Special Topic Report: Entrepreneurial Finance*. London: Global Entrepreneurship Research Association.

<sup>32</sup> Crowdfunding worldwide: Average funding per campaign. Statista. <https://www.statista.com/outlook/335/100/crowdfunding/worldwide#market-arpu>; Technavio. <https://www.technavio.com> (accessed November 11, 2019).

## INVESTOR HIGHLIGHT

### Korea

**Sharon Seunghyun Kim,**  
Director, Bass Investment

A newcomer to the investment arena, Sharon Seunghyun Kim started investing in both women-owned and men-owned businesses in 2015. As an early-stage startup investor, Sharon is attracted to a startup run by a smart, competent CEO. She has invested in several women-owned ventures because those female CEOs had outstanding performance and market insight. For her, the CEO's gender is not a big deal. Just as there are many capable male CEOs, there are many female CEOs with great potential. As a woman investor, Sharon is seeking to find as many impressive female CEOs as possible.



When deciding which companies to invest in, Sharon looks for the strength of key members, especially at the C-suite level. **In her personal experience, competent female CEOs showed better communication skills, leadership, and market analysis, which are important factors when a company is rapidly growing.** In addition to the management team, market size and product-market fit are important factors that she considers when determining the viability of an investment.

a lower rate than men (6.5%). The largest gender gaps are in Austria, Chile, Estonia, Guatemala, Iran, Sudan, and the United States. There are seven countries in which women are at parity with men or slightly more likely than men to be investors.

Countries with some of the smallest rates of women investors are in Europe. Bulgaria, Croatia, Cyprus, France, Ireland, Italy, and the United Kingdom all exhibit rates under 2%. In part, this is consistent with overall lower startup rates for women in these countries compared to other parts of the world.

The lower frequency of entrepreneurial investments in high-income countries may be due to increased availability of capital from more formal institutional sources and regulations that formalize as well as regulate and protect these sources. This formal finance sector provides a funding source for entrepreneurs and also a potential source of returns for holders of capital, because there are more opportunities for return on investment through business sales, mergers, or acquisitions.

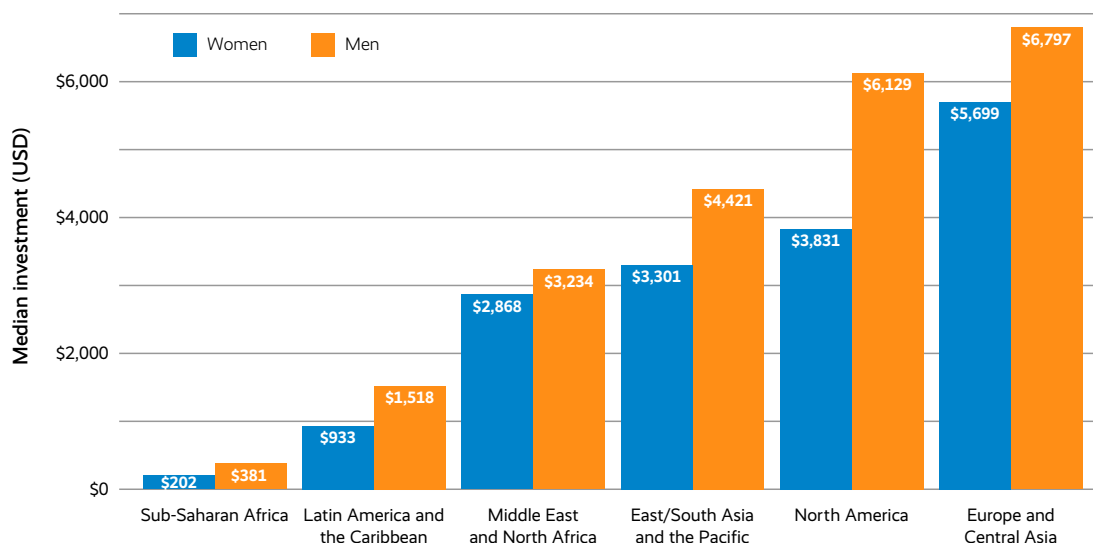
## MEDIAN INVESTMENT AMOUNTS

There is wide variation in the median investment size by region, country, and gender. The global median investment rate is \$2,737 for women and \$3,419 for men investors. There is no region in which the median investment rate of women investors exceeds that of men, but there is near parity in MENA. Women in Europe have the highest median investment rate at \$5,699 compared to a low of \$202.25 for women in sub-Saharan Africa. From a regional viewpoint, the gender gap is consistent across all regions except Asia. In most regions, women invest at approximately 60% the rate of men. In Asia, however, women invest about 80% as often as do men.

There are six countries in which women are at parity with men with the amount invested, and six countries in which women have a larger median investment size. In Australia, Cyprus, Greece, and the Russian Federation women invest a 1.3 times greater amount, or more, than men investors. The highest median investment size overall is by men in the Republic of Korea at \$45,312, followed by men in Qatar at \$27,468. Women in the Republic of Korea invest a median amount of \$27,187, while in Greece they invest \$17,528, in Switzerland

**FIGURE 21**

Median level of investment by gender and region  
Source: GEM 2017–2018

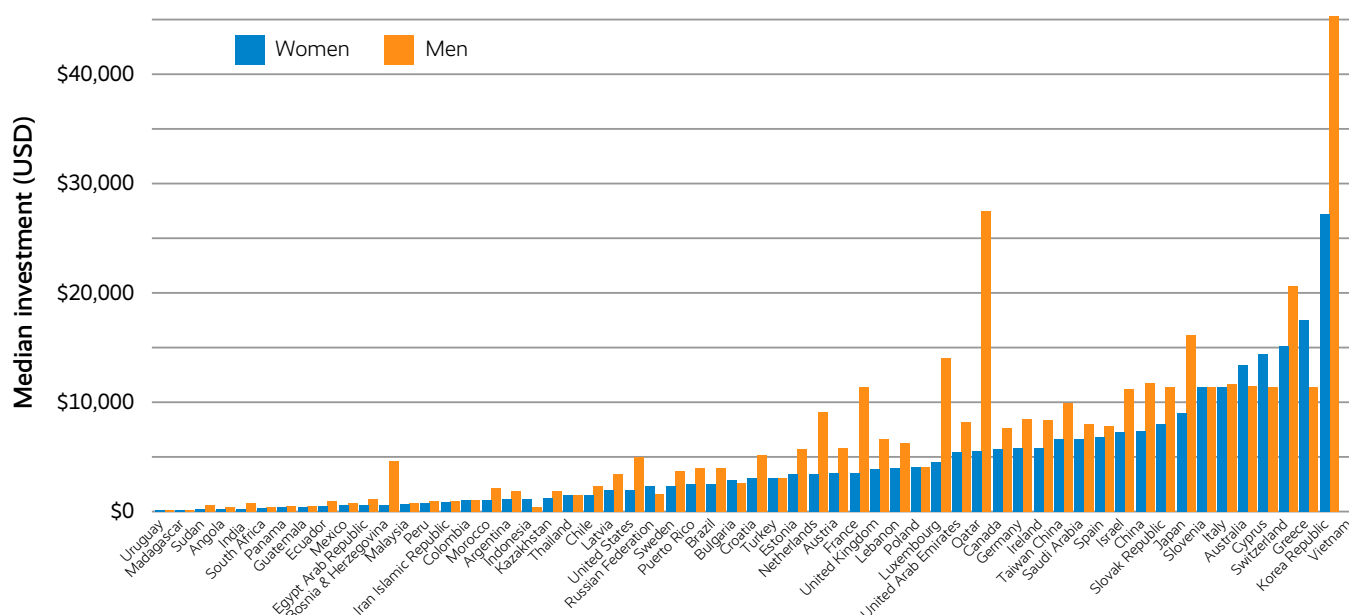


\$15,108, while the amounts are \$14,391 in Cyprus and \$13,425 in Australia. The largest gender gaps are in Qatar (median investment of \$5,493 for women compared to \$27,468 for men), France (\$3,505 for women compared to \$11,398 for men), and Luxembourg (\$4,559 for women and \$14,023 for men). Some of the highest median investment rates by both women and men are noted in countries that also have lower overall investment rates: for instance, Cyprus, Greece, Italy, Japan, and Switzerland. Because these countries also have relatively small startup rates, this implies that the smaller number of startups in these countries are better funded.

In contrast, countries with some of the highest frequency of investing have the lowest median size investment: for example, Sudan, with investment rates at 13.6% for women and 19.0% for men, but median investment sizes of \$193 and \$554, respectively. Sudan boasts one of the higher startup rates (18.1% for women and 27% for men), which suggests that new ventures are not as well funded. Other countries with higher startup rates and overall smaller median investment sizes include Angola, Guatemala, and Madagascar, all of which have greater frequency of investment and small median investment amounts.

**FIGURE 22**

Median level of investment by gender in 59 countries  
Source: GEM 2017–2018



## United States

**Elizabeth “Liz” Roberts,**  
**Member, 37 Angels**  
**Member, Pipeline Angels**  
**Limited Partner/Investor, Backstage Capital Studio**  
**Limited Partner/Investor, Next Wave US Impact Fund**  
**Limited Partner/Investor, Brava Investments**

Liz, a former tech entrepreneur, has been an angel investor since 2012, participating in an early cohort of what was the Pipeline Fellowship in NYC which has grown into Pipeline Angels. **Eighty-five per cent of startups/ventures Liz has invested in are women-owned/-run and 100% of her investments have diverse (people of color, LGBTQ, women) founders and teams.** She invests in “underestimated” founders — a term coined by Arlan Hamilton (Backstage Capital), which Liz has adopted.

In her years of building, growing, funding, and selling two companies in NYC, as an out, LGBTQ woman, Liz rarely saw any women or people with whom she identified represented among the power brokers who sat on the other side of the table. She became an angel investor because she wanted to change the white, male, straight-dominated status quo of who is making the funding decisions about which ideas, founders, and, ultimately, end users being served via access to early seed capital.

Like most investors, Liz evaluates key questions about the venture:

- What problem are they solving?
- Who are they solving it for?
- What level of proof do they have that their product/service/venture solves this problem?



- Do they have traction in acquiring paid customers (if that's the model)?
- How well do they know their market?
- Do they have an initial understanding of key benchmarks and evaluation tools to track their path to profitability?

Of equal importance is evaluation of teams/founders. Specifically, Liz explores why founders are compelled to undertake the venture, whether they have grit, and what they have achieved or overcome already in their lives that translates into authentic entrepreneurial hustle. She questions whether they know what they can't do, if they can recruit and retain the team members they are going to need, and, most of all, whether the team is coachable yet discerning.

## INVESTOR RELATIONSHIP TO ENTREPRENEUR

Entrepreneurs around the world generally start with their own personal funds, followed by those of friends and family. Overwhelmingly, the data show that women are actually more likely to invest in a relative than men. Of women investors, 64.2% on average across the entire sample provided funding to an entrepreneur who was a close family member or other relative, compared to 51.9% of men.

Across all regions and income levels women are much more likely to invest in a relative or family member than are their male counterparts. MENA has the highest rates of both women and men investors supporting family members or relatives, with 70.2% of women and 60.2% of men investing in family. Women and men investors in North America are least likely to support family members: women at 47% and men at 40%. Data



by income level show that men in high-income countries are least likely to invest in relatives.

The range is quite large across countries: in Lebanon, Madagascar, Morocco, Peru, Poland, and Puerto Rico, more than 80% of both women and men investors are financing family and friends. However, in France, Luxembourg, and Taiwan less than 35% of women and men investors support family and friends. In Ireland, Slovenia, and the UAE, women are twice as likely to invest in family and relatives compared to men.

Investors also support work colleagues in startup ventures. There are different patterns among women and men investors. Only one region, Asia, exhibits gender parity, with 11% of women and men investors supporting work colleagues. Across all other regions, women are less likely than men to invest in work colleagues; the global average is 6.5% for women and 8.5% for men. There are four countries — Canada, France, Indonesia and Turkey — in which the propensity to invest in work colleagues is near 18% or more for both women and men.

But, once again, there is wide variation. In Italy, women are four times more likely than men to invest in a work colleague, while in Bulgaria the figure is nearly double. However, there are 15 countries in which no women invest in work colleagues and another 24 countries with a gender gap. Half of the countries in which women are not investing in work colleagues are in Europe: Croatia, Cyprus, Germany, Greece,

Ireland, Poland, Slovenia, and the United Kingdom, which, as noted earlier, also have relatively low startup rates overall. One possible explanation for the small numbers of women investing in work colleagues could be the lower startup rates in these countries.

Besides investing in work colleagues, women and men also finance friends and neighbors in startup ventures. On average, across the entire sample, 20% of women investors cited this relationship with entrepreneurs. Similar to the pattern of investment in work colleagues, women are less likely to invest in friends and neighbors in all regions except North America, where women are more likely to indicate this relationship. There were three countries in which women reported no investment in this group: Bosnia & Herzegovina, Italy, and Madagascar. Similarly, Israel, Luxembourg, and Morocco show very small amounts of investment by women. The gender gap is greatest in Slovenia and the UAE. There are seven countries in which women invest in friends and neighbors at a greater rate than do men, and two other countries where this practice is at parity. In Guatemala, India, Taiwan, and the United States, women's rate of investment is greater than 36%, giving these countries the highest rates for women.

Investors also support people they do not know if they perceive them to have good business ideas. GEM data captured the rates at which investors support strangers. Globally, women invest in strangers at a rate of 7.5% compared to 9% for

**FIGURE 23**  
Relationship  
between women  
investors and  
entrepreneurs they  
fund by region  
Source: GEM 2017–2018



men. The patterns of investment by region are different from other categories of entrepreneurs, in that three regions — Latin America, MENA, and sub-Saharan Africa — reflect parity for women and men, while the other three regions show a gender gap. Women are more likely to invest in strangers in 17 countries, while in 13 countries there is no indication that women invest in strangers. The highest rates of investment in strangers by both women and men occur mainly in European countries: Austria, Germany, Luxembourg, Sweden, and the United Kingdom, and also in Taiwan. Except for Taiwan, these countries have relatively lower entrepreneurial startup rates. Women have the greatest rates of investment in strangers in Bosnia & Herzegovina, Luxembourg, and the UAE. The biggest gaps for men include Israel, where women fund strangers 13.8 times more often than do men, and Malaysia, where the rate is four to one for women.

In summary, the entrepreneurial ecosystem provides the circumstances for supporting or hindering entrepreneurial behaviors. The GEM Framework guides us through considering not only what the social, cultural, political, and economic context are for each country and/or region, but also, importantly, how they may interact with one another. For instance, perceptions of opportunities, individual capabilities, fear of failure, and how entrepreneurship is perceived by society have the potential to be largely influenced by other ecosystem factors such as the media portrayal of entrepreneurs and institutional and regulatory structures. While the stereotype of an entrepreneur may be slowly changing, it is still largely male. From this vantage point, it can be seen why women may be less likely to recognize opportunities and acknowledge their own capabilities.

One measure of change may be perceived through the funding lens, with access to capital always included as a critical ecosystem resource. At this time, the numbers of women (and of men) investing are small; however, it is important to watch this phenomenon over time. Decades of data show that access to certain types of formal funding is usually less available to women and that, especially with regard to equity funding, women's participation is not only limited and limiting, but also presents challenges overall. Understanding the ecosystem also implies recognizing where system change is needed.

## INVESTOR HIGHLIGHT

### Canada

**Abigail Slater,**  
**Director, BL Management Limited**  
**General Partner, Marigold Capital (gender-lens impact fund)**

Abigail has been an investor for 20 years, investing in both women- and men-founded ventures. Her approach to making investment decisions, regardless of gender, takes into account impact, passion, expertise, intelligence, and the degree to which the founders listen and learn. She also explores their problem-solving approaches and looks for collaboration and management teams that are diverse and not overly hierarchical. While she does not hold women to a different standard or subject them to different rigor, in general she finds that the women-led startups she does invest in are all purpose- or mission-driven.



**Abigail believes women-led ventures are often overlooked though they can present profitable opportunities. She invests in women-owned businesses because she feels women need to change the way capital is allocated and she wants to lead by example.** To that end, a significant part of her investment strategy includes participating in SheEO. As founding Chair of the Board, she works with SheEO to create a global network of women supporting women-led ventures (and one another) through a peer-based model which is unique and innovative and scaling across the globe.

# Conclusions and Implications

For 20 years GEM teams have collected, analyzed, and shared data and conclusions about entrepreneurial activities and behaviors around the world. The project has included more than 500 researchers in 112 economies and the timing has spanned critical global events and changes. Throughout this time, GEM has systematically included the consideration of women business owners and their businesses with the goal of providing objective information for others to guide practice and policy.

This latest special report on women and entrepreneurship suggests that there remains significant work to be done to encourage and support women's ability to build economic security for themselves, their families, their communities, and their countries. This report considers the influence of entrepreneurial ecosystems on women's entrepreneurship, women's influence on ecosystems, and structural factors that create unique opportunities and challenges.

Entrepreneurial ecosystems globally have differential influences on women's entrepreneurship and vice versa. Ecosystems influence TEA rates through cultural factors, availability of financing, human capital, markets, and infrastructure supports. Notably, only nine countries reflect gender parity in TEA rates; however, this result represents an increase from past years. There is wide variation regionally, with the MENA region reflecting a 24% higher rate of intention among women than Europe. Entrepreneurial intentions for women are lowest in high-income countries, in part because women have many opportunities for employment other than entrepreneurship.

Ecosystem factors contribute to the likelihood of potential entrepreneurs perceiving opportunities. Accordingly, the gap in opportunity perceptions has generally narrowed globally with 16 countries at or approaching parity. Yet women are generally less confident in their capabilities and more likely to be deterred by

failure, suggesting that cultural factors may be at work influencing this gender gap. Likewise, the overall lower likelihood that women know an entrepreneur(s) suggests there might be some social network differences in ecosystems as well. Cultural factors and policy initiatives can influence whether or not entrepreneurship is a good career opportunity or high-status role. Women and men are quite similar in their beliefs that owning a business is a good career option and a high-status job.

Ecosystem influences also affect the form of business and the likelihood of growth, through availability of financing, access to qualified labor, and other resources. The fact that women are more likely to own solo businesses, have fewer employees, and have generally lower growth aspirations may be reflections of ecosystem influences, possibly inhibiting the entrepreneurial process and performance in some way. For example, not being in the right networks to acquire financing or qualified employees might present challenges.

Besides the influence of ecosystems on women entrepreneurs, this report also demonstrates the influence of women entrepreneurs on ecosystems. Besides the overall impact of women starting, sustaining, and growing businesses, we find that in 14 countries women are more likely to have larger businesses than men and in 24 countries they are more likely to be innovative. Women entrepreneurs are just as likely to be internationalized as well. The impact of innovation and internationalization on economies and ecosystems results in jobs, trade, and economic development. Another notable influence of women in ecosystems is their involvement as investors, providing funding to entrepreneurs, and in particular supporting family members and neighbors, which helps to grow and sustain family businesses and communities.

Finally, structural factors such as demographics (age, education) and industry

distribution/segregation influence women's entrepreneurship in complex ways across regions, countries, and levels of national income. This report shows that TEA rates by age do not usually vary widely for men and women (with some regional exception). However, notably, education may be an important influence. Surprisingly, graduate education leads to lower TEA rates for women. While it is unclear if the educational field makes a difference, it is an unexpected finding.

Industry location is a critical factor in driving entrepreneurial growth and performance. This report shows that women are much more likely to engage in businesses in wholesale and retail trade or government, health education, and social services. These industries tend to have lower entry barriers, lower margins, and higher failure rates, which can be constraints on sustainability and performance. Most notable is the gender gap in agriculture/mining and information and communications technology (ICT), where men are twice as likely as women to be present. The fact that 16 countries have no women entrepreneurs in these sectors indicates significant patterns of gender segregation in industry and occupations, and possibly other factors at work. There are three main recommendations.

1. Address stereotypes of who and what is entrepreneurship. From an economic development perspective, expanding societal views to a more inclusive vision of entrepreneurship is a critical action that can be supported by all ecosystem participants. The GEM *Global Report* for this year adopted a theme of “entrepreneurship of all kinds” which embraces women entrepreneurs. This

inclusive approach is more beneficial and far-reaching than a continued emphasis on past models.

2. Change the dialogue about entrepreneurship to match the reality reflected in the data. It is a long-standing pattern within entrepreneurial ecosystems to focus on access to capital, and this is indeed a critical concern for business owners. However, problems in accessing capital may be a symptom of something rather than the illness itself. The global data in this report show that only 16.2% of women (15.4% of men) attributed the closure of their business to lack of access to capital. Other reasons for discontinuance were lack of profitability, sale of the business, and retirement. These findings suggest a need for more training on how to capture value when exiting a business.
3. Learn from each other about what really are the best ways to build businesses as well as an entrepreneurial ecosystem. The comparisons between women and men provided in this study are not made in order to present the “male numbers” as targets, objectives, or goals, but are simply presented as descriptive measurements. From an economic development perspective, the actual objective is to learn from the data, quantitative and qualitative, to guide the development of an ecosystem that works well for all, informed by social, cultural, political, and economic contexts while also identifying what may need to be addressed in different contextual dimensions.



# Sponsors



## BABSON COLLEGE

Babson College is a founding institution and lead sponsor of the Global Entrepreneurship Monitor (GEM). Located in Wellesley, Massachusetts, USA, Babson is recognized internationally as a leader in entrepreneurial management education. U.S. News and World Report has ranked Babson #1 in entrepreneurship education for 23 years in a row.

Babson grants BS degrees through its innovative undergraduate program and offers MBA and MS degrees through its F. W. Olin Graduate School of Business. The School of Executive Education offers executive development programs to experienced managers worldwide. Babson's student body is globally diverse, hailing from 45 U.S. states and 57 economies (non-U.S. students comprise more than 20% of undergraduates and 40% of full-time MBA students). Students can choose from over 100 entrepreneurship courses offered each year, taught by 17 tenure or tenure-track faculty, all with entrepreneurship experience, seven faculty from other divisions around the college, and highly accomplished business leaders serving as adjunct faculty.

Entrepreneurial Thought and Action (ETA) is at the center of the Babson experience, where students are taught to experiment with their ideas in real life, learning and adapting these as they leverage who and what they know to create valuable opportunities. "Entrepreneurship of All Kinds" emphasizes that entrepreneurship is crucial and applicable to organizations of all types and sizes, whether a newly launched independent startup, a multigenerational family business, a social venture, or an established organization. Through an emphasis on Social, Environmental, Economic Responsibility, and Sustainability (SEERS), students learn that economic and social value creation are not mutually exclusive, but integral to each other.

For more information, visit [www.babson.edu](http://www.babson.edu).



## SMITH COLLEGE

Since its founding in 1871, Smith College has educated women of promise for lives of distinction. One of the largest women's colleges in the United States and the first to offer an accredited engineering program, Smith links the power of the liberal arts to excellence in research and scholarship, developing engaged global citizens and leaders for society's contemporary challenges. Smith educates women to understand the complexity of human history and the variety of the world's cultures through engagement with social, political, aesthetic, and scientific issues.

## KOREA ENTREPRENEURSHIP FOUNDATION

The Korea Entrepreneurship Foundation is a nonprofit organization established in 2010 with funding from Korean venture entrepreneurs and the Small and Medium Business Administration of Korea with the aim of fostering entrepreneurship among the next generations. The primary goal of KEF is to nurture and discover young entrepreneurs by training talented students, with the broader aim of contributing to a healthy entrepreneurship culture in Korea. To achieve this, KEF has developed a range of entrepreneurship education programs with which it aims to reach as many students as possible. Teachers from primary school to tertiary education have a major impact on young people, and as such are important players in empowering entrepreneurship; for this reason, KEF has developed a series of programs for teachers to help them operate as effective facilitators in the entrepreneurship ecosystem. There are also many direct programs for young people tailored to age group, using case studies, theory, games, and activities. For those in specific situations, such as a woman returning to a career track, a North Korean defector in South Korea, or a discharged soldier, KEF can offer tailor-made programs, coordinating with organizations from the public and private sectors.

