

# The Gender Global Entrepreneurship and Development Index (GEDI)

A 17-country pilot analysis of the conditions that foster high-potential female entrepreneurship

Produced by the Global Entrepreneurship and Development Institute

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## The Gender-GEDI Index

### Executive Report

#### Foreword

Female entrepreneurship is a key driver of a country's prosperity; by creating the conditions for women entrepreneurs to flourish, countries are investing in their national well-being and competitiveness. Yet many women founders struggle to access the capital, technology, networks and knowledge that they need to start and grow their businesses.

At Dell, we have a long-term commitment to finding solutions that will help women fulfill their ambitions and reach their potential. The Dell Women's Entrepreneur Network (DWEN), our Women Powering Business LinkedIn community, supplier diversity initiatives and Dell's internal women's organization, WISE (Women in Search of Excellence) have positively impacted more than 10,000 women. But, there's more that we can do. That's why we've invested in understanding and researching the markets in which we operate, particularly women's entrepreneurship, hoping to identify the areas that need the most support.

We recently completed a new study - The Gender GEDI research - to better understand, quantify and track this challenge over time. This research is the first index that measures and ranks conditions for high potential female entrepreneurship development in 17 countries, identifying strengths and weaknesses of each.

As the results show, there is room for improvement for all countries regardless of their level of economic development. Awareness of the current landscape is the first step toward change, and the Gender-GEDI results will provide a spotlight on the opportunities. Over the coming months, we will continue to work with the Gender-GEDI team on the additional ways that we can help support, serve and positively influence female entrepreneurship, but we also encourage policy-makers to enact change locally as well.

**Allison Dew**  
**Vice President**  
**Global Brand & Marketing, Dell**

## Introduction

*When a captain steers her ship, she is not looking down at the waves in front of her or even a few hundred meters ahead - she looks out on the horizon and focuses on her destination point - at night, for centuries, captains have used the North Star to guide them to their destination.*

The aim of the Gender-Global Entrepreneurship and Development Index (GEDI) is to identify the entrepreneurial North Star, the destination on the economic growth horizon fostering high-potential female entrepreneurship.

There is a growing understanding – among policy makers, entrepreneurship support organizations and entrepreneur associations – that laws, policies, support structures as well as cultural mores and individual motivations all form an interwoven support structure for enterprise development. Further, there is an increasing realization that there is a gender dimension to these factors; gender-blind business support measures do not support women's enterprise development to the extent that they support men-owned firms. Focusing efforts specifically on women's enterprise development, and measuring their impact, is of growing interest.

The Gender-GEDI is the world's first diagnostic tool that comprehensively identifies and analyzes the conditions that foster high-potential female entrepreneurship development. This initial 17-country pilot study provides key insights across several regions and levels of national economic development. Female entrepreneurship at large includes a vast array of activities – ranging from petty market traders and shopkeepers to biochemical company startups.

The Gender-GEDI focuses on a specific subset of female entrepreneurs, which we refer to as high-potential, female entrepreneurs: women business owners who own and operate businesses that are 'innovative, market expanding and export oriented'. Through their entrepreneurial activities, high-potential female entrepreneurs not only contribute to improving their own economic welfare but to the economic and social fabric of society through job creation, innovative products, processes, and services, and cross-border trade. By focusing on the gender differentiated conditions that often affect high-potential female entrepreneurship development, the Gender-GEDI brings a new systematic approach that allows for cross-country comparison and benchmarking.

Globally, women and men are not on a level-playing field in terms of access to resources, which continues to impact women's ability to start and grow businesses. The Gender-GEDI focuses specifically on identifying and assessing the gendered nature of factors that, if addressed, could allow high potential female entrepreneurs an equal chance to flourish.

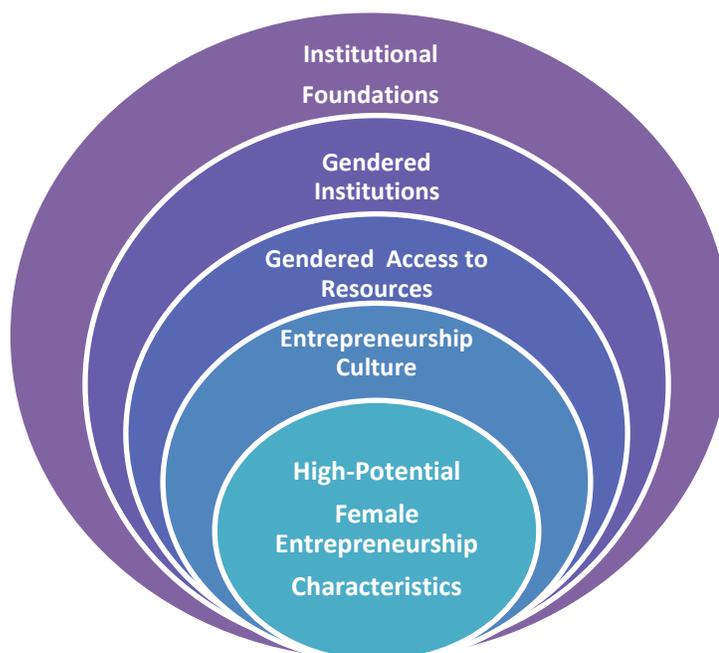
## Conceptualizing High Potential

### Female Entrepreneurship

The conditions and characteristics that lead to high-potential female entrepreneurship occur on multiple levels. Female entrepreneurs, like their male counterparts, are influenced by the general business environment where they live. If the general business environment is unstable, or if the procedures for starting, running or exiting a business are highly regulated or bureaucratic, this would form a disincentive for male and female startups alike. In some cases, formal institutions or cultural conditions create additional barriers for women that make it more difficult to start or grow a business enterprise. Such conditions can include diminished legal rights (either for all women or with respect to rights that a woman may give up when she marries) or restrictions to a woman's activities outside of the home or her ability to travel within her community, outside her community or outside her country. This combination of gendered attitudes, social norms and beliefs can result in more limited access to resources critical for development such as education, skills and finance.

Attitudes also play a crucial role in forming opinions that create a country's 'entrepreneurial culture,' meaning how the general population views entrepreneurial endeavors, risk assessment, and acceptance of business ownership as a viable career option. This cultural environment in turn influences individual opportunity recognition and willingness to take the risk to start a new venture. The interaction between these five layers is captured in the Gender-GEDI conceptual model shown in Figure 1.

Figure 1: The Gender-GEDI Model



### Key Findings

The Gender-GEDI Index's unique methodology brings together variables that measure individuals and institutions in a composite index that highlights issues relevant for high-potential female entrepreneurship development and growth. Thirty individual-level and institutional-level dimensions are paired together into 15 pillars that are further divided into three main sub-indices: Entrepreneurial Environment, Entrepreneurial Eco-System and Entrepreneurial Aspirations. (See the Data and Methodology section for a more detailed explanation of the sources of all of these variables.)

Our initial analysis, focusing on 17 countries representing a variety of regions and economic development contexts, places the United States in first place followed by Australia, Germany, France and Mexico. Rounding out the top ten are the United Kingdom, South Africa, China, Malaysia, and Russia.

