

The Gender Global Entrepreneurship and Development Index (GEDI)

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

Report of Findings

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Abbreviations

GEDI: Global Entrepreneurship and Development Index
GEI: Gender Empowerment Index
GEM: Global Entrepreneurship Monitor
GGGI-WEF: Global Gender Gap, World Economic Forum
GID-OECD: Gender, Institutions and Development
ILO: International Labor Organization
IMF: International Monetary Fund
OECD: Organization for Economic Co-operation and Development
TEA: Total Entrepreneurship Activity – the percentage of the working age (18-64) population that 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

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 goal. At night, for centuries, captains have used the North Star to guide them to their destination¹.

The aim of the Gender-Global Entrepreneurship and Development Index (Gender-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 possess 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 improving 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.

Chapter 1. Women: Attitudes, Access, Aspirations and Entrepreneurship

Are female entrepreneurs really different from male entrepreneurs? Numerous studies have tested and retested the differences between male and female entrepreneurs. After decades of study, this simple question remains, for the most part, unanswered (Nelson & Duffy: 2010).

However, what the existing data tell us is that a large share of the smallest enterprises is run by women, and that percentage of female ownership declines with firm size (World Bank 2012; Bruhn 2009; Hallward-Driemeier 2011a; Sabarwal et al. 2009; Costa & Rijkers 2011). This decline becomes even sharper when using more restrictive definitions of ownership that account for actual decision-making power in the presence of multiple owners (Hallward-Driemeier 2011a).

We also know that business ownership by women is more likely to be driven by necessity² than opportunity³ (Kelley et al. 2010:21) and, while the fraction of female necessity entrepreneurs declines with economic development as more economic opportunities are available for women (Allen et al. 2008; Kelley et al. 2010), the share of adult women who own businesses declines as well.

In addition, women-owned firms are more likely to be home-based (Mead and Liedholm 1998; Bruhn 2009), and are more likely to be concentrated in the service sector and in businesses that ‘conform’ to the female roles – such as beauty parlors, food vending and sewing (Bates 1995; Hallward-Driemeier 2011b; Verheul et al. 2006). In general, women tend to work in sectors, industries, occupations and jobs with lower average (labor) productivity and this explains a large fraction of the gender gap in productivity and earnings (World Bank 2012:207). Productivity differences between female-owned and male-owned businesses are often explained by differences in access to and use of productive resources, where these differences are primarily a function of the business size and sector of operation rather than a gender-specific factor (Sabarwal et al. 2009; Hallward-Driemeier 2011a) such as amount of startup capital.

In terms of perceptions, research shows that the most important difference between female and male entrepreneurs is individual perceptions of one’s own skills, likelihood of failure and existence of opportunities (Minniti 2010; Welter & Smallbone 2003). Moreover, traditional female roles and images may influence women’s perceptions of their abilities and undermine their self-efficacy and potential, including that for growing their businesses (WDR 2012:204; Brush et al. 2004; Bird & Brush 2002). Often, female entrepreneurship implies ‘breaking out of the norms’ of female behavior (Welter & Smallbone 2010).

Another important difference is the influence of marriage and children on female self-employment. Being married and raising children are both strongly associated with self-employment among women (Parker 2009). Having children of less than six years of age has the greatest impact on the probability that women are self-employed, especially among homeworkers (Edwards & Field-Hendrey 2002). Zellweger et al. (2011) identify the family and household as decisive influencers to women’s choices for entrepreneurship.

Finding the answers

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 approaches taken to studying female entrepreneurship have often taken very limited perspectives to what influences female entrepreneurship development. Often female entrepreneurs have been assessed in terms of their individual characteristics as compared to their male counterparts – ranging from basic characteristics such as age and level of education to attitudes and perceptions such as aversion to risk, desire for growth or self-efficacy. Though important, focusing solely on individual attributes – sometimes called the 'Individualistic Fallacy' – is based on the notion that the wider social systems do not exhibit any characteristics beyond those played out by individuals (Acs, Autio, Szerb 2012; Hofstede 2001:21; Seligson 2002:273).

To date, much research on female entrepreneurship development has focused on individual female entrepreneurship characteristics even though it is clear that individual characteristics are not the main determinants for female entrepreneurship development. At the same time, basic issues such as access to technology, capital and education have gone overlooked in country comparisons.

Additional factors related to the institutional environment, such as equal legal rights, access to education, networks, technology and capital play a critical role in female entrepreneurship development, as do social norms, values and expectations. Also the overall business environment in terms of laws, regulations and business stability will affect the ability for businesses to thrive and grow.

Gender Changes the Equation....

When looking at general factors that influence a business-enabling environment (laws, policies and conditions that make it easy – or difficult – to start, grow and close a business), four top assessment rankings* all cite Canada, Denmark and the United States as being among the ten most supportive environments for small business creation and growth – with Australia, Singapore and Switzerland joining the top ten list in three of four rankings.

Concurrently, four global gender equality assessments** all place Finland, Norway and Sweden at the top in terms of the relative equality of women and men in terms of health, education, political participation, and economic empowerment.

However, a recent paper notes that gender equality assessments have not included entrepreneurship as an economic factor, nor have they all been focused on ranking groups of countries. In addition, general business-enabling environment (BEE) assessments have not integrated gender-differentiated factors influencing business start-up and success in their analysis. It may then come as no surprise that none of the countries ranked in the top ten with respect to small business climate overlap with the countries ranked in the top ten on gender equality. This points out the need for more integration of gender-awareness in broad-based business-enabling environmental assessments, as well as a more formal inclusion of the results of broad-based BEE assessments into gender-focused assessments.

Source: J. Weeks (2011), 'Assessing Business Enabling Environments: How Gender Changes the Equation'

*The Global Entrepreneurship and Development Institute's Global Entrepreneurship Development Index, Heritage Foundation's Index of Economic Freedom, World Bank's Doing Business, World Economic Forum's Global Competitiveness Index.

** The Economist Intelligence Unit's Women's Economic Opportunity Index, the United Nation's Global Development Index, the UN Gender Empowerment Measure, and the World Economic Forum's Global Gender Gap analysis.

A major impediment to comparative research on female entrepreneurship has been the dearth of reliable data. Thankfully, new datasets like the World Bank's Global Findex Database and the World Bank's Women, Business and the Law provide gender specific data on previously under-researched areas such as access to basic financial resources (i.e. 'access to a bank account') and equal legal rights. However, many data gaps still exist in key areas.

Another consideration is how to define 'female entrepreneurship'. Many studies take a broad approach; including all female entrepreneurs, ranging from informal petty traders and shopkeepers to high tech startups. Though all forms of female entrepreneurship are important, higher levels of business sophistication often require additional resources, skills and aspirations.

High impact, high growth or high potential female entrepreneurship: Does it matter?

High impact or high growth entrepreneurs constitute a sub-segment of entrepreneurs who are characterized by rapidly growing businesses. But only a small fraction of all entrepreneurs want to scale their businesses. According to an Ernst and Young 2011 study in which 80,000 adults in 60 countries were surveyed, only 3 out of every 1,000 respondents achieved high growth (Morris 2012). These high impact entrepreneurs, defined in terms of their growth aspirations⁴, tended to be college educated and had internationally-oriented businesses. Thus 'high growth' entrepreneurs make up only a small fraction of all entrepreneurs.

It is also not easy to pick which entrepreneurs will successfully grow their businesses exponentially. In a study of rapidly growing firms in the US, Acs and Mueller (2008) find positive short term employment increases but negative employment effects two years after startup and then later, pronounced positive long-term employment effects. In other words, rapidly growing firms (often called 'gazelles') demonstrate their major employment effects only after they have been in business for at least five years or up to twenty-five years after startup (2008:96). This study illustrates the difficulty in identifying business gazelles, since it can take a number of years for them to emerge. Instead of focusing solely on potential 'gazelles' it may be a more productive strategy to promote a healthy entrepreneurial eco-system that supports a diverse array of female owned firms from which gazelles can grow.

Given the difficulty in identifying gazelles and the small fraction they represent of all entrepreneurs, we feel it is more beneficial to broaden our focus to 'high potential' female entrepreneurs. We define 'high potential' female entrepreneurs as those who exhibit characteristics associated with high growth outcomes but which may currently be an aspiration rather than an achievement. Thus, high potential female entrepreneurs are 'market expanding, export oriented, innovative' entrepreneurs⁵.

When a country is not utilizing its full potential, the economy as a whole suffers. Fewer 'high potential' female entrepreneurs result in fewer ideas being realized, less innovation, less export potential and fewer jobs created. Through their entrepreneurial activities, high-potential female entrepreneurs not only contribute to improving their own economic welfare but to improving the economic and social fabric of society through job creation, innovative products, processes, and services, and cross border trade. Moreover, as women, female entrepreneurs have unique capabilities to reach out to female customers⁶. These innovations do not have to follow the expected 'hi-tech' route to reach phenomenal success. Take, for example, US-based Sara Blakely, who at age 42 became the world's youngest self-made female billionaire based on the success of her high growth business, Spanx, which manufactures shapewear targeting an exclusively female clientele⁷.

This report is structured as follows. The following section presents our process of data selection and index construction. Section three presents our results, including an assessment of six key subject areas and regional analyses. This section also includes a conclusion and discussion of future steps and data gaps. Section four provides country pages which detail the Gender-GEDI results for each country and include additional country-level data we found relevant for providing contextual details missing from the Gender-GEDI indicators.

¹ Ruta Aidis, Gender-GEDI Project Director

² Necessity based entrepreneurs are individuals who started their businesses out of necessity (such as needed income, couldn't find another job, etc.).

³ Opportunity based entrepreneurship is defined as individuals who started their businesses due to opportunity motivation.

⁴ Expecting to increase the number of employees by 5+ in the next five years.

⁵ This definition is based on the definition for 'productive' entrepreneurship suggested by the Global Entrepreneurship and Development Index 2012 (Acs & Szerb, 2012).

⁶ As Mrs. Roney, co-founder of the US-based highly successful web-based businesses 'The Knot' and 'XO group' noted: 'Women are going to come up with the best ideas for women, who are driving our economy' (Seligson 2012).

⁷ Spanx has recently introduced a male line of shapewear but Sara made her initial millions off of designing shapewear for women.

Chapter 2: Methodology and Data

2.1 Introduction

In this chapter, we present the methodology and data used to construct the Gender-GEDI Index. We begin by introducing the Gender-GEDI model and framework in section 2.2. In section 2.3, we describe the Penalty for Bottleneck Methodology which we use for the Gender-GEDI to highlight the lowest index values or pillar ‘bottleneck’ for each individual country in our sample. The construction of the index is discussed in section 2.4 and the data selection is presented in the following section 2.5. The final section 2.6 provides detailed descriptions of the variables used in the Gender-GEDI.

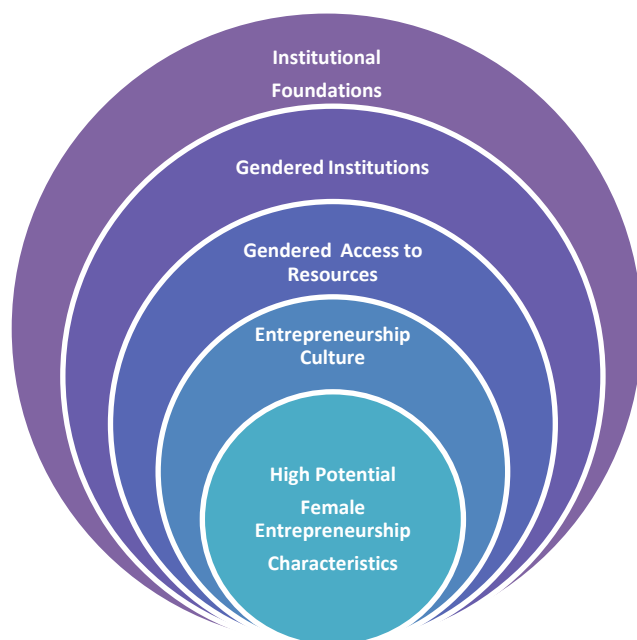
2.2 Methodology and Data

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 in which they live. If the general business environment is unstable, 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. But in some cases, formal institutions or cultural conditions exist that 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 women may give up at marriage) or restrictions to women’s activities outside of the home or her ability to travel within her community, outside her community, or outside her country. In addition, this combination of gendered attitudes, social norms and beliefs can result in more limited access to resources critical for ‘high potential’ female entrepreneurship 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 institutional foundations including gendered institutions, access to resources and the entrepreneurship culture form the context from which female startups emerge. In focusing on ‘high potential’ female entrepreneurship, we are specifically interested in female startups that exhibit characteristics that are related to ‘high impact entrepreneurship’ which we define as market expanding, innovative and exporting businesses. The interaction between these five layers is captured in the Gender-GEDI model shown in figure 2.1.

Figure 2.1 The Gender-GEDI Model



In order to facilitate our analysis, we incorporate the five-level approach presented in the Gender-GEDI model into the Gender-GEDI framework. The Gender-GEDI framework is composed of three sub-indices: Entrepreneurial Environment, Entrepreneurial Eco-System and Entrepreneurial Aspirations. Broadly speaking, Entrepreneurial Environment focuses on assessing the ‘entrepreneurial spirit and culture’ of a given society as well as the presence of institutions to support entrepreneurial startups. The Entrepreneurial Eco-System contains variables that capture the access to resources and institutions needed for female business development. The final sub-index, Entrepreneurial Aspirations, focuses on the individual entrepreneurial characteristics as well as resource availability needed for ‘high potential’ female entrepreneurship to prosper and contribute to economic growth. These three sub-indices stand on 15 pillars, each of which contains an individual and an institutional variable that corresponds to the micro- and the macro-level aspects of entrepreneurship. Unlike other indices that incorporate only institutional or individual variables, the pillars of the Gender-GEDI include *both* individual and institutional variables. These pillars attempt to capture the open-ended nature of entrepreneurship; analyzing them can provide an in-depth view of the strengths and weaknesses of those listed in the index. The Gender-GEDI Framework is shown in Figure 2.2 and the 15 pillars are described in detail below.

Fig. 2.2: The Gender-GEDI Framework

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

Key: Individual-level variables are underlined.

The five pillars of the Entrepreneurial Environment sub-index described

Pillar 1: OPPORTUNITY PERCEPTION. This pillar captures the potential of ‘opportunity perception’ by women in terms of their abilities to ‘act’ on those opportunities based on the country’s legal rights legislation. Research has shown that a population’s opportunity perception potential is an essential ingredient of entrepreneurial startups (Sorensen & Sorenson 2003). But if women are socialized differently, they will perceive opportunities in a different way (DeTienne & Chandler 2007). This pillar includes an individual variable that measures the percentage of the female population that can identify good opportunities to start a business in the area where they live. However, the desire to act on these opportunities for some women is constrained legally since in a number of countries worldwide, women do not share the same legal rights as men. The ‘Equal Legal Rights’ variable measures the parity of laws for women and men in 27 key areas including capacity, property rights and employment.

Pillar 2: STARTUP SKILLS. Launching a successful venture requires the potential entrepreneur to have the necessary startup skills (Papagiannidis & Li 2005). The individual variable, ‘Perception of Skills’ measures the percentage of the female population who believe they have adequate startup skills to start a business. The results of the Global Entrepreneurship and Development Index (GEDI) have shown that higher percentages of both men and women in developing countries believe they have the necessary skills

to start a business, but in reality, they often lack a more complex level of skills needed to grow a business to scale to the next level of size and sophistication. Hence, education, especially postsecondary education, plays a vital role in teaching and developing entrepreneurial skills and building networks. Therefore we combine 'Perception of Skills' with an institutional variable measuring the percentage of women with post-secondary education (Higher Education).

Pillar 3: WILLINGNESS AND RISK. Of the personal entrepreneurial traits, fear of failure is one of the most important obstacles to the startup process (Caliendo et al. 2009). Women have often been viewed as more 'risk adverse' than men but more recent research has indicated that the main difference lies in the way in which men and women perceive themselves and their environments (Langowitz & Minniti 2007). This pillar includes the variable 'Willingness to Start' which measures the percentage of the female population who do not believe that fear of failure would prevent them from starting a business. However, the institutional variable, 'Business Risk' takes a more macro-level view and reflects the availability and reliability of corporate financial information, the protection of creditors by law, and the institutional support of inter-company transactions.

Pillar 4: NETWORKING. Networking is critical for entrepreneurs. Entrepreneurs who have better networks are more successful, can identify more viable opportunities, and access more and better resources (Shane & Cable 2003). The Networking pillar combines two strong indicators for networking. The first, individual-level indicator 'Know an Entrepreneur' shows the percentage of the female population who personally know an entrepreneur who started a business within the last two years. The second, institutional-level indicator measures the percentage of female Internet users. The Internet opens up new opportunities for entrepreneurial networking that eliminate temporal, geographic as well as gendered social constraints that have in many cases limited women's access to information and resources.