In pursuit of a healthy and sustainable entrepreneurship ecosystem, KEF has also devoted resources to research and global networks. With the Korea Institution of Startup and Entrepreneurship Development (KISED) it has participated in the Global Entrepreneurship Monitor (GEM) since 2014. In February 2017, KEF became a Sponsoring Institution for GEM. A research project, entitled *Entrepreneurship Trend Report in Korea*, offers reliable data about the status of entrepreneurship in Korea. In addition, KEF is especially proud of its widespread network resources which enable a range of exciting programs. Partnering with both the public and private sector allows KEF to maintain a balanced perspective, and its wide range of overseas partnerships contributes to the development of global programs for Korea's young generation.

# About the Authors



**Amanda B. Elam** is Diana Institute Research Fellow at Babson College and President/CEO of Galaxy Diagnostics, Inc., a medical diagnostics company in North Carolina. With over 25 years of experience in the study of gender, entrepreneurship, and innovation, her research interests focus on the application of sociological theories to the study of business startup, innovation, and growth across countries and social groups, including gender, ethnicity, and immigrant status. She has published several studies using the GEM data, including one book, *Gender and Entrepreneurship: A Multilevel Theory and Analysis*, which was recognized for innovative thought leadership in entrepreneurship by members of the Academy of Management. In addition to running a small company and conducting research on business startup and growth, Dr. Elam also advises a number of small businesses in the life sciences sector and serves regularly on panels and presentations at industry conferences.



**Candida Brush** is Franklin W. Olin Distinguished Chair in Entrepreneurship at Babson College and serves as Vice Provost of Global Entrepreneurial Leadership. Professor Brush is well known for her pioneering research in women's entrepreneurship, and is a co-founder of the Diana Project, an international research consortium investigating women's access to growth capital internationally. She was named the 2007 recipient of the FSF — Swedish Research Foundation International Award for Outstanding Research Contributions in the Field of Entrepreneurship. Her research investigates resource acquisition, strategy, and financing of new ventures.



**Patricia Green**, PhD most recently served as the 18th Director of the Women's Bureau of the U.S. Department of Labor. Previously she held the Paul T. Babson Chair in Entrepreneurial Studies at Babson College where she served first as Dean of the Undergraduate School, then Provost. As the founding National Academic Director for Goldman Sachs 10,000 Small Businesses, she was the chief architect of the program and led the team responsible for design, development, training, delivery, and assessment. She also served as the Global Academic Director for 10,000 Women. She is a founding member of the Diana Project studying women entrepreneurs and their access to venture capital. Her research to date has focused primarily on entrepreneurial opportunities and resources and she is the author or co-author of a range of academic papers and books, including reports on women's entrepreneurship for the Diana Project, The Coca-Cola Company's 5X20 project, GEM (Global Entrepreneurship Monitor) and 10,000 Women.



**Benjamin S. Baumer** is an assistant professor in the Statistical & Data Sciences program at Smith College. He has been a practicing data scientist since 2004, when he became the first full-time statistical analyst for the New York Mets. Dr. Baumer is a co-author of *The Sabermetric Revolution* and *Modern Data Science with R* and won the 2016 Contemporary Baseball Analysis Award from the Society for American Baseball Research. He received his PhD in Mathematics from the City University of New York in 2012, and is accredited as a professional statistician by the American Statistical Association. His research interests include sports analytics, network science, statistics and data science education, and statistical computing.



**Monica Dean** is the director of the Jill Ker Conway Innovation and Entrepreneurship Center at Smith College. Previously she was the administrative director of the Lawrence N. Field Programs and Center for Entrepreneurship at Baruch College, City University of New York. Prior to Baruch, Ms. Dean was a senior vice president at the Initiative for a Competitive Inner City, a national not-for-profit founded by Harvard Business School Professor Michael E. Porter, and an associate with Booz, Allen & Hamilton. She holds an MBA from the University of California at Berkeley and a BS in civil engineering from Howard University.



**René Heavlow** is the director of operations and special programs for the Jill Ker Conway Innovation and Entrepreneurship Center and formerly the director of the Center for Women and Financial Independence. She is currently working on research focused on women's financial competence, confidence, and behavior. Ms. Heavlow received her MA in sociology from the University of Arizona where she was awarded a Peter Likins Graduate Research Fellowship for her work exploring the sociology of finance, at the intersection of law, policy, and gender. She developed a course on race, gender, and money, and co-taught multiple sections of urban sociology.



# Appendix: Tables

**Table A1. Total entrepreneurial activity and motivations, rates and gender ratios for the adult population in 59 economies, grouped by region and income level**

Source: GEM 2017–2018

	Men TEA	Women TEA	Ratio W/M TEA	Men necessity TEA (% of TEA men)	Women necessity TEA (% of TEA women)	Ratio W/M necessity TEA	Men opportunity TEA (% of TEA men)	Women opportunity TEA (% of TEA women)	Ratio W/M opportunity TEA
Angola	40.3%	40.7%	1.0	27.6%	49.5%	1.8	67.4%	47.1%	0.7
Argentina	10.1%	8.1%	0.8	21.2%	35.7%	1.7	76.8%	59.5%	0.8
Australia	15.3%	9.2%	0.6	15.6%	18.9%	1.2	84.4%	78.4%	0.9
Austria	13.9%	7.9%	0.6	16.5%	15.1%	0.9	74.4%	77.1%	1.0
Bosnia & Herzegovina	5.1%	2.7%	0.5	19.2%	46.4%	2.4	77.4%	51.7%	0.7
Brazil	18.5%	17.3%	0.9	31.4%	44.0%	1.4	67.5%	55.5%	0.8
Bulgaria	6.5%	5.5%	0.8	23.1%	34.5%	1.5	72.3%	63.6%	0.9
Canada	20.4%	17.0%	0.8	16.9%	10.3%	0.6	76.0%	83.3%	1.1
Chile	29.0%	21.2%	0.7	18.4%	30.6%	1.7	79.9%	66.5%	0.8
China	11.4%	9.3%	0.8	29.5%	26.0%	0.9	68.9%	72.7%	1.1
Colombia	24.9%	17.8%	0.7	10.7%	14.2%	1.3	87.7%	83.1%	0.9
Croatia	12.1%	7.1%	0.6	32.2%	32.4%	1.0	63.6%	59.2%	0.9
Cyprus	4.8%	2.9%	0.6	12.5%	10.3%	0.8	83.3%	86.2%	1.0
Ecuador	28.7%	30.6%	1.1	37.9%	46.5%	1.2	61.7%	53.2%	0.9
Egypt, Arab Republic	14.2%	5.3%	0.4	47.3%	48.5%	1.0	48.4%	44.8%	0.9
Estonia	24.5%	14.3%	0.6	17.1%	21.0%	1.2	76.7%	74.1%	1.0
France	7.0%	5.3%	0.8	21.2%	25.0%	1.2	76.9%	67.5%	0.9
Germany	6.6%	3.3%	0.5	16.9%	16.2%	1.0	69.7%	70.1%	1.0
Greece	8.8%	3.9%	0.4	10.2%	28.2%	2.8	87.5%	66.7%	0.8
Guatemala	30.8%	24.5%	0.8	32.3%	43.8%	1.4	67.4%	56.2%	0.8
India	14.0%	8.7%	0.6	44.1%	49.7%	1.1	45.0%	40.1%	0.9
Indonesia	14.0%	14.1%	1.0	22.5%	28.0%	1.2	75.2%	70.6%	0.9
Iran, Islamic Republic	12.9%	6.5%	0.5	39.6%	30.1%	0.8	58.9%	65.0%	1.1
Ireland	11.8%	7.5%	0.6	19.7%	19.7%	1.0	75.2%	77.6%	1.0
Israel	12.7%	9.1%	0.7	20.6%	10.8%	0.5	69.0%	72.0%	1.0
Italy	5.5%	2.8%	0.5	10.9%	10.7%	1.0	81.8%	78.6%	1.0
Japan	6.7%	4.0%	0.6	17.6%	24.4%	1.4	73.9%	62.5%	0.8
Kazakhstan	11.4%	11.3%	1.0	20.9%	14.9%	0.7	68.4%	70.5%	1.0
Korea, Republic	17.0%	12.2%	0.7	22.0%	20.0%	0.9	77.5%	77.5%	1.0
Latvia	17.4%	10.9%	0.6	25.0%	18.9%	0.8	70.0%	74.7%	1.1
Lebanon	31.3%	17.4%	0.6	36.3%	35.7%	1.0	63.3%	64.3%	1.0
Luxembourg	12.7%	8.6%	0.7	16.9%	4.7%	0.3	78.6%	82.4%	1.0
Madagascar	20.4%	21.1%	1.0	28.6%	33.9%	1.2	70.1%	64.4%	0.9
Malaysia	23.0%	20.1%	0.9	6.2%	7.7%	1.2	88.5%	90.3%	1.0
Mexico	17.4%	11.1%	0.6	23.0%	29.3%	1.3	74.5%	70.5%	0.9
Morocco	9.0%	4.3%	0.5	32.9%	27.6%	0.8	62.6%	68.4%	1.1
Netherlands	16.3%	8.3%	0.5	8.5%	9.6%	1.1	79.0%	82.2%	1.0
Panama	13.8%	13.9%	1.0	13.7%	12.3%	0.9	85.6%	84.8%	1.0

	Men TEA	Women TEA	Ratio W/M TEA	Men necessity TEA (% of TEA men)	Women necessity TEA (% of TEA women)	Ratio W/M necessity TEA	Men opportunity TEA (% of TEA men)	Women opportunity TEA (% of TEA women)	Ratio W/M opportunity TEA
Peru	23.8%	20.9%	0.9	23.0%	23.0%	1.0	73.4%	72.9%	1.0
Poland	6.0%	4.5%	0.8	10.8%	5.0%	0.5	87.9%	95.0%	1.1
Puerto Rico	15.2%	8.3%	0.5	20.8%	26.4%	1.3	75.2%	64.8%	0.9
Qatar	8.6%	8.4%	1.0	16.5%	16.3%	1.0	73.3%	79.1%	1.1
Russian Federation	7.3%	3.9%	0.5	32.9%	51.2%	1.6	62.9%	39.0%	0.6
Saudi Arabia	14.7%	8.5%	0.6	26.0%	38.9%	1.5	73.7%	59.7%	0.8
Slovak Republic	15.2%	9.0%	0.6	26.6%	28.1%	1.1	64.3%	61.8%	1.0
Slovenia	8.8%	3.8%	0.4	20.9%	32.4%	1.6	72.5%	62.2%	0.9
South Africa	13.0%	9.0%	0.7	17.9%	34.1%	1.9	82.1%	65.9%	0.8
Spain	6.8%	6.0%	0.9	18.9%	26.7%	1.4	75.2%	65.8%	0.9
Sudan	27.4%	17.1%	0.6	21.1%	38.5%	1.8	75.2%	55.7%	0.7
Sweden	9.5%	4.0%	0.4	12.4%	1.3%	0.1	70.8%	80.0%	1.1
Switzerland	10.0%	4.7%	0.5	5.3%	11.4%	2.2	87.4%	86.4%	1.0
Taiwan, China	10.1%	8.8%	0.9	24.3%	24.7%	1.0	75.7%	75.3%	1.0
Thailand	20.1%	19.3%	1.0	17.2%	18.7%	1.1	80.3%	79.7%	1.0
Turkey	20.0%	8.4%	0.4	18.4%	11.9%	0.6	73.5%	77.0%	1.0
United Arab Emirates	10.9%	10.1%	0.9	20.6%	21.3%	1.0	73.5%	73.8%	1.0
United Kingdom	11.1%	5.4%	0.5	11.1%	16.8%	1.5	85.7%	81.2%	0.9
United States	17.7%	13.6%	0.8	8.6%	8.1%	0.9	82.8%	75.7%	0.9
Uruguay	19.3%	12.3%	0.6	25.5%	35.0%	1.4	70.5%	60.2%	0.9
Vietnam	21.7%	24.7%	1.1	13.2%	18.1%	1.4	86.8%	81.9%	0.9
<b>Global average</b>	<b>13.9%</b>	<b>10.2%</b>	<b>0.7</b>	<b>21.8%</b>	<b>27.2%</b>	<b>1.2</b>	<b>74.0%</b>	<b>68.4%</b>	<b>0.9</b>

Region average									
East and South Asia and Pacific	14.9%	12.6%	0.8	22.2%	23.4%	1.1	74.2%	73.9%	1.0
Europe and Central Asia	9.5%	6.0%	0.6	17.2%	19.8%	1.2	76.1%	72.9%	1.0
Latin America and the Caribbean	22.4%	17.3%	0.8	23.0%	32.3%	1.4	75.2%	65.5%	0.9
Middle East and North Africa	14.3%	9.0%	0.6	29.4%	32.0%	1.1	67.0%	63.1%	0.9
North America	18.8%	15.0%	0.8	12.1%	9.1%	0.8	79.8%	79.2%	1.0
Sub-Saharan Africa	23.2%	21.8%	0.9	25.7%	42.1%	1.6	71.4%	55.6%	0.8

Income Level									
High income	11.8%	8.1%	0.7	17.6%	21.4%	1.2	77.2%	72.4%	0.9
Upper-middle income	17.1%	12.9%	0.8	25.1%	30.0%	1.2	72.5%	67.7%	0.9
Low and lower-middle income	18.3%	15.1%	0.8	29.3%	37.0%	1.3	66.3%	59.5%	0.9

**Table A2. Entrepreneur characteristics, perceptions and affiliations: rates and gender ratios for the adult population in 59 economies, grouped by region and income level**

Source: GEM 2017–2018

	Men TEA 18–24 y.o.	Women TEA 18–24 y.o.	Ratio W/M	Men TEA 25–34 y.o.	Women TEA 25–34 y.o.	Ratio W/M	Men TEA 35–44 y.o.	Women TEA 35–44 y.o.	Ratio W/M	Men TEA 45–54 y.o.	Women TEA 45–54 y.o.	Ratio W/M	Men TEA 55–64 y.o.	Women TEA 55–64 y.o.	Ratio W/M	Men TEA some secondary education	Women TEA some secondary education	Ratio W/M	Men TEA secondary education
Angola	42.6%	35.1%	0.8	49.1%	52.6%	1.1	39.0%	40.8%	1.0	35.8%	27.2%	0.8	19.8%	32.1%	1.6	36.3%	38.8%	1.1	46.4%
Argentina	11.9%	6.0%	0.5	11.5%	9.7%	0.8	9.2%	9.3%	1.0	10.9%	10.3%	0.9	5.7%	4.5%	0.8	7.2%	4.9%	0.7	7.4%
Australia	8.7%	6.7%	0.8	17.4%	10.0%	0.6	22.2%	10.9%	0.5	13.3%	10.0%	0.8	12.2%	6.6%	0.5	13.2%	4.8%	0.4	8.4%
Austria	16.1%	12.0%	0.7	20.7%	9.2%	0.4	16.3%	9.7%	0.6	12.2%	7.2%	0.6	4.4%	2.6%	0.6	14.3%	8.7%	0.6	13.1%
Bosnia & Herzegovina	5.4%	5.7%	1.1	8.5%	5.1%	0.6	8.1%	1.9%	0.2	2.2%	1.3%	0.6	2.0%	0.9%	0.5	0%	0%	–	5.0%
Brazil	23.7%	18.8%	0.8	19.8%	20.3%	1.0	17.8%	21.2%	1.2	18.5%	13.1%	0.7	10.6%	9.0%	0.8	21.2%	22.1%	1.0	20.5%
Bulgaria	2.1%	5.3%	2.5	9.0%	6.8%	0.8	7.9%	7.5%	0.9	8.5%	6.2%	0.7	2.9%	2.1%	0.7	0.6%	1.0%	1.7	4.6%
Canada	28.1%	26.4%	0.9	25.1%	26.8%	1.1	24.2%	16.3%	0.7	15.3%	13.8%	0.9	12.2%	6.3%	0.5	16.2%	11.9%	0.7	12.8%
Chile	22.8%	14.8%	0.6	31.2%	22.0%	0.7	36.4%	26.0%	0.7	27.9%	24.9%	0.9	24.2%	15.6%	0.6	19.7%	19.2%	1.0	25.0%
China	12.4%	9.5%	0.8	14.1%	9.8%	0.7	12.0%	14.5%	1.2	13.6%	7.8%	0.6	5.2%	5.1%	1.0	9.2%	7.4%	0.8	11.4%
Colombia	18.5%	15.5%	0.8	27.1%	21.5%	0.8	31.8%	21.3%	0.7	22.2%	20.4%	0.9	21.5%	7.9%	0.4	19.5%	17.4%	0.9	19.5%
Croatia	14.5%	8.5%	0.6	23.2%	14.8%	0.6	15.6%	7.3%	0.5	6.1%	3.9%	0.6	1.9%	2.7%	1.4	9.5%	3.1%	0.3	11.5%
Cyprus	2.6%	0.7%	0.3	5.1%	3.1%	0.6	4.6%	3.3%	0.7	6.3%	4.0%	0.6	4.6%	2.6%	0.6	1.2%	1.1%	0.9	2.7%
Ecuador	21.7%	24.0%	1.1	32.0%	38.5%	1.2	32.0%	32.5%	1.0	28.8%	32.5%	1.1	27.9%	18.1%	0.6	36.4%	30.5%	0.8	27.8%
Egypt, Arab Rep.	15.7%	5.1%	0.3	15.1%	7.4%	0.5	14.4%	3.2%	0.2	8.9%	5.6%	0.6	13.8%	3.3%	0.2	14.0%	6.0%	0.4	14.8%
Estonia	34.1%	14.7%	0.4	25.2%	25.4%	1.0	29.6%	17.3%	0.6	23.0%	9.8%	0.4	12.9%	5.2%	0.4	17.0%	5.9%	0.3	22.7%
France	2.8%	3.9%	1.4	10.0%	5.8%	0.6	8.0%	8.5%	1.1	8.3%	4.1%	0.5	4.5%	3.6%	0.8	4.4%	2.5%	0.6	3.0%
Germany	6.4%	5.1%	0.8	9.8%	3.4%	0.3	8.4%	3.7%	0.4	5.7%	3.4%	0.6	3.2%	1.8%	0.6	3.8%	2.0%	0.5	6.8%
Greece	14.9%	7.8%	0.5	9.2%	4.6%	0.5	6.3%	1.8%	0.3	6.1%	3.5%	0.6	8.0%	2.8%	0.4	4.5%	3.5%	0.8	8.3%
Guatemala	30.4%	24.2%	0.8	35.9%	24.3%	0.7	32.9%	29.0%	0.9	25.0%	25.8%	1.0	16.2%	13.6%	0.8	27.7%	22.3%	0.8	32.8%
India	14.5%	10.0%	0.7	17.8%	8.4%	0.5	11.2%	7.8%	0.7	14.7%	10.0%	0.7	7.2%	6.8%	0.9	11.5%	7.5%	0.7	15.5%
Indonesia	13.0%	14.4%	1.1	16.5%	12.7%	0.8	17.3%	16.6%	1.0	11.7%	13.4%	1.1	6.9%	13.2%	1.9	10.8%	12.2%	1.1	10.8%
Iran, Islamic Republic	10.2%	4.3%	0.4	21.5%	8.8%	0.4	11.3%	9.2%	0.8	8.0%	2.6%	0.3	3.3%	2.8%	0.8	8.7%	6.0%	0.7	11.6%
Ireland	6.5%	6.8%	1.0	16.1%	10.7%	0.7	11.5%	8.0%	0.7	12.1%	6.0%	0.5	10.9%	4.0%	0.4	11.0%	2.2%	0.2	10.6%
Israel	13.1%	10.3%	0.8	13.0%	14.1%	1.1	12.1%	7.8%	0.6	15.2%	7.0%	0.5	10.2%	5.3%	0.5	13.1%	5.8%	0.4	11.1%
Italy	6.0%	2.8%	0.5	5.5%	7.3%	1.3	6.9%	3.4%	0.5	6.2%	0.8%	0.1	2.9%	0.9%	0.3	4.7%	1.4%	0.3	5.7%
Japan	4.9%	6.0%	1.2	10.5%	6.0%	0.6	8.4%	4.1%	0.5	5.5%	3.2%	0.6	3.2%	1.8%	0.6	9.8%	0.0%	0.0	5.5%
Kazakhstan	12.6%	17.5%	1.4	9.4%	9.2%	1.0	14.2%	12.9%	0.9	11.2%	9.0%	0.8	9.8%	8.9%	0.9	5.5%	10.7%	1.9	12.7%
Korea, Republic	5.8%	11.2%	1.9	17.9%	12.4%	0.7	19.6%	12.2%	0.6	19.0%	13.3%	0.7	18.2%	10.6%	0.6	14.1%	12.4%	0.9	19.9%
Latvia	25.8%	13.8%	0.5	23.5%	15.4%	0.7	19.9%	14.5%	0.7	16.1%	10.9%	0.7	2.6%	2.6%	1.0	7.4%	5.0%	0.7	16.1%
Lebanon	22.3%	9.8%	0.4	39.1%	22.4%	0.6	33.5%	23.0%	0.7	33.5%	14.1%	0.4	23.2%	14.1%	0.6	0%	0%	–	29%
Luxembourg	3.8%	5.6%	1.5	20.8%	7.5%	0.4	14.0%	15.2%	1.1	12.4%	7.2%	0.6	7.6%	5.1%	0.7	8.1%	4.9%	0.6	7.8%
Madagascar	23.9%	25.6%	1.1	27.0%	25.7%	1.0	14.6%	16.4%	1.1	12.6%	17.2%	1.4	19.1%	8.2%	0.4	25.6%	22.9%	0.9	15.8%
Malaysia	23.3%	17.5%	0.8	27.9%	26.2%	0.9	20.8%	23.5%	1.1	25.4%	17.0%	0.7	10.7%	8.5%	0.8	18.1%	8.3%	0.5	22.7%
Mexico	12.2%	8.0%	0.7	20.0%	12.5%	0.6	22.0%	14.7%	0.7	17.4%	12.1%	0.7	11.3%	5.2%	0.5	17.4%	13.9%	0.8	19.5%
Morocco	8.9%	5.2%	0.6	11.2%	4.4%	0.4	10.6%	5.2%	0.5	7.1%	3.2%	0.5	4.5%	1.8%	0.4	12.0%	5.4%	0.5	9.3%
Netherlands	24.2%	7.4%	0.3	21.7%	13.8%	0.6	14.7%	10.1%	0.7	14.4%	7.0%	0.5	9.7%	3.2%	0.3	9.4%	9.4%	1.0	14.0%
Panama	10.0%	12.8%	1.3	14.2%	15.4%	1.1	17.2%	15.7%	0.9	15.1%	16.0%	1.1	10.3%	6.6%	0.6	13.5%	11.7%	0.9	15.0%
Peru	25.7%	23.4%	0.9	23.0%	20.6%	0.9	28.3%	23.7%	0.8	19.6%	17.3%	0.9	19.8%	17.4%	0.9	25.0%	19.1%	0.8	23.7%