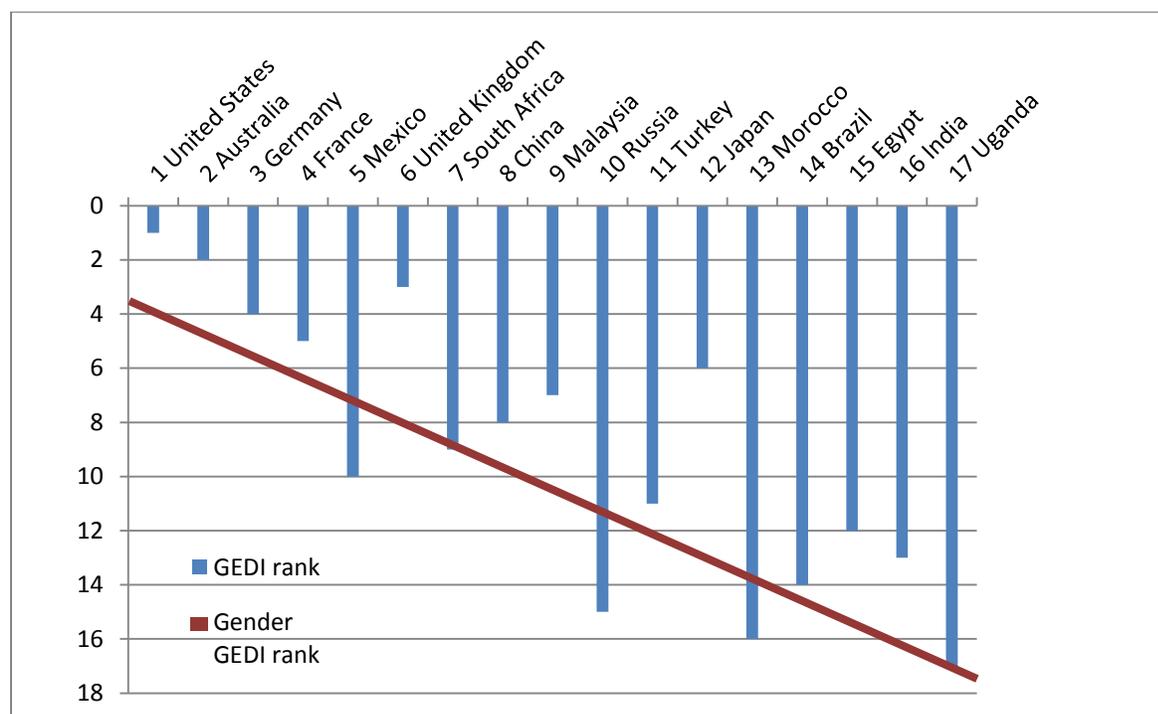
**Table 1: The overall Gender-GEDI rankings for 17 countries**

<u>Rank</u>	<u>Country</u>	<u>Overall score</u>	<u>Rank</u>	<u>Country</u>	<u>Overall score</u>
1	United States	76	10	Russia	40
2	Australia	70	11	Turkey	40
3	Germany	63	12	Japan	39
4	France	56	13	Morocco	38
5	Mexico	55	14	Brazil	36
6	United Kingdom	51	15	Egypt	34
7	South Africa	43	16	India	32
8	China	41	17	Uganda	32
9	Malaysia	40			

It is important to note that there is room for improvement even among top-ranked countries on the Gender-GEDI Index, as the United States achieves just 76 on the 100-point scale. In addition, even among the ten top-ranked countries there is a distinct gap between the United States and Australia, which draw scores of 76 and 70, and the next four countries. There is also a further gap between 6<sup>th</sup>-ranked United Kingdom (which has a score of 51) and 7<sup>th</sup>-ranked South Africa, which pulls a score of 43.

It is also of interest to compare how countries rank with respect to their Gender-GEDI ranking and their original Global Entrepreneurship and Development Index (GEDI)<sup>1</sup> ranking, which does not differentiate between sex or include any gender-specific variables. Six countries are rated more highly with respect to high-potential women's entrepreneurial development than with respect to general entrepreneurial conditions, five countries' ranks worsen and six countries' relative ranks are similar for both. The top two ranked countries, the United States (#1) and Australia (#2), maintain their relative ranks in both the Gender-GEDI and the GEDI Index. The two countries whose ranks increased to the greatest degree relative to the other 16 countries included in the Gender-GEDI were Mexico (who moved up from 10<sup>th</sup> place in the GEDI to 5<sup>th</sup> place in the Gender-GEDI) and Russia (who moved up from 15<sup>th</sup> place in the GEDI to 10<sup>th</sup> place in the Gender-GEDI). In terms of greatest decrease to final rank, Japan's rank dropped 6 places from being 6<sup>th</sup> in the GEDI to 12<sup>th</sup> in the Gender-GEDI, and the UK's relative ranking dropped by 3 places, from being 3<sup>rd</sup> in the GEDI to 6<sup>th</sup> place in the Gender-GEDI. Egypt and India's relative rankings also decreased by 3 places, from 12<sup>th</sup> to 15<sup>th</sup> for Egypt and from 13<sup>th</sup> to 16<sup>th</sup> for India.

Figure 2: The Gender-GEDI and GEDI rankings compared



Key: Blue columns that go beyond the red trend line indicate countries that receive higher relative ranks in the Gender-GEDI Index; blue columns that are shorter than the red trend line indicate countries that receive lower scores in the Gender-GEDI index and blue columns that reach the red trend line indicate no change in rank for the Gender-GEDI and GEDI scores.

Source: Gender-GEDI Index (2013)

Reviewing the results of this first pilot Gender-GEDI analysis, including the scores of the countries with respect to the indices and sub indices, leads to the following overall points:

- There is no single determinant or silver bullet for fostering high-potential female entrepreneurship.
- Filling the female startup education gap is an important area for improvement for many countries.
- Economic development alone is not enough to foster high-potential female entrepreneurs.
- Business formalization is important for successful, scalable enterprises – especially with respect to improving access to capital.
- Business freedom (meaning removing legal and regulatory impediments to growth) is a necessary condition for a vibrant entrepreneurial economy.
- Social norms are a frequently-hidden barrier: lifting the cultural veil that can restrict a woman's entrepreneurial vision is critical to unleashing female entrepreneurial potential.

Each of these points will be discussed briefly in the following sections of this executive report (and covered in greater detail in a full analytical report, which also includes individual country level data and regional analyses).

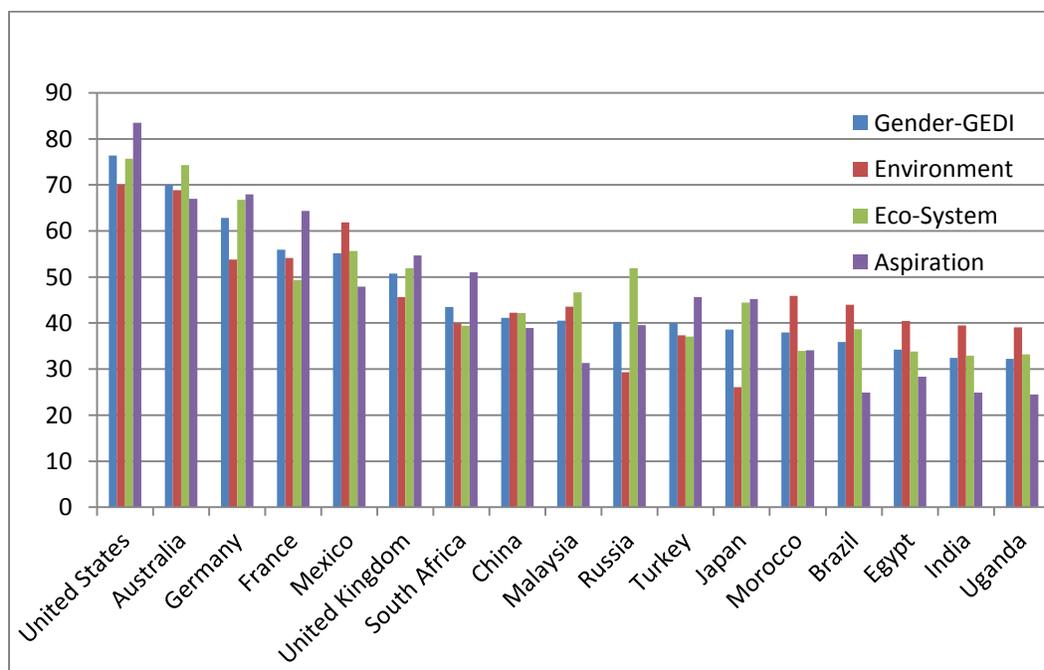
## 1. No single recipe for success exists

Looking at how high-ranking countries compare with respect to the major factors of entrepreneurial environment, institutional ecosystem and individual aspirations shows that there is no single recipe for success – leading countries blend together different factors in varying amounts to achieve success. Figure 3 below compares the overall Gender-GEDI ranking with the overall scores for the individual sub indices: Entrepreneurial Environment, Entrepreneurial Eco-System and Entrepreneurial Aspirations<sup>2</sup>. In most cases, and especially for the top performers, the three sub index scores are at similar levels – usually with less than a 10-point score difference. More balanced scores are able to provide an environment supportive for current and future high-potential female entrepreneurship development.