Pillar 5: CULTURAL SUPPORT. This pillar combines the female population's attitudes towards entrepreneurs in their countries in term of status and a good career choice with access to childcare. Entrepreneurship is a socially constructed phenomenon (Welter, 2008) and the views toward entrepreneurship vary and are socially embedded (Davidsson 2003; Steyaert & Katz 2004). In other words, without strong cultural support, the best and brightest may not decide to apply their skills towards entrepreneurship (Baumol 1990). The individual variable 'Entrepreneurial Perception' provides the percentage of the female population that says that entrepreneurship is a good career choice and enjoys high status. The associated institutional variable measures access to childcare that is both affordable and of high-quality. It also includes the role of the extended family in providing childcare. Social norms as well as personal 'internalized' gendered beliefs worldwide result in women being the primary care-takers for their children. Access to affordable and high-quality childcare expands mothers' opportunities to pursue entrepreneurial activities.

The five pillars of the Entrepreneurial Eco-System sub-index described

Pillar 6: OPPORTUNITY STARTUP. This pillar combines the level of female opportunity-motivated startup activity with regulatory constraints as well as gendered constraints to participate fully in business activities. An entrepreneur's motivation for starting a business is an important signal of quality. Opportunity entrepreneurs are believed to be better prepared, to have superior skills, and to earn more than what we call necessity entrepreneurs. The individual level variable 'Opportunity Business' provides the percentage of female Total Entrepreneurial Activity (TEA)¹² businesses started to exploit a good opportunity, to increase income, or to fulfill personal aims; in contrast to those women who have started

businesses because they had no other options for work. The institutional variable combines both an overall measure of the business environment with a specific gendered measure that affects business activity. ‘Business Freedom’ captures overall burden of regulation, as well as the regulatory efficiency of the government in influencing startups and operating businesses. This is combined with ‘Freedom of Movement’, a gendered institutional variable that measures the freedom of women to move outside the home, which is an essential element for expanding business activity.

Pillar 7: TECHNOLOGY SECTOR. Currently, technology-based businesses play a critical role in innovation, economic development and growth. The individual level variable for this pillar ‘Tech Sector Business’ measures the percentage of female TEA businesses that are active in the medium or high technology sectors. The institutional variable ‘Female Science Grads’ gathered by UNESCO is the percentage of female graduates in Science. This measure provides us with an indication as to the pool of potential tech sector female entrepreneurs.

Pillar 8: QUALITY OF HUMAN RESOURCES. The prevalence of high-quality human capital is vitally important for ventures that are highly innovative and require an educated, experienced, and healthy workforce to continue to grow. A critical feature of a startup with high growth potential is the entrepreneur’s level of education (Bates 1990). The ‘Highly Educated Owners’ variable captures the quality of entrepreneurs; it is widely held that entrepreneurs with higher education degrees are more capable and willing to start and manage high-growth businesses. The quality of employees also has an impact on business development, innovation, and growth potential. In addition, female entrepreneurs having a higher degree may not be the only advantage in education as graduate school may open up access to key networks and networking channels that help female entrepreneurs in their businesses (Morris 2012). The institutional variable ‘SME Support and Training’ measures another important aspect for business skill development through SME support and training. It considers not only the availability (including geographic availability), accessibility and affordability of the programs, but also additional gendered factors such as the length of the program (taking into account women’s time burdens) as well as if the program is culturally appropriate for women to participate in.

Pillar 9: COMPETITION. Competition is a measure of the level of a business’ product or market uniqueness, combined with the market power of existing businesses and business groups. ‘Innovativeness’ is defined as the percentage of female businesses that have only a few competitors that offer the same product or service. However, market entry can also be prevented or made more difficult if there are powerful business groups dominating the market. The extent of market dominance by a few business groups is measured by the institutional level variable ‘Monopolized Markets’. Lower degrees of monopolized markets should facilitate new business entry.

Pillar 10: VOICE & AGENCY. This pillar measures two important aspects of gender parity in entrepreneurship and in the labor force. In essence it captures the ability of women to be active and participate on par with men in economic activities. The first variable ‘Entrepreneurship Ratio’ measures the ratio of female to male TEA. This percentage includes both opportunity and necessity driven entrepreneurs and makes no distinction between formal or informal entrepreneurial activity. It therefore measures the total engagement of women and men in startup and early stage entrepreneurial activity. The second variable ‘Labor Force Ratio’ measures the ratio female to male labor force participation. Female labor force participation provides a good indication of the ability of women to be take part in formal economic activities, important for paving the way for women’s greater economic visibility as ‘high potential’ female entrepreneurship.

The five pillars of the Entrepreneurial Aspirations sub-index described

Pillar 11: PRODUCT INNOVATION. New product innovation plays a crucial role for ‘high potential’ female entrepreneurship success. The individual variable ‘New Product’ is a measure female TEA entrepreneurs who are offering new products to their customers or adopting existing products. The corresponding institutional variable is ‘Technology Transfer’, which is a measure combining important aspects of technology transfer such as investment in R&D by the private sector; the presence of high-quality research institutions; active collaboration in research between universities and industry and intellectual property rights protection.

Pillar 12: PROCESS INNOVATION. This pillar highlights the important role played by applying and/or creating new technology for high potential female entrepreneurs by including micro and macro dimensions supporting innovation. The individual variable ‘New Technology’ is defined as the percentage of TEA female businesses whose principal underlying technology is less than five years old. The institutional variable used here relates to research and development (R&D) on a macro scale. R&D Expenditure is the R&D percentage of Gross Domestic Product (GDP) as reported by OECD. While R&D alone does not guarantee successful growth, it is clear that without systematic research activity, new product development—and therefore future growth—will be inhibited (Stam & Wennberg 2009).

Pillar 13: HIGH GROWTH. This pillar combines the percentage of high-growth TEA female businesses that intends to employ at least ten people and plan to grow more than 50 percent in five years (Business Gazelles) with a variable measuring the percentage of female managers (Female Leadership). Though the ‘Business Gazelle’ variable measures expected growth and not actual growth, there is evidence that attitudes towards growth are good indications of future entrepreneurial activity (Aidis & Mickiewicz 2006). We include the percentage of female managers as the institutional variable, since higher rates of female managers are important for ‘high potential’ female entrepreneurs for a number of reasons. Most importantly, female managers often embody the ‘education, skills and experience needed for successful ‘high potential’ female entrepreneurship and as such form a pool of potential candidates. Also the percentage of female managers provides a good indication of a country’s overall acceptance of women in positions of leadership and decision-making.

Pillar 14: INTERNATIONALIZATION. A widely applied proxy for internationalization and growth is exporting, since exporting demands capabilities beyond those needed by businesses that produce only for domestic markets. An individual variable measuring the percentage of female TEA businesses exporting (Export Focus) is included as a defining characteristic of high potential female entrepreneurs. The institutional variable used is Globalization, which captures the degree to which a country’s entrepreneurs are internationalized, as measured by businesses’ exporting potential, controlling for the extent to which the country is economically globalized.

Pillar 15: EXTERNAL FINANCING. The availability of external financing, particularly equity rather than debt, is an essential precondition for fulfilling entrepreneurial aspirations that are beyond an individual entrepreneur’s personal financial resources (Gompers & Lerner 2004). In general, women-owned businesses start with both lower levels of overall capitalization and lower ratios of debt financing than men-owned businesses (Carter & Allen 1997; Coleman 2000). Anecdotal evidence suggests that sex discrimination may be an influence, which leads researchers to state the need to accumulate more knowledge in this area (Brush et al. 2004). In this pillar, we combine the presence of female informal investors (Female Business Investors) with an institutional variable that includes both the percentage of women with a bank account at a formal institution and women’s access to finance programs.

The GEDI Penalty for Bottleneck methodology is applied to the pillar scores so that the ‘bottleneck’ (i.e. the pillar with the lowest score) penalizes the final country ranking. This allows 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. Without this procedure, countries could put additional resources in areas of relative strength in order to improve their final score, yet this would not lead improvement for ‘high potential female entrepreneurs’. Since the variables inter-relate to one another, their balance is important. This is similar to baking a cake. For example, increasing your score in education will not lead to further increases in weak areas such as the availability of informal finance. The same is true for baking. If you don’t have enough eggs, adding more flour or sugar will not solve the problem of missing eggs. A more detailed description of the Penalty for Bottleneck Methodology is given in the following section.

2.3 Penalty for Bottleneck Methodology

In the ‘Penalty for Bottleneck (PFB) Methodology’, a bottleneck is defined as the worst performing link or a binding constraint in the system. With respect to entrepreneurship and the Gender-GEDI, a bottleneck indicates a shortage or the lowest level of a particular entrepreneurial pillar, relative to other pillars. This notion of a bottleneck is important for policy purposes. The PFB suggests that pillars interact; if they are out of balance, ‘high potential’ female entrepreneurship is inhibited. The pillar values should be adjusted in a way that takes into account this notion of balance. After normalizing the scores of all the pillars, the value of each pillar of a country is penalized by linking it to the score of the pillar with the weakest performing pillar in that country. This simulates the notion of a bottleneck; if the weakest pillar were improved, ultimately the whole GEDI would show a significant improvement. Moreover, the penalty should be higher if differences are higher. From the perspective of either the configuration or the weakest link, it implies that stable and efficient configurations are those that are balanced (have about the same level) in all pillars.

Equation (1) describes the PFB methodology:

$$h_{(i),j} = \min y_{(i),j} + (1 - e^{-(y_{(i),j} - \min y_{(i),j})}) \quad (1)$$

where $h_{i,j}$ is the modified, post-penalty value of pillar j in country i

$y_{i,j}$ is the normalized value of index component j in country i

y_{\min} is the lowest value of $y_{i,j}$ for country i.

$i = 1, 2, \dots, n$ = the number of countries

$j = 1, 2, \dots, 15$ = the number of pillars

For each pillar, the bottleneck is calculated by adding one, plus an expression that depends on the difference between that pillar's country value and the value for that country's weakest pillar. *Thus, improving the score of the weakest pillar will have a greater effect on the index than improving the score of stronger pillars.* For example, assume the normalized score of a particular pillar in a country is 0.60 and the lowest pillar value is 0.19. The difference is 0.41 and the final adjusted value of the pillar is $0.19 + 0.34 = 0.53$ instead of 0.60. The largest potential difference between two pillars can be 1, when a particular country has the highest value in one pillar and the lowest value in another. In this case the maximum penalty is 0.368, and the final adjusted value is $1 - 0.368 = 0.632$ instead of 1.

We suggest that this dynamic index construction is particularly useful for enhancing female entrepreneurship since it facilitates pinpointing the specific area or areas that need improvement. Dynamic index construction highlights the importance of more balanced pillar scores since the penalty for bottleneck will have the least effect on the overall country ranking when the difference between the pillar scores is negligible. In general, a country's policy efforts should be focused on the lowest ranking pillar in order to improve its overall ranking. However, if a country is characterized by the extremes: a combination of both very low and very high pillar scores, then focusing simply on the lowest scoring pillar may not lead to noticeable improvement in a country's overall score since another weak pillar score will form the next bottleneck. In this instance, it is useful for a country to focus its efforts on the weakest performing pillars. Thus the policy message is to address the weakest performing pillar (or pillars) first, since it exerts a negative effect on all the other pillars.

2.4 Index Construction

The construction of the Gender-GEDI Index was an eight step process:

1. The selection of variables: We chose variables that we could access from original, internationally recognized data sources. Altogether we use 15 individual and 15 institutional variables. Wherever possible, we used data from 2011, and individual data are calculated based on a 2008-2010 pooled data set.

2. The construction of the pillars: The pillars are calculated using the interaction variable method, that is, by multiplying the individual variable with the corresponding institutional variable.

3. Normalization: The next step in constructing the Gender-GEDI Index is to normalize the pillar values to a 0 to 1 range. This form of normalization is compatible with the PFB method (shown below)

$$x_{i,j} = \frac{z_{i,j}}{\max z_{i,j}} \quad (1)$$

for all $j = 1 \dots k$, the number of pillars

where $x_{i,j}$ is the normalized score value for country i and pillar j

$z_{i,j}$ is the original pillar value for country i and pillar j

$\max z_{i,j}$ is the maximum value for pillar j

4. Capping: Since extreme values or outliers could distort the normalized scores, we selected the 95th percentile score adjustment, meaning that any observed values higher than the 95th percentile were lowered to the 95th percentile.

5. Average pillar adjustment: The different averages of the normalized values of the pillars imply that reaching the same indicator values requires different effort and resources. Since we want to apply the Gender-GEDI for public policy purposes, the additional resources for the same marginal improvement of the indicator values should be the same for all indicators. Therefore, we need a transformation to equate the average values of the components. Equation 2 shows the calculation of the average value of a pillar \bar{x}

$$\bar{x} = \frac{\sum_{i=1}^n x_i}{n} . \quad (2)$$

We want to transform the x_i values such that the potential minimum value is 0 and the maximum value is 1:

$$y_i = \begin{cases} 0 & \text{if } x_i = 0 \\ 1 - (1 - x_i) \frac{n - k - n\bar{y}}{n - k - n\bar{x}} & \text{otherwise} \end{cases} \quad (3)$$

where k denotes the number of countries with the minimal original value. The y_i transformed values meet with the required assumptions, but they cannot exceed 1. It means that $\bar{y} < 1 - \frac{k}{n}$.

6. Penalizing: After these transformations, the Penalty for Bottleneck (PFB) methodology is used to create indicator-adjusted PFB values. We define our penalty function as follows:

$$h_{(i),j} = \min y_{(i),j} + (1 - e^{-(y_{(i),j} - \min y_{(i),j})}) \quad (4)$$

where $h_{i,j}$ is the modified, post-penalty value of pillar j in country i

$y_{i,j}$ is the normalized value of index component j in country i

y_{min} is the lowest value of $y_{i,j}$ for country i .

$i = 1, 2, \dots, n$ = the number of countries

$j = 1, 2, \dots, m$ = the number of pillars

7. Sub-index calculation: The value of each sub-index is then calculated as the arithmetic average of its PFB-adjusted indicators for that sub-index multiplied by 100 to get a 100-point scale.

8. Gender-GEDI point calculation: Finally, the Gender-GEDI index is calculated as the simple arithmetic average of the three sub-indices. Since 100 represents the theoretically available limit for total number of Gender-GEDI points possible, it can also be interpreted as a measure of entrepreneurship resource efficiency for high potential female entrepreneurship development.

Though the results of the Gender-GEDI index presented here are based on 17 countries, the index calculation process included additional countries to provide more accurate benchmarking.

In several cases, we had to contend with missing variables. The percentage of ‘Female Science Graduates’ was missing for Russia and also South Africa. We estimated both of these percentages using data points from countries nearby. For Russia, we used data from Belarus and for South Africa we used data from Angola. We were also missing data for South Africa for the percentage of women with a post-secondary education and we used data we felt was comparable from Swaziland. While this is not ideal, it was felt that inclusion of information where available was better than exclusion short of perfection.

2.5 Data Selection and sources

The data used for the Gender-GEDI index is comprised of both individual level and institutional level data. The individual level data is compiled from the Global Entrepreneurship Monitor dataset. We specifically use pooled data from 2008-2010 Adult Population Survey.

All five of the individual-level variables that make up the Entrepreneurial Environment sub-index are based on attitudes and perceptions that focus on responses from the adult female population (aged 18-64). These responses make up the ‘entrepreneurship culture’ level of the Gender-GEDI model (Figure 2.3) and presented in table form below (Table 2.1). The other nine individual variables that make up the Entrepreneurial Environment and Entrepreneurial Aspirations sub-indices are based on the responses of female entrepreneurs engaged in what GEM calls ‘Total Entrepreneurship Activity’ which is defined as individuals involved in the startup process whose businesses are not older than 42 months and/or those that have not paid a salary for longer than three months. These variables make up the innermost level of the Gender-GEDI model called ‘Female Entrepreneurship Individual Characteristics’.

One of the novelties of the GEDI index framework, adopted by the Gender-GEDI, is the matching of an individual-level variable with an institutional-level variable at the pillar level in order to capture the interplay between both these factors that affect outcomes.

For our index, we selected institutional level variables that would represent the three additional levels of our Gender-GEDI model. The first is comprised of the institutional foundations that affect all entrepreneurs, regardless of whether they are male or female. These include the Business Freedom (compiled by the Heritage Foundation and based on the World Bank's 'Ease of Doing Business Index'), Business Risk (Coface), Market Monopolization (World Economic Forum – WEF), Technology Transfer (WEF), R&D Expenditure (UNESCO) and Globalization (KOF Swiss Economic Institute).