Women TEA secondary education	Ratio W/M	Men TEA post-secondary education	Women TEA post-secondary education	Ratio W/M	Men TEA grad education	Women TEA grad education	Ratio W/M	Men sees opportunity (% of TEA men)	Women sees opportunity (% of TEA women)	Ratio W/M	Men has startup skills (% of TEA men)	Women has startup skills (% of TEA women)	Ratio W/M	Men undeterred by fear of failure (% of TEA men)	Women undeterred by fear of failure (% of TEA women)	Ratio W/M	Men personally knows an entrepreneur (% of TEA men)	Women personally knows an entrepreneur (% of TEA men)	Ratio W/M
44.5%	1.0	43.1%	43.1%	1.0	-	-	-	78.5%	81.9%	1.0	79.4%	88.1%	1.1	84.6%	81.8%	1.0	66.9%	63.5%	0.9
6.1%	0.8	10.8%	10.0%	0.9	32.1%	10.3%	0.3	53.8%	55.7%	1.0	80.8%	86.6%	1.1	70.1%	73.2%	1.0	63.6%	59.0%	0.9
7.1%	0.8	16.9%	11.2%	0.7	27.0%	6.8%	0.3	69.0%	71.2%	1.0	90.0%	80.6%	0.9	74.8%	57.5%	0.8	73.0%	72.6%	1.0
7.0%	0.5	22.0%	10.0%	0.5	17.0%	11.0%	0.6	71.7%	69.7%	1.0	89.7%	86.2%	1.0	69.8%	62.7%	0.9	74.2%	72.4%	1.0
3.4%	0.7	12.9%	3.9%	0.3	-	-	-	60.5%	59.3%	1.0	90.0%	100.0%	1.1	86.3%	74.1%	0.9	85.4%	82.1%	1.0
18.5%	0.9	17.2%	14.8%	0.9	-	-	-	45.2%	40.7%	0.9	75.3%	59.3%	0.8	74.7%	57.7%	0.8	52.4%	41.1%	0.8
3.4%	0.7	7.4%	5.6%	0.8	10.8%	6.7%	0.6	54.5%	46.7%	0.9	96.8%	95.9%	1.0	86.7%	89.8%	1.0	82.5%	81.1%	1.0
8.4%	0.7	22.4%	16.8%	0.8	32.0%	24.4%	0.8	85.0%	89.0%	1.0	87.9%	90.6%	1.0	55.6%	51.4%	0.9	72.5%	75.8%	1.0
19.6%	0.8	31.7%	22.1%	0.7	34.3%	19.6%	0.6	69.4%	64.4%	0.9	88.3%	80.8%	0.9	77.3%	74.5%	1.0	66.0%	63.4%	1.0
9.2%	0.8	11.7%	11.6%	1.0	17.6%	5.1%	0.3	64.0%	58.5%	0.9	68.3%	54.7%	0.8	67.4%	55.4%	0.8	85.2%	83.3%	1.0
15.3%	0.8	23.4%	19.5%	0.8	34.1%	27.7%	0.8	68.1%	70.9%	1.0	88.8%	82.3%	0.9	83.1%	82.4%	1.0	65.3%	51.9%	0.8
6.8%	0.6	15.5%	9.8%	0.6	20.0%	13.0%	0.7	61.2%	50.0%	0.8	92.5%	88.7%	1.0	78.3%	74.3%	0.9	63.3%	70.4%	1.1
2.4%	0.9	9.3%	5.3%	0.6	7.6%	5.0%	0.7	65.2%	66.7%	1.0	65.2%	66.7%	1.0	68.1%	65.5%	1.0	56.3%	60.7%	1.1
31.1%	1.1	30.3%	33.6%	1.1	-	-	-	63.3%	53.5%	0.8	88.2%	84.2%	1.0	78.3%	71.5%	0.9	46.6%	42.9%	0.9
6.7%	0.5	20.2%	6.2%	0.3	16.7%	15.0%	0.9	56.7%	60.7%	1.1	78.8%	75.4%	1.0	76.0%	72.3%	1.0	29.7%	24.6%	0.8
12.3%	0.5	33.0%	20.2%	0.6	23.8%	14.2%	0.6	73.1%	62.3%	0.9	80.0%	84.6%	1.1	75.2%	74.5%	1.0	73.5%	74.1%	1.0
3.4%	1.1	5.6%	3.0%	0.5	10.2%	6.5%	0.6	70.0%	52.9%	0.8	80.8%	75.0%	0.9	80.4%	71.8%	0.9	67.3%	57.5%	0.9
2.5%	0.4	9.5%	5.9%	0.6	-	-	-	72.0%	50.0%	0.7	78.9%	86.8%	1.1	84.5%	77.9%	0.9	62.4%	63.2%	1.0
3.8%	0.5	9.0%	5.9%	0.7	10.2%	3.6%	0.4	22.7%	23.7%	1.0	86.4%	73.7%	0.9	44.3%	43.6%	1.0	54.0%	57.5%	1.1
25.1%	0.8	40.5%	25.0%	0.6	-	-	-	66.4%	60.5%	0.9	87.6%	81.1%	0.9	80.4%	69.1%	0.9	64.0%	47.0%	0.7
9.8%	0.6	10.9%	7.1%	0.7	-	-	-	74.4%	79.8%	1.1	88.5%	82.2%	0.9	47.8%	39.1%	0.8	59.6%	60.1%	1.0
9.8%	0.9	17.4%	11.9%	0.7	-	-	-	85.5%	77.0%	0.9	85.2%	89.2%	1.0	72.5%	74.0%	1.0	89.7%	77.4%	0.9
6.6%	0.6	15.3%	10.2%	0.7	24.6%	14.3%	0.6	44.6%	46.4%	1.0	86.5%	78.4%	0.9	70.0%	73.5%	1.1	80.3%	60.0%	0.7
3.8%	0.4	11.5%	8.2%	0.7	16.7%	9.9%	0.6	76.1%	73.9%	1.0	88.7%	81.6%	0.9	72.6%	63.5%	0.9	59.3%	57.9%	1.0
8.1%	0.7	14.6%	12.0%	0.8	21.1%	10.2%	0.5	67.1%	56.9%	0.8	39.4%	34.6%	0.9	37.2%	36.0%	1.0	56.6%	52.7%	0.9
3.0%	0.5	8.8%	5.1%	0.6	8.8%	3.5%	0.4	63.8%	65.4%	1.0	82.1%	69.0%	0.8	54.5%	50.0%	0.9	67.3%	50.0%	0.7
2.3%	0.4	7.2%	4.1%	0.6	4.7%	6.5%	1.4	41.9%	38.2%	0.9	56.3%	38.2%	0.7	61.2%	46.2%	0.8	59.4%	69.2%	1.2
10.4%	0.8	11.1%	12.2%	1.1	20.0%	12.5%	0.6	69.4%	68.2%	1.0	82.5%	79.6%	1.0	86.0%	86.3%	1.0	70.5%	74.5%	1.1
12.0%	0.6	14.5%	9.8%	0.7	18.5%	16.9%	0.9	58.0%	52.6%	0.9	60.7%	56.5%	0.9	73.3%	75.4%	1.0	56.6%	51.3%	0.9
7.6%	0.5	23.2%	17.8%	0.8	19.4%	11.9%	0.6	40.8%	47.2%	1.2	86.3%	76.4%	0.9	63.2%	51.1%	0.8	69.6%	58.4%	0.8
17%	0.6	31.8%	20.8%	0.7	36.1%	27.0%	0.7	63.3%	60.3%	1.0	93.3%	88.4%	0.9	79.6%	72.0%	0.9	86.0%	78.6%	0.9
5.3%	0.7	14.6%	9.6%	0.7	19.5%	12.4%	0.6	88.0%	90.0%	1.0	86.1%	84.2%	1.0	68.5%	58.8%	0.9	67.7%	71.1%	1.1
20.9%	1.3	16.5%	15.2%	0.9	15.0%	33.3%	2.2	45.7%	44.8%	1.0	67.6%	66.8%	1.0	59.4%	65.5%	1.1	61.4%	61.9%	1.0
25.0%	1.1	27.5%	19.0%	0.7	33.3%	75.0%	2.3	82.9%	84.7%	1.0	92.2%	89.3%	1.0	55.2%	54.6%	1.0	82.4%	80.0%	1.0
9.3%	0.5	21.8%	10.4%	0.5	12.5%	21.4%	1.7	57.2%	54.8%	1.0	83.4%	75.3%	0.9	78.8%	70.4%	0.9	63.0%	56.9%	0.9
5.0%	0.5	11.2%	5.4%	0.5	12.1%	5.0%	0.4	61.0%	63.8%	1.0	68.5%	55.6%	0.8	43.5%	25.0%	0.6	60.8%	61.3%	1.0
7.6%	0.5	14.6%	9.4%	0.6	15.8%	14.2%	0.9	79.1%	80.3%	1.0	93.7%	85.7%	0.9	79.3%	75.3%	0.9	71.8%	66.7%	0.9
13.3%	0.9	19.8%	16.3%	0.8	16.0%	25.0%	1.6	55.9%	50.4%	0.9	68.8%	66.2%	1.0	84.8%	85.1%	1.0	72.7%	70.3%	1.0
21.3%	0.9	29.2%	25.3%	0.9	54.5%	26.7%	0.5	71.4%	72.4%	1.0	86.6%	83.8%	1.0	72.8%	70.7%	1.0	66.8%	66.7%	1.0



Table A2 (continued)

	Men TEA 18–24 y.o.	Women TEA 18–24 y.o.	Ratio W/M	Men TEA 25–34 y.o.	Women TEA 25–34 y.o.	Ratio W/M	Men TEA 35–44 y.o.	Women TEA 35–44 y.o.	Ratio W/M	Men TEA 45–54 y.o.	Women TEA 45–54 y.o.	Ratio W/M	Men TEA 55–64 y.o.	Women TEA 55–64 y.o.	Ratio W/M	Men TEA some secondary education	Women TEA some secondary education	Ratio W/M	Men TEA secondary education
Poland	0.8%	1.7%	2.1	10.9%	8.8%	0.8	9.0%	7.1%	0.8	2.1%	1.9%	0.9	3.5%	1.0%	0.3	5.1%	3.7%	0.7	7.6%
Puerto Rico	15.2%	9.1%	0.6	23.2%	15.0%	0.6	17.2%	11.0%	0.6	13.2%	3.9%	0.3	6.6%	3.2%	0.5	10.5%	4.9%	0.5	10.6%
Qatar	6.5%	7.4%	1.1	8.8%	4.3%	0.5	8.4%	13.2%	1.6	10.7%	14.1%	1.3	7.4%	0%	–	4.5%	6.5%	1.4	–
Russian Federation	9.9%	3.8%	0.4	12.5%	7.1%	0.6	7.3%	3.9%	0.5	3.2%	3.3%	1.0	3.3%	1.2%	0.4	2.0%	1.5%	0.8	2.2%
Saudi Arabia	14.3%	5.2%	0.4	12.6%	9.2%	0.7	16.4%	7.9%	0.5	15.3%	9.2%	0.6	15.5%	13.2%	0.9	10.8%	11.4%	1.1	13.0%
Slovak Republic	24.2%	13.9%	0.6	20.5%	12.9%	0.6	20.2%	7.0%	0.3	9.4%	7.1%	0.8	4.0%	5.9%	1.5	10.0%	4.2%	0.4	14.9%
Slovenia	3.7%	2.0%	0.5	20.9%	5.3%	0.3	7.6%	5.0%	0.7	6.9%	3.7%	0.5	3.4%	2.2%	0.6	7.4%	3.7%	0.5	7.3%
South Africa	10.6%	7.0%	0.7	14.4%	14.6%	1.0	16.9%	10.0%	0.6	9.5%	5.7%	0.6	11.3%	3.9%	0.3	9.4%	6.4%	0.7	12.0%
Spain	4.5%	2.0%	0.4	7.3%	7.8%	1.1	7.6%	7.0%	0.9	7.3%	7.1%	1.0	5.6%	3.8%	0.7	3.0%	2.7%	0.9	5.8%
Sudan	21.9%	7.5%	0.3	31.7%	18.0%	0.6	32.9%	22.0%	0.7	27.5%	27.8%	1.0	18.3%	17.6%	1.0	25.0%	17.9%	0.7	25.0%
Sweden	14.9%	5.1%	0.3	10.1%	5.8%	0.6	8.0%	3.0%	0.4	10.6%	3.1%	0.3	5.2%	3.3%	0.6	9.9%	2.8%	0.3	7.6%
Switzerland	1.6%	2.5%	1.6	13.7%	7.5%	0.5	10.0%	4.9%	0.5	14.5%	4.4%	0.3	5.0%	3.4%	0.7	3.2%	5.8%	1.8	6.3%
Taiwan, China	10.7%	10.9%	1.0	14.2%	19.9%	1.4	14.2%	7.9%	0.6	8.3%	4.0%	0.5	3.2%	3.4%	1.1	4.8%	1.9%	0.4	9.2%
Thailand	11.0%	12.5%	1.1	26.2%	28.1%	1.1	23.5%	19.8%	0.8	19.7%	15.7%	0.8	16.2%	18.7%	1.2	14.5%	18.1%	1.2	21.3%
Turkey	21.8%	7.7%	0.4	24.3%	10.2%	0.4	21.3%	10.9%	0.5	15.2%	6.3%	0.4	12.8%	3.7%	0.3	25.4%	7.8%	0.3	19.1%
United Arab Emirates	10.7%	4.7%	0.4	11.8%	12.0%	1.0	10.3%	7.8%	0.8	11.3%	16.4%	1.5	6.8%	0%	–	9.8%	6.6%	0.7	8.1%
United Kingdom	12.2%	3.1%	0.3	14.1%	8.7%	0.6	11.3%	6.7%	0.6	8.9%	4.1%	0.5	8.9%	3.6%	0.4	8.8%	3.3%	0.4	10.2%
United States	16.6%	12.7%	0.8	21.6%	14.8%	0.7	21.5%	17.9%	0.8	16.9%	11.6%	0.7	10.4%	10.4%	1.0	6.0%	7.3%	1.2	11.3%
Uruguay	12.0%	13.9%	1.2	29.8%	19.3%	0.6	26.2%	13.3%	0.5	17.0%	8.8%	0.5	5.8%	3.5%	0.6	16.7%	9.6%	0.6	18.1%
Vietnam	17.4%	26.8%	1.5	30.9%	33.6%	1.1	18.8%	20.9%	1.1	19.5%	19.9%	1.0	16.1%	14.3%	0.9	15.5%	19.3%	1.2	22.7%
Global Average	14.0%	10.2%	0.7	17.5%	13.4%	0.8	15.2%	11.6%	0.8	12.4%	9.1%	0.7	8.4%	5.5%	0.7	11.1%	9.1%	0.8	13.0%

Regional average																			
East and South Asia and Pacific	13.3%	13.1%	1.0	19.4%	16.0%	0.8	15.9%	13.4%	0.8	14.6%	11.0%	0.8	8.9%	8.1%	0.9	13.7%	10.6%	0.8	15.1%
Europe and Central Asia	9.6%	5.3%	0.6	12.8%	8.5%	0.7	10.5%	7.2%	0.7	8.5%	5.4%	0.6	5.6%	3.1%	0.6	6.1%	3.5%	0.6	8.4%
Latin America and the Caribbean	19.5%	15.3%	0.8	25.6%	19.7%	0.8	26.4%	20.6%	0.8	21.0%	17.9%	0.9	16.1%	10.1%	0.6	18.3%	15.5%	0.8	21.9%
Middle East and North Africa	13.4%	6.3%	0.5	15.7%	10.5%	0.7	14.9%	10.2%	0.7	14.2%	9.2%	0.6	10.8%	6.6%	0.6	10.5%	10.0%	1.0	13.9%
North America	21.0%	17.8%	0.8	22.9%	19.6%	0.9	22.6%	17.3%	0.8	16.3%	12.5%	0.8	11.2%	8.6%	0.8	17.9%	13.9%	0.8	10.8%
Sub-Saharan Africa	24.0%	21.0%	0.9	28.1%	30.0%	1.1	22.6%	21.2%	0.9	18.3%	15.1%	0.8	15.8%	11.0%	0.7	22.9%	22.4%	1.0	24.1%

Income level																			
High income	11.1%	7.1%	0.6	14.7%	10.7%	0.7	13.3%	9.3%	0.7	10.9%	7.7%	0.7	7.6%	7.6%	1.0	7.3%	5.2%	0.7	10.1%
Upper-middle income	16.6%	12.4%	0.7	20.9%	16.1%	0.8	19.0%	15.4%	0.8	15.1%	11.1%	0.7	9.9%	9.9%	1.0	15.8%	12.5%	0.8	16.6%
Low and lower-middle income	17.7%	14.1%	0.8	22.7%	18.3%	0.8	18.3%	15.2%	0.8	15.9%	14.0%	0.9	11.2%	11.2%	1.0	18.3%	17.5%	1.0	19.3%

Women TEA secondary education	Ratio W/M	Men TEA post-secondary education	Women TEA post-secondary education	Ratio W/M	Men TEA grad education	Women TEA grad education	Ratio W/M	Men sees opportunity (% of TEA men)	Women sees opportunity (% of TEA women)	Ratio W/M	Men has startup skills (% of TEA men)	Women has startup skills (% of TEA women)	Ratio W/M	Men undeterred by fear of failure (% of TEA men)	Women undeterred by fear of failure (% of TEA women)	Ratio W/M	Men personally knows an entrepreneur (% of TEA men)	Women personally knows an entrepreneur (% of TEA men)	Ratio W/M
5.2%	0.7	8.6%	7.3%	0.8	7.9%	4.2%	0.5	58.5%	63.5%	1.1	65.0%	63.7%	1.0	62.2%	72.5%	1.2	61.9%	60.6%	1.0
6.4%	0.6	16.9%	9.7%	0.6	26.9%	14.1%	0.5	62.6%	56.4%	0.9	91.0%	87.4%	1.0	87.5%	85.1%	1.0	43.8%	41.4%	0.9
-	-	10.0%	8.9%	0.9	10.4%	4.7%	0.5	72.0%	73.0%	1.0	87.4%	90.7%	1.0	66.5%	71.4%	1.1	70.5%	62.5%	0.9
3.5%	1.6	9.6%	4.1%	0.4	-	-	-	49.2%	45.5%	0.9	81.5%	85.0%	1.0	72.5%	76.3%	1.1	79.7%	73.2%	0.9
17.5%	1.3	12.1%	7.0%	0.6	17.9%	4.9%	0.3	94.8%	95.7%	1.0	98.8%	95.8%	1.0	81.2%	75.7%	0.9	92.6%	86.0%	0.9
7.6%	0.5	20.4%	9.9%	0.5	18.0%	17.0%	0.9	63.9%	46.6%	0.7	85.0%	77.1%	0.9	80.1%	72.6%	0.9	62.3%	52.3%	0.8
2.9%	0.4	11.5%	5.0%	0.4	18.4%	9.6%	0.5	68.9%	71.4%	1.0	87.9%	77.1%	0.9	77.3%	59.5%	0.8	84.4%	70.3%	0.8
10.3%	0.9	27.7%	13.4%	0.5	-	-	-	68.7%	60.2%	0.9	84.9%	84.6%	1.0	86.0%	81.8%	1.0	55.1%	54.5%	1.0
5.7%	1.0	11.1%	7.9%	0.7	15.6%	12.7%	0.8	53.8%	47.4%	0.9	88.3%	85.2%	1.0	68.6%	69.7%	1.0	68.0%	61.3%	0.9
15.6%	0.6	28.1%	17.5%	0.6	-	-	-	82.3%	80.2%	1.0	91.8%	92.9%	1.0	69.9%	64.7%	0.9	77.9%	75.9%	1.0
3.1%	0.4	10.8%	6.4%	0.6	19.0%	8.9%	0.5	92.8%	91.8%	1.0	89.2%	85.5%	1.0	74.7%	79.7%	1.1	78.7%	77.8%	1.0
3.2%	0.5	14.5%	8.9%	0.6	13.0%	11.5%	0.9	72.3%	89.2%	1.2	92.3%	79.5%	0.9	80.0%	83.3%	1.0	60.0%	63.6%	1.1
7.0%	0.8	11.3%	8.4%	0.7	13.6%	8.2%	0.6	40.0%	36.6%	0.9	64.0%	54.7%	0.9	76.1%	68.0%	0.9	77.1%	80.4%	1.0
19.3%	0.9	27.4%	24.6%	0.9	31.2%	30.5%	1.0	75.1%	63.1%	0.8	82.7%	74.8%	0.9	50.2%	41.1%	0.8	55.9%	48.3%	0.9
8.6%	0.5	21.5%	13.4%	0.6	100%	0%	-	55.0%	58.4%	1.1	87.8%	83.0%	0.9	78.0%	79.0%	1.0	56.2%	52.0%	0.9
7.8%	1.0	10.3%	9.6%	0.9	8.4%	7.7%	0.9	78.4%	75.9%	1.0	82.5%	78.7%	1.0	73.8%	53.3%	0.7	60.0%	50.8%	0.8
4.6%	0.5	11.7%	7.1%	0.6	16.8%	5.5%	0.3	73.6%	70.4%	1.0	86.0%	78.7%	0.9	76.4%	63.9%	0.8	70.3%	70.6%	1.0
6.1%	0.5	19.2%	13.4%	0.7	19.2%	14.8%	0.8	86.2%	83.4%	1.0	89.6%	79.9%	0.9	78.8%	68.8%	0.9	77.6%	69.2%	0.9
15.0%	0.8	24.3%	12.6%	0.5	27.5%	11.4%	0.4	41.3%	39.4%	1.0	88.3%	87.1%	1.0	71.4%	64.7%	0.9	66.0%	51.0%	0.8
25.9%	1.1	25.5%	28.2%	1.1	4.5%	12.0%	2.7	57.4%	55.2%	1.0	69.5%	69.4%	1.0	55.3%	52.1%	0.9	74.8%	67.0%	0.9
9.9%	0.8	16.2%	11.3%	0.7	16.7%	10.3%	0.6	66.7%	63.0%	0.9	84.2%	79.5%	0.9	72.3%	67.9%	0.9	67.7%	62.8%	0.9
13.7%	0.9	15.8%	13.5%	0.9	16.7%	12.1%	0.7	68.6%	65.1%	0.9	78.5%	73.6%	0.9	61.1%	55.8%	0.9	71.8%	68.5%	1.0
5.4%	0.6	12.3%	7.7%	0.6	14.3%	8.7%	0.6	64.3%	58.9%	0.9	85.6%	81.9%	1.0	72.8%	69.9%	1.0	68.2%	65.1%	1.0
17.4%	0.8	27.1%	18.8%	0.7	29.7%	23.0%	0.8	63.2%	59.2%	0.9	85.9%	79.3%	0.9	78.2%	72.6%	0.9	62.4%	55.5%	0.9
8.8%	0.6	15.0%	10.2%	0.7	17.6%	7.0%	0.4	71.6%	70.3%	1.0	85.4%	80.5%	0.9	69.9%	63.3%	0.9	72.5%	67.1%	0.9
8.9%	0.8	20.3%	15.3%	0.8	21.0%	18.9%	0.9	85.9%	85.9%	1.0	89.1%	84.7%	1.0	68.3%	61.0%	0.9	75.4%	72.3%	1.0
22.6%	0.9	25.8%	18.4%	0.7	13.9%	36.4%	2.6	68.0%	67.8%	1.0	77.3%	80.9%	1.0	78.0%	77.0%	1.0	62.8%	61.5%	1.0
6.9%	0.7	14.9%	10.2%	0.7	16.1%	9.6%	0.6	68.3%	62.9%	0.9	85.0%	79.8%	0.9	72.8%	69.0%	0.9	68.4%	64.4%	0.9
13.5%	0.8	18.6%	13.2%	0.7	21.4%	14.6%	0.7	62.4%	59.6%	1.0	85.0%	78.9%	0.9	75.0%	68.5%	0.9	67.3%	59.4%	0.9
16.7%	0.9	19.8%	14.4%	0.7	9.6%	12.9%	1.3	70.0%	69.6%	1.0	79.7%	79.9%	1.0	65.5%	64.1%	1.0	66.2%	65.0%	1.0