Other countries show spikes or deeper dips in certain sub indices. Russia's score for the Entrepreneurial Eco-System is as far above average as the Entrepreneurial Environment sub index is below average, showing very uneven conditions for startup activity. Russia also scores well in high-potential female entrepreneurship startup activity in terms of a high percentage of female startup entrepreneurs that are highly educated, opportunity driven and engaged in the technology sector. However, the country has much lower scores for opportunity recognition and startup skills among the female population as a whole.

It is interesting to note that whereas several high-income, developed countries show clearly lower scores for the Entrepreneurial Environment sub index (Germany & Japan), a number of developing and middle-income countries have their highest scores in the Entrepreneurial Environment sub index. This indicates a greater receptiveness in terms of opportunity recognition and skills to start new ventures.

Figure 3: Gender-GEDI overall country scores and sub index scores



Source: Gender-GEDI Index (2013)

## 2. Addressing the female entrepreneur education gap is critical

The percentage of highly-educated women (those that have participated in some form of post-secondary education) is increasing, but in many countries, they are not choosing to become entrepreneurs. In fact, in some countries the percentage gap of the highly-educated female population is 20% or greater than the percentage of highly-educated female business owners. This is the case in Brazil (45% difference), Morocco (45% difference), Malaysia (28% difference) and China (31% difference).

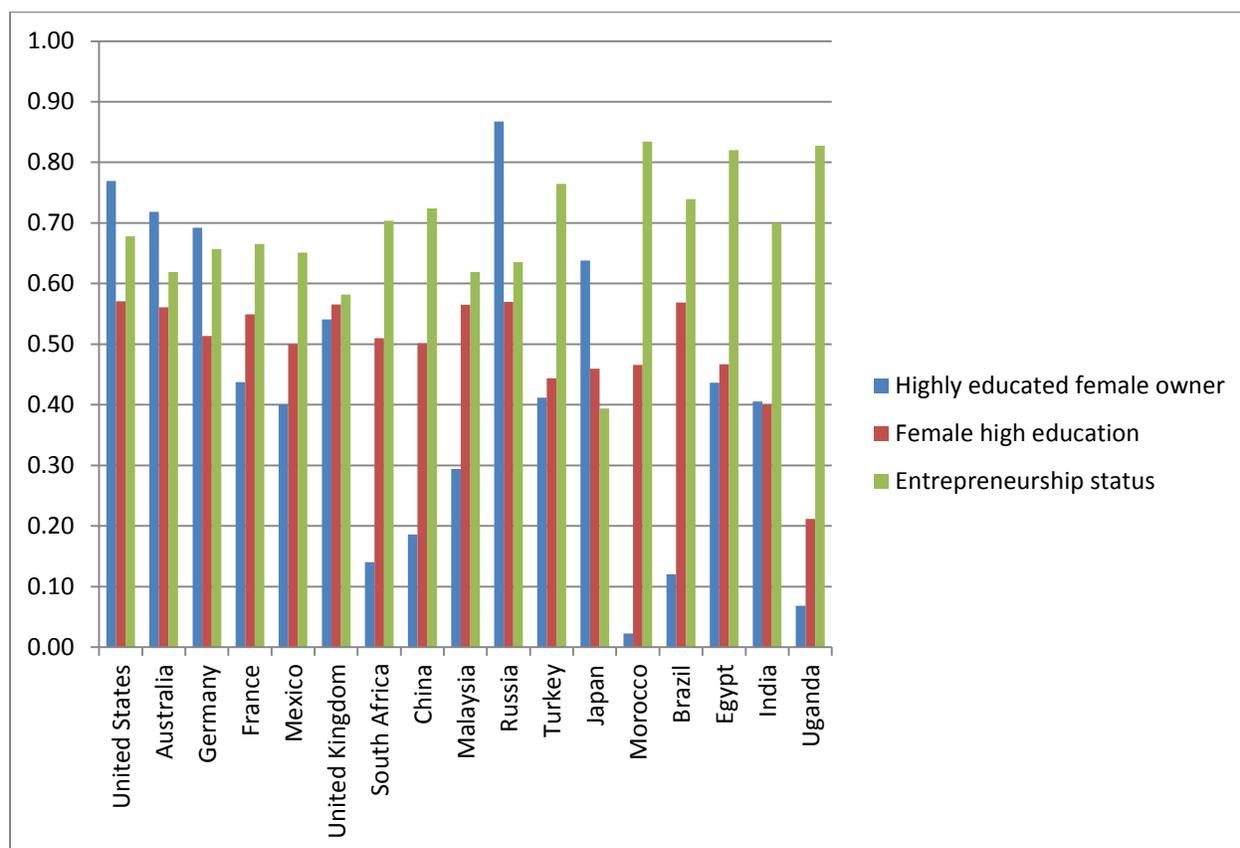
In the top Gender-GEDI performers, the education gap is reversed: More female entrepreneurs are highly educated compared to the overall percentage for the female population. This is true in the United States, Australia, Germany and also Russia, a middle-range performer (which has the highest percentage of highly-educated female business owners out of the 16 other countries in our sample).

***Higher education not only provides high-potential female entrepreneurs with the skills needed to grow their businesses, but also broadens their networks, another critical factor for high-potential female entrepreneurship success.***

In some countries, the low share of highly-educated female entrepreneurs is striking. Malaysia, ranked in 9<sup>th</sup> place, exhibits the highest percentage of opportunity-driven female entrepreneurs (85%), but at the same time, has a low percentage of female business owners who are highly educated (just 29%) in comparison with the overall female population (57% of whom are highly educated). This is a trend seen in other developing and emerging economies as well, where the desire to exploit an entrepreneurial opportunity is high amongst the less-educated female population, yet the abilities (in terms of skills, networks, access to resources, etc.) are missing and so these entrepreneurial aspirations rarely move beyond a subsistent, small-scale business phase.

Interestingly, as shown in Figure 4, the lower rates of highly-educated female entrepreneurs do not seem related to less favorable opinions regarding entrepreneurship as a career and in terms of overall status. In Japan, 64% of female entrepreneurs are highly educated, yet only 39% of the female population believes that entrepreneurship is a good career and that entrepreneurs enjoy high status. In contrast, the majority of the female population in France believes that entrepreneurship is a good career with good status, yet it is the only high-income country in our sample where the percentage of highly-educated female entrepreneurs is less than 45%.