The second level of analysis is comprised of gendered institutions, which captures the areas where women do not share the same rights as men. We include two indicators: Equal Legal Rights which is a composite indicator we compiled based on 27 separate measures from the Women, Business and the Law database (World Bank). The second indicator is 'Freedom of Movement' from the Gender, Institutions and Development Database (OECD). In most countries in our sample there are no restrictions on women's movement outside the home, yet we found it important to highlight the cases where these restrictions are applied since it affects a woman's ability to independently start and grow her business. Since 'Freedom of Movement' is only relevant in a limited number of cases, we merged this variable with the more general measure 'Business Freedom' in order to create the 'Business Freedom and Movement' variable.

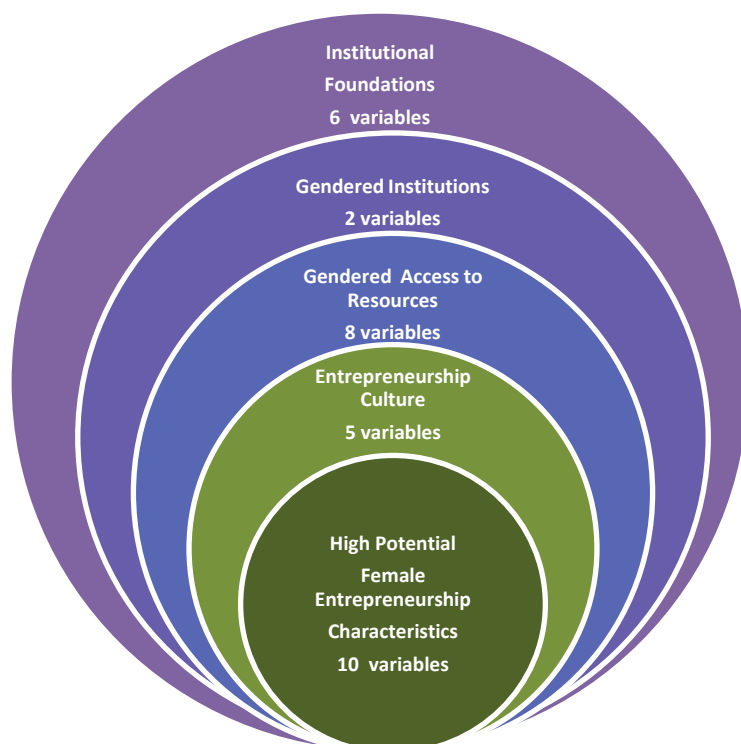
The third level includes variables that identify areas where women's access to resources may be more limited than men's. These include access to education as measured by percentage of women with post-secondary education and the percentage of female graduates with degrees in Science (both sourced from UNESCO); the percentage of female internet users was sourced from the International Telecommunication Union (ITU); Access to SME support and training programs for women, access and availability of childcare are based on data from the Economist Intelligence Unit's (EIU) Women and Economic Opportunity Index. In order to capture the gendered comparison of women's labor participation, this is provided as a female/male ratio obtained from the World Bank. For most countries, the percentage of female managers is obtained from the Global Gender Gap Index (World Economic Forum), but for Japan and India, where the data was missing, this percentage was estimated based on Grant Thornton's 2011 Women in Senior Management Report³. For financial access, we combined two variables: The percentage of women with a bank account in a formal institution using data from the Financial Inclusion database (Findex, World Bank) and Women's Access to Finance Programs compiled by the EIU for the Women's Economic Opportunity Index.

A potential criticism of our index might be the apparently arbitrary selection of institutional variables and the neglect of other important factors. We aimed to collect the best possible indicators informed by current research on female entrepreneurship. However, our variable choices were often constrained by the limited availability of comparative and representative data for the 17 countries included in our pilot study. The lack of adequate comparative data on female entrepreneurship in general and the factors that influence its development plagues the field of female entrepreneurship research and severely constrains the ability to conduct robust quantitative analysis.

Table 2.1: Gender-GEDI Model with variables

| | Institutional-level variables | | | Individual-level variables | |
|---------------|--------------------------------------|------------------------------|-------------------------------------|-----------------------------------|---|
| Pillar | Institutional Foundations | Gendered Institutions | Gendered Access to Resources | Entrepreneurship Culture | Female Entrepreneurship Individual Characteristics |
| 1 | | Equal Legal Rights | | Opportunity Recognition | |
| 2 | | | High Education | Startup Skills | |
| 3 | Business Risk | | | Willingness to Start | |
| 4 | | | Internet Users | Know an Entrepreneur | |
| 5 | Business Freedom | Freedom of Movement | | Entrepreneurship Perception | |
| 6 | | | Access to Childcare | | Opportunity Business |
| 7 | | | Female Science Graduates | | Technology Sector |
| 8 | | | SME support and training | | Highly educated owner |
| 9 | Market Monopolization | | | | Innovativeness |
| 10 | | | Labor Force Ratio | | Entrepreneurship Ratio |
| 11 | Technology Transfer | | | | New Product |
| 12 | R&D Expenditure | | | | New Technology use |
| 13 | | | Female Leadership | | Business Gazelles |
| 14 | Globalization | | | | Export Focus |
| 15 | | | Financial access | | Female Business Investors |

Figure 2.3: Gender-GEDI model



Key: Purple shaded levels indicate institutional-level variables; green shaded levels indicate individual level variables.

2.6 Variable Description Tables

Sub Index I: Entrepreneurial Environment

| Pillar 1: Opportunity Perception | |
|---|--|
| Individual level variable | Institutional level variable |
| <p>Female Opportunity (GEM) <i>measures the “opportunity perception” of a population, defined as the female percentage of the 18-64 aged population that can identify good opportunities to start a business in the area where they live.</i></p> <p>Source: Based on author calculated GEM data http://www.gemconsortium.org</p> | <p><u>Equal Legal Rights (WBL – WB) (2011 data)</u> <i>27 Indicators grouped as follows:</i></p> <ol style="list-style-type: none"> 1) Do men and women have equal capacity by law?(10 indicators) 2) Do married men and women have equal capacity by law?(10 indicators) 3) Do men and women have equal ownership rights over movable and immovable property?(2 indicators) 4) Can women work the same night hours as men?(1) 5) Can women work in all industries?(1) 6) Can pregnant and nursing mothers work the same hours and in the same industries as men and other women?(1) 7) Is the statutory retirement age in the private sector equal for men and women?(1) 8) Do men and women face the same personal income tax liability?(1) <p><i>The final scoring is based on the total score for the 27 separate indicators. For each indicator 0 = unequal while 1 = equal under the law; total scoring: 0 – 27 with highest score: 27 – converted to percentages</i></p> <p>Source: http://wbl.worldbank.org/data</p> |

| Pillar 2: Start up Skills | |
|---|--|
| Individual level variable | Institutional level variable |
| <p>Female Skill (GEM) <i>measures the percentage of the 18-64 aged female population who believe they have proper skills to successfully launch a business.</i></p> <p>Source: Based on author calculated GEM data http://www.gemconsortium.org</p> | <p><u>Women’s Post-Secondary Education (UNESCO)</u> <i>is defined as the gross enrolment ratio in tertiary education.</i></p> <p>Source: http://stats.uis.unesco.org/unesco/</p> |

| Pillar 3: Willingness and Risk | |
|---|--|
| Individual level variable | Institutional level variable |
| <p>Willingness to Start (GEM) <i>is defined as the percentage of the 18-64 aged female population who do not believe that fear of failure would prevent them from starting a business</i></p> | <p>Business Risk (Coface) <i>The business climate rate “assesses the overall business environment quality in a country... It reflects whether corporate financial information is available and reliable, whether the legal system provides fair and efficient creditor protection, and</i></p> |

| | |
|--|--|
| Source: Based on author calculated GEM data http://www.gemconsortium.org | <i>whether a country's institutional framework is favorable to intercompany transactions." It is a part of the Country Risk Rate.</i> Source: http://www.coface.com/ |
|--|--|

| Pillar 4: Networking | |
|--|--|
| Individual level variable | Institutional level variable |
| Know an Entrepreneur (GEM) <i>is the percentage of the 18-64 aged female adult population who personally know an entrepreneur. This variable is a proxy for networking, which has been found to improve entrepreneurship through increased access to opportunities and better resources.</i> Source: Based on author calculated GEM data http://www.gemconsortium.org | Female Internet Users, (ITU) (2011- varies) <i>Number of female Internet Users per 100 inhabitants. 2011 data used whenever possible.</i> Source: http://www.itu.int/ITU-D/ict/statistics/IndividualsUsingInternet_00-10.xls |

| Pillar 5: Cultural Support | |
|---|--|
| Individual level variable | Institutional level variable |
| Entrepreneur Perception (GEM) <i>The GEM variable NBGOODAV measures the average percentage of the female population aged 18-64 who say that entrepreneurship is a good career choice while the GEM variable NBSTATAV measures the average percentage of the female population aged 18-64 who say that entrepreneurs enjoy high status. 'Career Status' combines the averages of these two variables.</i> Source: Based on author calculated GEM data http://www.gemconsortium.org | Access to Childcare (WEO-EIU) (2010 data) <i>This indicator considers the availability, affordability (including the price of childcare as a percent of average wages) and quality of childcare services. This indicator also includes the role of the extended family in providing childcare.</i> <i>Scoring as follows:</i> 1 = professional childcare is expensive, available for only a small minority and of low quality; or the extended family is unwilling to provide childcare, owing to strong and widely prevalent societal/cultural barriers to women working. 2 = Professional childcare has two of the three following conditions: it is expensive, difficult to obtain or of low quality or extended family generally unwilling to provide childcare, owing to societal/cultural barriers to women working. The extended family may find it difficult to provide childcare if they themselves work or due to distance. 3 = Professional childcare is moderately affordable, often available and of reasonable quality; or the extended family is willing to provide childcare but may be able to do so only occasionally because they themselves work or due to distance. 4 = Professional childcare meets two of the three following conditions: it is affordable, easily available and of high quality or the extended family is willing to provide childcare and is able to do so with only some difficulty. 5 = Professional childcare is affordable, easily and widely available, and of high quality; or the extended |

| | |
|--|--|
| | <p><i>family is willing and able to provide childcare.</i></p> <p><i>The scoring is based on a 1- 5 scale. 5 = the most favorable.</i></p> <p>Source: http://graphics.eiu.com/upload/WEO_June_2010_final.xls</p> |
|--|--|

Sub-Index II: Entrepreneurial Eco-system

| Pillar 6: Opportunity Start up | |
|--|--|
| Individual level variable | Institutional level variable |
| <p>Female TEA Opportunity (GEM) <i>is defined as the percentage of female Total Entrepreneurial Activity (TEA) businesses started to: exploit a good opportunity, increase income, or fulfill personal aims, in contrast to those businesses started by individuals who have no other employment options.</i></p> <p>Note: Total Entrepreneurship Activity is 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)</p> <p>Source: Based on author calculated GEM data http://www.gemconsortium.org</p> | <p>Business Freedom (Heritage) (2011 data) & Freedom of Movement (GID-OECD) (2009 data)</p> <p><i>Business Freedom is a quantitative measure of the ability to start, operate and close a business that represents the overall burden of regulation, as well as the efficiency of government in the regulatory process. This variable includes 10 factors based on the World Bank's 'Doing Business Study'. Each factor receives a maximum of 10 points and the indicator's total score is between 0-100.</i></p> <p><i>Freedom of Movement measures the freedom of women to move outside the home. Following elements were considered: freedom to travel; freedom to join a club or association; freedom to do grocery (and other types of) shopping without a male guardian; freedom to see one's family and friends. 3 point scale:</i></p> <p><i>0 – No restrictions of women's movement outside the home;</i></p> <p><i>0.5 – (Some) women can leave home sometimes, but with restrictions;</i></p> <p><i>1 – Women can never leave home without restrictions (i.e. they need a male companion, etc.)</i></p> <p>Source for Business Freedom: http://www.heritage.org/index/explore Source for Freedom of Movement: http://stats.oecd.org/Index.aspx?DatasetCode=GID2</p> |

| Pillar 7: Technology Sector | |
|---|--|
| Individual level variable | Institutional level variable |
| Female Technology Sector (GEM) <i>measures the percentage of TEA businesses that are active in the medium or high technology sectors since activities in these sectors play a crucial role in economic development.</i> | <u>Women graduates in Science (UNESCO) (data mainly from 2010)</u> <i>The percentage of female graduates in Science. Whenever possible, data from 2010 was used.</i> |
| Source: Based on author calculated GEM data http://www.gemconsortium.org | Source: http://stats.uis.unesco.org/unesco/ |

| Pillar 8: Quality of Human Resources | |
|---|--|
| Individual level variable | Institutional level variable |
| Female High Education (GEM) <i>is defined as the percentage of TEA female business owners who have participated in some form of post-secondary education.</i> | SME Support and Training (WEO) (2010 data) <i>This indicator considers if training has a wide geographic availability, is accessible to women as well as men, affordable for the majority of intended beneficiaries, if the length of training takes into account women's time burdens, and if culturally appropriate.</i> |
| Source: Based on author calculated GEM data http://www.gemconsortium.org | <i>0 = training programs do not meet any of the following five conditions: 1) they have wide geographic availability; 2) are accessible to women as well as men; 3) affordable for the majority of intended beneficiaries; 4) culturally appropriate; 5) the length of training takes into account women's time burdens.</i> |
| | <i>Scoring scale: 0 – 5 where 5 = training programs meet all 5 of the conditions.</i> |
| | Source: http://graphics.eiu.com/upload/WEO_June_2010_final.xls |

| Pillar 9: Competition | |
|---|---|
| Individual level variable | Institutional level variable |
| Innovativeness (GEM) <i>is defined as the percentage of female TEA businesses that have only a few competitors that offer the same product or service. Fewer competitors is indicative of a business's unique product or service.</i> | Market Dominance (WEF) (2011 data) <i>measures the extent of market dominance by a few business groups. If only a few business groups dominate the market then business startup and market entry is likely to be constrained or entirely prevented.</i> |
| Source: Based on author calculated GEM data http://www.gemconsortium.org | Source: http://www.weforum.org/issues/competitiveness-0/gci2012-data-platform/ |

| Pillar 10: Voice & Agency | |
|---|---|
| Individual level variable | Institutional level variable |
| Entrepreneurship Ratio (GEM) <i>The female/male ratio of Total Entrepreneurship Activity (TEA) rates.</i> | Labor Force Ratio (WB) (2011 data) <i>The female/male ratio of Labor Force Participation.</i> |
| Source: Based on author calculated GEM data http://www.gemconsortium.org | Source: http://data.worldbank.org/indicator/SL.TLF.CACT.FE.ZS |

Sub-Index III: Entrepreneurial Aspirations

| Pillar 11: Product Innovation | |
|---|---|
| Individual level variable | Institutional level variable |
| New Product (GEM) <i>is defined as the percentage of those female TEA businesses offering products or services that are new to at least some costumers.</i> | Technology Transfer (WEF) (2011 data) <i>These are the innovation index points from the Global Competitiveness Index (GCI): a complex measure of innovation including investment in research and development (R&D) by the private sector, the presence of high-quality scientific research institutions, the collaboration in research between universities and industry, and the protection of intellectual property rights.</i> |
| Source: Based on author calculated GEM data http://www.gemconsortium.org | Source: http://www.weforum.org/issues/competitiveness-0/gci2012-data-platform/ |

| Pillar 12: Process Innovation | |
|--|--|
| Individual level variable | Institutional level variable |
| New Technology (GEM) <i>is defined as the percentage of female TEA businesses whose principal underlying technology is less than five years old.</i> | R&D Expenditure (UNESCO) (2011 data) <i>Gross domestic expenditure on Research & Development as a percentage of GDP.</i> |
| Source: Based on author calculated GEM data http://www.gemconsortium.org | Source: http://stats.uis.unesco.org/unesco/ |

| Pillar 13: High Growth | |
|--|---|
| Individual level variable | Institutional level variable |
| Business Gazelles (GEM) <i>measures the percentage of female TEA businesses that intend to employ at least ten people and plan to grow more than 50 percent in five years.</i> | Female Leadership (GGGI – WEF) (2011 data) <i>Percentage of female managers</i> |
| Source: Based on author calculated GEM data http://www.gemconsortium.org | Source: http://reports.weforum.org/global-gender-gap-report-2012/ |

| Pillar 14: Internationalization | |
|--|--|
| Individual level variable | Institutional level variable |
| Female Export (GEM) <i>is defined as the percentage of female TEA businesses where more than 1% of customers are outside of the home country.</i> Source: Based on author calculated GEM data http://www.gemconsortium.org | Globalization (KOF) (2011 data) <i>A part of the Globalization Index measuring the economic dimension of globalization. The variable involves the actual flows of trade, Foreign Direct Investment, portfolio investment and income payments to foreign nationals as well as restrictions of hidden import barriers, mean tariff rate, taxes on international trade and capital account.</i> Source: http://globalization.kof.ethz.ch/globalization_2011b_long.xls |

| Pillar 15: External Financing | |
|---|--|
| Individual level variable | Institutional level variable |
| Female Business Investors (GEM) <i>is defined as the percentage of female informal investors in the population aged 18-64, multiplied by the average size of an individuals' investment in new businesses owned by other individuals.</i> | Female Credibility (WB – Findex) (2011 data) <i>Percentage of women who have a bank account at a formal financial institution.</i> Source: http://datatopics.worldbank.org/financialinclusion/ |

| | |
|--|---|
| <p>Source: Based on author calculated GEM data http://www.gemconsortium.org</p> | <p><u>Women's access to finance programs (WEO-EIU) (2010 data)</u></p> <p><i>This question assesses three types of programs:</i></p> <ol style="list-style-type: none"> <i>1) Initiatives to provide financial accounts to women</i> <i>2) Outreach efforts aimed at improving women entrepreneur's access to credit/loans/lines of credit, etc.</i> <i>3) Provision of financial literacy and/or risk management programs for women</i> <p><i>Scoring:</i></p> <p><i>1 = none of the programs are available;</i></p> <p><i>2 = only one of the three programs is available but is it limited in scope (less than 20% of the women in the formal sector have access);</i></p> <p><i>3 = two of the three programs are available, but they are modest in scope (about 50% of women in the formal sector have access) or only one of the three programs is available but it is reasonably broad in scope (about 70% of women in the formal sector have access);</i></p> <p><i>4 = Two of the three programs is available, and are reasonably broad in scope (about 70% of women in the formal sector have access)/ or women's access to financial services is already very broad, so these programs are largely unnecessary;</i></p> <p><i>5 = All three programs are available, they are comprehensive in scope/ or women's access to financial services is already widespread, so these programs are unnecessary;</i></p> <p><i>Scoring 1 – 5</i></p> <p><i>Maximum score is 5. 5 = most favorable</i></p> <p><i>Source:</i></p> <p>http://graphics.eiu.com/upload/WEO_June_2010_final.xls</p> |
|--|---|