**Table A3. Intentions, established business activity, discontinuance and discontinuance reasons: rates and gender ratios for the adult population in 59 economies, grouped by region and income level**

Source: GEM 2017–2018

	Men entrepreneurial intentions	Women entrepreneurial intentions	Ratio W/M intentions	Men nascent activity	Women nascent activity	Ratio W/M nascent	Men early-stage business	Women early-stage business	Ratio W/M early-stage business
Angola	82.6%	77.9%	0.9	22.0%	23.4%	1.1	18.3%	17.3%	0.9
Argentina	15.8%	13.9%	0.9	5.9%	3.9%	0.7	4.2%	4.2%	1.0
Australia	16.7%	10.1%	0.6	7.6%	5.1%	0.7	7.6%	4.0%	0.5
Austria	14.6%	9.3%	0.6	8.4%	5.3%	0.6	5.5%	2.6%	0.5
Bosnia & Herzegovina	5.6%	3.5%	0.6	3.4%	1.7%	0.5	1.8%	1.1%	0.6
Brazil	26.3%	25.8%	1.0	1.6%	1.7%	1.1	17.0%	15.6%	0.9
Bulgaria	5.6%	2.4%	0.4	2.4%	2.3%	1.0	4.1%	3.2%	0.8
Canada	18.1%	11.1%	0.6	12.8%	9.6%	0.8	7.7%	7.4%	1.0
Chile	55.5%	42.8%	0.8	18.7%	13.3%	0.7	10.3%	7.9%	0.8
China	16.7%	13.8%	0.8	5.1%	4.2%	0.8	6.3%	5.1%	0.8
Colombia	55.0%	43.8%	0.8	18.0%	13.5%	0.8	6.8%	4.3%	0.6
Croatia	21.3%	16.3%	0.8	7.0%	4.5%	0.6	5.1%	2.6%	0.5
Cyprus	17.2%	13.4%	0.8	1.7%	0.7%	0.4	3.1%	2.2%	0.7
Ecuador	49.0%	47.4%	1.0	22.2%	20.2%	0.9	6.5%	10.4%	1.6
Egypt, Arab Republic	62.2%	57.7%	0.9	5.9%	2.1%	0.4	8.2%	3.2%	0.4
Estonia	23.6%	13.9%	0.6	16.9%	10.0%	0.6	7.6%	4.3%	0.6
France	23.6%	14.1%	0.6	4.3%	3.6%	0.8	2.6%	1.7%	0.7
Germany	8.2%	3.5%	0.4	3.7%	1.5%	0.4	2.8%	1.8%	0.6
Greece	10.4%	5.0%	0.5	5.5%	2.8%	0.5	3.3%	1.1%	0.3
Guatemala	54.6%	45.9%	0.8	16.2%	11.5%	0.7	14.6%	13.0%	0.9
India	21.8%	19.6%	0.9	11.3%	6.3%	0.6	2.7%	2.4%	0.9
Indonesia	21.4%	20.9%	1.0	3.6%	2.6%	0.7	10.5%	11.6%	1.1
Iran, Islamic Republic	46.3%	26.2%	0.6	5.8%	2.5%	0.4	7.2%	4.0%	0.6
Ireland	17.2%	13.9%	0.8	8.0%	5.0%	0.6	3.9%	2.4%	0.6
Israel	27.4%	25.0%	0.9	8.9%	4.7%	0.5	3.8%	4.4%	1.2
Italy	9.4%	8.6%	0.9	3.6%	1.7%	0.5	1.9%	1.1%	0.6
Japan	6.4%	3.5%	0.5	3.7%	2.9%	0.8	2.9%	1.1%	0.4
Kazakhstan	44.2%	48.1%	1.1	8.2%	7.8%	1.0	3.2%	3.5%	1.1
Korea, Republic	33.3%	28.9%	0.9	8.7%	4.8%	0.6	8.3%	7.3%	0.9
Latvia	18.6%	16.3%	0.9	11.8%	7.2%	0.6	5.6%	3.9%	0.7
Lebanon	37.4%	24.5%	0.7	9.5%	4.4%	0.5	21.8%	13.1%	0.6
Luxembourg	18.5%	10.9%	0.6	9.1%	5.0%	0.5	3.6%	3.7%	1.0
Madagascar	31.2%	34.0%	1.1	11.2%	9.4%	0.8	9.2%	11.7%	1.3
Malaysia	18.7%	16.5%	0.9	16.3%	14.4%	0.9	6.7%	5.7%	0.9
Mexico	13.7%	12.8%	0.9	13.2%	8.3%	0.6	4.2%	2.9%	0.7
Morocco	42.3%	37.0%	0.9	4.3%	2.3%	0.5	4.7%	1.9%	0.4
Netherlands	8.3%	7.2%	0.9	7.6%	4.2%	0.6	8.5%	4.1%	0.5

Men established business	Women established business	Ratio W/M established business	Men business discontinued business	Women business discontinued business	Ratio W/M discontinued business	Men discontinued lack of profit	Women discontinued lack of profit	Ratio W/M discontinued lack of profit	Men per cent discontinued lack of finance	Women per cent discontinued lack of finance	Ratio W/M discontinued lack of finance
14.9%	15.1%	1.0	14.6%	22.6%	1.5	17.5%	31.0%	1.8	46.3%	33.7%	0.7
11.3%	6.9%	0.6	3.3%	1.9%	0.6	46.5%	36.4%	0.8	4.7%	6.1%	1.3
11.6%	6.3%	0.5	3.3%	2.4%	0.7	30.3%	34.6%	1.1	3.0%	3.8%	1.3
7.6%	5.3%	0.7	3.5%	2.7%	0.8	20.5%	15.5%	0.8	10.7%	16.5%	1.5
2.0%	0.8%	0.4	0.8%	0.4%	0.5	20.0%	27.3%	1.4	30.0%	18.2%	0.6
23.4%	17.2%	0.7	3.1%	3.4%	1.1	38.1%	42.9%	1.1	7.1%	7.1%	1.0
9.5%	7.1%	0.7	1.4%	1.7%	1.2	62.5%	52.6%	0.8	25.0%	21.1%	0.8
8.9%	6.1%	0.7	4.4%	4.9%	1.1	30.7%	18.8%	0.6	14.7%	11.6%	0.8
9.5%	7.6%	0.8	5.1%	5.6%	1.1	27.2%	27.6%	1.0	18.3%	11.2%	0.6
3.7%	2.6%	0.7	1.9%	1.6%	0.8	23.3%	34.5%	1.5	25.6%	17.2%	0.7
8.3%	4.9%	0.6	3.8%	2.8%	0.7	40.4%	31.7%	0.8	12.8%	17.1%	1.3
6.0%	2.3%	0.4	2.8%	1.5%	0.5	19.4%	20.0%	1.0	5.6%	10.0%	1.8
8.2%	4.0%	0.5	2.5%	0.8%	0.3	20.0%	21.4%	1.1	20.0%	35.7%	1.8
16.7%	14.0%	0.8	5.9%	7.6%	1.3	38.0%	25.6%	0.7	21.1%	23.2%	1.1
7.8%	1.1%	0.1	6.7%	5.4%	0.8	50.5%	30.1%	0.6	16.8%	28.8%	1.7
15.2%	7.6%	0.5	3.8%	2.0%	0.5	26.3%	26.9%	1.0	14.0%	3.8%	0.3
3.1%	1.8%	0.6	3.0%	0.8%	0.3	20.7%	15.4%	0.7	24.1%	46.2%	1.9
9.4%	5.5%	0.6	1.2%	1.0%	0.8	17.9%	13.0%	0.7	17.9%	13.0%	0.7
15.3%	6.3%	0.4	3.3%	2.2%	0.7	37.2%	56.5%	1.5	4.7%	8.7%	1.9
14.0%	8.5%	0.6	4.5%	5.6%	1.2	40.2%	38.5%	1.0	13.8%	8.2%	0.6
8.9%	5.0%	0.6	4.1%	3.5%	0.9	47.7%	41.3%	0.9	27.1%	31.3%	1.2
12.5%	11.0%	0.9	0.9%	0.7%	0.8	12.0%	11.1%	0.9	28.0%	33.3%	1.2
20.4%	4.1%	0.2	5.6%	2.5%	0.4	35.9%	33.3%	0.9	32.8%	20.6%	0.6
9.0%	4.7%	0.5	2.2%	1.6%	0.7	22.9%	21.4%	0.9	10.4%	21.4%	2.1
4.1%	3.2%	0.8	3.1%	4.1%	1.3	29.7%	41.7%	1.4	8.1%	10.4%	1.3
9.3%	3.5%	0.4	1.4%	0.8%	0.6	10.5%	33.3%	3.2	15.8%	8.3%	0.5
8.3%	4.0%	0.5	1.2%	0.7%	0.6	37.5%	0%	–	12.5%	0.0%	0.0
2.3%	2.6%	1.1	5.5%	4.6%	0.8	18.8%	19.7%	1.0	7.8%	11.5%	1.5
15.4%	9.5%	0.6	1.5%	1.4%	0.9	30.8%	52.4%	1.7	11.5%	9.5%	0.8
10.4%	5.1%	0.5	3.6%	2.3%	0.6	26.2%	31.8%	1.2	11.9%	4.5%	0.4
29.0%	14.8%	0.5	4.0%	5.1%	1.3	50.8%	51.3%	1.0	7.7%	6.6%	0.9
3.8%	3.0%	0.8	2.7%	1.2%	0.4	10.9%	21.4%	2.0	6.5%	0.0%	0.0
24.7%	20.2%	0.8	2.2%	4.5%	2.0	42.9%	33.3%	0.8	7.1%	3.7%	0.5
4.2%	3.4%	0.8	4.7%	5.6%	1.2	29.3%	21.7%	0.7	23.2%	19.3%	0.8
2.0%	0.8%	0.4	3.5%	2.0%	0.6	40.4%	28.2%	0.7	8.1%	21.1%	2.6
5.1%	3.3%	0.6	7.7%	4.4%	0.6	30.4%	31.5%	1.0	12.6%	7.4%	0.6
15.7%	8.2%	0.5	2.0%	1.8%	0.9	14.3%	7.1%	0.5	9.5%	7.1%	0.7



Table A3 (continued)

	Men entrepreneurial intentions	Women entrepreneurial intentions	Ratio W/M intentions	Men nascent activity	Women nascent activity	Ratio W/M nascent	Men early-stage business	Women early-stage business	Ratio W/M early-stage business
Panama	20.8%	17.1%	0.8	7.6%	7.2%	0.9	6.1%	6.7%	1.1
Peru	38.8%	40.5%	1.0	17.7%	17.3%	1.0	6.2%	3.7%	0.6
Poland	10.2%	8.8%	0.9	4.7%	3.6%	0.8	1.4%	0.9%	0.6
Puerto Rico	23.6%	22.2%	0.9	11.5%	6.9%	0.6	3.7%	1.5%	0.4
Qatar	27.7%	34.6%	1.2	5.3%	3.9%	0.7	3.2%	4.3%	1.3
Russian Federation	2.1%	2.3%	1.1	3.7%	1.9%	0.5	3.8%	2.0%	0.5
Saudi Arabia	28.1%	25.1%	0.9	5.8%	4.6%	0.8	8.9%	3.9%	0.4
Slovak Republic	16.6%	11.1%	0.7	10.9%	7.4%	0.7	4.3%	1.5%	0.3
Slovenia	18.3%	12.5%	0.7	3.7%	1.9%	0.5	5.1%	1.9%	0.4
South Africa	12.8%	10.7%	0.8	9.4%	5.6%	0.6	3.6%	3.4%	0.9
Spain	7.2%	5.2%	0.7	2.9%	2.5%	0.9	3.8%	3.5%	0.9
Sudan	66.9%	66.5%	1.0	11.6%	9.0%	0.8	15.9%	8.0%	0.5
Sweden	12.2%	7.1%	0.6	6.0%	3.1%	0.5	3.5%	0.9%	0.3
Switzerland	7.6%	6.3%	0.8	5.6%	2.7%	0.5	4.4%	2.0%	0.5
Taiwan, China	27.8%	20.7%	0.7	4.2%	2.3%	0.5	5.9%	6.5%	1.1
Thailand	34.1%	29.3%	0.9	7.8%	6.7%	0.9	12.2%	12.7%	1.0
Turkey	39.9%	21.7%	0.5	10.1%	4.6%	0.5	9.8%	3.8%	0.4
United Arab Emirates	37.6%	39.6%	1.1	7.1%	7.1%	1.0	3.9%	3.0%	0.8
United Kingdom	9.4%	5.3%	0.6	5.9%	2.4%	0.4	5.1%	3.0%	0.6
United States	12.8%	11.6%	0.9	12.0%	9.1%	0.8	5.7%	4.5%	0.8
Uruguay	28.3%	20.9%	0.7	13.7%	8.6%	0.6	5.7%	3.7%	0.6
Vietnam	25.3%	24.5%	1.0	2.2%	2.7%	1.2	19.6%	22.0%	1.1
<b>Global average</b>	<b>21.5%</b>	<b>17.6%</b>	<b>0.8</b>	<b>7.8%</b>	<b>5.5%</b>	<b>0.7</b>	<b>6.1%</b>	<b>4.7%</b>	<b>0.8</b>

Regional average									
East and South Asia and Pacific	21.4%	18.3%	0.9	7.2%	5.1%	0.7	7.8%	7.6%	1.0
Europe and Central Asia	11.9%	8.5%	0.7	5.4%	3.4%	0.6	4.0%	2.6%	0.7
Latin America and the Caribbean	35.2%	29.9%	0.8	14.3%	10.6%	0.7	8.1%	6.8%	0.8
Middle East and North Africa	39.2%	36.6%	0.9	6.6%	4.1%	0.6	7.7%	4.8%	0.6
North America	14.8%	11.4%	0.8	12.3%	9.3%	0.8	6.5%	5.7%	0.9
Sub-Saharan Africa	32.1%	29.7%	0.9	13.6%	11.8%	0.9	9.6%	10.0%	1.0

Income level									
High income	17.0%	12.6%	0.7	7.0%	4.7%	0.7	4.8%	3.4%	0.7
Middle income	25.8%	21.3%	0.8	9.6%	7.0%	0.7	7.5%	6.0%	0.8
Lower income	39.2%	37.8%	1.0	8.5%	6.5%	0.8	9.7%	8.6%	0.9

Men established business	Women established business	Ratio W/M established business	Men business discontinued business	Women business discontinued business	Ratio W/M discontinued business	Men discontinued lack of profit	Women discontinued lack of profit	Ratio W/M discontinued lack of profit	Men per cent discontinued lack of finance	Women per cent discontinued lack of finance	Ratio W/M discontinued lack of finance
7.5%	5.2%	0.7	3.5%	2.6%	0.7	50.0%	63.0%	1.3	13.2%	7.4%	0.6
10.0%	6.7%	0.7	5.5%	7.6%	1.4	27.6%	33.3%	1.2	12.1%	12.0%	1.0
15.6%	10.4%	0.7	1.7%	1.0%	0.6	28.7%	19.1%	0.7	3.0%	7.9%	2.6
2.8%	1.0%	0.4	2.5%	1.8%	0.7	16.7%	16.7%	1.0	8.3%	4.2%	0.5
4.6%	2.7%	0.6	1.9%	2.2%	1.2	40.4%	15.4%	0.4	19.2%	7.7%	0.4
5.2%	4.6%	0.9	2.1%	0.9%	0.4	76.5%	66.7%	0.9	5.9%	11.1%	1.9
2.9%	3.4%	1.2	4.9%	5.9%	1.2	13.5%	13.0%	1.0	13.5%	14.2%	1.1
6.2%	3.0%	0.5	2.5%	2.4%	1.0	36.4%	34.5%	0.9	18.2%	3.4%	0.2
8.8%	4.7%	0.5	1.9%	1.3%	0.7	18.5%	18.8%	1.0	3.7%	0.0%	0.0
2.8%	1.5%	0.5	5.0%	5.8%	1.2	40.0%	32.9%	0.8	17.1%	35.4%	2.1
6.6%	5.5%	0.8	1.2%	1.1%	0.9	47.6%	58.3%	1.2	4.9%	6.0%	1.2
13.5%	7.0%	0.5	7.8%	7.8%	1.0	24.2%	22.3%	0.9	19.2%	27.7%	1.4
7.0%	3.4%	0.5	3.8%	1.8%	0.5	27.1%	14.7%	0.5	10.6%	2.9%	0.3
15.7%	7.3%	0.5	1.7%	0.3%	0.2	31.8%	10.0%	0.3	4.5%	20.0%	4.4
17.2%	10.6%	0.6	2.5%	2.0%	0.8	28.4%	18.2%	0.6	5.4%	2.3%	0.4
21.9%	17.4%	0.8	5.1%	5.8%	1.1	28.0%	20.5%	0.7	28.0%	21.6%	0.8
13.0%	4.3%	0.3	3.9%	2.5%	0.6	30.4%	20.6%	0.7	33.3%	38.2%	1.1
3.3%	0.7%	0.2	2.9%	4.1%	1.4	40.0%	38.5%	1.0	16.0%	26.9%	1.7
8.8%	4.0%	0.5	2.7%	1.1%	0.4	23.4%	24.6%	1.1	1.6%	5.3%	3.3
10.4%	5.4%	0.5	2.6%	3.0%	1.2	17.9%	40.4%	2.3	10.7%	1.9%	0.2
7.5%	3.7%	0.5	5.6%	4.4%	0.8	54.0%	35.4%	0.7	10.0%	16.7%	1.7
22.9%	26.3%	1.1	2.2%	2.8%	1.3	9.1%	6.8%	0.7	18.2%	34.1%	1.9
<b>9.5%</b>	<b>6.2%</b>	<b>0.7</b>	<b>3.2%</b>	<b>2.9%</b>	<b>0.91</b>	<b>30.9%</b>	<b>29.6%</b>	<b>1.0</b>	<b>15.4%</b>	<b>16.2%</b>	<b>1.1</b>

11.9%	9.1%	0.8	2.7%	2.6%	1.0	30.1%	25.2%	0.8	19.9%	20.2%	1.0
8.7%	5.3%	0.6	2.2%	1.4%	0.6	28.9%	30.1%	1.0	10.0%	11.3%	1.1
9.5%	6.5%	0.7	4.3%	4.2%	1.0	35.9%	32.2%	0.9	13.6%	12.7%	0.9
8.8%	4.5%	0.5	4.9%	4.7%	1.0	31.6%	28.0%	0.9	16.9%	17.3%	1.0
9.8%	5.7%	0.6	3.3%	3.8%	1.2	25.2%	28.7%	1.1	13.0%	7.4%	0.6
13.2%	11.3%	0.9	6.9%	10.1%	1.5	26.4%	31.7%	1.2	34.1%	29.9%	0.9

8.4%	5.4%	0.6	2.6%	2.1%	0.8	28.3%	28.8%	1.0	11.0%	10.6%	1.0
10.7%	6.3%	0.6	3.8%	3.5%	0.9	35.7%	31.5%	0.9	17.4%	16.8%	1.0
12.6%	10.0%	0.8	5.5%	5.7%	1.0	30.2%	28.6%	0.9	23.1%	26.2%	1.1

**Table A4. Percentage of TEA solo entrepreneurs, growth expectations, innovation, internationalization: rates and gender ratios, for the adult population in 59 economies, grouped by region and income level**

Source: GEM 2017–2018

	Men solo entrepreneurs (% of TEA men)	Women solo entrepreneurs (% of TEA women)	Ratio W/M	Men 20+ current employees (% of TEA men)	Women 20+ current employees (% of TEA women)	Ratio W/M
Angola	23.5%	47.8%	2.0	1.1%	1.5%	1.4
Ecuador	51.8%	62.4%	1.2	–	–	–
Guatemala	38.1%	53.5%	1.4	2.9%	0%	–
Poland	30.6%	14.0%	0.5	6.5%	2.0%	0.3
Madagascar	32.5%	52.6%	1.6	–	–	–
Vietnam	19.0%	27.0%	1.4	5.5%	1.3%	0.2
Russian Federation	32.4%	38.1%	1.2	8.8%	0.0%	–
Argentina	50.0%	53.5%	1.1	2.4%	2.3%	1.0
Iran, Islamic Republic	25.7%	19.6%	0.8	6.9%	21.4%	3.1
Uruguay	34.0%	47.1%	1.4	2.1%	2.9%	1.4
Indonesia	–	–	–	–	–	–
France	20.7%	25.0%	1.2	3.4%	0%	–
Australia	47.8%	29.7%	0.6	4.5%	0%	–
Taiwan, China	25.4%	52.8%	2.1	6.0%	2.8%	0.5
Estonia	44.8%	43.6%	1.0	2.3%	3.6%	1.6
China	1.5%	3.6%	2.4	27.3%	17.9%	0.7
Netherlands	48.0%	63.3%	1.3	6.9%	2.0%	0.3
Colombia	15.2%	2.3%	0.2	4.5%	9.1%	2.0
Spain	46.2%	56.4%	1.2	2.8%	2.0%	0.7
Germany	25.0%	60.0%	2.4	4.7%	0%	–
Peru	21.5%	10.5%	0.5	1.5%	0%	–
Korea, Republic	13.8%	14.4%	1.0	0%	1.1%	–
Bulgaria	8.1%	24.1%	3.0	–	–	–
Bosnia & Herzegovina	7.1%	16.7%	2.4	–	–	–
Italy	25.0%	50.0%	2.0	–	–	–
Egypt, Arab Republic	6.3%	20.0%	3.2	8.9%	2.5%	0.3
United States	42.0%	32.4%	0.8	6.8%	2.8%	0.4
Sudan	16.1%	18.6%	1.2	2.1%	1.4%	0.7
Thailand	41.7%	39.6%	0.9	2.3%	0%	–
Malaysia	9.3%	16.4%	1.8	1.9%	1.4%	0.7
Israel	14.3%	16.3%	1.1	17.1%	7.0%	0.4
Panama	49.3%	44.3%	0.9	–	–	–
Turkey	–	–	–	15.9%	16.7%	1.1
Mexico	6.7%	5.6%	0.8	–	–	–
Latvia	17.3%	17.9%	1.0	1.9%	2.6%	1.4
Slovenia	41.1%	40.0%	1.0	–	–	–
United Kingdom	39.9%	52.1%	1.3	4.5%	0%	–