Figure 4: Education and Entrepreneurial Status

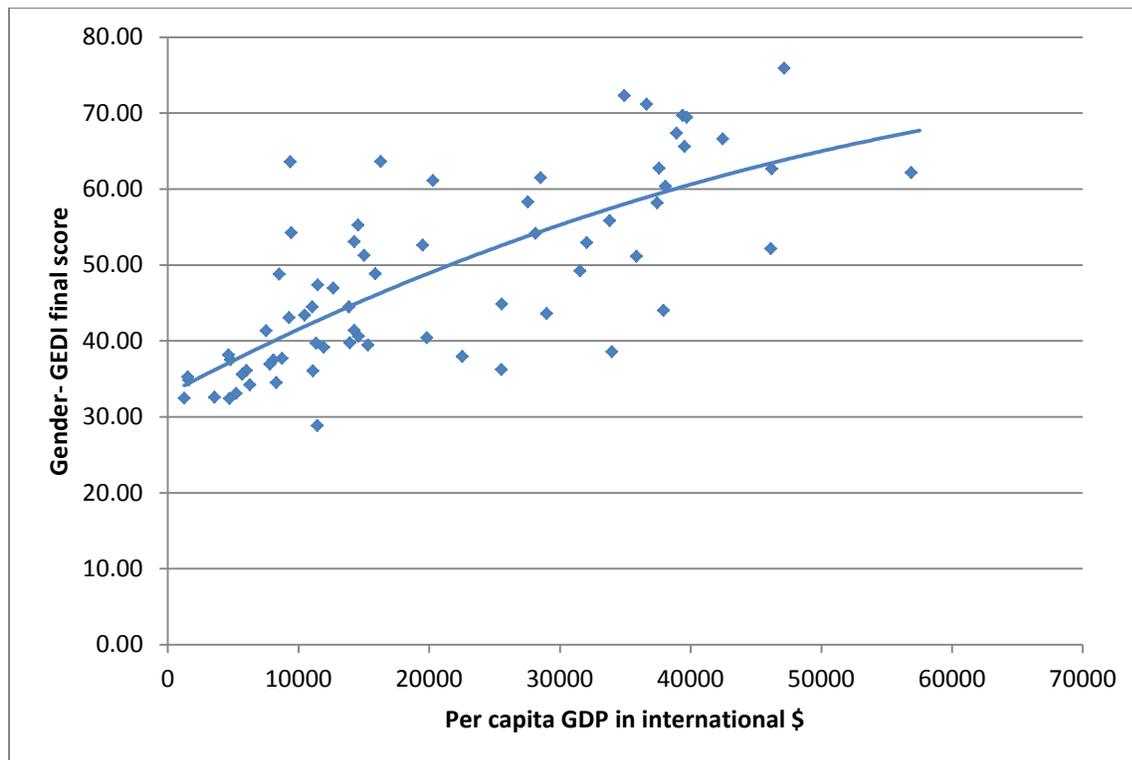


Source: Gender-GEDI (2013); Data sources: GEM (2011); UNESCO (2011)

### 3. Economic development is not enough to foster high-potential female entrepreneurs

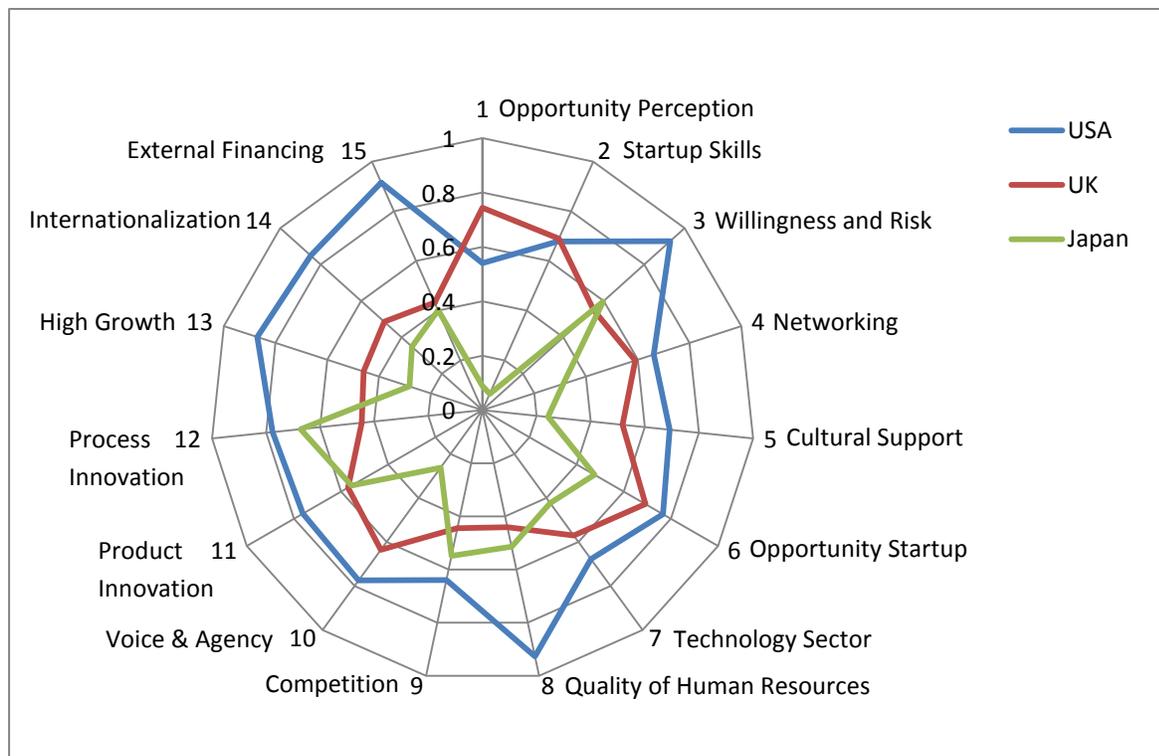
As Figure 5 shows, the general relationship between a country's overall Gender-GEDI Index score and per capita GDP level shows that lower income countries receive lower Gender-GEDI scores while higher-income countries receive higher Gender-GEDI scores. We find that the relationship is stronger for lower-income countries than for higher-income countries where the country points are more scattered as GDP levels increase.

Figure 5: The relationship between Gender-GEDI scores and per capita GDP<sup>3</sup>



Source: Gender-GEDI (2013)

Though Japan, the United Kingdom and the United States are all high-income countries with relatively strong institutional foundations in terms of overall stable and not overly-regulated business environment, their Gender-GEDI ranks are very different. Out of 17 countries, the United States is ranked #1, the United Kingdom ranked #6 and Japan ranked #12. As Figure 6 shows, Japan has the lowest levels of opportunity recognition among women, skill level for startups and status for entrepreneurship. In addition, Japan has the lowest percentage of female managers (out of 17 developed and developing countries in our sample).