Notes

¹ *Total Entrepreneurship Activity* is 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) (source: GEM; www.gemconsortium.org)

² *ibid.*

³ Grant Thornton's Women in Senior Management Report 2011 can be accessed at: <http://www.grantthornton.com>

Chapter 3: Gender-GEDI Results

3.1 Introduction

An index is an ideal tool for simplifying highly complex relationships and distilling them down to a final rank, set of scores and for benchmarking progress. By integrating the different critical components that create the conditions for fostering high potential female entrepreneurship, this report presents an initial attempt at comparing countries according to the same set of key indicators. As such, the Gender-GEDI index serves as a barometer of a country's current situation relative to a group of other countries with respect to the conditions present that will fuel high potential female entrepreneurship development. In this way, it can be a powerful tool for policy makers and other decision makers in terms of identifying the areas that need improvement in order to foster high potential female entrepreneurship development. However, an index and overall score cannot substitute for a thorough understanding and analysis of a given country's context. In the results section, we will provide some glimpses into specific issues as well as country and regional comparisons. We have limited our analysis in this pilot project phase to a relatively small number of broad issues, though our framework is suitable for much deeper targeted analysis for a single country or country clusters.

Being ranked #1 in the Gender-GEDI index does not mean there is no further need for improvement. The Gender-GEDI calculates relative country scores and there is room for improvement at all rank levels. Higher-ranking countries also display weaknesses, often in areas where lower ranking countries excel, since despite their overall ranks, every country is characterized by its unique set of strengths and weaknesses. By identifying its strengths and weaknesses, a country can chart a course for improvement, in many cases using another country's exemplary performance as a starting point for discussion and analysis. Obtaining a top rank is not a static position, and is subject to the relative performance of other countries. Only countries that are actively cultivating gender parity in terms of access to resources and institutions as well as their institutional foundations and entrepreneurial spirit retain their top positions.

This chapter begins by presenting the Gender-GEDI rankings for our 17-country sample. This is followed by a further analysis of the Gender-GEDI rankings which is divided into two main parts: the first section presents and describes six distinct insights obtained from the Gender-GEDI scores. The second section presents regional analyses. This chapter ends with a presentation of policy conclusions and future steps.

3.2 The Gender-GEDI rankings

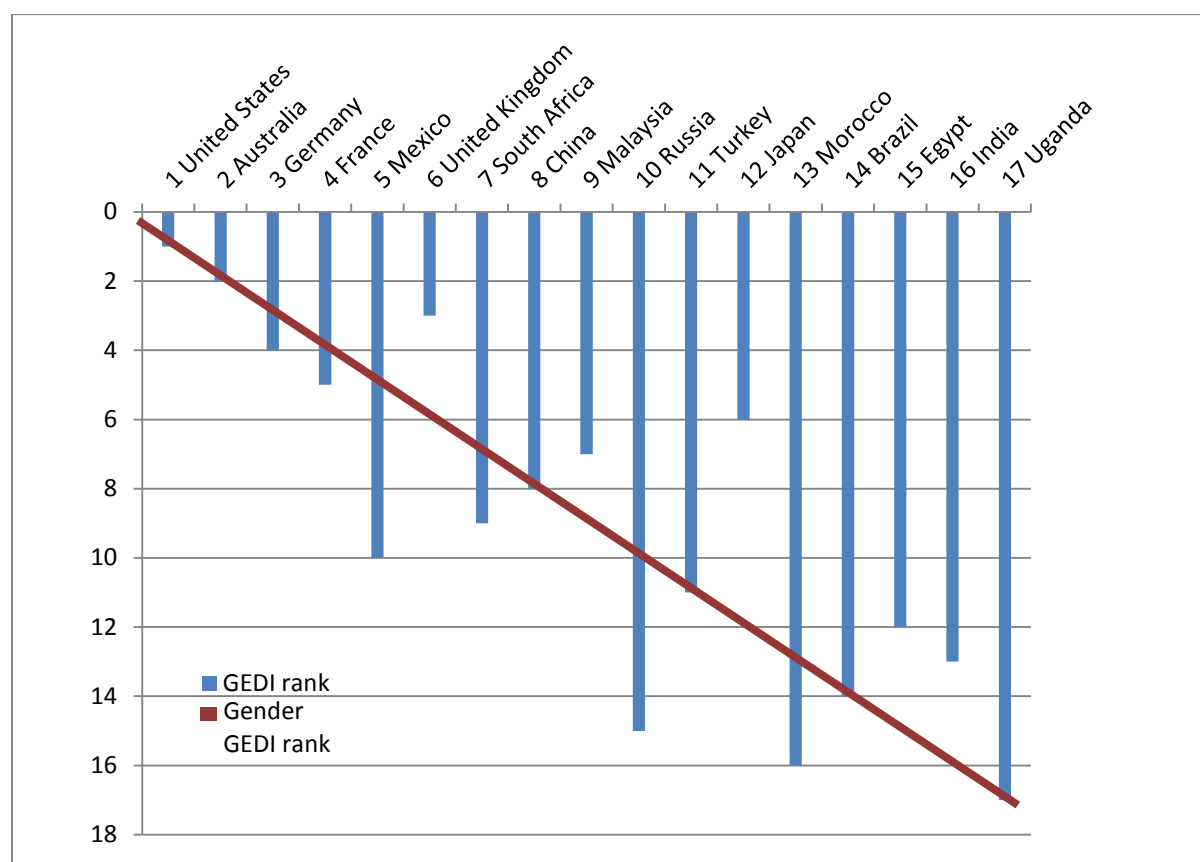
Our initial analysis, focusing on 17 countries representing a variety of regions and economic development contexts, places the United States in first place followed by Australia, Germany, France and Mexico. Rounding out the top ten are the United Kingdom, South Africa, China, Malaysia, and Russia (shown in Table 3.1).

Table 3.1 Gender-GEDI rankings

| Rank | Country | Overall score | Rank | Country | Overall score |
|-------------|----------------|----------------------|-------------|----------------|----------------------|
| 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 | UK | 51 | 15 | Egypt | 34 |
| 7 | South Africa | 43 | 16 | India | 32 |
| 8 | China | 41 | 17 | Uganda | 32 |
| 9 | Malaysia | 40 | | | |

Even though the US ranks #1, it achieves an overall score of just 76 on the 100-point scale. Even among the ten top-ranked countries there is a distinct gap between the US and Australia, which score 76 and 70 respectively, and the next four countries, and there is a further gap between 6th-ranked United Kingdom (which scores 51) and 7th-ranked South Africa, which scores 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)¹¹ ranking, which does not differentiate between sex or include any gender-specific variables. Six countries are rated more highly with respect to high potential female 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 US and Australia, 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 10th place in the GEDI to 5th place in the Gender-GEDI) and Russia (who moved up from 15th place in the GEDI to 10th place in the Gender-GEDI). In terms of greatest decrease to final rank, Japan's rank dropped 6 places from being 6th in the GEDI to 12th in the Gender-GEDI, and the UK's relative ranking dropped by 3 places, from being 3rd in the GEDI to 6th place in the Gender-GEDI. Egypt and India's relative rankings also decreased by 3 places, going from 12th to 15th for Egypt and from 13th to 16th for India.

Figure 3.2: The Gender-GEDI and GEDI rankings compared

Key: Blue columns that extend below the red parity line indicate countries that receive higher relative ranks in the Gender-GEDI Index; blue columns that are above the red parity line indicate countries that receive lower scores in the Gender-GEDI index and blue columns that reach the red parity line indicate no difference in rank for the Gender-GEDI and GEDI scores.

3.3 Six Key Findings described

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:

1. There is no single method for fostering ‘high potential’ female entrepreneurship;
2. Filling the female startup education gap is an important area for improvement for many countries;
3. Economic development alone is not enough to foster high potential female entrepreneurs;
4. Business formalization is important for successful, scalable enterprises – especially with respect to improving access to capital;
5. Business freedom (meaning removing legal and regulatory impediments to growth) is a necessary condition for a vibrant entrepreneurial economy;
6. 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 is discussed in further depth below.

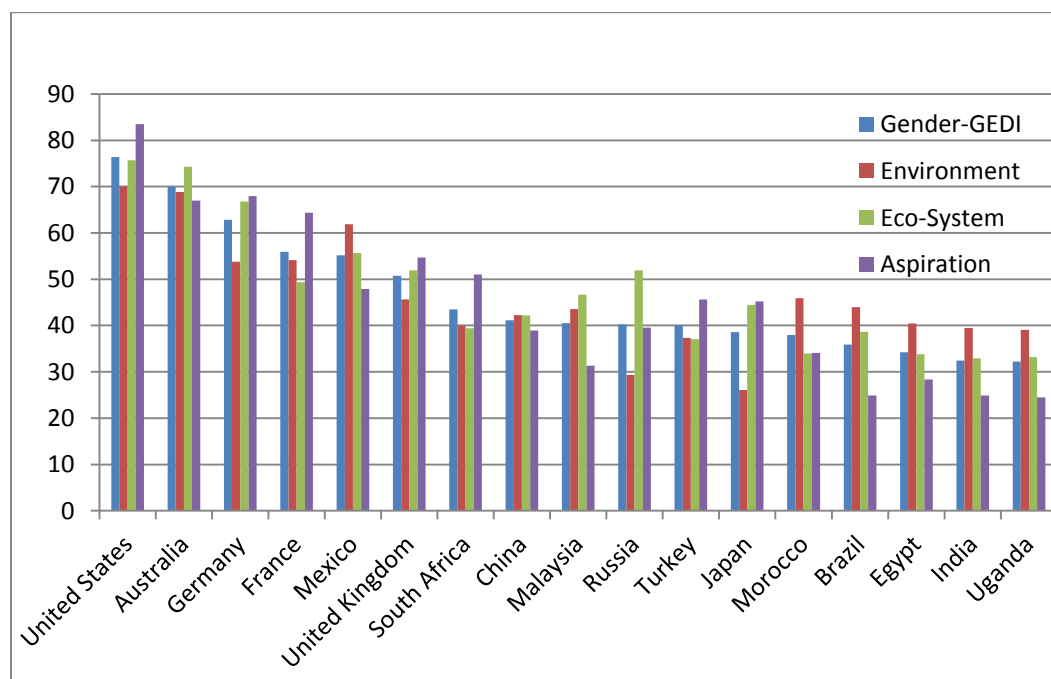
3.3.1. No single recipe for success exists

Looking at how high-ranking countries compare with respect to the major factors of entrepreneurial environment, institutional eco-system 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 3.3 below compares the overall Gender-GEDI ranking with the overall scores for the individual sub-indices: Entrepreneurial Environment, Entrepreneurial Eco-System and Entrepreneurial Aspirations¹². 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.

However other countries show spikes or deeper dips in certain sub-indices. For example, 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. For example, Russia scores well in 'high potential' female entrepreneurship startup activity in terms of having 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 in those developing economies.

Figure 3.1: Gender-GEDI Overall Country Scores and Sub-index Scores



3.3.2 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 in many countries globally, but as the results of our 17 country sample shows, many 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).

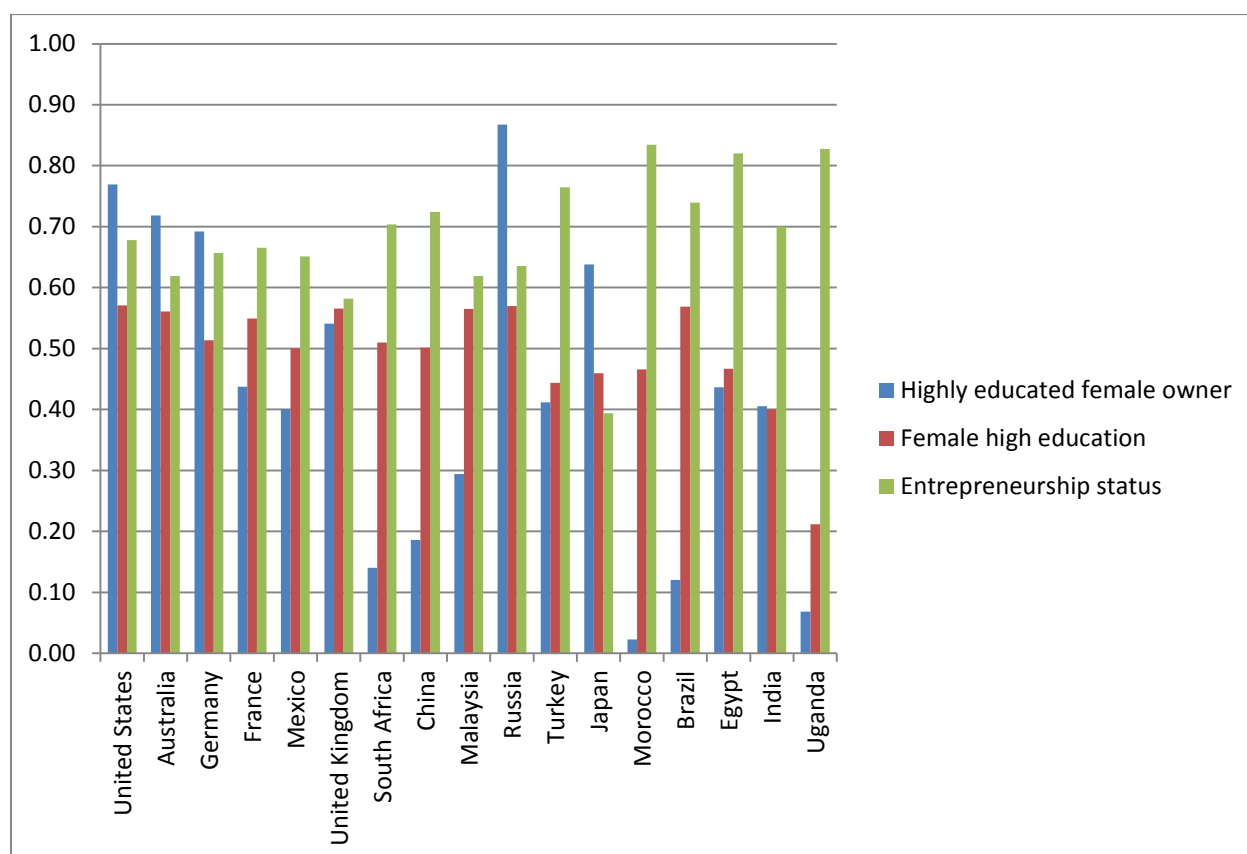
However, in the top Gender-GEDI performers, the education gap is reversed: More female entrepreneurs are highly educated compared to the overall percentage for the female population. This is true in the US, Australia, Germany and also in Russia, a middle range performer (which has the highest percentage 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 five of the countries included in our sample: the US, UK, Malaysia, Russia and Brazil, the percentage of women with a post-secondary education is the same at 57% . However the percentages of highly educated female startup entrepreneurs in these five countries are very different. Russia comes out on top with 87% of female startup entrepreneurs being highly educated while only 12% and 29% of the female startup entrepreneurs are highly educated in Brazil and Malaysia respectively. In the US, 77% of female startup entrepreneurs are highly educated while in the UK only 54% of female startup entrepreneurs are highly educated.