Men expecting 6+ hires in next five years (% of TEA men)	Women expecting 6+ hires in next five years (% of TEA women)	Ratio W/M	Men innovation (% of TEA men)	Women innovation (% of TEA women)	Ratio W/M	Men export more than 25% (% of TEA men)	Women export more than 25% (% of TEA women)	Ratio W/M
35.0%	18.8%	0.5	19.8%	16.0%	0.8	3.1%	0.5%	0.2
10.6%	4.3%	0.4	22.0%	11.7%	0.5	1.6%	1.1%	0.7
42.6%	21.8%	0.5	45.6%	31.8%	0.7	3.3%	1.1%	0.3
14.6%	12.8%	0.9	11.3%	13.4%	1.2	4.4%	1.2%	0.3
4.0%	2.0%	0.5	10.8%	15.7%	1.5	1.0%	1.6%	1.6
28.9%	11.7%	0.4	12.7%	15.0%	1.2	1.3%	2.3%	1.8
17.1%	26.8%	1.6	5.7%	12.2%	2.1	1.5%	2.9%	1.9
15.2%	12.0%	0.8	32.3%	32.5%	1.0	2.0%	3.6%	1.8
46.2%	38.8%	0.8	20.3%	10.7%	0.5	5.0%	4.2%	0.8
30.7%	9.7%	0.3	22.0%	30.1%	1.4	10.9%	4.3%	0.4
3.2%	3.7%	1.2	20.2%	10.6%	0.5	5.8%	5.3%	0.9
44.2%	22.5%	0.5	23.5%	32.5%	1.4	28.8%	5.4%	0.2
34.4%	24.3%	0.7	25.4%	33.8%	1.3	8.5%	5.6%	0.7
57.7%	36.1%	0.6	22.5%	14.4%	0.6	14.8%	6.5%	0.4
33.5%	24.5%	0.7	31.3%	28.7%	0.9	28.8%	6.7%	0.2
31.1%	30.0%	1.0	34.7%	31.3%	0.9	10.5%	6.9%	0.7
17.5%	9.6%	0.5	20.4%	30.1%	1.5	9.4%	7.0%	0.7
59.0%	46.6%	0.8	18.4%	13.2%	0.7	11.6%	7.1%	0.6
16.3%	10.0%	0.6	22.4%	22.3%	1.0	10.6%	7.9%	0.7
38.0%	22.1%	0.6	30.1%	31.3%	1.0	24.1%	8.1%	0.3
20.5%	21.2%	1.0	24.5%	18.9%	0.8	7.7%	8.8%	1.1
18.5%	23.3%	1.3	28.7%	31.7%	1.1	10.9%	9.6%	0.9
4.6%	1.8%	0.4	20.0%	9.1%	0.5	5.5%	9.8%	1.8
1.9%	0%	–	15.4%	3.4%	0.2	31.9%	10.5%	0.3
19.6%	10.3%	0.5	23.6%	25.0%	1.1	22.9%	13.0%	0.6
25.5%	15.2%	0.6	26.2%	31.3%	1.2	25.3%	13.6%	0.5
40.7%	27.4%	0.7	32.8%	35.5%	1.1	11.8%	13.8%	1.2
32.2%	23.1%	0.7	13.7%	13.2%	1.0	22.3%	14.0%	0.6
31.0%	20.2%	0.7	18.2%	17.7%	1.0	23.1%	14.0%	0.6
17.6%	16.4%	0.9	30.0%	28.2%	0.9	13.2%	14.8%	1.1
27.0%	23.9%	0.9	38.1%	26.1%	0.7	33.3%	16.0%	0.5
12.2%	4.3%	0.4	12.2%	8.7%	0.7	12.5%	16.4%	1.3
58.2%	47.5%	0.8	29.8%	33.7%	1.1	12.9%	17.6%	1.4
15.9%	6.4%	0.4	31.6%	31.6%	1.0	23.2%	17.7%	0.8
30.0%	32.2%	1.1	27.1%	30.8%	1.1	31.3%	21.4%	0.7
18.9%	18.9%	1.0	25.6%	24.3%	0.9	31.4%	21.9%	0.7
27.7%	16.2%	0.6	20.9%	23.4%	1.1	18.4%	21.9%	1.2



**Table A4 (continued)**

	Men solo entrepreneurs (% of TEA men)	Women solo entrepreneurs (% of TEA women)	Ratio W/M	Men 20+ current employees (% of TEA men)	Women 20+ current employees (% of TEA women)	Ratio W/M
Sweden	43.6%	70.3%	1.6	14.9%	2.7%	0.2
Puerto Rico	34.3%	21.4%	0.6	5.7%	0%	–
Japan	13.0%	22.2%	1.7	4.3%	0%	–
Greece	21.2%	29.2%	1.4	–	–	–
Slovak Republic	24.5%	45.8%	1.9	13.2%	0%	–
South Africa	–	–	–	3.0%	3.2%	1.1
Kazakhstan	–	–	–	16.1%	4.2%	0.3
India	8.0%	16.3%	2.0	6.0%	2.3%	0.4
Saudi Arabia	–	–	–	10.6%	9.3%	0.9
Luxembourg	34.1%	23.9%	0.7	4.5%	0%	–
Switzerland	22.9%	18.8%	0.8	6.3%	3.1%	0.5
United Arab Emirates	4.1%	0%	–	24.5%	25.0%	1.0
Austria	24.8%	41.2%	1.7	9.1%	5.9%	0.6
Ireland	31.7%	40.7%	1.3	12.2%	3.7%	0.3
Cyprus	5.3%	8.0%	1.5	15.8%	8.0%	0.5
Croatia				11.9%	4.8%	0.4
Canada	17.2%	23.2%	1.3	9.4%	19.6%	2.1
Qatar	1.5%	5.6%	3.7	11.8%	16.7%	1.4
Lebanon	28.2%	44.9%	1.6	–	–	–
Morocco	3.8%	0%	–	2.6%	0%	–
Brazil	80.6%	83.0%	1.0	–	–	–
Chile	26.3%	35.5%	1.3	3.0%	0.3%	0.1
<b>Global average</b>	<b>26.9%</b>	<b>36.4%</b>	<b>1.4</b>	<b>4.9%</b>	<b>2.5%</b>	<b>0.5</b>

<b>Regional average</b>						
East and South Asia and Pacific	18.2%	22.7%	1.2	4.7%	2.1%	0.4
Europe and Central Asia	32.5%	42.6%	1.3	6.2%	2.6%	0.4
Latin America and the Caribbean	36.9%	45.8%	1.2	2.1%	0.6%	0.3
Middle East and North Africa	12.4%	20.8%	1.7	6.9%	6.7%	1.0
North America	32.0%	28.8%	0.9	7.8%	9.6%	1.2
Sub-Saharan Africa	22.0%	42.4%	1.9	1.1%	1.2%	1.1

<b>Income level</b>						
High income	29.8%	38.0%	1.3	5.8%	8.3%	1.4
Upper-middle income	28.7%	38.7%	1.3	4.3%	6.9%	1.6
Low and lower-middle income	15.3%	29.3%	1.9	3.0%	3.8%	1.3

Men expecting 6+ hires in next five years (% of TEA men)	Women expecting 6+ hires in next five years (% of TEA women)	Ratio W/M	Men innovation (% of TEA men)	Women innovation (% of TEA women)	Ratio W/M	Men export more than 25% (% of TEA men)	Women export more than 25% (% of TEA women)	Ratio W/M
25.4%	10.7%	0.4	35.1%	30.7%	0.9	37.2%	22.4%	0.6
29.0%	24.1%	0.8	22.8%	31.0%	1.4	24.3%	22.7%	0.9
31.9%	17.5%	0.5	31.9%	22.5%	0.7	25.4%	23.3%	0.9
20.5%	15.4%	0.8	30.7%	23.1%	0.8	28.7%	23.7%	0.8
35.1%	21.3%	0.6	24.8%	16.9%	0.7	20.4%	24.4%	1.2
39.1%	27.8%	0.7	35.2%	22.0%	0.6	20.9%	24.8%	1.2
24.3%	28.9%	1.2	20.9%	26.2%	1.3	22.6%	25.3%	1.1
11.1%	14.0%	1.3	43.3%	53.1%	1.2	25.0%	25.9%	1.0
31.0%	22.8%	0.7	24.8%	19.3%	0.8	45.7%	26.5%	0.6
24.6%	10.6%	0.4	45.4%	51.8%	1.1	56.6%	32.4%	0.6
36.8%	36.4%	1.0	33.0%	28.9%	0.9	32.6%	34.1%	1.0
59.4%	58.1%	1.0	27.1%	31.1%	1.1	50.4%	36.0%	0.7
23.1%	13.4%	0.6	36.4%	38.5%	1.1	46.4%	36.6%	0.8
54.7%	36.0%	0.7	35.0%	36.0%	1.0	33.6%	38.5%	1.1
41.7%	33.3%	0.8	41.7%	31.0%	0.7	37.0%	39.3%	1.1
38.8%	18.3%	0.5	28.1%	19.4%	0.7	40.0%	41.2%	1.0
31.7%	24.4%	0.8	43.2%	39.1%	0.9	45.9%	41.4%	0.9
36.9%	14.3%	0.4	28.4%	20.9%	0.7	39.3%	51.4%	1.3
12.7%	6.6%	0.5	39.7%	45.6%	1.1	61.5%	55.7%	0.9
14.8%	7.9%	0.5	12.9%	18.4%	1.4	51.8%	61.4%	1.2
8.4%	4.4%	0.5	3.2%	3.9%	1.2	0.5%	0%	-
48.4%	28.7%	0.6	47.6%	47.5%	1.0	0.8%	0%	-
<b>29.0%</b>	<b>18.7%</b>	<b>0.6</b>	<b>18.2%</b>	<b>12.3%</b>	<b>0.7</b>	<b>28.2%</b>	<b>26.1%</b>	<b>0.9</b>

23.2%	17.5%	0.8	27.2%	24.7%	0.9	13.4%	10.3%	0.8
27.0%	17.7%	0.7	26.2%	25.8%	1.0	22.8%	16.6%	0.7
33.2%	19.4%	0.6	33.2%	29.1%	0.9	6.9%	4.8%	0.7
30.7%	21.8%	0.7	25.7%	24.5%	1.0	37.6%	29.9%	0.8
36.6%	26.0%	0.7	37.4%	37.0%	1.0	26.8%	26.4%	1.0
27.3%	15.1%	0.6	20.7%	16.9%	0.8	6.2%	4.5%	0.7

31.5%	20.3%	0.6	30.7%	30.9%	1.0	21.4%	14.3%	0.7
28.9%	19.9%	0.7	27.8%	23.0%	0.8	15.1%	11.8%	0.8
20.9%	12.4%	0.6	20.8%	19.5%	0.9	13.7%	8.2%	0.6

**Table A5. Percentage of TEA by industry sector: Rates and gender ratios for the adult population in 59 economies, grouped by region and income level**

Source: GEM 2017–2018

	Men agriculture and mining (% of TEA men)	Women agriculture and mining (% of TEA women)	Ratio W/M	Men manufacturing and transportation (% of TEA men)	Women manufacturing and transportation (% of TEA women)	Ratio W/M	Men wholesale/retail (% of TEA men)
Angola	6.9%	0.2%	0.0	9.7%	5.0%	0.5	63.4%
Argentina	12.1%	1.2%	0.1	13.1%	18.1%	1.4	46.5%
Australia	15.0%	8.5%	0.6	9.2%	9.9%	1.1	29.2%
Austria	5.3%	3.9%	0.7	6.4%	5.2%	0.8	32.5%
Bosnia & Herzegovina	38.0%	21.7%	0.6	14.0%	13.0%	0.9	22.0%
Brazil	12.8%	0.6%	0.0	25.5%	17.8%	0.7	41.0%
Bulgaria	24.6%	3.7%	0.2	12.3%	11.1%	0.9	43.1%
Canada	13.0%	9.0%	0.7	9.3%	9.0%	1.0	28.7%
Chile	12.7%	3.7%	0.3	20.0%	21.2%	1.1	36.0%
China	4.4%	2.0%	0.5	11.5%	6.7%	0.6	54.9%
Colombia	8.6%	6.9%	0.8	19.8%	17.0%	0.9	41.6%
Croatia	20.0%	10.1%	0.5	14.8%	8.7%	0.6	30.4%
Cyprus	–	–	–	6.4%	3.3%	0.5	55.3%
Ecuador	9.1%	8.5%	0.9	14.4%	9.6%	0.7	60.1%
Egypt, Arab Republic	13.0%	4.7%	0.4	15.8%	18.8%	1.2	61.0%
Estonia	19.2%	4.5%	0.2	19.2%	12.0%	0.6	19.2%
France	23.4%	8.1%	0.3	8.5%	0%	–	25.5%
Germany	16.9%	0%	–	11.3%	6.3%	0.6	20.2%
Greece	10.8%	13.5%	1.3	8.4%	8.1%	1.0	51.8%
Guatemala	7.0%	1.6%	0.2	11.0%	13.6%	1.2	59.5%
India	6.9%	2.6%	0.4	13.0%	6.4%	0.5	68.7%
Indonesia	4.1%	0.9%	0.2	11.4%	9.2%	0.8	64.4%
Iran, Islamic Republic	12.0%	10.1%	0.8	14.1%	11.1%	0.8	33.5%
Ireland	11.9%	0%	–	4.6%	5.6%	1.2	33.0%
Israel	18.2%	12.5%	0.7	13.6%	18.8%	1.4	22.7%
Italy	16.4%	3.7%	0.2	10.9%	0%	–	34.5%
Japan	10.4%	5.3%	0.5	6.0%	2.6%	0.4	31.3%
Kazakhstan	15.0%	4.5%	0.3	8.8%	4.5%	0.5	36.3%
Korea, Republic	5.2%	4.2%	0.8	20.2%	27.5%	1.4	49.7%
Latvia	20.9%	18.9%	0.9	19.4%	8.9%	0.5	23.9%
Lebanon	4.4%	0.5%	0.1	14.8%	9.3%	0.6	58.7%
Luxembourg	8.1%	2.4%	0.3	16.3%	13.4%	0.8	20.3%
Madagascar	32.7%	18.0%	0.6	18.8%	10.6%	0.6	44.8%
Malaysia	9.5%	0.5%	0.1	3.7%	6.2%	1.7	73.6%
Mexico	6.1%	0.7%	0.1	9.8%	6.7%	0.7	61.2%
Morocco	10.1%	5.5%	0.5	8.7%	12.3%	1.4	67.1%
Netherlands	19.4%	7.0%	0.4	7.2%	4.2%	0.6	23.7%
Panama	5.9%	1.5%	0.3	17.8%	5.9%	0.3	48.1%

Women wholesale/ retail (% of TEA women)	Ratio W/M	Men fin./prof./ adm./consumer svcs (% of TEA men)	Women fin./prof./ adm./consumer svcs (% of TEA women)	Ratio W/M	Men ICT (% of TEA Men)	Women ICT (% of TEA women)	Ratio W/M	Men gov't/health/ education/social svcs (% of TEA men)	Women gov't/ health/education/ social svcs (% of TEA women)	Ratio W/M
83.2%	1.3	7.9%	2.6%	0.3	4.9%	1.2%	0.2	7.2%	7.7%	1.1
45.8%	1.0	17.2%	4.8%	0.3	2.0%	0%	–	9.1%	30.1%	3.3
22.5%	0.8	29.2%	36.6%	1.3	6.7%	7.0%	1.0	10.8%	15.5%	1.4
34.2%	1.1	22.6%	26.5%	1.2	11.3%	3.9%	0.3	21.9%	26.5%	1.2
26.1%	1.2	10.0%	17.4%	1.7	6.0%	0%	–	10.0%	21.7%	2.2
52.2%	1.3	6.4%	10.2%	1.6	5.3%	2.5%	0.5	9.0%	16.6%	1.8
51.9%	1.2	9.2%	22.2%	2.4	–	–	–	10.8%	11.1%	1.0
34.6%	1.2	29.6%	20.5%	0.7	7.4%	5.1%	0.7	12.0%	21.8%	1.8
52.7%	1.5	21.2%	11.7%	0.6	1.8%	0.4%	0.2	8.3%	10.4%	1.3
71.1%	1.3	17.0%	10.1%	0.6	2.7%	0%	–	9.3%	10.1%	1.1
45.7%	1.1	16.0%	12.8%	0.8	6.2%	1.6%	0.3	7.8%	16.0%	2.1
18.8%	0.6	17.4%	30.4%	1.7	9.6%	11.6%	1.2	7.8%	20.3%	2.6
30.0%	0.5	29.8%	33.3%	1.1	2.1%	6.7%	3.2	6.4%	26.7%	4.2
69.5%	1.2	7.6%	3.5%	0.5	0.8%	2.5%	3.1	8.0%	6.4%	0.8
64.1%	1.1	5.6%	3.1%	0.6	0.6%	0%	–	4.0%	9.4%	2.4
27.1%	1.4	27.9%	29.3%	1.1	5.8%	5.3%	0.9	8.7%	21.8%	2.5
27.0%	1.1	21.3%	21.6%	1.0	4.3%	5.4%	1.3	17.0%	37.8%	2.2
34.4%	1.7	21.8%	18.8%	0.9	10.5%	0%	–	19.4%	40.6%	2.1
56.8%	1.1	16.9%	2.7%	0.2	1.2%	2.7%	2.3	10.8%	16.2%	1.5
71.0%	1.2	10.3%	5.3%	0.5	5.6%	0.5%	0.1	6.6%	8.0%	1.2
46.2%	0.7	5.3%	3.8%	0.7	0.8%	0%	–	5.3%	41.0%	7.7
76.1%	1.2	1.8%	1.8%	1.0	4.1%	2.3%	0.6	14.2%	9.6%	0.7
27.3%	0.8	20.9%	24.2%	1.2	9.4%	4.0%	0.4	9.9%	23.2%	2.3
33.8%	1.0	17.4%	25.4%	1.5	17.4%	7.0%	0.4	15.6%	28.2%	1.8
25.0%	1.1	31.8%	25.0%	0.8	4.5%	3.1%	0.7	9.1%	15.6%	1.7
48.1%	1.4	29.1%	18.5%	0.6	5.5%	0%	–	3.6%	29.6%	8.2
42.1%	1.3	23.9%	26.3%	1.1	10.4%	10.5%	1.0	17.9%	13.2%	0.7
46.6%	1.3	11.3%	13.6%	1.2	2.5%	1.1%	0.4	26.3%	29.5%	1.1
44.2%	0.9	7.5%	5.0%	0.7	2.3%	0.8%	0.3	15.0%	18.3%	1.2
23.3%	1.0	20.9%	24.4%	1.2	3.7%	1.1%	0.3	11.2%	23.3%	2.1
58.2%	1.0	8.4%	4.4%	0.5	0.7%	0.5%	0.7	13.1%	26.9%	2.1
26.8%	1.3	30.1%	31.7%	1.1	13.8%	4.9%	0.4	11.4%	20.7%	1.8
60.4%	1.3	3.1%	8.2%	2.6	0.4%	0.4%	1.0	0%	2.4%	–
84.5%	1.1	5.4%	3.1%	0.6	0.8%	0%	–	7.0%	5.7%	0.8
79.4%	1.3	6.9%	4.6%	0.7	4.2%	0.4%	0.1	11.8%	8.2%	0.7
67.1%	1.0	5.4%	4.1%	0.8	–	–	–	8.7%	11.0%	1.3
18.3%	0.8	25.2%	21.1%	0.8	10.1%	1.4%	0.1	14.4%	47.9%	3.3
74.1%	1.5	9.6%	5.9%	0.6	0.7%	0%	–	17.8%	12.6%	0.7



Table A5 (continued)

	Men agriculture and mining (% of TEA men)	Women agriculture and mining (% of TEA women)	Ratio W/M	Men manufacturing and transportation (% of TEA men)	Women manufacturing and transportation (% of TEA women)	Ratio W/M	Men wholesale/retail (% of TEA men)
Peru	4.6%	1.9%	0.4	15.5%	13.8%	0.9	62.6%
Poland	24.6%	10.1%	0.4	11.3%	5.1%	0.5	28.7%
Puerto Rico	22.8%	0%	–	5.5%	5.8%	1.1	42.8%
Qatar	6.7%	0%	–	12.0%	10.8%	0.9	53.3%
Russian Federation	22.5%	12.5%	0.6	15.5%	22.5%	1.5	31.0%
Saudi Arabia	4.2%	0.7%	0.2	6.3%	6.4%	1.0	71.3%
Slovak Republic	25.9%	5.0%	0.2	12.6%	7.5%	0.6	18.9%
Slovenia	15.1%	5.9%	0.4	18.6%	0%	–	22.1%
South Africa	15.3%	5.3%	0.3	14.7%	5.3%	0.4	41.8%
Spain	8.6%	8.1%	0.9	12.0%	10.1%	0.8	27.8%
Sudan	16.2%	7.6%	0.5	17.7%	21.8%	1.2	51.7%
Sweden	12.3%	11.9%	1.0	8.4%	14.9%	1.8	31.0%
Switzerland	8.4%	2.3%	0.3	2.4%	15.9%	6.6	30.1%
Taiwan, China	15.5%	7.4%	0.5	24.5%	6.3%	0.3	36.4%
Thailand	25.0%	13.2%	0.5	8.5%	8.3%	1.0	51.0%
Turkey	22.1%	6.5%	0.3	22.1%	17.4%	0.8	32.5%
United Arab Emirates	5.7%	0%	–	2.9%	0%	–	42.9%
United Kingdom	17.3%	5.7%	0.3	9.1%	4.7%	0.5	20.6%
United States	9.9%	8.0%	0.8	13.1%	8.5%	0.6	22.5%
Uruguay	12.8%	5.9%	0.5	16.3%	16.8%	1.0	36.9%
Vietnam	4.0%	0.8%	0.2	8.0%	2.6%	0.3	66.7%
<b>Global average</b>	<b>12.1%</b>	<b>5.1%</b>	<b>0.4</b>	<b>13.2%</b>	<b>10.8%</b>	<b>0.8</b>	<b>43.5%</b>

Regional average							
East and South Asia and Pacific	9.5%	4.0%	0.4	11.0%	8.2%	0.7	56.5%
Europe and Central Asia	15.5%	7.1%	0.5	12.0%	8.7%	0.7	27.8%
Latin America and the Caribbean	10.2%	3.3%	0.3	16.1%	14.9%	0.9	47.5%
Middle East and North Africa	9.1%	4.5%	0.5	12.4%	13.1%	1.1	56.9%
North America	10.9%	8.2%	0.8	11.9%	9.0%	0.8	24.3%
Sub-Saharan Africa	16.0%	6.6%	0.4	13.3%	6.7%	0.5	53.5%

Income level							
High income	12.7%	5.7%	0.4	12.8%	11.5%	0.9	33.5%
Upper-middle income	11.2%	4.4%	0.4	14.0%	10.9%	0.8	51.3%
Low and lower-middle income	11.7%	4.6%	0.4	12.7%	8.9%	0.7	60.4%

Women wholesale/retail (% of TEA women)	Ratio W/M	Men fin./prof./adm./consumer svcs (% of TEA men)	Women fin./prof./adm./consumer svcs (% of TEA women)	Ratio W/M	Men ICT (% of TEA Men)	Women ICT (% of TEA women)	Ratio W/M	Men gov't/health/education/social svcs (% of TEA men)	Women gov't/health/education/social svcs (% of TEA women)	Ratio W/M
68.1%	1.1	7.6%	4.8%	0.6	2.5%	1.4%	0.6	7.1%	10.0%	1.4
39.3%	1.4	15.8%	15.7%	1.0	7.5%	0.6%	0.1	12.1%	29.2%	2.4
57.0%	1.3	12.4%	4.7%	0.4	1.4%	1.2%	0.9	15.2%	31.4%	2.1
43.2%	0.8	15.3%	18.9%	1.2	5.3%	2.7%	0.5	7.3%	24.3%	3.3
42.5%	1.4	15.5%	2.5%	0.2	4.2%	0%	–	11.3%	20.0%	1.8
60.0%	0.8	6.6%	9.3%	1.4	1.2%	0%	–	10.4%	23.6%	2.3
37.5%	2.0	16.1%	20.0%	1.2	6.3%	1.3%	0.2	20.3%	28.7%	1.4
29.4%	1.3	29.1%	38.2%	1.3	7.0%	5.9%	0.8	8.1%	20.6%	2.5
66.4%	1.6	14.7%	9.2%	0.6	3.4%	1.5%	0.4	10.2%	12.2%	1.2
29.7%	1.1	31.9%	26.4%	0.8	11.5%	2.9%	0.3	8.2%	22.9%	2.8
52.4%	1.0	6.4%	5.9%	0.9	–	–	–	7.9%	12.4%	1.6
14.9%	0.5	25.8%	19.4%	0.8	11.6%	1.5%	0.1	11.0%	37.3%	3.4
22.7%	0.8	39.8%	29.5%	0.7	8.4%	9.1%	1.1	10.8%	20.5%	1.9
56.8%	1.6	12.7%	12.6%	1.0	4.5%	1.1%	0.2	6.4%	15.8%	2.5
68.6%	1.3	6.5%	2.9%	0.4	0.5%	0%	–	8.5%	6.9%	0.8
46.7%	1.4	12.5%	12.0%	1.0	0.8%	1.1%	1.4	10.0%	16.3%	1.6
60.0%	1.4	31.4%	0%	–	2.9%	0%	–	14.3%	40.0%	2.8
22.4%	1.1	32.1%	26.6%	0.8	8.2%	5.2%	0.6	12.6%	35.4%	2.8
30.1%	1.3	34.7%	30.7%	0.9	9.5%	3.4%	0.4	10.4%	19.3%	1.9
39.6%	1.1	15.6%	16.8%	1.1	11.3%	2.0%	0.2	7.1%	18.8%	2.6
84.5%	1.3	9.3%	2.6%	0.3	3.6%	0.4%	0.1	8.4%	9.1%	1.1
<b>53.2%</b>	<b>1.2</b>	<b>16.3%</b>	<b>12.7%</b>	<b>0.8</b>	<b>4.9%</b>	<b>1.7%</b>	<b>0.3</b>	<b>10.1%</b>	<b>16.5%</b>	<b>1.6</b>