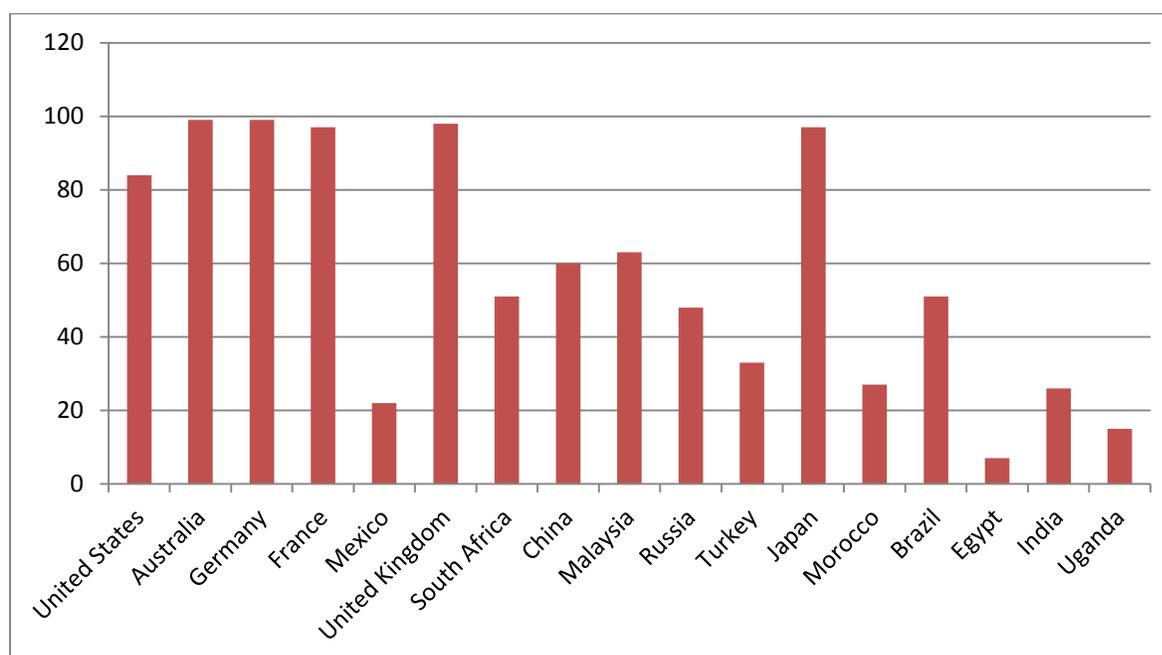


Source: Gender-GEDI (2013)

#### 4. Business formalization is important for successful, scalable enterprises

Access to a formal bank account is critical for high-potential female entrepreneurs, especially since it's a necessary precursor to financing (bank loans, credit lines, etc.) that will fuel their growth. But in many parts of the world, few women have access to bank accounts, most notably in Egypt (7%), Uganda (15%), Mexico (22%), India (26%), Morocco (27%) and Turkey (33%). Contrast this with the top performers where the percentage of women with bank accounts is close to 100% such as in Germany, Australia, the United Kingdom, Japan and France (see Figure 7). Formal financing is especially important for female entrepreneurs, who tend to have less personal capital to invest in their businesses.

Figure 7: Percentage of women with a bank account at a formal institution



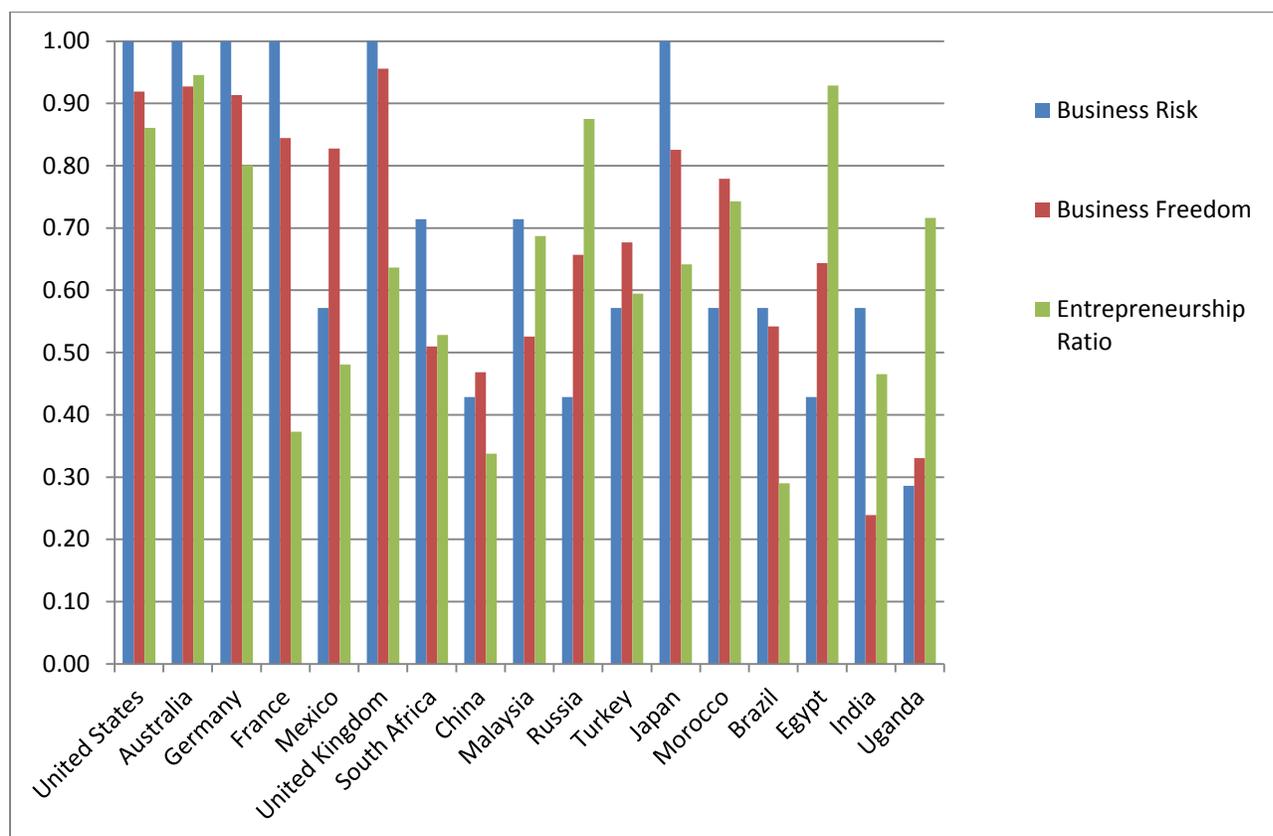
Source: World Bank Findex Database (2011)

## 5. Business freedom is a necessary condition

When focusing on high-potential female entrepreneurship, the general business environment cannot be overlooked – therefore we combine female/male total entrepreneurship activity ratios (the share of adult women engaged in business ownership divided by the share of men also engaged) with the general business environment in terms of ease of starting, running and exiting a business (represented by Business Freedom and compiled by the World Bank) and Business Risk (assessing the overall business environment and climate compiled by Coface).

As shown in Figure 8, we see a high ratio of female/male total entrepreneurship activity in a number of countries such as Brazil, Uganda and Malaysia, yet the business environment has a greater regulatory burden. This can lead to more female entrepreneurs choosing not to formalize their operations (which can stunt their growth) as well as fewer businesses surviving or even making it through the startup phase. Countries with the highest levels of business freedom – such as Australia, the United States and Germany – also display relatively high ratios of female/male total entrepreneurial activity.

Figure 8: Business Environment and Entrepreneurship Ratio compared



Source: Business Risk (Coface 2011); Business Freedom (Heritage Foundation, 2011); Entrepreneurship Ratio (GEM 2011)