Moreover, the general trend seen in other developing and emerging economies is similar to that in Malaysia, 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 subsistence, small-scale business phase.

As shown in Figure 3.4, 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, in France, the majority of the female population 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%.

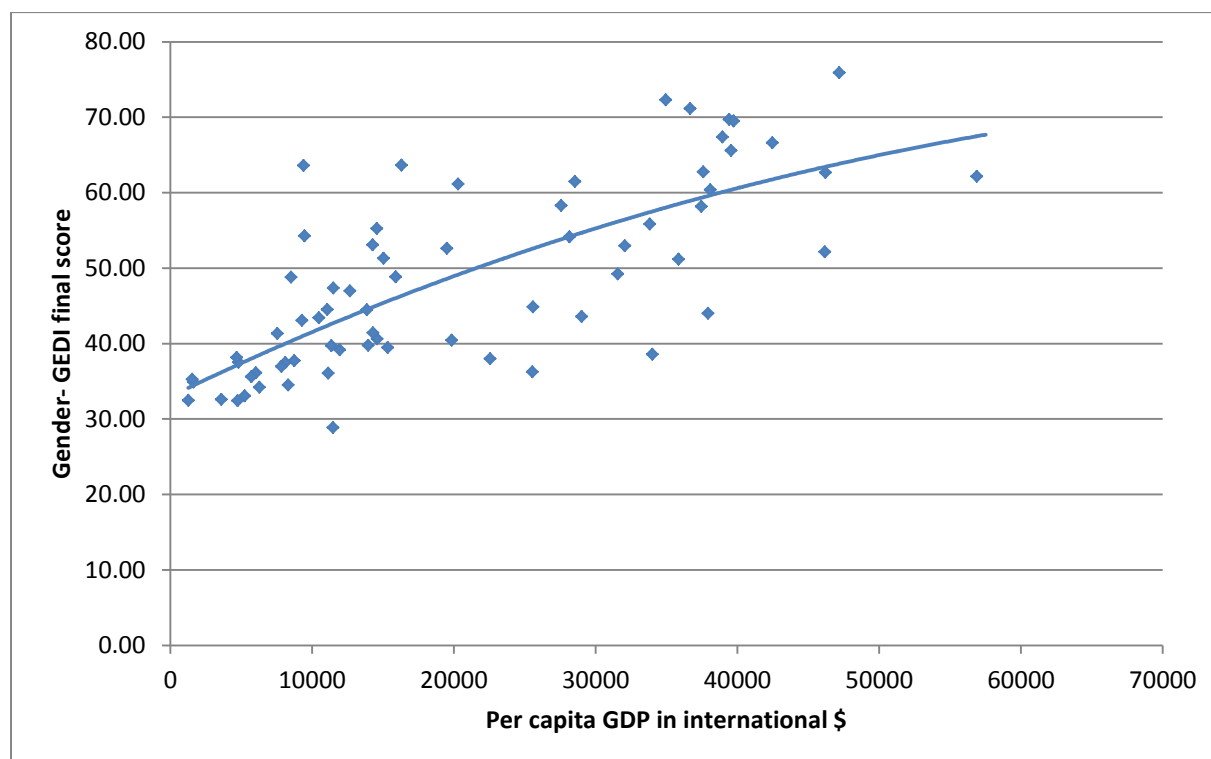
Figure 3.2: Education and Entrepreneurial Status

Data sources: GEM (2011); UNESCO (2011)

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

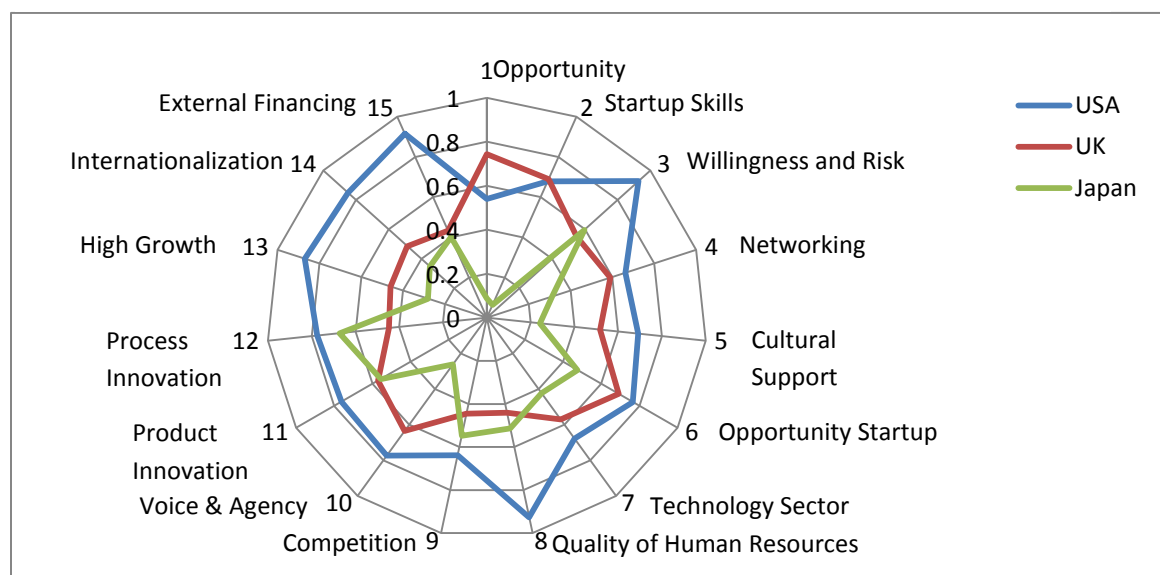
As Figure 3.5 shows, the general relationship between a country's overall Gender-GEDI Index score and per capital GDP level indicates that lower income countries receive lower Gender-GEDI scores while higher income countries receive higher Gender-GEDI scores. We find that the relationship is stronger for lower income countries than for higher income countries, as one can see that the dispersion of the country points increases as per capita GDP levels rise.

Figure 3.3: The Relationship between Gender-GEDI scores and per capita GDP¹³



Though Japan, the United Kingdom and the United States are all high-income countries with relatively strong institutional foundations in terms of a business environment that is overall stable and not overly-regulated, their Gender-GEDI ranks are very different. Out of 17 countries, the US is ranked #1, the UK ranked #6 and Japan ranked #12. As Figure 3.6 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 the 17 developed and developing countries in our sample).

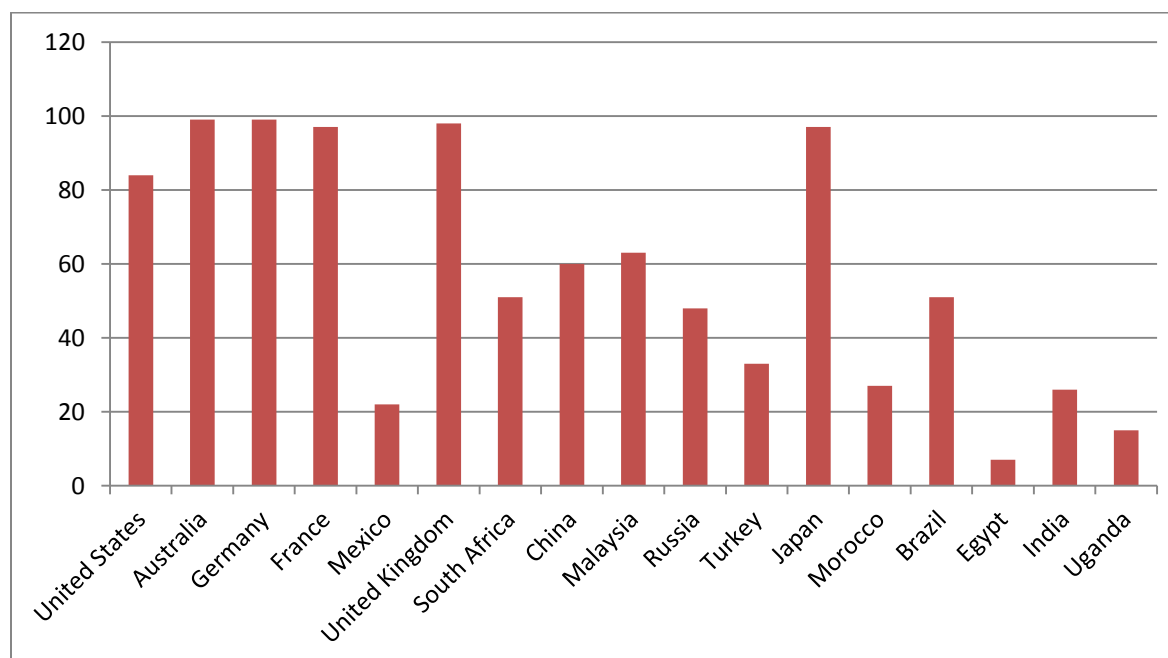
Figure 3.4: Three High-Income Economies Compared: The US, UK and Japan



3.3.4. Business formalization is important for successful, scalable enterprises

Access to a formal bank account is critical for high potential female entrepreneurs, especially since it is a necessary precursor to financing – bank loans, credit lines, etc. – that will fuel their further 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 UK, Japan and France (see Figure 3.7). Formal financing is especially important for female entrepreneurs, who tend to have less personal capital to invest in their businesses.

Figure 3.5: Percentage of Women with a Bank Account at a Formal Institution



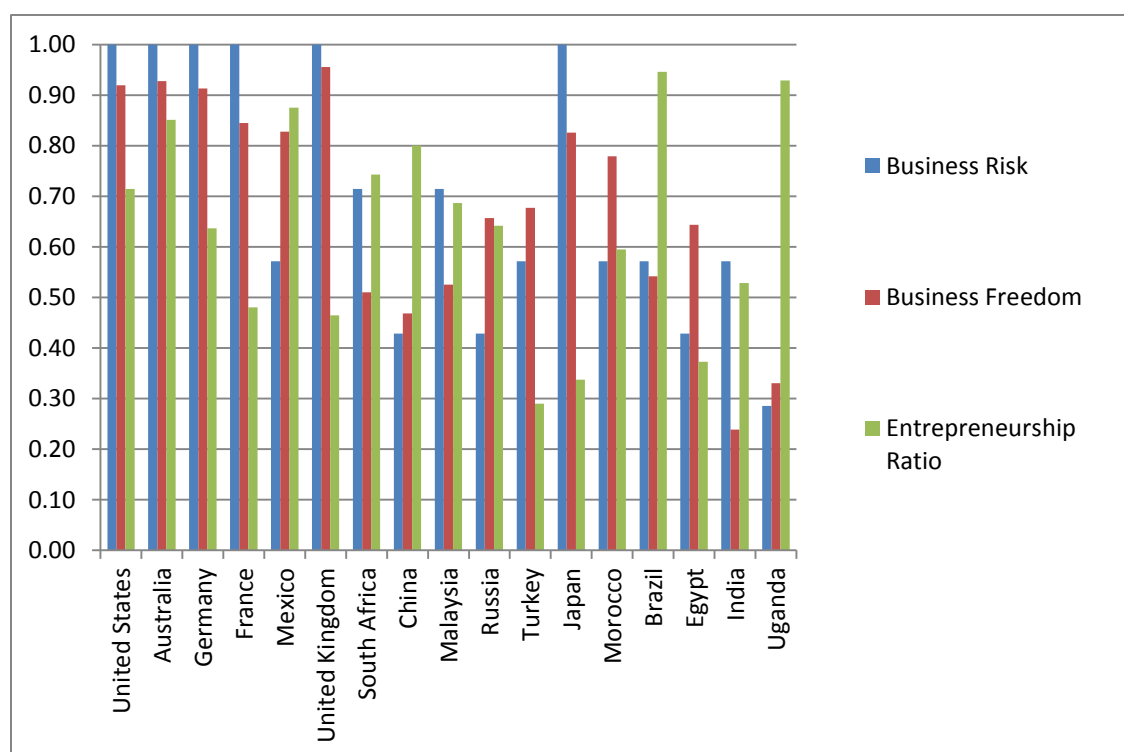
Source: World Bank Findex Database (2011)

3.3.5. Business freedom is a necessary condition

When focusing on high potential female entrepreneurship, the general business environment cannot be overlooked – therefore include female/male total entrepreneurship activity ratios (the share of adult women engaged in business ownership compared by the share of men so engaged) with the general business environment in terms of ease of starting, running and exiting a business ('Business Freedom' variable, compiled by the Heritage Foundation) and the 'Business Risk' variable which assessing the overall business environment and climate (compiled by Coface) in our analysis.

As shown in Figure 3.8, 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 US and Germany – also display relatively high ratios of female/male entrepreneurial activity.

Figure 3.8: Business Environment and Entrepreneurship Ratio Compared



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

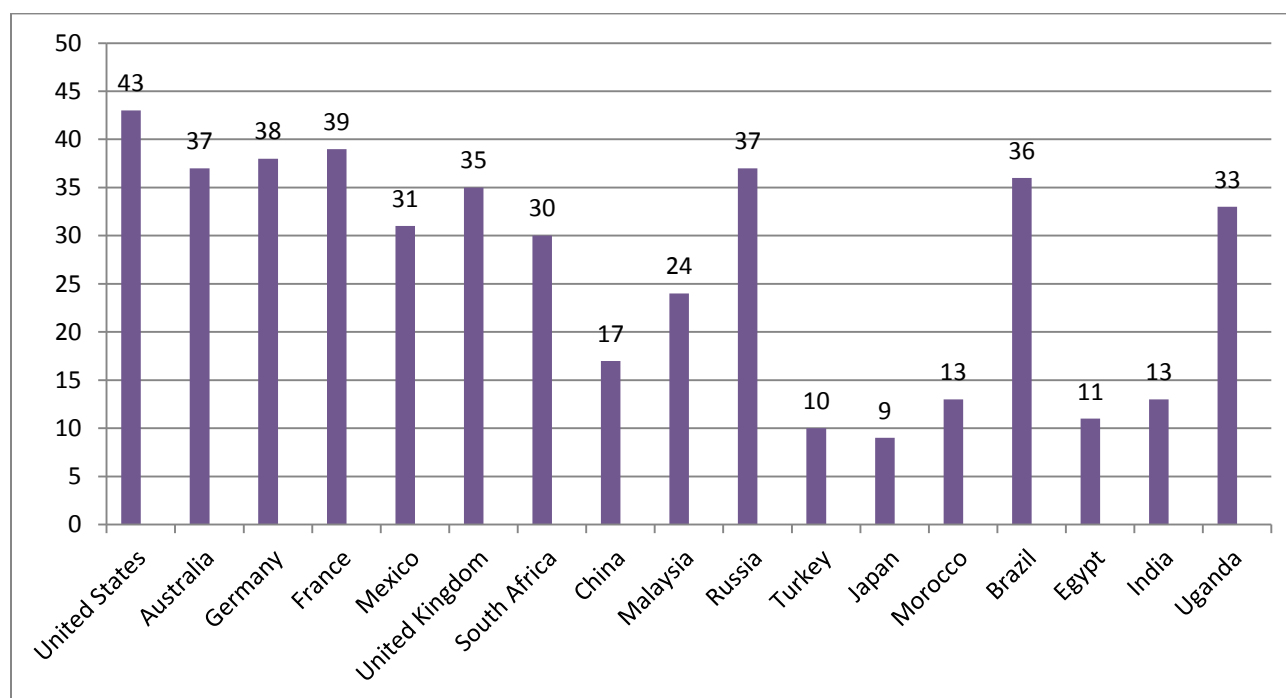
In many cases, Business Freedom and Business Risk have a similar tendency, yet there are exceptions such as is the case for Malaysia, South Africa and India. Between the two, Business Freedom would appear to have a greater effect on high potential female entrepreneurs, since it focuses specifically on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

3.3.6. Social norms: Lifting the veil unleashes female potential

Social norms impact female entrepreneurship in a number of ways. For one thing, 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 have to experiences as decision-makers and leaders as well as to the range of occupations where women work – 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 US 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 3.9 below). Access to higher education forms the foundation for high potential female entrepreneurship but management experience provides women with additional skills, experience and networks which can facilitate female entrepreneurship success and business growth. But, 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 3.9: Percentage of Female Managers