68.1%	1.2	10.1%	6.7%	0.7	3.0%	1.1%	0.4	9.9%	11.9%	1.2
31.5%	1.1	24.2%	23.4%	1.0	8.3%	3.1%	0.4	12.2%	26.2%	2.1
60.9%	1.3	13.7%	8.2%	0.6	3.4%	1.0%	0.3	9.1%	11.8%	1.3
52.7%	0.9	10.0%	9.5%	1.0	2.1%	0.9%	0.4	9.4%	19.4%	2.1
31.4%	1.3	33.1%	27.1%	0.8	8.8%	4.3%	0.5	10.9%	20.0%	1.8
73.5%	1.4	8.1%	5.4%	0.7	3.3%	1.0%	0.3	5.8%	6.8%	1.2

38.5%	1.1	22.8%	19.9%	0.9	6.7%	2.6%	0.4	11.4%	21.7%	1.9
63.3%	1.2	10.7%	7.5%	0.7	3.3%	1.0%	0.3	9.5%	12.8%	1.3
71.9%	1.2	6.0%	4.0%	0.7	2.2%	0.7%	0.3	7.1%	9.8%	1.4

**Table A6. Investor activity, median investment size, relationship to investee: Rates and gender ratios, for the adult population in 59 economies, grouped by region and income level**

Source: GEM 2017–2018

	Men invested	Women invested	Ratio W/M	Men median investment size	women median investment size	Ratio W/M	Men family or other relative	Women family or other relative
Angola	10.8%	7.0%	0.6	404.50	202.25	0.5	47.0%	65.6%
Argentina	3.1%	1.3%	0.4	1,889.00	1,133.40	0.6	60.0%	83.3%
Australia	4.5%	3.1%	0.7	11,507.76	13,425.72	1.2	47.5%	61.3%
Austria	8.5%	3.8%	0.4	5,842.93	3,505.76	0.6	28.0%	41.9%
Bosnia & Herzegovina	0.8%	0.4%	0.5	4,661.78	582.72	0.1	70.0%	86.7%
Brazil	2.0%	1.0%	0.5	3,973.97	2,523.32	0.6	47.8%	75.0%
Bulgaria	2.5%	1.0%	0.4	2,651.99	2,913.99	1.1	61.1%	66.7%
Canada	6.6%	3.5%	0.5	7,670.56	5,748.47	0.7	46.4%	51.7%
Chile	18.2%	11.8%	0.6	2,332.50	1,517.50	0.7	53.5%	66.6%
China	5.9%	5.1%	0.9	11,788.50	7,367.81	0.6	57.1%	63.6%
Colombia	7.5%	3.1%	0.4	1,012.50	1,012.50	1.0	59.8%	66.7%
Croatia	2.6%	1.4%	0.5	5,133.21	3,074.53	0.6	45.0%	74.1%
Cyprus	1.9%	1.9%	1.0	11,398.69	14,391.95	1.3	62.5%	77.3%
Ecuador	5.8%	3.8%	0.7	1,000.00	500.00	0.5	71.2%	64.7%
Egypt, Arab Republic	3.5%	1.0%	0.3	1,119.90	556.53	0.5	44.0%	63.6%
Estonia	9.6%	5.0%	0.5	5,699.34	3,419.61	0.6	46.1%	64.2%
France	3.2%	1.3%	0.4	11,398.69	3,505.76	0.3	36.7%	25.0%
Germany	4.4%	2.5%	0.6	8,472.25	5,842.93	0.7	40.2%	45.0%
Greece	3.8%	3.5%	0.9	11,398.69	17,528.79	1.5	67.5%	82.9%
Guatemala	18.5%	8.5%	0.5	541.99	402.43	0.7	53.6%	61.0%
India	2.0%	0.6%	0.3	732.19	263.03	0.4	47.8%	35.9%
Indonesia	1.4%	1.1%	0.8	381.25	1,143.75	3.0	73.0%	59.0%
Iran, Islamic Republic	8.5%	4.4%	0.5	1,000.00	900.00	0.9	43.2%	60.0%
Ireland	4.2%	1.7%	0.4	8,364.56	5,842.93	0.7	38.2%	81.0%
Israel	4.2%	3.0%	0.7	11,211.45	7,287.44	0.6	58.5%	55.3%
Italy	3.8%	1.1%	0.3	11,685.86	11,398.69	1.0	40.8%	76.5%
Japan	2.1%	0.7%	0.3	16,175.25	8,986.25	0.6	43.6%	50.0%
Kazakhstan	5.1%	6.1%	1.2	1,860.75	1,240.50	0.7	34.6%	43.8%
Korea, Republic	2.8%	2.9%	1.0	45,312.50	27,187.50	0.6	25.0%	45.2%
Latvia	5.3%	3.0%	0.6	3,419.61	1,994.77	0.6	39.0%	76.7%
Lebanon	7.0%	4.9%	0.7	6,293.75	3,975.00	0.6	85.3%	92.3%
Luxembourg	5.9%	3.0%	0.5	14,023.04	4,559.48	0.3	29.3%	36.2%
Madagascar	1.1%	1.2%	1.1	135.56	150.63	1.1	100.0%	100.0%
Malaysia	7.9%	6.3%	0.8	815.39	698.90	0.9	62.6%	74.2%
Mexico	1.7%	0.9%	0.5	799.48	551.36	0.7	43.8%	75.9%
Morocco	5.5%	3.4%	0.6	2,113.68	1,056.84	0.5	92.1%	88.7%
Netherlands	3.6%	3.3%	0.9	9,118.95	3,462.68	0.4	34.1%	50.0%
Panama	4.4%	2.0%	0.5	500.00	400.00	0.8	58.7%	80.0%

Ratio W/M	Men work colleague	Women work colleague	Ratio W/M	Men friend or neighbor	Women friend or neighbor	Ratio W/M	Men stranger with good idea	Women stranger with good idea	Ratio W/M
1.4	8.7%	11%	0.1	36.5%	23.3%	0.6	6.1%	6.7%	1.1
1.4	2.9%	0%	—	31.4%	8.3%	0.3	—	—	—
1.3	7.5%	9.7%	1.3	32.5%	22.6%	0.7	12.5%	3.2%	0.3
1.5	6.7%	12.8%	1.9	23.2%	12.0%	0.5	38.6%	29.1%	0.8
1.2	15.0%	6.7%	0.4	15.0%	0%	—	0%	6.7%	—
1.6	13.0%	16.7%	1.3	34.8%	8.3%	0.2	4.3%	0%	—
1.1	2.8%	6.7%	2.4	36.1%	20.0%	0.6	0%	6.7%	—
1.1	18.6%	21.7%	1.2	22.7%	18.3%	0.8	7.2%	6.7%	0.9
1.2	4.5%	1.0%	0.2	37.2%	26.2%	0.7	2.8%	3.7%	1.3
1.1	13.5%	14.5%	1.1	26.2%	20.0%	0.8	3.2%	1.8%	0.6
1.1	3.4%	2.4%	0.7	28.7%	16.7%	0.6	5.7%	2.4%	0.4
1.6	5.0%	0%	—	32.5%	18.5%	0.6	17.5%	7.4%	0.4
1.2	8.3%	0%	—	29.2%	13.6%	0.5	0%	4.5%	—
0.9	7.7%	5.9%	0.8	21.2%	29.4%	1.4	—	—	—
1.4	8.0%	0%	—	40.0%	18.2%	0.5	8.0%	18.2%	2.3
1.4	5.2%	1.5%	0.3	37.4%	13.4%	0.4	10.4%	19.4%	1.9
0.7	23.3%	18.8%	0.8	23.3%	25.0%	1.1	0%	18.8%	—
1.1	3.4%	0%	—	24.8%	25.0%	1.0	30.8%	30.0%	1.0
1.2	10.0%	0%	—	17.5%	11.4%	0.7	5.0%	5.7%	1.1
1.1	3.3%	0.7%	0.2	42.3%	36.2%	0.9	0.4%	0.7%	1.8
0.8	11.9%	15.4%	1.3	23.9%	41.0%	1.7	13.4%	7.7%	0.6
0.8	21.6%	20.5%	0.9	0%	17.9%		5.4%	2.6%	0.5
1.4	12.8%	7.5%	0.6	41.2%	27.5%	0.7	2.7%	5.0%	1.9
2.1	3.6%	0%	—	38.2%	4.8%	0.1	18.2%	14.3%	0.8
0.9	11.3%	10.5%	0.9	28.3%	7.9%	0.3	1.9%	26.3%	13.8
1.9	4.1%	17.6%	4.3	34.7%	0%	—	16.3%	5.9%	0.4
1.1	2.6%	0%	—	28.2%	25.0%	0.9	25.6%	25.0%	1.0
1.3	13.6%	15.7%	1.2	33.3%	31.4%	0.9	9.9%	0.8%	0.1
1.8	12.5%	19.4%	1.6	34.4%	22.6%	0.7	21.9%	9.7%	0.4
2.0	8.5%	6.7%	0.8	42.4%	16.7%	0.4	8.5%	0%	—
1.1	2.9%	3.8%	1.3	7.4%	3.8%	0.5	4.4%	0%	—
1.2	12.0%	2.1%	0.2	34.7%	21.3%	0.6	16.0%	36.2%	2.3
1.0	—	—	—	—	—	—	—	—	—
1.2	14.3%	9.1%	0.6	20.9%	12.1%	0.6	1.1%	4.5%	4.1
1.7	20.8%	10.3%	0.5	29.2%	13.8%	0.5	6.3%	0%	—
1.0	2.6%	4.0%	1.5	2.1%	4.8%	2.3	3.2%	2.4%	0.8
1.5	13.6%	5.9%	0.4	29.5%	20.6%	0.7	20.5%	17.6%	0.9
1.4	8.7%	10.0%	1.1	32.6%	10.0%	0.3	—	—	—

Table A6 (continued)

	Men invested	Women invested	Ratio W/M	Men median investment size	women median investment size	Ratio W/M	Men family or other relative	Women family or other relative
Peru	6.3%	3.7%	0.6	915.65	763.04	0.8	83.3%	84.5%
Poland	5.2%	3.4%	0.7	4,077.96	4,077.96	1.0	87.7%	92.8%
Puerto Rico	1.3%	0.3%	0.2	4,000.00	2,500.00	0.6	80.0%	80.0%
Qatar	1.5%	0.8%	0.5	27,468.63	5,493.73	0.2	46.7%	63.6%
Russian Federation	1.0%	1.0%	1.0	1,575.13	2,362.69	1.5	55.6%	68.8%
Saudi Arabia	7.8%	9.2%	1.2	7,999.24	6,666.03	0.8	59.0%	65.7%
Slovak Republic	5.4%	2.8%	0.5	11,398.69	7,979.08	0.7	49.4%	72.5%
Slovenia	3.4%	2.0%	0.6	11,395.27	11,395.27	1.0	36.2%	67.9%
South Africa	1.8%	1.2%	0.7	380.82	304.66	0.8	38.2%	65.5%
Spain	3.8%	2.2%	0.6	7,787.45	6,839.21	0.9	56.5%	70.4%
Sudan	19.0%	13.6%	0.7	554.16	193.96	0.4	61.2%	69.4%
Sweden	7.0%	2.9%	0.4	3,747.92	2,362.95	0.6	25.9%	36.6%
Switzerland	5.7%	4.1%	0.7	20,618.35	15,108.36	0.7	46.4%	65.2%
Taiwan, China	7.3%	6.4%	0.9	9,913.12	6,602.50	0.7	14.1%	32.5%
Thailand	6.6%	4.9%	0.7	1,529.56	1,476.44	1.0	58.6%	82.7%
Turkey	6.0%	3.6%	0.6	3,097.39	3,097.39	1.0	30.6%	56.0%
United Arab Emirates	5.2%	5.9%	1.1	8,167.80	5,445.20	0.7	26.9%	51.2%
United Kingdom	2.3%	1.9%	0.8	6,604.38	3,876.62	0.6	30.0%	48.7%
United States	8.2%	4.8%	0.6	5,000.00	2,000.00	0.4	35.5%	43.0%
Uruguay	5.3%	3.1%	0.6	161.52	145.37	0.9	44.2%	61.5%
Vietnam	—	—	—	—	—	—	61.2%	57.9%
<b>Global average</b>	<b>5.4%</b>	<b>3.4%</b>	<b>0.6</b>	<b>3,419.61</b>	<b>2,737.03</b>	<b>0.8</b>	<b>51.9%</b>	<b>64.2%</b>

<b>Regional average</b>								
East and South Asia and Pacific	3.9%	2.9%	0.7	4,420.69	3,301.25	0.7	50.6%	57.6%
Europe and Central Asia	4.4%	2.6%	0.6	6,796.59	5,699.34	0.8	46.8%	62.6%
Latin America and the Caribbean	8.7%	5.0%	0.6	1,517.50	933.00	0.6	56.2%	67.7%
Middle East and North Africa	6.5%	5.3%	0.8	3,233.52	2,867.98	0.9	60.2%	70.2%
North America	7.5%	4.3%	0.6	6,129.32	3,830.83	0.6	40.3%	47.1%
Sub-Saharan Africa	4.1%	2.8%	0.7	380.82	202.25	0.5	50.0%	70.8%

<b>Income level</b>								
High income	5.5%	3.5%	0.6	5,445.20	3,999.62	0.7	48.5%	63.3%
Upper-middle income	5.6%	3.5%	0.6	1,722.50	1,517.66	0.9	53.0%	63.6%
Low and lower-middle income	4.7%	3.0%	0.6	837.36	443.33	0.5	65.7%	68.6%



Ratio W/M	Men work colleague	Women work colleague	Ratio W/M	Men friend or neighbor	Women friend or neighbor	Ratio W/M	Men stranger with good idea	Women stranger with good idea	Ratio W/M
1.0	7.1%	6.9%	1.0	9.5%	8.6%	0.9	—	—	—
1.1	0.4%	0%	—	9.0%	5.4%	0.6	2.9%	1.8%	0.6
1.0	10.0%	0%	—	10.0%	20.0%	2.0	—	—	—
1.4	7.6%	9.1%	1.2	41.3%	27.3%	0.7	4.3%	0%	—
1.2	11.1%	12.5%	1.1	27.8%	18.8%	0.7	5.6%	0%	—
1.1	17.5%	15.0%	0.9	17.1%	16.3%	1.0	6.4%	3.0%	0.5
1.5	12.6%	0%	—	28.7%	20.0%	0.7	6.9%	5.0%	0.7
1.9	6.4%	0%	—	40.4%	14.3%	0.4	14.9%	17.9%	1.2
1.7	5.9%	0%	—	41.2%	24.1%	0.6	11.8%	10.3%	0.9
1.2	7.5%	4.3%	0.6	29.8%	17.7%	0.6	4.5%	3.2%	0.7
1.1	8.0%	7.5%	0.9	24.4%	17.0%	0.7	4.5%	4.8%	1.1
1.4	13.5%	8.5%	0.6	24.7%	22.0%	0.9	28.2%	25.6%	0.9
1.4	2.9%	4.3%	1.5	27.5%	15.2%	0.6	23.2%	15.2%	0.7
2.3	2.4%	1.3%	0.5	48.2%	40.3%	0.8	35.3%	26.0%	0.7
1.4	12.9%	5.8%	0.4	28.6%	11.5%	0.4	—	—	—
1.8	22.4%	22.0%	1.0	31.8%	16.0%	0.5	15.3%	6.0%	0.4
1.9	19.4%	9.8%	0.5	45.2%	19.5%	0.4	6.5%	9.8%	1.5
1.6	13.6%	0%	—	36.4%	21.1%	0.6	20.0%	30.3%	1.5
1.2	12.4%	6.3%	0.5	30.6%	39.2%	1.3	14.9%	8.9%	0.6
1.4	7.7%	5.1%	0.7	38.5%	23.1%	0.6	5.8%	5.1%	0.9
0.9	12.1%	11.9%	1.0	23.3%	25.4%	1.1	2.6%	4.8%	1.8
<b>1.2</b>	<b>8.5%</b>	<b>6.5%</b>	<b>0.8</b>	<b>28.8%</b>	<b>19.8%</b>	<b>0.7</b>	<b>9.0%</b>	<b>7.5%</b>	<b>0.8</b>

1.1	11.2%	11.0%	1.0	27.2%	23.8%	0.9	10.1%	7.2%	0.7
1.3	8.2%	5.7%	0.7	27.8%	16.9%	0.6	14.7%	11.8%	0.8
1.2	5.4%	2.5%	0.5	34.6%	24.9%	0.7	2.3%	2.5%	1.1
1.2	10.5%	9.3%	0.9	24.2%	14.7%	0.6	4.5%	5.0%	1.1
1.2	14.9%	13.0%	0.9	26.7%	29.7%	1.1	11.8%	8.0%	0.7
1.4	7.3%	0.7%	0.1	34.1%	19.7%	0.6	6.7%	6.6%	1.0

1.3	8.3%	5.6%	0.7	29.6%	19.0%	0.6	11.2%	9.7%	0.9
1.2	9.2%	7.9%	0.9	31.5%	22.7%	0.7	5.3%	4.1%	0.8
1.0	8.1%	7.6%	0.9	20.1%	18.2%	0.9	5.1%	4.7%	0.9

**Table A7. Societal perceptions and support for entrepreneurship: rates and gender ratios for the adult population in 59 economies, grouped by region and income level**

Source: GEM 2017–2018

	Men opportunity perceptions	Women opportunity perceptions	Ratio W/M	Men capability perceptions	Women capability perceptions	Ratio W/M	Men undeterred by fear of failure	Women undeterred by fear of failure	Ratio W/M	Men personally knows an entrepreneur
Angola	75.5%	72.7%	1.0	72.8%	78.7%	1.1	82.0%	79.3%	1.0	59.6%
Argentina	35.1%	36.6%	1.0	58.1%	39.9%	0.7	69.3%	52.7%	0.8	40.9%
Australia	54.2%	48.6%	0.9	57.3%	41.3%	0.7	61.5%	51.7%	0.8	37.2%
Austria	49.6%	43.8%	0.9	56.2%	40.4%	0.7	54.1%	43.7%	0.8	43.8%
Bosnia & Herzegovina	15.8%	11.0%	0.7	43.7%	27.5%	0.6	62.9%	58.7%	0.9	36.2%
Brazil	33.6%	29.3%	0.9	59.5%	49.2%	0.8	60.7%	50.5%	0.8	40.2%
Bulgaria	20.2%	18.3%	0.9	42.4%	31.4%	0.7	47.4%	38.0%	0.8	36.3%
Canada	66.2%	59.6%	0.9	62.3%	49.2%	0.8	49.8%	47.2%	0.9	42.7%
Chile	65.0%	58.6%	0.9	69.0%	56.2%	0.8	70.6%	65.0%	0.9	47.4%
China	38.2%	31.7%	0.8	28.6%	19.6%	0.7	60.6%	56.4%	0.9	46.9%
Colombia	59.4%	55.7%	0.9	71.9%	61.3%	0.9	76.7%	67.1%	0.9	46.4%
Croatia	35.4%	30.9%	0.9	62.8%	42.0%	0.7	63.1%	54.4%	0.9	36.9%
Cyprus	46.4%	45.3%	1.0	46.4%	45.3%	1.0	46.6%	42.2%	0.9	38.0%
Ecuador	52.2%	50.1%	1.0	76.6%	71.6%	0.9	71.4%	64.8%	0.9	39.2%
Egypt, Arab Republic	45.2%	32.7%	0.7	50.9%	34.3%	0.7	73.3%	63.0%	0.9	15.6%
Estonia	62.2%	59.8%	1.0	56.3%	43.3%	0.8	66.0%	54.2%	0.8	51.1%
France	43.8%	26.5%	0.6	46.2%	28.9%	0.6	66.8%	58.7%	0.9	37.6%
Germany	45.7%	37.9%	0.8	44.6%	31.1%	0.7	66.3%	54.0%	0.8	25.9%
Greece	20.7%	17.7%	0.9	55.0%	37.7%	0.7	34.2%	29.1%	0.9	27.5%
Guatemala	56.5%	53.0%	0.9	70.5%	60.3%	0.9	72.6%	59.8%	0.8	49.1%
India	54.7%	44.4%	0.8	59.9%	43.9%	0.7	57.6%	56.5%	1.0	36.7%
Indonesia	54.9%	54.9%	1.0	64.0%	64.1%	1.0	56.4%	56.0%	1.0	73.8%
Iran, Islamic Republic	24.7%	19.7%	0.8	64.6%	41.3%	0.6	61.8%	55.9%	0.9	52.8%
Ireland	56.8%	46.4%	0.8	52.5%	38.7%	0.7	62.1%	53.7%	0.9	33.4%
Israel	57.4%	55.0%	1.0	41.8%	41.1%	1.0	39.7%	39.9%	1.0	58.1%
Italy	39.1%	30.0%	0.8	36.5%	23.2%	0.6	49.5%	44.0%	0.9	31.9%
Japan	9.3%	6.8%	0.7	14.3%	5.7%	0.4	50.5%	49.0%	1.0	22.5%
Kazakhstan	47.1%	53.4%	1.1	65.7%	63.7%	1.0	71.4%	73.8%	1.0	54.4%
Korea, Republic	47.8%	43.5%	0.9	54.6%	44.6%	0.8	70.3%	68.7%	1.0	46.6%
Latvia	35.8%	36.8%	1.0	53.6%	44.6%	0.8	57.4%	46.9%	0.8	35.2%
Lebanon	44.9%	39.0%	0.9	79.2%	57.9%	0.7	63.4%	44.3%	0.7	59.6%
Luxembourg	56.9%	53.0%	0.9	54.5%	32.7%	0.6	47.4%	42.6%	0.9	38.5%
Madagascar	31.5%	29.6%	0.9	53.2%	49.8%	0.9	64.0%	64.0%	1.0	54.8%
Malaysia	46.2%	43.8%	0.9	48.9%	43.1%	0.9	54.4%	48.4%	0.9	44.0%
Mexico	37.7%	35.1%	0.9	55.1%	45.5%	0.8	75.7%	68.1%	0.9	38.3%
Morocco	37.9%	30.5%	0.8	34.5%	26.0%	0.8	46.0%	38.6%	0.8	39.3%
Netherlands	71.1%	61.7%	0.9	57.1%	35.1%	0.6	67.0%	61.2%	0.9	41.4%
Panama	41.5%	36.5%	0.9	44.5%	39.7%	0.9	79.3%	77.2%	1.0	58.2%