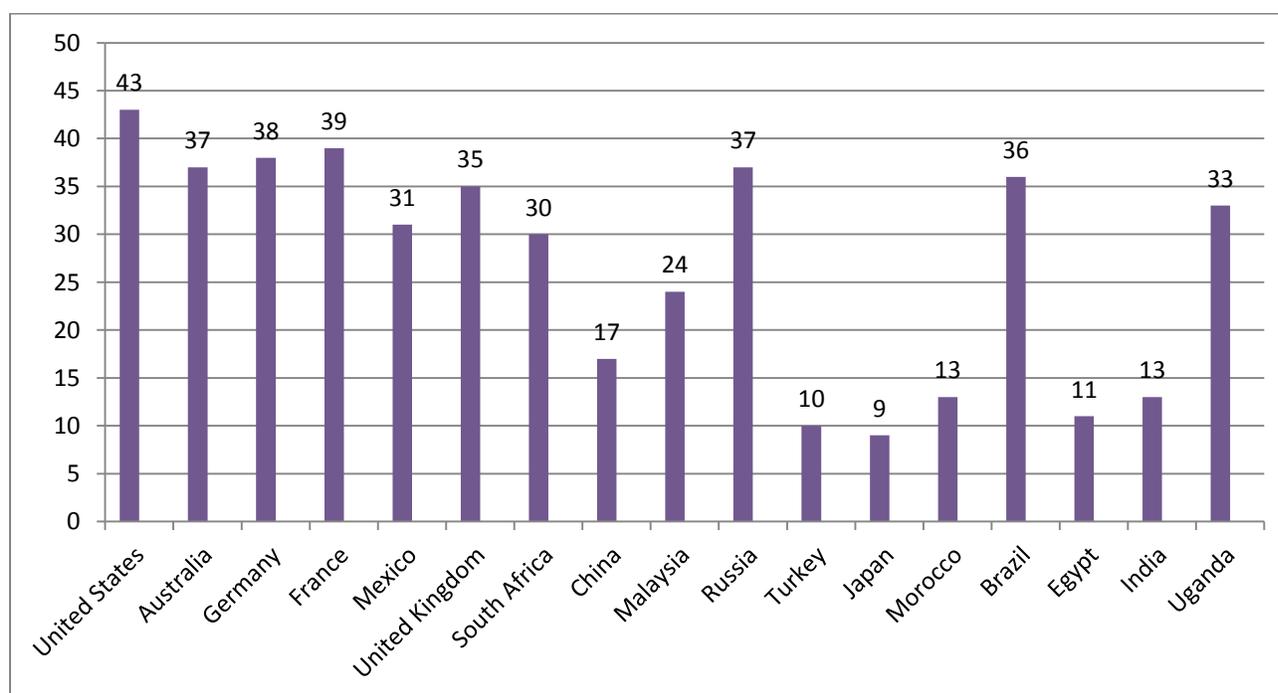
In many cases, Business Freedom and Business Risk have a similar tendency, yet there are exceptions such as is the case for Malaysia, South Africa and India. Between the two, Business Freedom would appear to have a greater effect on high-potential female entrepreneurs, since it focuses specifically on business-related regulations.

## 6. Social norms: lifting the veil unleashes female potential

Social norms impact female entrepreneurship in a number of ways. For one, they impact the general societal support for women as entrepreneurs, which can affect an individual woman's decision to take the risk to become an entrepreneur. Social norms also impact the access women can have to experiences as decision-makers and leaders as well as to the range of occupations women occupy – all of which may act to either impede or encourage the development of high-potential female entrepreneurs.

With respect to pre-entrepreneurial career development, the United States leads with the highest percentage of female managers (43%), followed by France, Germany, Russia and Brazil, which all boast more than 35% female managers (see Figure 8 below). Access to higher education forms the foundation for high-potential female entrepreneurship and management experience provides women with additional skills, experience and networks that facilitate female entrepreneurship success. Yet, for a sizeable group of countries in our sample, the pool of female managers is very small. The lowest percentage is in Japan (9%), followed by Turkey (10%), Egypt (11%) and Morocco (13%).

Figure 8: Percentage of female managers

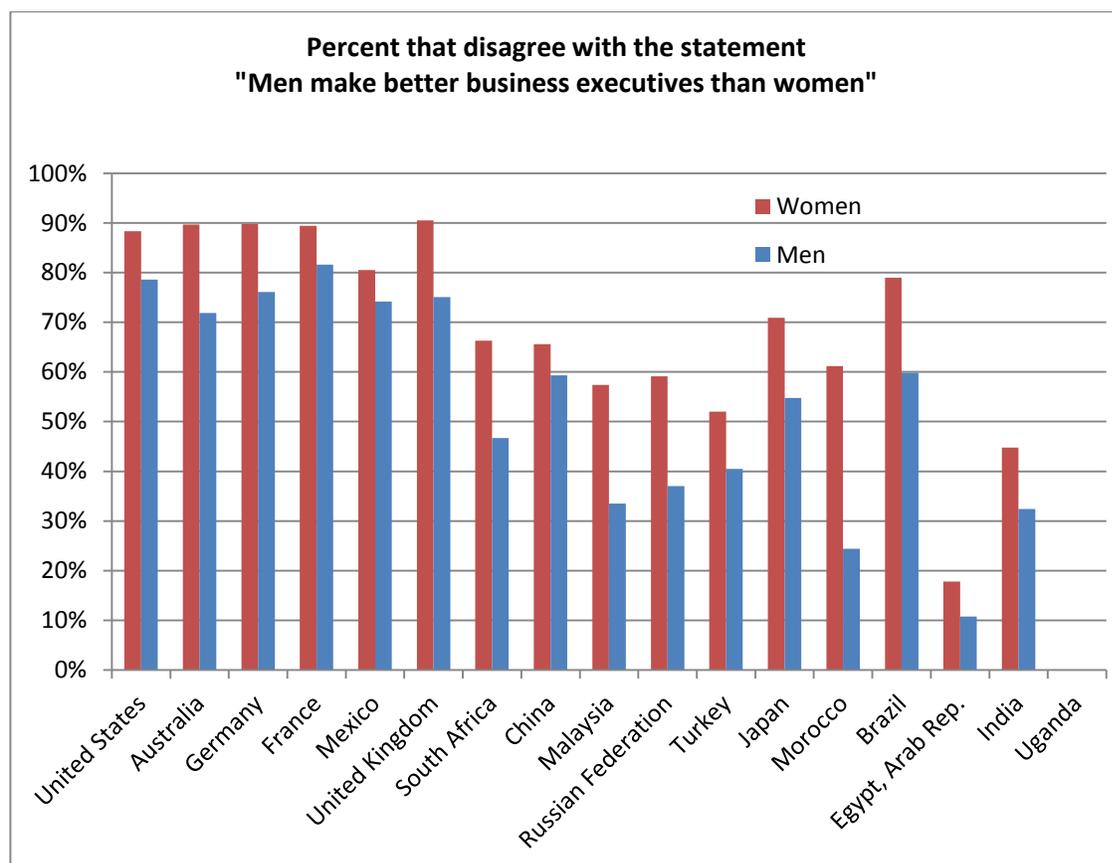


Source: GGGI (2011)<sup>4</sup>

Another very revealing comparison of our 17 countries are the attitudes towards the capabilities of the hypothetical male business executive versus the hypothetical female business executive. As shown in Figure 9, two overall findings characterize our 17 country sample: (1) all countries register a gender difference (i.e. in no country are females considered as 'good' as male executives, and (2) greater percentages of male respondents tend to believe that men make better business executives than women. The most striking results are from Egypt (less than 20%) and India (less than 50%) where lower percentages of both males and females disagreed with the statement that 'men make better business executives than women' while in Morocco, Malaysia, Russia, South Africa and Turkey, larger

percentages of women disagreed with the statement than men. The majority of men in all five countries agreed with the statement that 'men make better business executives than women.' When such a strong opinion is expressed in a hypothetical case (where the actual capabilities of the male and female executive are unknown), it is reasonable to expect that attitudes towards women in other positions demanding similar decision-making and leadership capabilities, such as high potential female entrepreneurs, would encounter a similar bias.