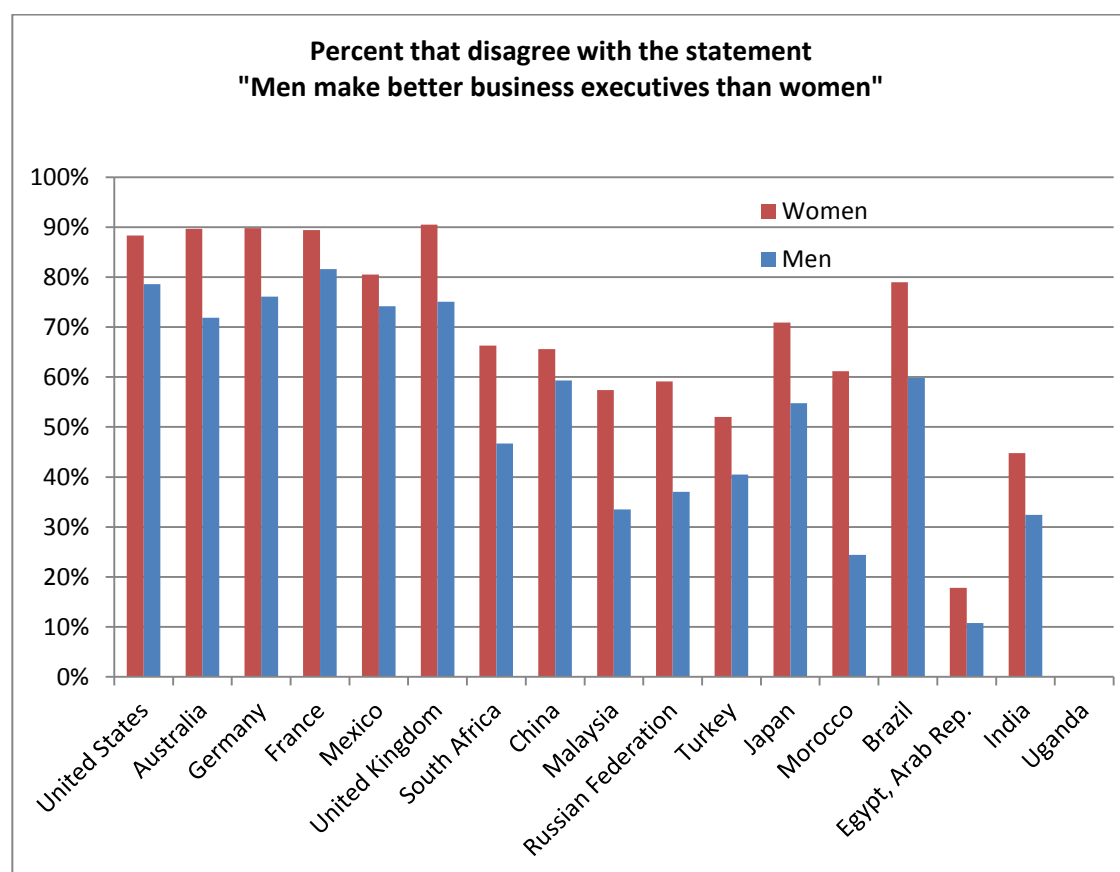


Source: Global Gender Gap Index (2011)¹⁴

Another very revealing comparison of our 17 countries is of the attitudes towards the capabilities of the hypothetical male business executive versus the hypothetical female business executive. As shown in Figure 3.10, 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 for Egypt (less than 20%) and India (less than 50%) of both males and

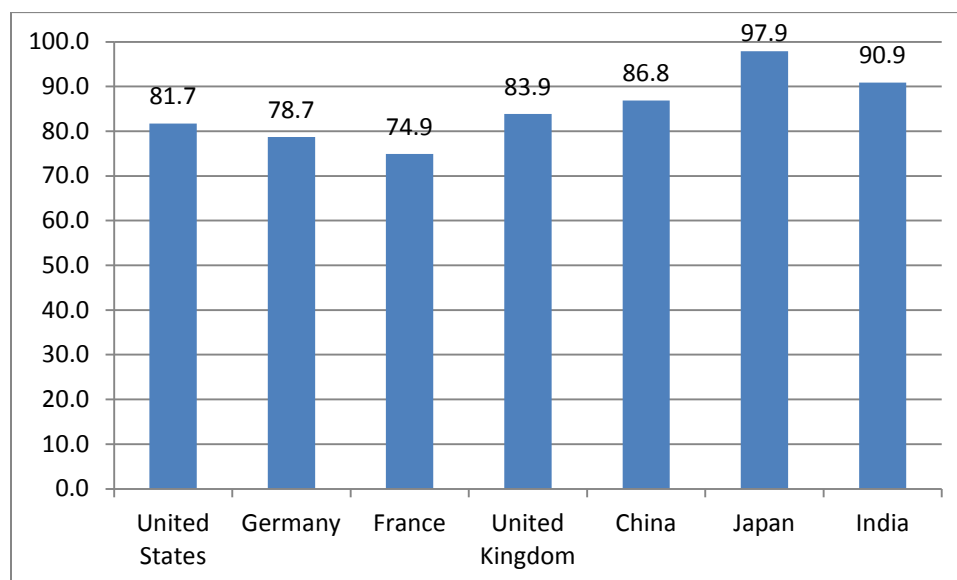
females disagreed with the statement that ‘men make better business executives than women’ while in Morocco, Malaysia, Russia, South Africa and Turkey, larger percentages of women disagreed with the statement than men. The majority of men in all five countries agreed with the statement that ‘men make 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 decision-making and leadership capabilities such as high potential female entrepreneurs would encounter a similar bias.

Figure 3.10: Perceptions of Female Business Ability



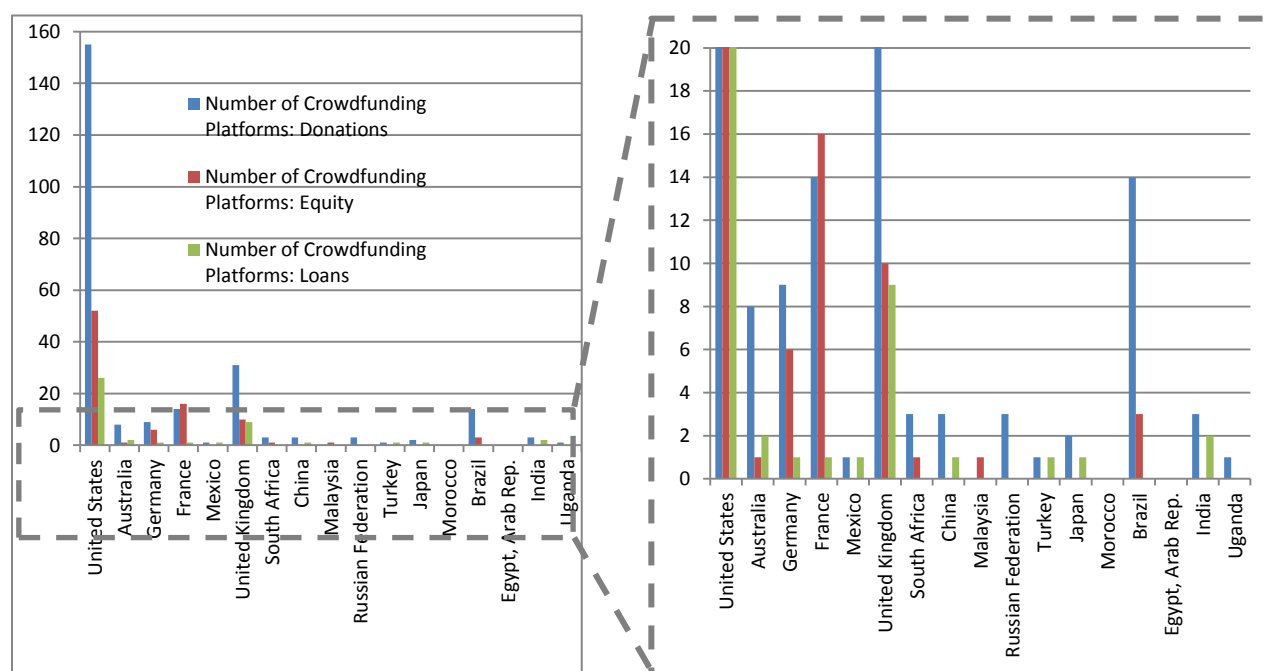
Source: World Values Survey (various years)

Worldwide, women receive less outside funding for their businesses than men. But 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 available¹⁵. But as Figure 3.11 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.

Figure6: 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 3.12 shows, this is not yet a widely available option in most countries included in our sample.

Figure 3.12: Crowdfunding Availability

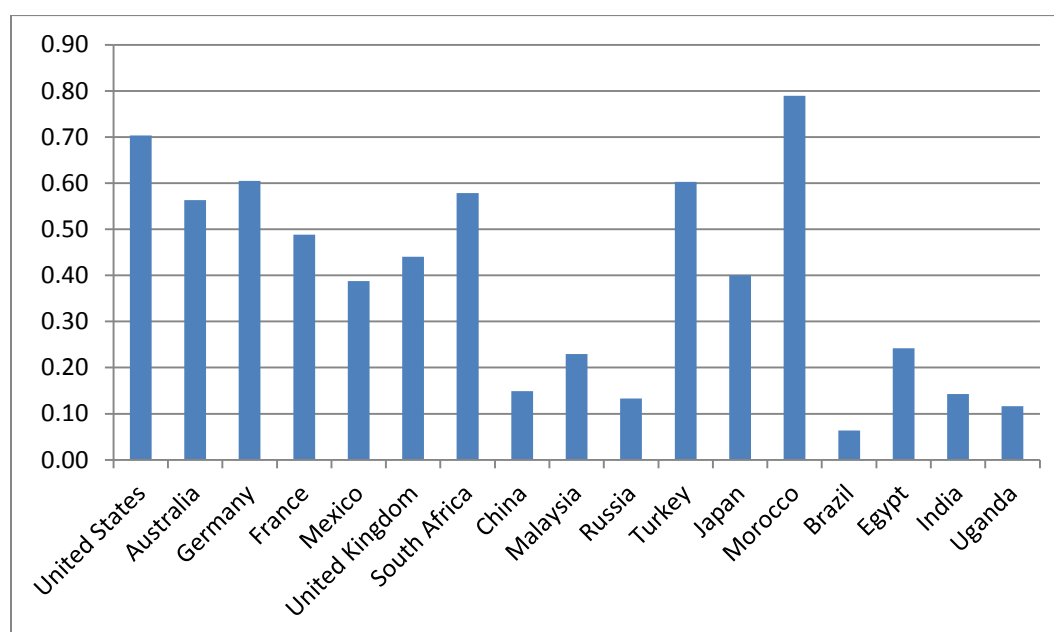
Source: data compiled from www.crowdfund.org

Furthermore, social norms regarding care responsibilities (especially of children) can hinder women's advancement as leaders and decision-makers even in spite of seemingly female-friendly employment options. A recent study¹⁶ 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 the more flexible employment options and the other is that employers cannot tell which women are likely to use these options. As a result, employers may be wary of hiring women for high-level positions. Interestingly, in the US, 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.

3.3.7 Female startup entrepreneur exporting behavior

An additional interesting finding worth noting was the differences in export behavior of female startups in our 17 country sample. Through exporting their goods and services, high potential female entrepreneurs move into new markets, allowing to business growth and contributing to economic growth and global market integration. The Gender-GEDI captures a wide range of results with 60% or more female entrepreneurs exporting their goods and services in Morocco, the US, Germany and Turkey. Yet, in a number of other countries, such as in Brazil (6%), Uganda (12%), Russia (13%) and India (14%), very few female entrepreneurs export.

Figure 3.13: Percentage of female startups that are exporting



3.4 Gender-GEDI Results Regional Focus

In this section we present a brief analysis for regional groups and country clusters, which include Latin America, BRICS countries, European countries, MENA countries and Asian - Pacific countries.

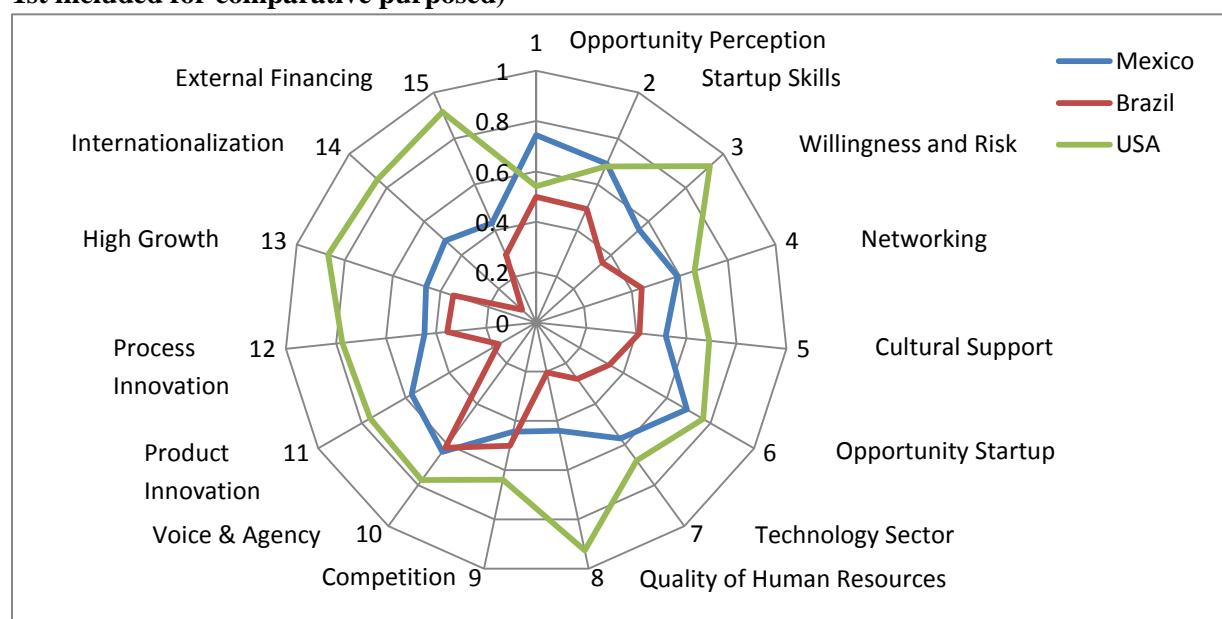
3.4.1: Latin America: A look at two very different set of conditions

For our Latin American regional snapshot, we compare the scores for Mexico and Brazil. Mexico ranks within the top five countries occupying 5th place between France in 4th place and the UK in 6th place. In fact, it's Gender-GEDI ranking moves up 5 places from its GEDI ranking in 10th place. In comparison, Brazil ranks in 14th place positioned Morocco in 13th place and Egypt in 15th place and it also ranked in 14th place in the GEDI Index.

Mexico outperforms Brazil in a number of key areas: In Mexico relatively more women know entrepreneurs (52%) than in Brazil (39%). Knowing an entrepreneur is a proxy for entrepreneurial networks. Also, knowing an entrepreneur can provides a role model for women considering entrepreneurship. Mexico also has a much higher percentage of highly educated female startups (40%), while Brazil displays one of the lowest relative percentages for highly educated female startups (12%). In addition, in Mexico almost half of all female startups are engaged in new product development (47%), compared with only 15% in Brazil. Moreover, significantly more female startups are exporting (39%) in Mexico than in Brazil (6%).

Looking at the pillar level, Mexico performs better than Brazil on 14 out of 15 pillars, the exception being Voice & Agency, which is part of the Entrepreneurial Eco-System sub-index, where the two countries show a similar level of performance. Both chart at the low end for female labor force participation ratio (54%) and both chart relatively high ratios for female/male entrepreneurship activity (94:100 for Mexico and 87:100 for Brazil).

Figure 3.14: Mexico (ranked 5th) and Brazil (ranked 14th) pillar performance with the US (ranked 1st included for comparative purposed)



3.4.2: BRICS countries compared

The BRICS countries (Brazil, Russia, India, China and South Africa) provide an interesting comparison in terms of Gender-GEDI rankings and scores at the pillar levels. The main differences are discussed below for each BRICS country and presented in Figure 3.15.

Brazil shows a high relative ratio of female entrepreneurship activity and female labor force participation. Also, compared to the other BRICS countries, it displays a higher level of startup skills. Brazil's lowest relative areas (and lowest amongst our 17 country sample) are in product innovation indicating low levels of new product development as well as external financing (bank accounts, financial training programs and informal female investment). Also Brazil scores low on internationalization (exporting businesses and globalization).

Russia shows large spikes for the Technology Sector (pillar 7) both in terms of women with startups in the technology sector and female science graduates. Compared to other BRICS countries, it also receives the relatively highest score for female startups who plan to grow their businesses (Business Gazelles) as well as a relatively high score for pillar 10 (Voice & Agency) indicating both a high ratio of women in the formal labor force as well as a high ratio for women's total entrepreneurship activity. But Russia has very low levels of exporting female businesses leading to the low performance for 'Internationalization' (pillar 14). With the exception of South Africa, the other three BRICS countries also receive relative low scores for 'Internationalization'. In general, Russia receives low relative scores for all five pillars that make up the Entrepreneurial Environment sub-index. Russia's strong showing for highly educated women, female entrepreneurship in the technology sector and high ratio of women in the labor force is likely to be a positive legacy of the Soviet system which provided opportunities for women to seek higher education and work in science-related fields. However, the low scores for the pillars that make up the Entrepreneurial Environment sub index may indicate the negative legacies of the Soviet system which outlawed most forms of entrepreneurship.