Women personally knows an entrepreneur	Ratio W/M	Men easy to start a business	Women easy to start a business	Ratio W/M	Men new business is good career	Women new business is good career	Ratio W/M	Men business high status	Women business high status	Ratio W/M	Men good media on new business	Women good media on new business	Ratio W/M
52.9%	0.9	51.0%	59.6%	1.2	40.4%	62.8%	1.6	80.8%	74.7%	0.9	50.6%	80.5%	1.6
33.1%	0.8	24.5%	22.2%	0.9	49.3%	51.6%	1.0	74.2%	76.8%	1.0	47.3%	66.3%	1.4
32.5%	0.9	62.5%	57.3%	0.9	74.7%	50.0%	0.7	64.2%	74.8%	1.2	62.1%	54.0%	0.9
35.6%	0.8	13.2%	11.3%	0.9	58.8%	50.6%	0.9	58.8%	77.2%	1.3	55.2%	50.1%	0.9
26.5%	0.7	15.9%	12.7%	0.8	86.9%	64.5%	0.7	77.9%	73.7%	0.9	57.7%	76.6%	1.3
28.7%	0.7	53.0%	49.9%	0.9	78.6%	22.7%	0.3	65.7%	53.3%	0.8	52.3%	61.9%	1.2
30.6%	0.8	39.2%	33.9%	0.9	66.8%	55.2%	0.8	63.1%	76.8%	1.2	72.5%	56.3%	0.8
37.1%	0.9	17.6%	17.1%	1.0	22.9%	75.7%	3.3	49.7%	69.7%	1.4	56.9%	83.8%	1.5
37.0%	0.8	38.4%	40.0%	1.0	50.2%	48.8%	1.0	52.6%	73.4%	1.4	54.8%	63.5%	1.2
44.5%	0.9	19.4%	13.3%	0.7	67.5%	79.9%	1.2	67.1%	87.4%	1.3	51.2%	74.6%	1.5
38.2%	0.8	41.9%	40.9%	1.0	78.9%	38.1%	0.5	83.2%	80.2%	1.0	66.9%	50.9%	0.8
32.3%	0.9	56.2%	51.2%	0.9	63.0%	56.2%	0.9	68.9%	58.3%	0.8	28.2%	61.0%	2.2
28.4%	0.7	65.9%	56.8%	0.9	72.5%	67.1%	0.9	82.5%	76.7%	0.9	68.0%	63.5%	0.9
36.2%	0.9	78.4%	69.1%	0.9	56.6%	74.8%	1.3	85.4%	81.6%	1.0	72.2%	72.9%	1.0
7.5%	0.5	42.5%	30.7%	0.7	58.1%	75.6%	1.3	70.1%	82.6%	1.2	55.4%	68.2%	1.2
42.0%	0.8	12.7%	11.8%	0.9	65.1%	62.6%	1.0	67.4%	78.4%	1.2	49.4%	73.4%	1.5
28.8%	0.8	35.9%	35.5%	1.0	65.6%	72.4%	1.1	43.1%	68.1%	1.6	52.4%	57.3%	1.1
21.0%	0.8	56.0%	49.5%	0.9	61.3%	73.4%	1.2	74.8%	76.9%	1.0	81.7%	81.8%	1.0
19.6%	0.7	65.5%	66.7%	1.0	67.4%	64.6%	1.0	85.3%	61.6%	0.7	61.8%	71.6%	1.2
37.1%	0.8	13.8%	11.4%	0.8	60.8%	78.9%	1.3	71.3%	80.2%	1.1	69.0%	86.0%	1.2
25.9%	0.7	18.3%	17.6%	1.0	18.3%	43.5%	2.4	53.8%	47.5%	0.9	79.5%	47.9%	0.6
70.5%	1.0	17.7%	15.9%	0.9	63.4%	64.7%	1.0	75.9%	68.2%	0.9	63.9%	50.9%	0.8
36.1%	0.7	29.2%	24.2%	0.8	55.4%	60.6%	1.1	70.2%	51.9%	0.7	72.7%	46.0%	0.6
31.5%	0.9	50.8%	50.3%	1.0	93.3%	58.6%	0.6	70.4%	42.8%	0.6	48.4%	55.0%	1.1
54.1%	0.9	34.2%	32.7%	1.0	70.4%	77.5%	1.1	72.8%	57.6%	0.8	79.1%	62.9%	0.8
20.2%	0.6	26.6%	21.0%	0.8	47.2%	60.7%	1.3	71.4%	68.7%	1.0	48.5%	50.5%	1.0
16.2%	0.7	56.0%	53.7%	1.0	74.6%	60.5%	0.8	79.7%	61.7%	0.8	64.8%	48.8%	0.8
54.3%	1.0	33.7%	31.8%	0.9	60.5%	83.0%	1.4	68.4%	66.5%	1.0	54.7%	52.9%	1.0
40.3%	0.9	67.6%	67.2%	1.0	58.1%	84.7%	1.5	47.9%	74.5%	1.6	43.7%	45.6%	1.0
33.0%	0.9	38.9%	38.1%	1.0	87.0%	48.1%	0.6	78.1%	69.2%	0.9	46.8%	42.7%	0.9
47.1%	0.8	26.7%	26.4%	1.0	66.7%	50.9%	0.8	68.2%	69.7%	1.0	55.2%	67.5%	1.2
32.0%	0.8	76.9%	72.4%	0.9	83.8%	67.9%	0.8	62.9%	67.1%	1.1	64.9%	48.8%	0.8
52.2%	1.0	46.6%	44.0%	0.9	57.9%	61.3%	1.1	75.5%	70.6%	0.9	77.0%	45.6%	0.6
40.0%	0.9	51.8%	53.3%	1.0	49.2%	64.4%	1.3	71.0%	73.2%	1.0	62.2%	56.6%	0.9
30.5%	0.8	75.2%	72.9%	1.0	57.0%	53.3%	0.9	76.1%	47.7%	0.6	60.7%	48.2%	0.8
29.9%	0.8	22.1%	26.4%	1.2	45.8%	59.0%	1.3	45.2%	76.0%	1.7	42.5%	77.4%	1.8
30.5%	0.7	51.6%	48.8%	0.9	64.5%	59.0%	0.9	73.7%	59.6%	0.8	83.3%	71.5%	0.9
54.2%	0.9	21.7%	21.0%	1.0	68.3%	67.6%	1.0	69.1%	85.7%	1.2	49.3%	53.7%	1.1

Table A7 (continued)

	Men opportunity perceptions	Women opportunity perceptions	Ratio W/M	Men capability perceptions	Women capability perceptions	Ratio W/M	Men undeterred by fear of failure	Women undeterred by fear of failure	Ratio W/M	Men personally knows an entrepreneur
Peru	56.4%	55.6%	1.0	73.9%	69.7%	0.9	63.1%	63.2%	1.0	56.9%
Poland	69.4%	67.5%	1.0	53.8%	39.4%	0.7	62.0%	44.4%	0.7	42.3%
Puerto Rico	38.8%	31.8%	0.8	52.1%	43.3%	0.8	74.6%	74.3%	1.0	19.5%
Qatar	55.9%	46.7%	0.8	55.0%	41.5%	0.8	69.5%	66.0%	0.9	47.1%
Russian Federation	22.3%	23.3%	1.0	33.1%	22.2%	0.7	60.4%	50.4%	0.8	38.8%
Saudi Arabia	78.5%	73.4%	0.9	84.9%	81.4%	1.0	53.4%	54.7%	1.0	80.4%
Slovak Republic	42.7%	32.0%	0.7	61.0%	45.4%	0.7	67.6%	49.4%	0.7	37.2%
Slovenia	46.7%	37.1%	0.8	59.3%	42.1%	0.7	67.2%	55.1%	0.8	43.1%
South Africa	47.5%	39.1%	0.8	46.2%	34.1%	0.7	66.2%	59.2%	0.9	32.9%
Spain	30.8%	27.3%	0.9	54.5%	42.4%	0.8	57.9%	53.6%	0.9	37.1%
Sudan	71.2%	70.7%	1.0	80.5%	68.7%	0.9	69.0%	61.7%	0.9	63.3%
Sweden	83.0%	79.8%	1.0	48.2%	28.4%	0.6	56.9%	45.1%	0.8	43.5%
Switzerland	50.3%	40.1%	0.8	46.1%	26.2%	0.6	61.8%	54.6%	0.9	32.3%
Taiwan, China	25.4%	28.1%	1.1	33.6%	22.8%	0.7	57.9%	49.8%	0.9	40.9%
Thailand	53.0%	47.3%	0.9	55.2%	46.9%	0.8	39.3%	30.2%	0.8	33.3%
Turkey	46.9%	41.5%	0.9	65.5%	47.9%	0.7	69.9%	60.6%	0.9	32.7%
United Arab Emirates	66.1%	67.8%	1.0	55.4%	49.2%	0.9	76.1%	72.1%	0.9	28.7%
United Kingdom	48.4%	39.5%	0.8	56.5%	36.8%	0.7	62.5%	56.0%	0.9	37.2%
United States	74.0%	65.7%	0.9	62.1%	49.5%	0.8	62.7%	54.6%	0.9	43.5%
Uruguay	29.2%	28.6%	1.0	65.7%	52.8%	0.8	62.5%	60.5%	1.0	43.5%
Vietnam	46.6%	46.2%	1.0	53.2%	52.8%	1.0	46.3%	43.2%	0.9	60.2%
Global average	47.3%	42.1%	0.9	55.6%	43.4%	0.8	61.7%	54.7%	0.9	42.2%

Regional average										
East and South Asia and Pacific	44.2%	40.3%	0.9	47.8%	39.2%	0.8	55.8%	51.7%	0.9	45.1%
Europe and Central Asia	43.7%	38.5%	0.9	53.1%	38.5%	0.7	59.4%	51.3%	0.9	37.9%
Latin America and the Caribbean	49.2%	45.4%	0.9	63.7%	53.3%	0.8	71.2%	64.4%	0.9	44.1%
Middle East and North Africa	54.1%	46.5%	0.9	60.7%	48.5%	0.8	61.4%	53.2%	0.9	49.9%
North America	70.9%	63.3%	0.9	62.2%	49.4%	0.8	57.5%	51.7%	0.9	43.1%
Sub-Saharan Africa	50.9%	46.2%	0.9	56.0%	51.7%	0.9	70.1%	66.5%	0.9	47.4%

Income level										
High income	49.5%	43.3%	0.9	55.2%	41.6%	0.8	60.8%	53.6%	0.9	40.6%
Upper-middle income	40.2%	37.3%	0.9	55.9%	44.4%	0.8	64.3%	56.4%	0.9	43.0%
Low and lower-middle income	51.5%	46.6%	0.9	57.4%	50.3%	0.9	60.5%	56.7%	0.9	48.6%

Women personally knows an entrepreneur	Ratio W/M	Men easy to start a business	Women easy to start a business	Ratio W/M	Men new business is good career	Women new business is good career	Ratio W/M	Men business high status	Women business high status	Ratio W/M	Men good media on new business	Women good media on new business	Ratio W/M
49.6%	0.9	66.6%	62.3%	0.9	55.5%	47.9%	0.9	52.8%	61.1%	1.2	55.7%	57.2%	1.0
37.9%	0.9	24.1%	13.5%	0.6	55.2%	54.3%	1.0	60.9%	82.4%	1.4	60.9%	74.6%	1.2
17.3%	0.9	42.5%	35.8%	0.8	63.8%	87.5%	1.4	68.1%	76.1%	1.1	43.7%	55.7%	1.3
35.8%	0.8	48.6%	44.5%	0.9	68.7%	62.2%	0.9	75.3%	68.0%	0.9	73.3%	59.7%	0.8
32.8%	0.8	31.0%	28.1%	0.9	53.0%	69.9%	1.3	51.7%	74.4%	1.4	50.5%	72.1%	1.4
77.3%	1.0	52.2%	55.0%	1.1	63.8%	60.8%	1.0	74.5%	65.9%	0.9	75.4%	67.1%	0.9
32.7%	0.9	74.2%	73.8%	1.0	48.8%	58.4%	1.2	73.9%	72.8%	1.0	63.0%	50.3%	0.8
33.5%	0.8	64.6%	50.8%	0.8	45.0%	79.6%	1.8	70.2%	63.1%	0.9	52.5%	64.6%	1.2
27.6%	0.8	21.1%	27.4%	1.3	62.3%	62.4%	1.0	61.8%	62.5%	1.0	71.5%	24.7%	0.3
29.6%	0.8	63.6%	67.9%	1.1	78.4%	51.1%	0.7	70.1%	52.1%	0.7	82.6%	60.7%	0.7
55.3%	0.9	34.5%	23.0%	0.7	55.2%	52.3%	0.9	70.2%	67.6%	1.0	66.7%	75.3%	1.1
34.7%	0.8	60.9%	56.7%	0.9	61.6%	95.4%	1.5	80.4%	72.9%	0.9	50.3%	59.2%	1.2
24.4%	0.8	48.1%	43.0%	0.9	62.7%	70.9%	1.1	79.0%	67.4%	0.9	75.5%	70.5%	0.9
41.1%	1.0	18.7%	20.9%	1.1	45.9%	53.3%	1.2	59.7%	68.5%	1.1	50.7%	61.1%	1.2
25.4%	0.8	44.6%	47.6%	1.1	81.3%	69.9%	0.9	81.5%	83.1%	1.0	87.7%	62.9%	0.7
17.8%	0.5	26.4%	40.7%	1.5	58.9%	64.4%	1.1	61.2%	73.1%	1.2	52.6%	77.0%	1.5
25.8%	0.9	21.2%	34.5%	1.6	64.3%	62.8%	1.0	75.6%	77.3%	1.0	55.9%	74.9%	1.3
29.4%	0.8	59.4%	46.0%	0.8	55.2%	81.9%	1.5	74.9%	71.5%	1.0	60.0%	48.3%	0.8
33.7%	0.8	48.5%	68.2%	1.4	64.0%	77.0%	1.2	79.0%	82.4%	1.0	76.5%	69.9%	0.9
33.4%	0.8	64.8%	46.2%	0.7	61.1%	66.9%	1.1	80.1%	69.3%	0.9	51.3%	85.4%	1.7
59.9%	1.0	16.8%	23.5%	1.4	62.1%	54.0%	0.9	72.4%	56.1%	0.8	69.3%	46.5%	0.7
34.9%	0.8	42.5%	39.1%	0.9	62.2%	61.9%	1.0	68.0%	66.7%	1.0	59.7%	59.8%	1.0
59.6%	1.3	45.9%	45.4%	1.0	62.9%	61.4%	1.0	70.4%	69.8%	1.0	72.0%	71.9%	1.0
69.2%	1.8	41.3%	36.5%	0.9	59.7%	59.6%	1.0	65.9%	65.0%	1.0	53.8%	53.2%	1.0
64.4%	1.5	38.0%	36.3%	1.0	62.6%	63.7%	1.0	60.3%	58.3%	1.0	59.0%	61.8%	1.0
58.1%	1.2	45.8%	40.1%	0.9	65.0%	63.7%	1.0	77.5%	78.4%	1.0	62.9%	63.0%	1.0
64.9%	1.5	50.0%	45.4%	0.9	63.1%	63.3%	1.0	77.2%	76.6%	1.0	75.5%	74.6%	1.0
57.6%	1.2	44.8%	45.1%	1.0	76.2%	76.8%	1.0	77.4%	77.0%	1.0	66.3%	67.7%	1.0
33.2%	0.8	44.0%	38.9%	0.9	59.4%	58.8%	1.0	66.2%	64.4%	1.0	58.3%	58.1%	1.0
35.2%	0.8	35.4%	34.4%	1.0	65.2%	65.0%	1.0	69.0%	68.4%	1.0	60.3%	61.5%	1.0
42.5%	0.9	50.1%	49.0%	1.0	70.4%	70.6%	1.0	74.8%	74.6%	1.0	65.2%	65.1%	1.0



**Table A8. Changes in Total Entrepreneurial Activity rates and necessity motivations: Rates and gender ratios for the adult population in 54 economies, grouped by region and income level**

Source: GEM 2017–2018

	2016/15 women TEA	2018/17 women TEA	% change	2016/15 ratio W/M TEA	2018/17 ratio W/M TEA	% change	2016/15 women necessity TEA	2018/17 women necessity TEA	% change	2016/15 ratio W/M necessity TEA	2018/17 ratio W/M necessity TEA	% change
Argentina	13.1	8.1	–38%	0.8	0.8	–2%	40.1	35.7	–11%	1.7	1.7	–2%
Australia	11.5	9.2	–20%	0.7	0.6	–8%	21.5	18.9	–12%	1.6	1.2	–25%
Austria	8.1	7.9	–2%	0.7	0.6	–21%	18.8	15.1	–20%	1.4	0.9	–35%
Brazil	19.9	17.3	–13%	1.0	0.9	–10%	47.7	44.0	–8%	1.3	1.4	8%
Bulgaria	4.3	5.5	28%	0.8	0.8	6%	30.2	34.5	14%	1.0	1.5	56%
Canada	13.3	17.0	28%	0.7	0.8	27%	14.2	10.3	–27%	1.0	0.6	–38%
Chile	19.8	21.2	7%	0.7	0.7	6%	28.4	30.6	8%	1.5	1.7	9%
China	8.6	9.3	8%	0.7	0.8	12%	30.3	26.0	–14%	1.2	0.9	–29%
Colombia	24.7	17.8	–28%	0.8	0.7	–12%	17.1	14.2	–17%	1.8	1.3	–27%
Croatia	5.6	7.1	26%	0.5	0.6	17%	40.3	32.4	–20%	1.6	1.0	–36%
Cyprus	7.3	2.9	–60%	0.4	0.6	41%	28.3	10.3	–64%	1.3	0.8	–35%
Ecuador	30.2	30.6	1%	0.9	1.1	19%	30.6	46.5	52%	1.2	1.2	3%
Egypt	7.5	5.3	–29%	0.4	0.4	4%	26.7	48.5	82%	0.8	1.0	27%
Estonia	11.7	14.3	22%	0.6	0.6	4%	17.5	21.0	20%	1.0	1.2	25%
France	3.4	5.3	55%	0.5	0.8	61%	11.7	25.0	113%	1.1	1.2	9%
Germany	3.1	3.3	7%	0.5	0.5	–3%	21.9	16.2	–26%	1.0	1.0	–5%
Greece	4.8	3.9	–19%	0.7	0.4	–39%	37.4	28.2	–25%	1.2	2.8	133%
Guatemala	16.4	24.5	50%	0.7	0.8	18%	45.1	43.8	–3%	1.4	1.4	0%
India	7.6	8.7	14%	0.6	0.6	10%	33.1	49.7	50%	0.9	1.1	23%
Indonesia	15.6	14.1	–9%	1.2	1.0	–19%	12.5	28.0	125%	0.7	1.2	70%
Iran	8.9	6.5	–27%	0.5	0.5	–6%	29.0	30.1	4%	0.8	0.8	–4%
Ireland	7.3	7.5	3%	0.5	0.6	27%	17.5	19.7	12%	1.2	1.0	–16%
Israel	9.4	9.1	–3%	0.7	0.7	2%	12.5	10.8	–14%	0.7	0.5	–28%
Italy	3.3	2.8	–15%	0.6	0.5	–13%	5.9	10.7	81%	0.4	1.0	131%
Kazakhstan	9.5	11.3	19%	0.9	1.0	13%	28.3	14.9	–47%	1.3	0.7	–43%
Korea, Republic	5.3	12.2	130%	0.7	0.7	9%	23.1	20.0	–13%	0.9	0.9	–4%
Latvia	9.6	10.9	13%	0.5	0.6	22%	16.2	18.9	17%	1.3	0.8	–40%
Lebanon	16.1	17.4	8%	0.6	0.6	–9%	37.2	35.7	–4%	0.9	1.0	8%
Luxembourg	6.5	8.6	32%	0.6	0.7	21%	11.7	4.7	–60%	1.1	0.3	–74%
Malaysia	4.5	20.1	350%	0.9	0.9	–4%	11.1	7.7	–31%	0.5	1.2	130%
Mexico	10.0	11.1	11%	1.1	0.6	–41%	19.1	29.3	53%	1.1	1.3	13%
Morocco	4.5	4.3	–4%	0.7	0.5	–28%	25.4	27.6	9%	0.9	0.8	–5%
Netherlands	8.6	8.3	–4%	0.6	0.5	–21%	41.7	9.6	–77%	5.4	1.1	–79%
Panama	12.3	13.9	13%	0.9	1.0	16%	21.1	12.3	–42%	2.2	0.9	–60%
Peru	24.0	20.9	–13%	0.9	0.9	–4%	13.2	23.0	75%	1.1	1.0	–6%
Poland	8.1	4.5	–44%	0.6	0.8	23%	31.8	5.0	–84%	1.4	0.5	–66%
Puerto Rico	7.7	8.3	8%	0.6	0.5	–6%	31.9	26.4	–17%	1.1	1.3	20%

	2016/15 women TEA	2018/17 women TEA	% change	2016/15 ratio W/M TEA	2018/17 ratio W/M TEA	% change	2016/15 women necessity TEA	2018/17 women necessity TEA	% change	2016/15 ratio W/M necessity TEA	2018/17 ratio W/M necessity TEA	% change
Qatar	6.8	8.4	23%	0.8	1.0	16%	5.6	16.3	189%	0.5	1.0	101%
Russia	5.7	3.9	-31%	0.8	0.5	-35%	31.7	51.2	61%	1.1	1.6	45%
Saudi Arabia	9.7	8.5	-13%	0.8	0.6	-24%	5.9	38.9	559%	0.7	1.5	115%
Slovakia	7.6	9.0	18%	0.7	0.6	-13%	47.4	28.1	-41%	1.3	1.1	-21%
Slovenia	5.1	3.8	-25%	0.5	0.4	-8%	29.4	32.4	10%	1.6	1.6	-3%
South Africa	5.9	9.0	53%	0.7	0.7	-5%	27.1	34.1	26%	1.3	1.9	46%
Spain	4.7	6.0	29%	0.8	0.9	10%	25.1	26.7	7%	0.9	1.4	51%
Sweden	6.3	4.0	-37%	0.7	0.4	-41%	2.3	1.3	-42%	0.4	0.1	-72%
Switzerland	5.3	4.7	-12%	0.5	0.5	-2%	18.3	11.4	-38%	1.5	2.2	43%
Taiwan	5.2	8.8	71%	0.5	0.9	92%	17.2	24.7	43%	0.7	1.0	45%
Thailand	15.7	19.3	23%	0.8	1.0	15%	23.1	18.7	-19%	1.4	1.1	-23%
Turkey	10.0	8.4	-16%	0.4	0.4	-6%	22.5	11.9	-47%	1.5	0.6	-56%
United Arab Emirates	3.7	10.1	173%	0.6	0.9	65%	38.5	21.3	-45%	1.4	1.0	-28%
United Kingdom	5.6	5.4	-4%	0.5	0.5	4%	14.1	16.8	19%	1.1	1.5	42%
United States	10.5	13.6	30%	0.7	0.8	8%	12.0	8.1	-32%	1.1	0.9	-13%
Uruguay	9.9	12.3	24%	0.5	0.6	20%	35.3	35.0	-1%	1.5	1.4	-6%
Vietnam	15.5	24.7	59%	1.3	1.1	-15%	43.8	18.1	-59%	1.5	1.4	-11%
<b>Global average</b>	<b>9.7</b>	<b>9.8</b>	<b>1%</b>	<b>0.7</b>	<b>0.7</b>	<b>4%</b>	<b>24.6</b>	<b>25.5</b>	<b>4%</b>	<b>1.2</b>	<b>1.2</b>	<b>-4%</b>