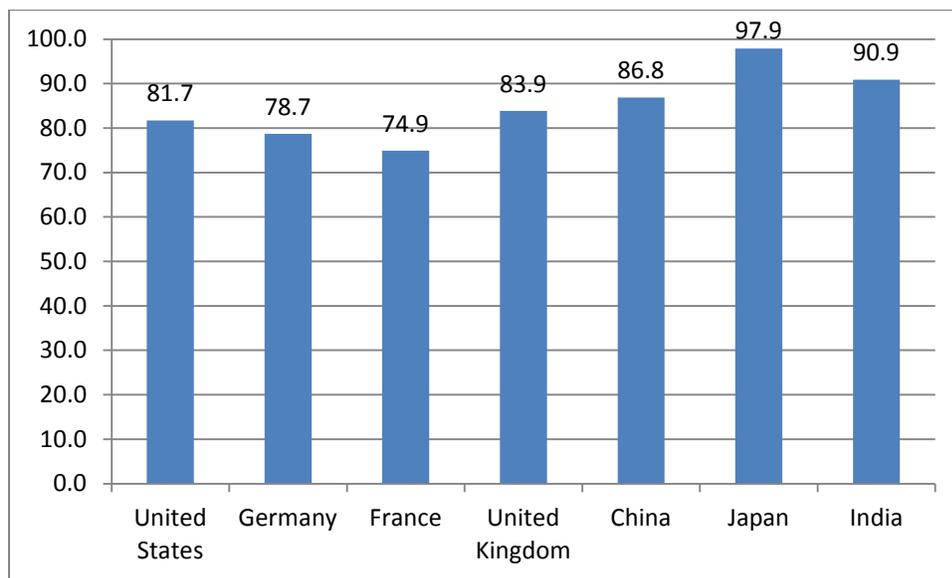
Figure 9: Perceptions of female business ability



Source: World Values Survey (various years)

Worldwide, women receive less outside funding for their businesses than men. The gap becomes even more apparent for high-potential female entrepreneurs in need of greater amounts of risk capital typically provided by Venture Capital (VC). Comparative, sex-disaggregated data on VC funding is not widely available<sup>5</sup>, but as figure 10 shows, for the 7 countries for which data is available, men still dominate the top management positions in VC investments firms, and in some cases, such as Japan, women are almost entirely missing.

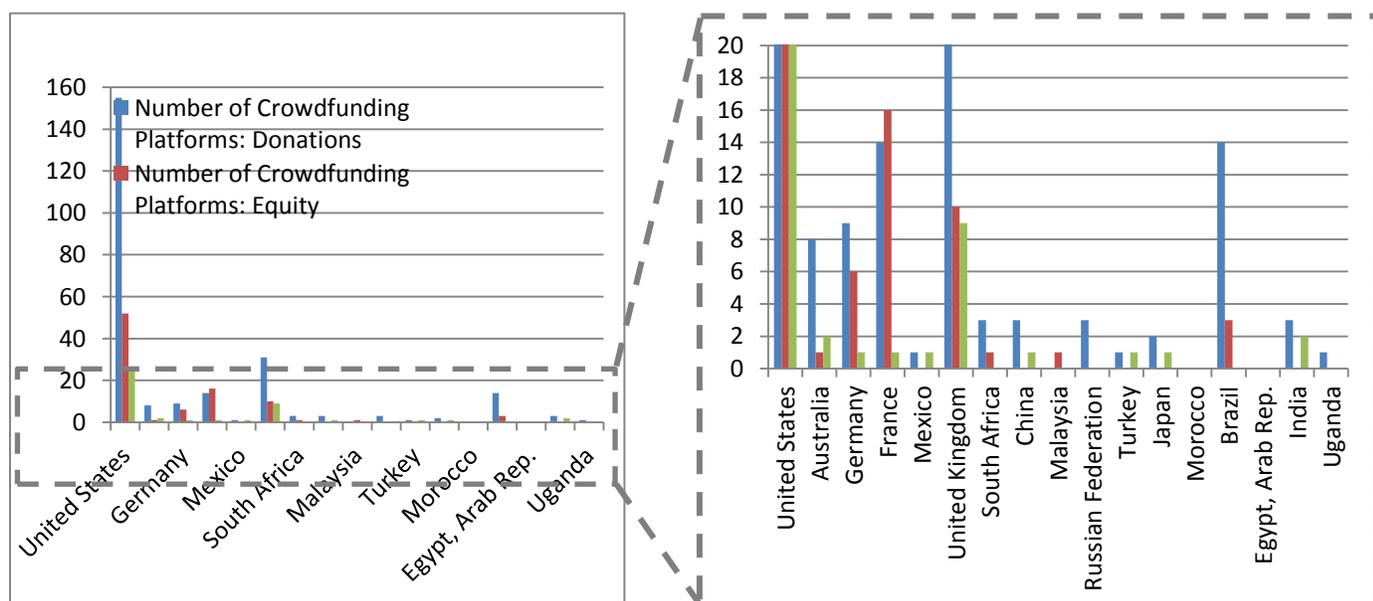
Figure 10: Percentage of men among top managers of VC investment firms



Source: Gaule & Piacentini (2012)

Other non-traditional forms of funding such as crowdfunding may provide high-potential female entrepreneurs with an alternative source of startup and growth capital but as Figure 11 shows, this is not yet a viable option in most countries included in our sample.

Figure 11: Crowdfunding availability



Source: data compiled from www.crowdfund.org

Furthermore, social norms regarding care responsibilities (especially of children) can hinder women's advancement as leaders and decision-makers even despite seemingly female-friendly employment options. A recent study<sup>6</sup> suggests there is a tradeoff between some policies that make it easier for women to combine work and family, and for women's advancement at work. Specifically, countries with greater availability of work flexibility and part-time options often have greater female labor force participation, but also tend to have fewer women in higher-level (especially management) positions. Part of the reason for this is that women tend to choose these more flexible options, and the other part of the reason is that employers cannot tell which women are likely to use these options, and as a result employers may be wary of hiring women for high-level positions. Interestingly, in the United States, where flexibility and part-time options are virtually non-existent, women's labor force participation is lower, but the percentage of women in management positions is one of the highest in the world. At first glance, it may seem like family-friendly policies are hurting women's career advances, yet the real culprits are the social norms and gendered expectations that result in the vast majority of women choosing flexible work options. Social norms may also exert a similar influence on the development of high-potential female entrepreneurs.

### Conclusion: Looking ahead...

The Gender-GEDI's analysis highlights the importance of addressing the weakest link in order to create the conditions suitable for high-potential female entrepreneurship to flourish. As our assessment shows, there is no obvious single weakness that impedes high-potential female entrepreneurship development and most countries are confronted by their own unique combination of factors. As a tool for analysis, the Gender-GEDI illustrates both some of the obvious and less obvious factors that need to be addressed in order to improve circumstances, realigning the incentive structure for women to engage in startups with growth aspirations. For some countries, the initial course of action is obvious: remove the legal restrictions that do not allow women the same opportunities for employment, work hours and freedom of movement outside the home. For others, increasing women's access to both SME training programs and to finance, whether formal bank accounts or financial training programs, is the clear next step. The more subtle but insidious influence of social norms also needs to be addressed in order to make way for improvements in women's participation in the labor force, women's representation as managers, and the number of female graduates with a degree in science. Only with this progress will there be a larger, more educated and better skilled pool of women from which high-potential female entrepreneurs will emerge.

For the countries in our sample, the course for future action is clear. To harness the full potential of a country's human capital, it is critical to eliminate the gendered institutions and gender-based barriers that exclude a large portion of women from entrepreneurial pursuits. Those countries that can change the cultural norms that undermine a woman's ability to become skilled, educated and confident will benefit most as they see high-potential women pursue their entrepreneurial ambitions to the benefit of the economy, culture, and society as a whole. **The Gender-GEDI charts the course for improvements in the most critical areas for change.**

Those countries that understand the importance of fostering high-potential female entrepreneurship and actively support its development on all fronts: institutional, access to resources and, perhaps most importantly, cultural attitudes and expectations, will harness women's untapped capabilities. The Gender-GEDI is a tool that can help identify the main bottlenecks in this process.