India is one of the lowest ranking countries in our sample. It scores relatively well for opportunity recognition which indicates that the female population recognizes good opportunities for businesses where they live. Yet women in India do not share equal legal rights with men which may limit their ability to act on these perceived opportunities. India receives the lowest relative score for the high growth pillar indicating both extremely low levels of female entrepreneurs who expect to grow their businesses as well as very low levels of women managers who often form a skilled pool of women to flow into high potential female entrepreneurship.

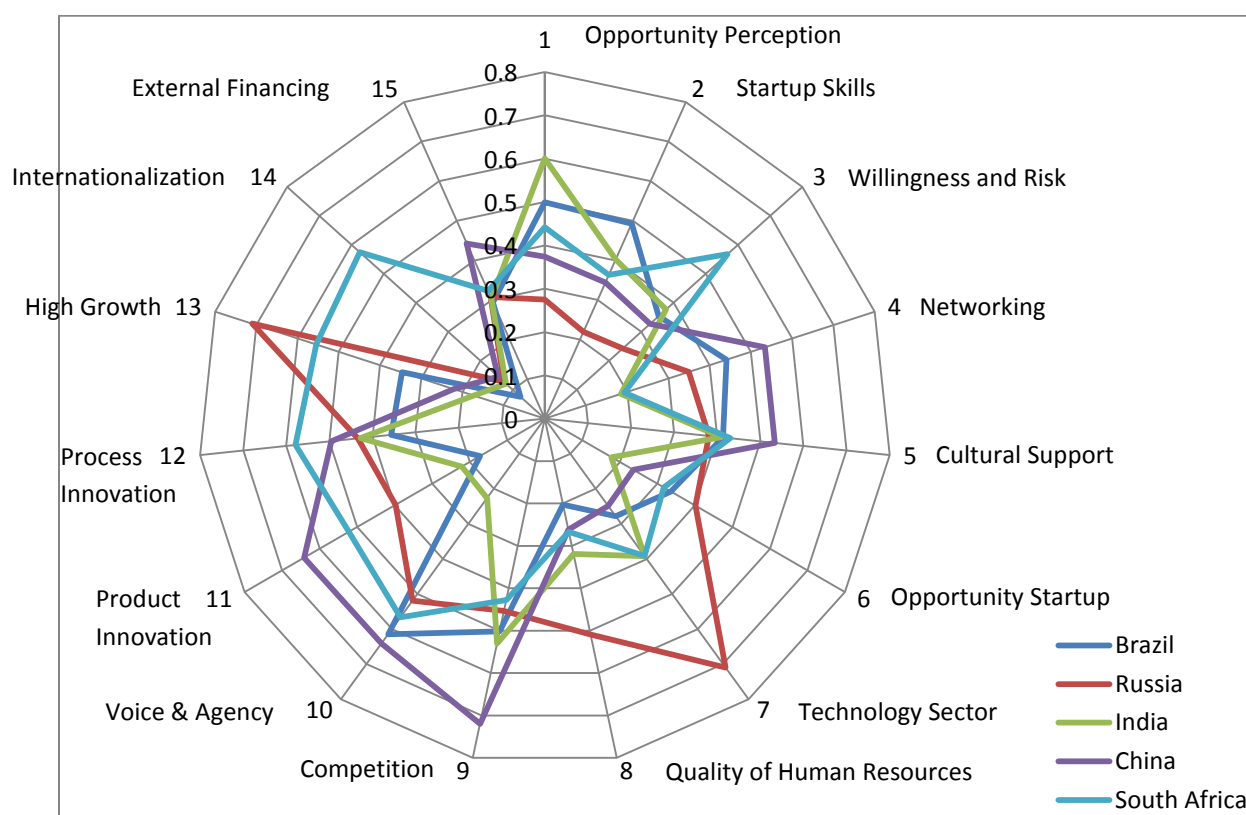
Compared to other BRICS countries, **China** scores well for the Networking pillar (especially in terms of knowing an entrepreneur), Cultural Support pillar (high status for entrepreneurship and good access to childcare), Voice and Agency pillar (characterized by a high ratio of female entrepreneurship activity and female labor force participation) and New Product pillar (indicating a high relative degree of female entrepreneurs introducing new products to their clients). It also scores relatively well in terms of External Financing (pillar 15). China's areas of relative weakness include low levels of Internationalization in terms of exporting businesses and market globalization and also for the Technology Sector pillar (which measures female startup entrepreneurs with tech businesses and the percentage of female science graduates).

South Africa is the exception when it comes to the Internationalization pillar, displaying both high levels of female startups that are exporting and a relatively open domestic market (globalization). South Africa also scores relatively well in terms of process innovation, with many female businesses incorporating new

technology. Moreover, the high degree of willingness to start a business combined with a stable business environment, provide a solid combination for new business startups (pillar 3). In terms of areas in need of improvement to foster high potential female entrepreneurship, South Africa shows very low levels of female internet users and low levels of women who personally know an entrepreneur, which lead to their relatively low scores for Networking (pillar 4). Also, a low share of highly educated female startup entrepreneurs results in lower relative scores for the Quality of Human Resources (pillar 8).

In terms of the general business environment (as measured by market freedom), Russia fares the best of the BRICS countries but for the sample as a whole, it's relative score for business environment is moderate, followed by Brazil, S. Africa, China and India.

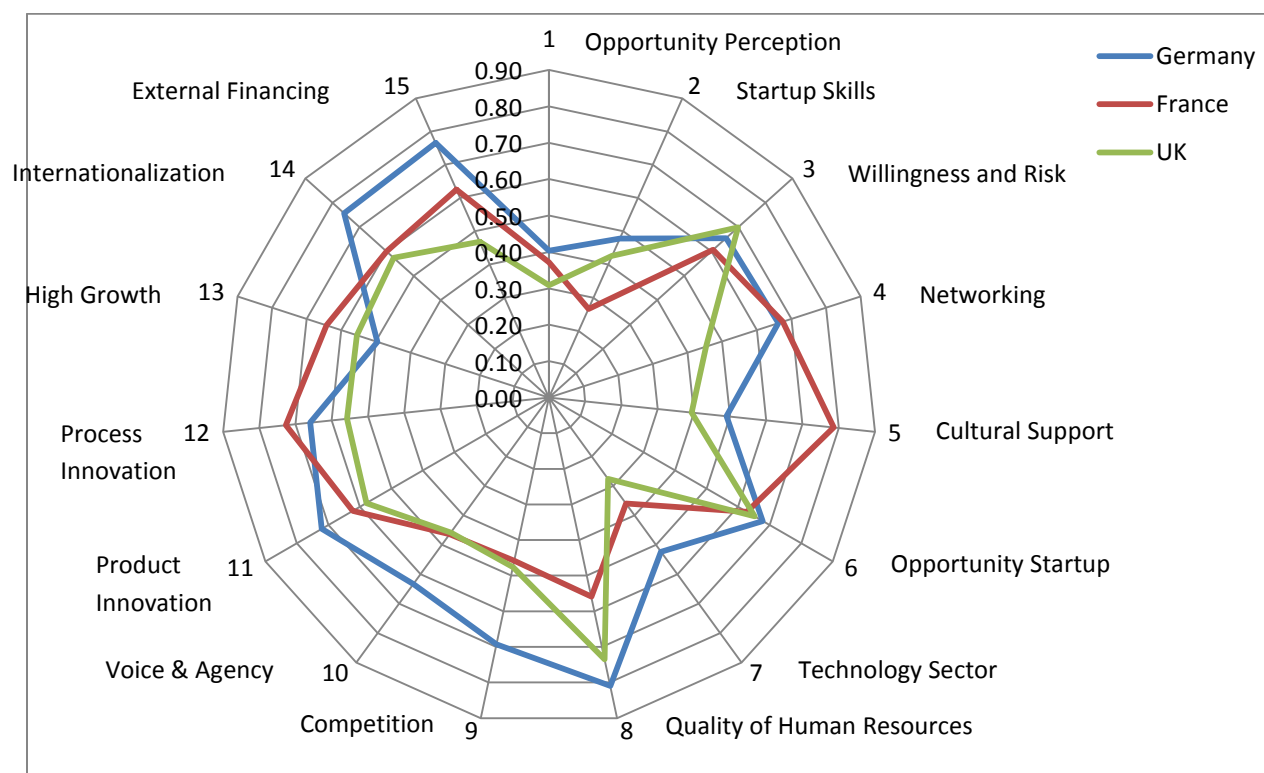
Figure 3.15: BRICS country performance compared at the pillar level



3.4.3. The European region: Germany, France and the UK compared

The three European countries in our sample generally show less variability between their pillar scores, albeit with some exceptions. All three countries display a dip in scores for Technology Sector (pillar 7), with the UK charting the lowest score. This pillar captures the very low percentages of female startups engaged in the UK's technology sector. France's high performance for Cultural Support (pillar 5) is driven both by its high ranking (highest in our 17 country sample) for accessible, affordable and high quality childcare availability, together with a relatively high percentage of women who believe that entrepreneurs enjoy high status and entrepreneurship is a good career choice. The UK and Germany do less well on both accounts. The opposite is true for Quality of Human Resources (pillar 8), where Germany receives the highest relative score, closely followed by UK with France lagging behind. Germany's high score is related to both its high percentage of highly educated female startup entrepreneurs (almost 70%) as well as offering SME training programs that are available, accessible, affordable and culturally appropriate for women.

Figure 3.16: European country pillar performance compared

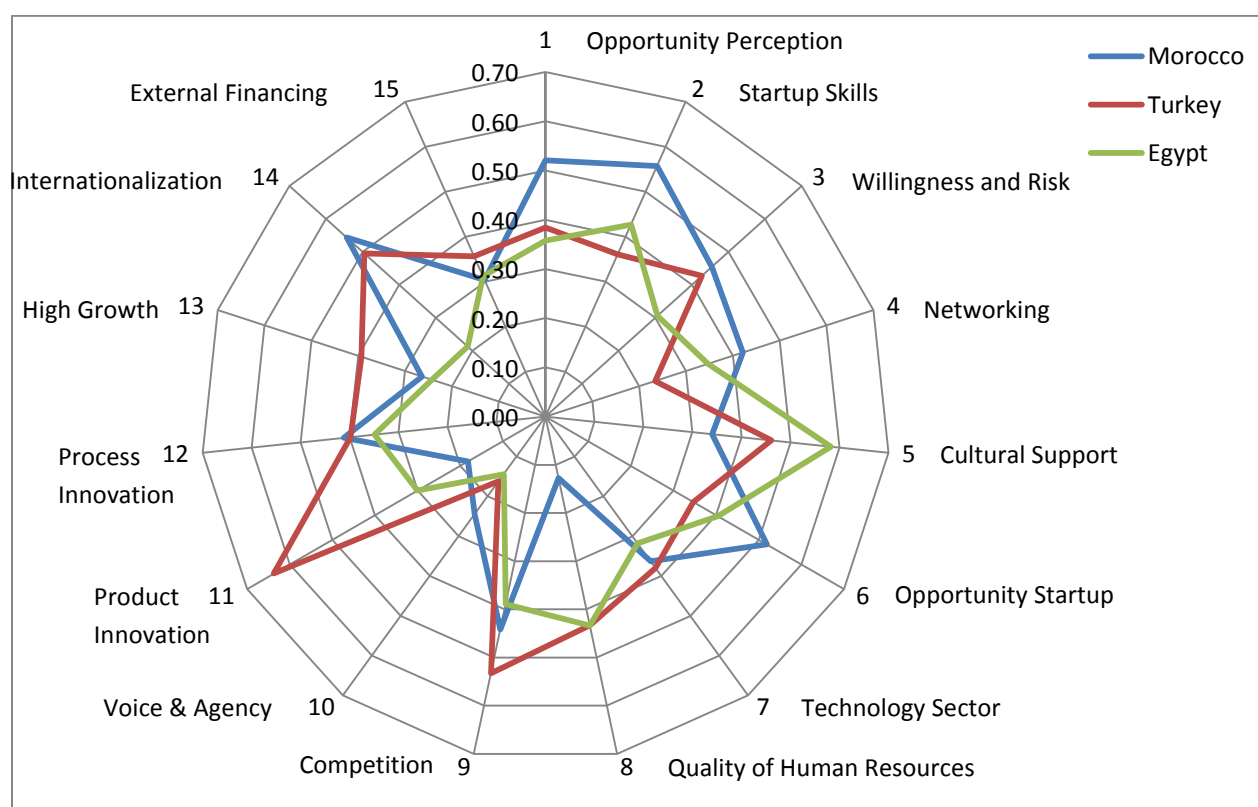


3.4.3 The MENA region: Egypt, Morocco and Turkey compared

Turkey is the best overall performer for the MENA countries, ranking 11th, followed by Morocco in 13th place and Egypt in 15th place. But as Figure 3.17 shows, for pillars 1- 4 Morocco outscores both Turkey and Egypt. Morocco receives its highest relative rank for the Entrepreneurial Environment sub index buoyed by higher levels of the female population identifying good opportunities, believing they have the skills needed for startup and not constrained by 'fear of failure'. All three countries are characterized by high portions of the female population stating that entrepreneurship enjoys high status and is a good career choice (which makes up the 'Cultural Support' pillar 5). However, Morocco's low relative performance on pillar 5 is attributed to access to childcare. In Morocco, professional childcare is expensive, difficult to obtain or of low quality whereas childcare availability, affordability or provided by the extended family is better in Turkey and in Egypt. All three countries receive relatively low scores for pillar 10 (Voice & Agency) which measures female/male ratio for labor force participation and is particularly low, less than 4:10. Also it includes the female/male startup ratio which is lowest for Turkey less than 3:10 and less than 4:10 for Egypt but much higher in Morocco at almost 6:10. However, though the startup ratio is higher, Morocco is also characterized by an extremely low percentage of female startup entrepreneurs who are highly educated. Only 2% of female startups are highly educated in Morocco.

However, all three countries also have restrictions on women's equal legal rights which influences their relatively low scores for pillar 1 (Opportunity Perception). For all three countries, there are restrictions on working hours for women as well as women not being able to work in certain industries, and Turkey also restricts certain types of work from women who are pregnant. In comparison to the other two MENA countries, Egypt is the most restrictive, including restrictions on women for travel and restrictions on married women as heads of households.