<b>Regional average</b>												
East and South Asia and Pacific	9.9	13.4	35%	0.8	0.9	4%	24.0	23.4	-2%	1.1	1.0	-3%
Europe and Central Asia	6.6	6.1	-7%	0.6	0.6	5%	23.9	19.5	-18%	1.3	1.1	-15%
Latin America and the Caribbean	17.1	17.3	1%	0.8	0.8	-5%	30.0	32.3	8%	1.4	1.4	-3%
Middle East and North Africa	8.3	8.1	-3%	0.6	0.6	-3%	22.6	30.6	35%	0.8	1.0	18%
North America	11.9	15.0	26%	0.7	0.8	17%	13.1	9.1	-30%	1.0	0.8	-27%
Sub-Saharan Africa	5.9	9.0	53%	0.7	0.7	-5%	27.1	34.1	26%	1.3	1.9	46%

<b>Income level</b>												
High income	7.8	8.1	4%	0.6	0.7	10%	22.2	21.4	-3%	1.3	1.2	-6%
Upper-middle income	12.9	13.4	4%	0.8	0.8	-2%	27.8	29.8	7%	1.2	1.2	0%
Low and lower-middle income	10.1	10.5	4%	0.8	0.8	-10%	28.3	31.3	11%	1.0	1.0	-1%

**Table A9. Changes in intentions and established business activity: Rates and gender ratios for the adult population in 54 economies, grouped by region and income level**

Source: GEM 2017–2018

	2016/15 women intentions	2018/17 women intentions	% change	2016/15 ratio W/M intentions	2018/17 ratio W/M intentions	% change	2016/15 women established business ownership	2018/17 women established business ownership	% change	2016/15 ratio W/M established business ownership	2018/17 ratio W/M established business ownership	% change
Argentina	25.7%	13.9%	–46%	0.8	0.9	12%	4.5%	6.9%	55%	0.4	0.6	57%
Australia	13.0%	10.1%	–22%	0.7	1.1	51%	8.1%	6.3%	–22%	0.6	0.5	–3%
Austria	10.9%	9.3%	–15%	0.7	0.9	28%	5.9%	5.3%	–10%	0.5	0.7	38%
Brazil	27.2%	25.8%	–5%	0.9	0.8	–11%	14.3%	17.2%	20%	0.7	0.7	1%
Bulgaria	6.0%	2.4%	–60%	0.5	0.5	–9%	4.6%	7.1%	54%	0.6	0.7	26%
Canada	19.7%	11.1%	–44%	0.9	0.9	0%	6.4%	6.1%	–5%	0.9	0.7	–24%
Chile	43.0%	42.8%	0%	0.8	0.6	–27%	6.0%	7.6%	27%	0.6	0.8	34%
China	23.1%	13.8%	–40%	0.8	0.7	–8%	6.4%	2.6%	–60%	0.8	0.7	–8%
Colombia	49.4%	43.8%	–11%	0.9	0.9	6%	6.1%	4.9%	–20%	0.5	0.6	15%
Croatia	18.3%	16.3%	–11%	0.7	0.8	20%	2.6%	2.3%	–10%	0.4	0.4	–11%
Cyprus	15.9%	13.4%	–16%	0.6	0.6	–1%	5.4%	4.0%	–26%	0.5	0.5	2%
Ecuador	38.6%	47.4%	23%	0.8	0.6	–32%	13.5%	14.0%	4%	0.9	0.8	–7%
Egypt	59.3%	57.7%	–3%	0.8	0.6	–30%	1.8%	1.1%	–39%	0.2	0.1	–20%
Estonia	16.4%	13.9%	–15%	0.6	0.9	43%	5.7%	7.6%	34%	0.6	0.5	–13%
France	14.7%	14.1%	–4%	0.7	0.4	–43%	2.9%	1.8%	–39%	0.5	0.6	14%
Germany	5.5%	3.5%	–37%	0.5	1.0	101%	4.4%	5.5%	25%	0.5	0.6	27%
Greece	5.1%	5.0%	–3%	0.4	0.9	145%	10.8%	6.3%	–41%	0.6	0.4	–33%
Guatemala	35.1%	45.9%	31%	0.8	0.9	10%	8.4%	8.5%	1%	0.9	0.6	–30%
India	16.7%	19.6%	17%	0.7	1.0	32%	3.4%	5.0%	47%	0.6	0.6	–6%
Indonesia	28.0%	20.9%	–25%	0.9	0.8	–14%	15.3%	11.0%	–28%	1.0	0.9	–12%
Iran	41.5%	26.2%	–37%	0.8	0.8	0%	4.0%	4.1%	2%	0.2	0.2	–4%
Ireland	10.0%	13.9%	39%	0.4	0.9	112%	3.0%	4.7%	57%	0.5	0.5	2%
Israel	22.2%	25.0%	13%	0.8	0.6	–21%	2.8%	3.2%	14%	0.5	0.8	47%
Italy	7.6%	8.6%	14%	0.5	1.0	104%	2.6%	3.5%	35%	0.3	0.4	14%
Kazakhstan	21.5%	48.1%	124%	0.8	0.9	3%	2.6%	2.6%	1%	1.1	1.1	0%
Korea, Republic	27.7%	28.9%	4%	1.0	0.9	–10%	5.6%	9.5%	69%	0.8	0.6	–18%
Latvia	20.0%	16.3%	–19%	0.8	1.0	19%	6.9%	5.1%	–26%	0.6	0.5	–12%
Lebanon	39.7%	24.5%	–38%	0.8	0.8	8%	13.6%	14.8%	9%	0.5	0.5	0%
Luxembourg	13.3%	10.9%	–18%	0.6	0.5	–4%	2.3%	3.0%	31%	0.6	0.8	41%
Malaysia	6.3%	16.5%	160%	1.0	0.9	–8%	2.4%	3.4%	39%	0.4	0.8	128%
Mexico	15.0%	12.8%	–15%	0.9	0.6	–35%	6.5%	0.8%	–88%	0.7	0.4	–46%
Morocco	34.3%	37.0%	8%	0.9	0.6	–28%	3.0%	3.3%	11%	0.2	0.6	165%
Netherlands	6.6%	7.2%	8%	0.4	0.9	98%	5.0%	8.2%	64%	0.3	0.5	62%
Panama	13.0%	17.1%	31%	1.0	0.6	–38%	3.2%	5.2%	64%	0.6	0.7	26%
Peru	47.2%	40.5%	–14%	0.9	0.8	–14%	3.3%	6.7%	106%	0.4	0.7	83%
Poland	19.4%	8.8%	–55%	0.7	0.8	11%	4.9%	10.4%	112%	0.5	0.7	26%
Puerto Rico	19.1%	22.2%	16%	0.6	0.4	–28%	1.6%	1.0%	–36%	0.9	0.4	–61%

	2016/15 women intentions	2018/17 women intentions	% change	2016/15 ratio W/M intentions	2018/17 ratio W/M intentions	% change	2016/15 women established business ownership	2018/17 women established business ownership	% change	2016/15 ratio W/M established business ownership	2018/17 ratio W/M established business ownership	% change
Qatar	33.5%	34.6%	3%	0.8	0.9	16%	0.6%	2.7%	343%	0.2	0.6	239%
Russia	3.9%	2.3%	-42%	0.6	0.6	-7%	4.6%	4.6%	-1%	0.8	0.9	15%
Saudi Arabia	27.9%	25.1%	-10%	1.2	0.8	-35%	1.6%	3.4%	113%	0.6	1.2	113%
Slovakia	10.9%	11.1%	1%	0.7	0.7	-8%	4.0%	3.0%	-25%	0.5	0.5	-2%
Slovenia	9.7%	12.5%	28%	0.5	0.7	28%	3.6%	4.7%	30%	0.4	0.5	43%
South Africa	10.2%	10.7%	5%	0.7	0.8	21%	1.2%	1.5%	21%	0.3	0.5	64%
Spain	5.7%	5.2%	-8%	0.9	0.8	-7%	5.1%	5.5%	9%	0.7	0.8	21%
Sweden	7.8%	7.1%	-9%	0.6	1.0	61%	3.0%	3.4%	12%	0.5	0.5	-7%
Switzerland	8.5%	6.3%	-26%	0.6	0.7	14%	9.4%	7.3%	-22%	0.7	0.5	-37%
Taiwan	24.7%	20.7%	-16%	0.8	1.1	41%	5.2%	10.6%	105%	0.5	0.6	23%
Thailand	23.1%	29.3%	27%	1.0	0.9	-2%	27.5%	17.4%	-37%	1.0	0.8	-21%
Turkey	28.1%	21.7%	-23%	0.6	0.7	21%	5.3%	4.3%	-19%	0.4	0.3	-16%
United Arab Emirates	23.4%	39.6%	69%	0.4	0.7	73%	0.3%	0.7%	123%	0.1	0.2	76%
United Kingdom	8.6%	5.3%	-38%	0.6	0.9	46%	4.1%	4.0%	-2%	0.5	0.5	-11%
United States	14.9%	11.6%	-22%	0.8	1.1	27%	7.6%	5.4%	-29%	0.7	0.5	-25%
Uruguay	25.7%	20.9%	-19%	0.8	0.9	18%	4.9%	3.7%	-25%	0.5	0.5	1%
Vietnam	25.8%	24.5%	-5%	1.0	1.2	29%	22.6%	26.3%	16%	1.4	1.1	-17%
<b>Global average</b>	<b>20.9%</b>	<b>16.9%</b>	<b>-19%</b>	<b>0.7</b>	<b>0.8</b>	<b>9%</b>	<b>5.9%</b>	<b>6.0%</b>	<b>1%</b>	<b>0.6</b>	<b>0.6</b>	<b>12%</b>

<b>Regional average</b>												
East and South Asia and Pacific	20.9%	19.9%	-5%	0.9	0.9	0%	10.7%	9.6%	-11%	0.8	0.8	2%
Europe and Central Asia	11.9%	8.6%	-28%	0.6	0.7	14%	4.7%	5.4%	14%	0.5	0.6	11%
Latin America and the Caribbean	30.8%	29.9%	-3%	0.8	0.8	2%	6.6%	6.5%	-1%	0.6	0.7	7%
Middle East and North Africa	35.2%	33.6%	-5%	0.8	0.9	14%	3.5%	4.2%	21%	0.3	0.5	59%
North America	17.3%	11.4%	-34%	0.8	0.8	-9%	7.0%	5.7%	-18%	0.8	0.6	-27%
Sub-Saharan Africa	10.2%	10.7%	5%	0.7	0.8	20%	1.2%	1.5%	21%	0.3	0.5	64%

<b>Income level</b>												
High income	16.1%	12.7%	-21%	0.7	0.7	7%	4.5%	5.5%	22%	0.5	0.7	23%
Upper-middle income	25.9%	22.3%	-14%	0.8	0.8	3%	7.4%	6.5%	-13%	0.6	0.6	-5%
Low and lower-middle income	32.8%	31.6%	-4%	0.9	0.9	9%	9.2%	8.2%	-11%	0.7	0.8	15%

**Table A10. Changes in entrepreneurial perceptions and support: Rates and gender ratios for the adult population in 54 economies, grouped by region and income level**

Source: GEM 2017–2018

	2016/15 women opportunity Perceptions	2018/17 women opportunity Perceptions	% change	2016/15 ratio W/M opportunity perceptions	2018/17 ratio W/M opportunity perceptions	% change	2016/15 women capability perceptions	2018/17 women capability perceptions
Argentina	43.8	36.6	–16%	1.0	1.0	7%	57.2	39.9
Australia	45.8	48.6	6%	0.9	0.9	3%	44.5	41.3
Austria	39.7	43.8	10%	0.9	0.9	–1%	40.2	40.4
Brazil	36.4	29.3	–19%	0.8	0.9	6%	48.4	49.2
Bulgaria	18.6	18.3	–2%	0.8	0.9	14%	34.8	31.4
Canada	58.4	59.6	2%	1.0	0.9	–8%	45.4	49.2
Chile	49.1	58.6	19%	1.0	0.9	–5%	55.3	56.2
China	36.3	31.7	–13%	0.9	0.8	–12%	24.5	19.6
Colombia	50.2	55.7	11%	1.0	0.9	–2%	63.6	61.3
Croatia	22.1	30.9	40%	0.8	0.9	7%	44.3	42.0
Cyprus	35.2	45.3	29%	1.0	1.0	1%	42.3	45.3
Ecuador	44.9	50.1	11%	1.0	1.0	–2%	67.8	71.6
Egypt	47.8	32.7	–32%	0.8	0.7	–11%	33.2	34.3
Estonia	53.5	59.8	12%	1.0	1.0	–8%	38.2	43.3
France	26.6	26.5	0%	0.9	0.6	–30%	29.4	28.9
Germany	33.2	37.9	14%	0.8	0.8	4%	30.9	31.1
Greece	11.1	17.7	60%	0.7	0.9	15%	35.5	37.7
Guatemala	44.5	53.0	19%	0.8	0.9	11%	54.8	60.3
India	38.0	44.4	17%	0.8	0.8	7%	35.8	43.9
Indonesia	41.7	54.9	32%	0.9	1.0	7%	53.9	64.1
Iran	34.0	19.7	–42%	1.0	0.8	–18%	50.4	41.3
Ireland	39.6	46.4	17%	0.8	0.8	4%	34.6	38.7
Israel	52.7	55.0	4%	1.0	1.0	–1%	32.8	41.1
Italy	25.1	30.0	20%	0.8	0.8	–2%	23.5	23.2
Kazakhstan	45.0	53.4	19%	1.0	1.1	9%	46.5	63.7
Korea, Republic	34.7	43.5	25%	1.0	0.9	–6%	41.0	44.6
Latvia	35.1	36.8	5%	1.2	1.0	–16%	44.7	44.6
Lebanon	58.9	39.0	–34%	1.0	0.9	–11%	57.3	57.9
Luxembourg	45.4	53.0	17%	0.8	0.9	11%	30.2	32.7
Malaysia	24.6	43.8	78%	0.9	0.9	1%	25.8	43.1
Mexico	38.4	35.1	–9%	0.9	0.9	–2%	38.8	45.5
Morocco	43.7	30.5	–30%	0.9	0.8	–15%	44.8	26.0
Netherlands	45.5	61.7	36%	0.7	0.9	21%	27.1	35.1
Panama	39.8	36.5	–8%	0.9	0.9	0%	46.5	39.7
Peru	55.8	55.6	0%	1.0	1.0	1%	66.9	69.7



% change	2016/15 ratio W/M capability perceptions	2018/17 ratio W/M capability perceptions	% change	2016/15 women undeterred by fear of failure	2018/17 women undeterred by fear of failure	% change	2016/15 W/M ratio undeterred by fear of failure	2018/17 W/M ratio undeterred by fear of failure	% change
-30%	0.9	0.7	-22%	69.1	52.7	-24%	0.9	0.8	-13%
-7%	0.7	0.7	-2%	50.0	51.7	3%	0.8	0.8	6%
1%	0.7	0.7	5%	60.9	43.7	-28%	0.9	0.8	-14%
2%	0.8	0.8	1%	60.1	50.5	-16%	0.9	0.8	-7%
-10%	0.8	0.7	-5%	70.6	38.0	-46%	0.9	0.8	-11%
8%	0.7	0.8	9%	61.4	47.2	-23%	1.0	0.9	-6%
2%	0.8	0.8	-1%	72.3	65.0	-10%	1.0	0.9	-4%
-20%	0.7	0.7	-3%	48.3	56.4	17%	0.9	0.9	2%
-4%	0.9	0.9	-3%	77.4	67.1	-13%	1.0	0.9	-9%
-5%	0.8	0.7	-15%	59.0	54.4	-8%	0.9	0.9	0%
7%	0.7	1.0	46%	45.3	42.2	-7%	0.8	0.9	9%
6%	0.9	0.9	3%	69.4	64.8	-7%	0.9	0.9	3%
3%	0.6	0.7	20%	66.6	63.0	-5%	0.9	0.9	-1%
13%	0.8	0.8	-1%	50.4	54.2	7%	0.7	0.8	10%
-2%	0.7	0.6	-8%	56.5	58.7	4%	0.9	0.9	-3%
1%	0.7	0.7	-1%	53.6	54.0	1%	0.8	0.8	-4%
6%	0.7	0.7	-7%	36.4	29.1	-20%	0.7	0.9	30%
10%	0.8	0.9	8%	60.6	59.8	-1%	0.9	0.8	-4%
23%	0.7	0.7	6%	64.3	56.5	-12%	1.1	1.0	-7%
19%	1.0	1.0	4%	60.8	56.0	-8%	1.0	1.0	0%
-18%	0.7	0.6	-14%	51.6	55.9	8%	0.9	0.9	6%
12%	0.6	0.7	18%	58.8	53.7	-9%	1.0	0.9	-9%
25%	0.7	1.0	48%	48.9	39.9	-18%	0.9	1.0	10%
-1%	0.6	0.6	5%	46.7	44.0	-6%	0.9	0.9	2%
37%	0.9	1.0	13%	70.2	73.8	5%	1.0	1.0	1%
9%	0.8	0.8	-2%	65.2	68.7	5%	0.9	1.0	7%
0%	0.8	0.8	3%	50.7	46.9	-8%	0.7	0.8	12%
1%	0.7	0.7	0%	72.1	44.3	-39%	0.9	0.7	-20%
8%	0.6	0.6	2%	50.3	42.6	-15%	0.9	0.9	2%
67%	0.8	0.9	5%	61.4	48.4	-21%	0.9	0.9	-6%
17%	0.9	0.8	-9%	72.0	68.1	-5%	1.0	0.9	-6%
-42%	0.7	0.8	14%	67.2	38.6	-43%	1.0	0.8	-16%
30%	0.5	0.6	25%	57.7	61.2	6%	0.9	0.9	3%
-15%	0.9	0.9	-5%	72.3	77.2	7%	1.0	1.0	-2%
4%	0.9	0.9	0%	66.6	63.2	-5%	0.9	1.0	9%

Table A10 (continued)

	2016/15 women opportunity Perceptions	2018/17 women opportunity Perceptions	% change	2016/15 ratio W/M opportunity perceptions	2018/17 ratio W/M opportunity perceptions	% change	2016/15 women capability perceptions	2018/17 women capability perceptions
Poland	38.7	67.5	75%	1.0	1.0	2%	53.7	39.4
Puerto Rico	22.1	31.8	44%	0.8	0.8	5%	39.8	43.3
Qatar	47.3	46.7	-1%	1.0	0.8	-14%	36.5	41.5
Russia	18.7	23.3	25%	1.1	1.0	-5%	25.9	22.2
Saudi Arabia	75.8	73.4	-3%	0.9	0.9	6%	62.2	81.4
Slovakia	20.2	32.0	58%	0.8	0.7	-4%	37.3	45.4
Slovenia	21.3	37.1	75%	0.7	0.8	9%	45.1	42.1
South Africa	30.3	39.1	29%	0.8	0.8	9%	31.1	34.1
Spain	23.0	27.3	19%	0.8	0.9	8%	43.7	42.4
Sweden	75.3	79.8	6%	0.9	1.0	3%	26.4	28.4
Switzerland	40.6	40.1	-1%	1.0	0.8	-17%	32.4	26.2
Taiwan	26.2	28.1	7%	1.0	1.1	13%	20.4	22.8
Thailand	35.5	47.3	33%	0.9	0.9	0%	37.4	46.9
Turkey	44.9	41.5	-8%	0.8	0.9	6%	44.7	47.9
United Arab Emirates	30.3	67.8	124%	1.3	1.0	-20%	42.3	49.2
United Kingdom	37.2	39.5	6%	0.8	0.8	4%	39.1	36.8
United States	53.7	65.7	22%	0.9	0.9	1%	47.7	49.5
Uruguay	24.8	28.6	15%	0.8	1.0	29%	49.8	52.8
Vietnam	56.1	46.2	-18%	1.0	1.0	2%	54.7	52.8
<b>Global average</b>	<b>39.2</b>	<b>42.2</b>	<b>8%</b>	<b>0.9</b>	<b>0.9</b>	<b>-2%</b>	<b>41.9</b>	<b>43.2</b>

<b>Regional average</b>								
East and South Asia and Pacific	37.7	43.1	14%	0.9	0.9	-1%	37.6	42.1
Europe and Central Asia	34.6	39.2	13%	0.9	0.9	0%	37.0	38.8
Latin America and the Caribbean	40.9	45.4	11%	0.9	0.9	3%	53.5	53.3
Middle East and North Africa	48.8	43.5	-11%	1.0	0.8	-15%	44.9	46.2
North America	56.0	63.3	13%	0.9	0.9	-4%	46.6	49.4
Sub-Saharan Africa	30.3	39.1	29%	0.8	0.8	9%	31.1	34.1

<b>Income level</b>								
High income	38.8	42.3	9%	0.9	0.9	-1%	40.1	42.1
Upper-middle income	38.2	39.3	3%	0.9	0.9	2%	44.2	45.4
Low and lower-middle income	45.5	38.4	-16%	0.9	0.8	-5%	44.5	42.7

% change	2016/15 ratio W/M capability perceptions	2018/17 ratio W/M capability perceptions	% change	2016/15 women undeterred by fear of failure	2018/17 women undeterred by fear of failure	% change	2016/15 W/M ratio undeterred by fear of failure	2018/17 W/M ratio undeterred by fear of failure	% change
-27%	0.8	0.7	-9%	50.2	44.4	-12%	0.9	0.7	-22%
9%	0.7	0.8	18%	77.4	74.3	-4%	0.9	1.0	5%
14%	0.7	0.8	11%	59.1	66.0	12%	0.9	0.9	6%
-14%	0.8	0.7	-19%	47.6	50.4	6%	0.7	0.8	13%
31%	0.8	1.0	20%	48.6	54.7	12%	0.7	1.0	45%
22%	0.7	0.7	1%	52.4	49.4	-6%	0.8	0.7	-7%
-7%	0.8	0.7	-8%	65.9	55.1	-16%	1.0	0.8	-17%
10%	0.7	0.7	7%	63.4	59.2	-7%	0.9	0.9	3%
-3%	0.9	0.8	-12%	58.6	53.6	-9%	0.9	0.9	0%
8%	0.6	0.6	-1%	58.4	45.1	-23%	1.0	0.8	-19%
-19%	0.6	0.6	-5%	65.0	54.6	-16%	0.9	0.9	-2%
12%	0.7	0.7	0%	57.6	49.8	-14%	1.0	0.9	-10%
25%	0.7	0.8	13%	44.5	30.2	-32%	0.9	0.8	-12%
7%	0.7	0.7	4%	66.2	60.6	-8%	0.9	0.9	-7%
16%	0.7	0.9	29%	47.2	72.1	53%	1.1	0.9	-10%
-6%	0.7	0.7	-5%	59.2	56.0	-5%	0.9	0.9	4%
4%	0.8	0.8	4%	63.9	54.6	-15%	0.9	0.9	-6%
6%	0.8	0.8	0%	66.6	60.5	-9%	0.9	1.0	7%
-3%	0.9	1.0	7%	50.7	43.2	-15%	0.9	0.9	7%
<b>3%</b>	<b>0.8</b>	<b>0.8</b>	<b>2%</b>	<b>59.4</b>	<b>54.2</b>	<b>-9%</b>	<b>0.9</b>	<b>0.9</b>	<b>-2%</b>

12%	0.8	0.8	5%	55.9	51.9	-7%	0.9	0.9	0%
5%	0.7	0.7	2%	56.1	51.1	-9%	0.9	0.9	-1%
0%	0.9	0.8	-2%	69.4	64.4	-7%	0.9	0.9	-2%
3%	0.7	0.8	13%	57.7	52.3	-9%	0.9	0.9	-4%
6%	0.7	0.8	7%	62.7	51.7	-18%	1.0	0.9	-7%
10%	0.7	0.7	7%	63.4	59.2	-7%	0.9	0.9	3%

5%	0.7	0.8	8%	57.1	53.5	-6%	0.9	0.9	1%
3%	0.8	0.8	0%	62.7	53.3	-15%	0.9	0.9	-5%
-4%	0.8	0.8	3%	61.9	54.7	-12%	1.0	0.9	-1%





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