This report presents the initial results of our pilot analysis. In the process of building the Gender-GEDI index, we identified a number of critical gaps where sex-disaggregated data is missing yet critical for understanding high-potential female entrepreneurship development. Some especially important areas where data is needed include comparable data on female entrepreneurship rates that differentiate between part-time and full-time business owners, home-based businesses and intensity of business operations. Anecdotal evidence continues to emphasize the importance of social norms on entrepreneurial outcomes yet no comparative data is currently available. In addition, though much emphasis has been placed on the importance of increasing the numbers of women with STEM education and experience, we were not able to include this area due to lack of comparable data. It is our aim to continue to refine and improve the Gender-GEDI index and we are eager to receive comments and suggestions.

## Data and Methodology

The Gender-GEDI Index's unique methodology brings together variables that measure individuals and institutions in a composite index that highlights issues relevant for high-potential female entrepreneurship development and growth. Thirty individual-level and institutional-level dimensions are paired together into 15 pillars that are further divided into three main sub-indices: Entrepreneurial Environment, Entrepreneurial Eco-System and Entrepreneurial Aspirations. Instead of weighting the variables, the Gender-GEDI applies the novel 'Penalty for Bottleneck' methodology to the pillar scores so that the 'Bottleneck' (i.e. the pillar with the lowest score) penalizes the final country ranking, thus allowing for the inter-related nature of the pillars to affect the final scores. This approach encourages countries to address their weakest areas first since that improvement will have the greatest effect on their final score. Data is sourced from existing internationally recognized datasets such as the Global Entrepreneurship Monitor (GEM), World Economic Forum (WEF), World Bank, UNESCO, ILO, etc.

The Gender-GEDI pilot project sponsored by Dell focuses on 17 countries: Australia, Brazil, China, Egypt, France, Germany, India, Japan, Malaysia, Mexico, Morocco, Russia, South Africa, Turkey, Uganda, United Kingdom and the United States. The data used for creating the Gender-GEDI pilot was primarily from 2011. Additional country scores were calculated for the purposes of estimating normalized indicator values and for benchmarking.

The goal of the Gender-GEDI- Project is two-fold: (1) to provide a robust basis for discussion, analysis and cross-country comparison for high-potential female entrepreneurship development, and (2) to identify where critical data gaps exist.

The Gender-GEDI uses existing data from reliable, internationally recognized datasets and is limited by the data that is currently available. However many data gaps exist especially in terms of data measuring social norms; more fine-tuned data on female entrepreneurship; and in the specific areas of capital, technology and networks.

**Figure 13: The Gender-GEDI Framework**

Sub-index 1: <b>Entrepreneurial Environment</b>	Sub-index 2: <b>Entrepreneurial Eco-System</b>	Sub-index 3: <b>Entrepreneurial Aspirations</b>
<b>Pillar 1: Opportunity Perception</b> <ul style="list-style-type: none"> <li>• <u>Opportunity Recognition</u></li> <li>• Equal Legal Rights</li> </ul>	<b>Pillar 6: Opportunity Start up</b> <ul style="list-style-type: none"> <li>• <u>Opportunity Business</u></li> <li>• Bus Freedom &amp; Movement</li> </ul>	<b>Pillar 11: Product Innovation</b> <ul style="list-style-type: none"> <li>• <u>New Product</u></li> <li>• Technology Transfer</li> </ul>
<b>P2: Start up Skills</b> <ul style="list-style-type: none"> <li>• <u>Perception of Skills</u></li> <li>• Higher Education</li> </ul>	<b>P7: Technology Sector</b> <ul style="list-style-type: none"> <li>• <u>Tech Sector Business</u></li> <li>• Female Science Graduates</li> </ul>	<b>P 12: Process Innovation</b> <ul style="list-style-type: none"> <li>• <u>New Technology</u></li> <li>• R&amp;D Expenditure</li> </ul>
<b>P3: Willingness and Risk</b> <ul style="list-style-type: none"> <li>• <u>Willingness to Start</u></li> <li>• Business Risk</li> </ul>	<b>P8: Quality of Human Resources</b> <ul style="list-style-type: none"> <li>• <u>Highly Educated Owners</u></li> <li>• SME Support &amp; Training</li> </ul>	<b>P13: High Growth</b> <ul style="list-style-type: none"> <li>• <u>Business Gazelles</u></li> <li>• Female Leadership</li> </ul>
<b>P4: Networking</b> <ul style="list-style-type: none"> <li>• <u>Know an Entrepreneur</u></li> <li>• Female Internet Users</li> </ul>	<b>P9: Competition</b> <ul style="list-style-type: none"> <li>• <u>Innovativeness</u></li> <li>• Monopolized Markets</li> </ul>	<b>P14: Internationalization</b> <ul style="list-style-type: none"> <li>• <u>Export Focus</u></li> <li>• Globalization</li> </ul>
<b>P5: Cultural Support</b> <ul style="list-style-type: none"> <li>• <u>Entrepreneur Perception</u></li> <li>• Access to Childcare</li> </ul>	<b>P10: Voice &amp; Agency</b> <ul style="list-style-type: none"> <li>• <u>Entrepreneurship Ratio</u></li> <li>• Labor Force Ratio</li> </ul>	<b>P15: External Financing</b> <ul style="list-style-type: none"> <li>• <u>Female Business Investors</u></li> <li>• Financial Access</li> </ul>

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### Expert panel members

Katrin Anacker - Assistant Professor, George Mason University

Margaret Berger - Vice President, Impact, Evaluation and Monitoring, Vital Voices

Leora Klapper - Lead Economist, Finance and Private Sector Research Team, World Bank

Connie L. McNeely - Professor of Public Policy and Co-Director, Center for Science and Technology Policy, George Mason University

Amy Millman - Co-founder and President, Springboard Enterprises

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**The GEDI Institute** is a non-profit research and consulting firm based in Washington DC. which assists governments, donor agencies, foundations, international assistance providers, and global companies to expand economic opportunities for individuals, build future markets for societies, and propel economic development for nations. We use an innovative methodology to advance entrepreneurship, thereby accelerating economic growth.

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## Abbreviations

GEDI: Global Entrepreneurship and Development Index  
 GEM: Global Entrepreneurship Monitor  
 GGGI-WEF: Global Gender Gap, World Economic Forum  
 ILO: International Labor Organization  
 OECD: Organization for Economic Co-operation and Development  
 TEA: Total Entrepreneurship Activity - the percentage of 18-64 population who are either a nascent entrepreneur or owner-manager of a new business (no more than 42 months old)  
 UNESCO : United Nations Educational, Scientific and Cultural Organization  
 WB: World Bank  
 WBL: Women Business and the Law Database, World Bank  
 WEF: World Economic Forum  
 WEO- EIU: Women's Economic Opportunity, Economist Intelligence Unit

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## Notes

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<sup>1</sup> For the full report, see Acs and Szerb (2011).

<sup>2</sup> The Entrepreneurial Environment sub index includes 5 pillars that measure the female population's proclivity towards entrepreneurship and the fundamental institutions and resources to support this; Environmental Eco-System sub index focuses on resources and general female entrepreneur characteristics that support business development and growth; and the Entrepreneurial Aspirations sub index highlights the individual characteristics, institutions and resources needed that lead to high potential female entrepreneurs.

<sup>3</sup> Additional countries were included for this analysis beyond the 17 focus countries in order to allow for a more robust comparison.

<sup>4</sup> Additional sources also used. Please refer to the Methodology section in Gender-GEDI (2013) for full description.

<sup>5</sup> Sharon Vosmek, CEO of Astia, a women's business accelerator, estimates that in the US only 3 - 5% of female entrepreneurs receive Venture Capitalist funding ([www.astia.org](http://www.astia.org)).

<sup>6</sup> Blau and Kahn (2013)