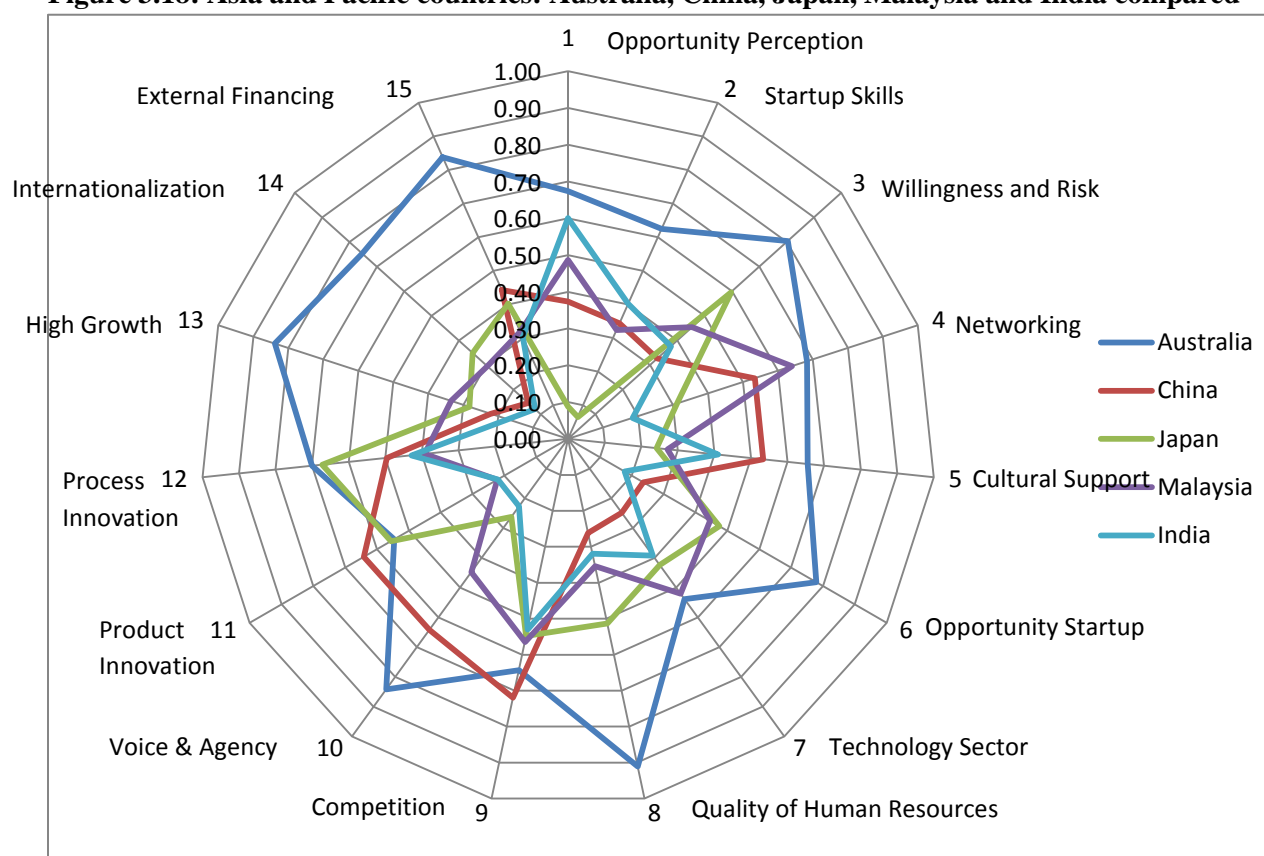
Figure 3.17: MENA region pillar performance compared



3.4.4: The Asia and Pacific region: Australia, Japan, China, Malaysia and India compared

In the Gender-GEDI Australia ranks in second place (behind the US which is in first position) and as figure 3.18 shows, it leads the other Asian and Pacific countries in terms of the quite balanced pillar scores, dipping in score only for the Technology sector (pillar 7) and Product Innovation (pillar 11). Australia displays exceptionally strong performance for Quality of Human Resources (pillar 8), Voice and Agency (pillar 10), High Growth (pillar 13) and External Finance (pillar 15). The remaining four Asian countries show greater variation between their pillar scores. Japan is quite exceptional in this regard, with relatively high scores for Product and Process Innovation (pillar 11 and 12) in line with Australia's scores, but receiving the lowest relative scores for Opportunity Perception (pillar 1) and Voice and Agency (pillar 10). China receives its highest scores for Competition (pillar 9) and Product Innovation (pillar 11), but is a low performer for High Growth (pillar 13) and Internationalization (14). Malaysia shows a relatively high score for Networking (pillar 4) but a low score for Cultural Support (pillar 5). India ranks 16th in the overall Gender-GEDI index and shows lower scores for most pillars, with a noticeable exception for Opportunity Perception (pillar 1). The higher score for Opportunity Perception is driven by a relatively high percentage of the female population that recognizes good opportunities for starting a business. This result may however also be related to opportunities for 'informal business activities' given the large size of India's informal sector (98% of self-employed females are working in the informal sector). Both India and Malaysia also impose additional gendered restrictions on women in terms of more limited freedom of movement outside the home and restrictions to working hours and working in certain industries which lowers their scores for pillar 1 (Opportunity Perception).

Figure 3.18: Asia and Pacific countries: Australia, China, Japan, Malaysia and India compared



3.5 Concluding Remarks

The Gender-GEDI 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 across all countries. Rather, most countries are confronted by a unique combination of factors. As a tool for analysis, the Gender-GEDI illustrates both some of the obvious and less obvious areas that need to be addressed in order to improve circumstances, realigning the incentive structure for women to engage in startups with growth aspirations. In most cases, addressing the lowest ranking pillar is the logical course for action. However, for four countries in our sample, removing the legal restrictions that do not allow women the same opportunities for employment, work hours and freedom of movement outside the home are paramount. Many countries in our sample will improve the conditions for high potential entrepreneurship development by increasing women's access to both SME training programs and to finance – initially to formal bank accounts and financial training programs and then to more sophisticated forms of financing such as bank loans and VC funding. 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 female graduates in STEM fields. Those countries that can alter 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 for to the benefit of economy, culture, and society as a whole. 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. The Gender-GEDI charts the course for improvements in the most critical areas for change.

Our regional analysis highlights several important aspects of fostering high potential female entrepreneurship. In general we find that the higher ranking countries – the US, Australia and the European countries in our sample – all tend to have more balanced pillar scores characterized by less extreme spikes and dips. To a large extent these pillar outcomes are driven by more stable institutional foundations as well as greater, more equal access to key resources related to high potential female entrepreneurship. However, we also see that there are areas of improvement for these high performing countries specifically with promoting an 'entrepreneurial culture' amongst the female population in the UK, France and Germany to increase Opportunity Perception, Startup Skills and the percentage of female startups in the technology sector (specifically in the UK and France).

Mexico is an interesting exception to this general trend among the high performers in that it scores very highly for the two Entrepreneurial Environment pillars: Opportunity Perception and Startup Skills, but Mexico shows relative weakness in the Cultural Support pillar. For Mexico, the additional areas of improvement include improving the Quality of Human Resources and External Financing pillars.

The BRICS country analysis provides a glimpse of the differing conditions present in emerging economies for high potential female entrepreneurship development. There is little uniformity in terms of pillar scores with one country's strength such as the Technology Sector for Russia, being another country's weakness (low scores on this pillar for South Africa and China). Most BRICS countries score low on the Internationalization pillar; the notable exception being South Africa who scores above average. The only obvious trend for the BRICS countries is the low level of opportunity startups, indicating that most female startups are initiated out of necessity. India is the lowest ranking BRICS country ranking 16th out of the 17 countries in our sample. Its strengths lie in a high level of opportunity perception but correspondingly low score in opportunity startup indicating that the female population may identify opportunities but the businesses started are for the most part out of necessity. Additional

weaknesses for India include low levels of product development indicative of low innovation and low levels of exporting female startups. This pattern is quite typical for a developing country context such as India where the entrepreneurial motivation is present amongst the population but the institutions, training and skills are not present to support high potential female entrepreneurship. In India's case, restrictions on women's freedom of movement outside the home as well as restrictions to work in certain occupations and working hours may have a further limiting effect.

In the process of developing the index, we encountered data limitations (discussed in more depth below) that likely affected the overall Gender-GEDI results. As we move forward, we will further improve and fine-tune the Gender-GEDI: including additional countries, refining our variable selection and creating an annual report for benchmarking progress. We welcome your comments and active participation in this process through our Gender-GEDI LinkedIn group.

Limitations and Future Steps

The Gender-GEDI uses existing data from reliable, internationally recognized datasets and as such, is limited by the data that is currently available. In the process of building the Gender-GEDI index, we identified a number of critical gaps where sex-disaggregated data is missing yet paramount for understanding high potential female entrepreneurship development. 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 comparative data for a wide group of countries beyond a small sample is not available. The World Values Survey collects some relevant attitudinal questions (one of which we include in our discussion in this chapter) but we could not include this as a variable in the index since the data for Uganda was missing. Increased data collection on the influence of social norms and values including the portrayal of female entrepreneurs in the media is needed to be able to capture its potential influence on further female entrepreneurship development. 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 in our analysis due to dearth of comparable data. Access to capital is frequently mentioned in female entrepreneurship research as a main impediment to female business success and growth yet there is very little internationally sex-disaggregated comparable data for this critical issue. As a result, we were only able to include an indicator for bank account access, female informal investors and access to financial training programs and some basic data on access to crowdfunding yet we are fully aware that this only reflects very limited aspects of financial access. High potential female entrepreneurs often need more sophisticated forms of finance including bank loans and VC funding. Unfortunately this data is not available. Access to networking is another area where more in depth information is needed since research indicates that women's networks are more limited yet we do not have the quantitative data to measure this. Similarly, access to technology is very important for high potential female entrepreneurship development, but data is lacking in this area as well.

We were also limited in a number of cases where the data was available but was not sex-disaggregated. This was the case for the individual-level variable measuring the female population's view towards entrepreneurship as a career and if entrepreneurs enjoyed high status. This question may have received different responses if it was specifically asked with regards to 'female entrepreneurs' and not entrepreneurs in general.

Currently, a number of high quality reports exist at the individual and multi country level on female entrepreneurship. However, they do not allow for further comparative analysis and in most cases, the data is not updated annually so that benchmarking progress is not possible. There is a tremendous opportunity to improve our understanding of female entrepreneurship development globally by filling these data gaps.

In the following section, we present the Gender-GEDI results at the country level. We also include additional country level data that we find relevant for understanding high potential female entrepreneurship development but were unable to include in our estimations due to the data's limited country coverage.

Notes

¹¹ For the full report, see Acs and Szerb (2011).

¹² 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.

¹³ Additional countries were included for this analysis beyond the 17 focus countries in order to allow for a more robust comparison.

¹⁴ Additional sources also used. Please refer to the Methodology section in Gender-GEDI (2013) for full description.

¹⁵ 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).

¹⁶ Blau & Kahn (2013)

Country page guide

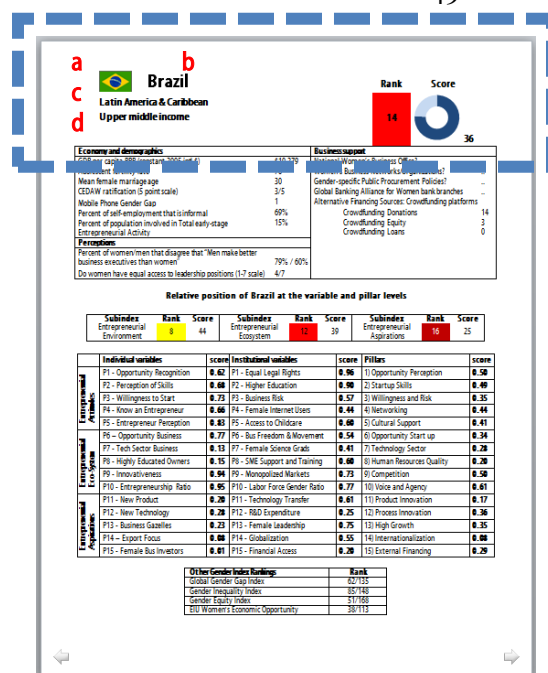
Top level information

- Country flag
- Country name
- Region
- Income Group

Overall Gender-GEDI Rank: This is the country's rank out of the 17 countries examined in this pilot phase

Overall Gender-GEDI Score: This is the score (out of 100) that the country has earned across the Gender-GEDI subindices

| | | | | | | |
|--------------|-----|-----|-----|------|-------|-------|
| Rank colors: | 1-2 | 3-5 | 6-8 | 9-11 | 12-14 | 15-17 |
|--------------|-----|-----|-----|------|-------|-------|



Economy and demographics*

GDP per capita PPP (constant 2005 intl \$): (World Bank, 2011)

Adolescent fertility rate: Births per 1,000 women ages 15-19), World Bank, 2011 data.

Mean female marriage age: Female age at marriage (singulate mean), World Bank, 2012 data.

CEDAW ratification (5 point scale): From the Women's Economic Opportunity Index by the Economist Intelligence Unit (2012) data from 2010 (http://graphics.eiu.com/upload/WEO_June_2010_final.xls).

The scoring for this indicator is as follows:

- 1= CEDAW has not been ratified by the country under consideration
- 2= CEDAW has been ratified by the country under consideration, but has reservations with CEDAW articles, other than Article 29. The country has not signed the Optional Protocol
- 3= CEDAW has been ratified by the country under consideration, but has reservations with CEDAW Article 29 only. The country has not signed the Optional Protocol
- 4= CEDAW has been ratified by the country under consideration without reservations, but has not signed the Optional Protocol
- 5= CEDAW has been ratified by the country under consideration without reservations, and has signed the Optional Protocol

Under Article 29 of CEDAW, two or more State parties can refer disputes about the interpretation and

* Note: Throughout the country pages, missing data is indicated with "n.d." for no data.

Implementation of CEDAW to arbitration, and if the dispute is not settled, it can be referred to the International Court of Justice. CEDAW's Optional Protocol allows the Committee on the Elimination of Discrimination against Women to hear complaints from individuals or groups of women into violations of their rights, and to conduct inquiries into grave violations of the Convention.

The maximum score a country can receive is 5, where 5= most favorable.

Mobile Phone Gender Gap: Regional average percentages ranging from 0% = no gap, i.e. equal access to 37% the highest gap recorded. 2011 data collected by GSMA for the Cherie Blair Foundation (<http://www.cherieblairfoundation.org/women-and-mobile-a-global-opportunity/>).

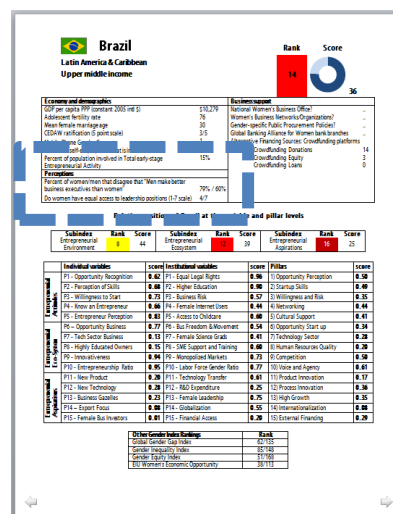
Percent of self-employment that is informal: Based on ILO data for informal employment (ILO, 2004-2010 data)

Percent of population involved in Entrepreneurship Startups: Global Entrepreneurship Monitor (GEM) Adult Population Survey (2011) Based on GEM's Total Entrepreneurship Activity which is the percentage of 18-64 population (both male and female) who are either a nascent entrepreneur or owner-manager of a new business (no more than 42 months old) (www.gemconsortium.org).

Perceptions

Percent of women/men that disagree that "Men make better business executives than women": Either "disagree" or "strongly disagree" have been counted as disagreement) From the World Values Survey, 2005-2008 data, most recent year used (www.worldvaluessurvey.org).

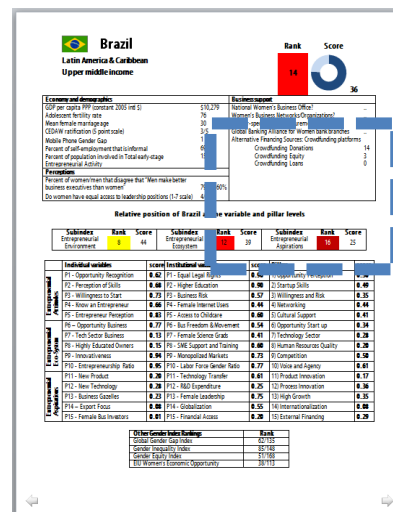
Do women have equal access to leadership positions (1-7 scale)
Based on national expert surveys, Global Gender Gap Index, World Economic Forum, 2011 data (<http://reports.weforum.org/global-gender-gap-report-2012/>).



Business Support

National Women's Business Office: Does the country have a national office dedicated to women's business? Yes/No or n.d. = unknown. Compiled by authors from various sources.

Women's Business Networks/Organizations? A google search was conducted for women's business organizations in each country. Yes/No or n.d. = unknown. Compiled by authors from various sources



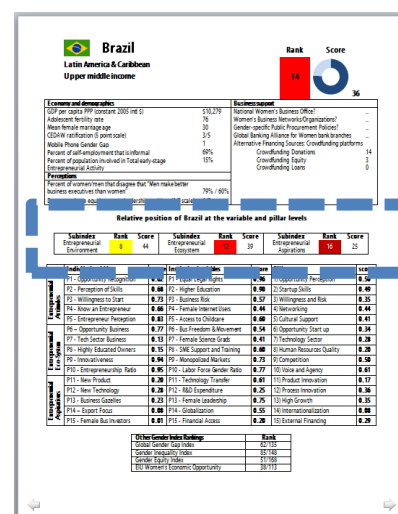
Gender-specific Public Procurement Policies? This data is incomplete, but where a gender-specific public procurement policy is known of it is indicated. Yes/No or n.d. = unknown. Compiled by authors from various sources.

Global Banking Alliance for Women bank branches: The GBAW is a network of banks that have signed on to “build innovative, comprehensive programs that provide women entrepreneurs with vital access to capital, markets, education, and training”. The number here indicates how many banks have at least one branch in the country: the total number of GBAW *branches*, therefore, may be much higher. Yes/No or n.d. = unknown. Compiled by authors from various sources .

Alternative Financing Sources: Crowdfunding platforms: This indicator was compiled using information on crowdfund.org, which lists the crowdfunding platforms available in a number of countries.

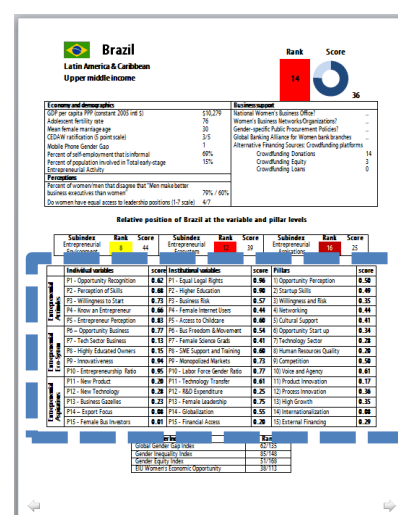
Subindex ranks and scores:

This section details how the country ranks (out of 17) and scores (out of 100) on the three subindices that make up the Gender-GEDI.



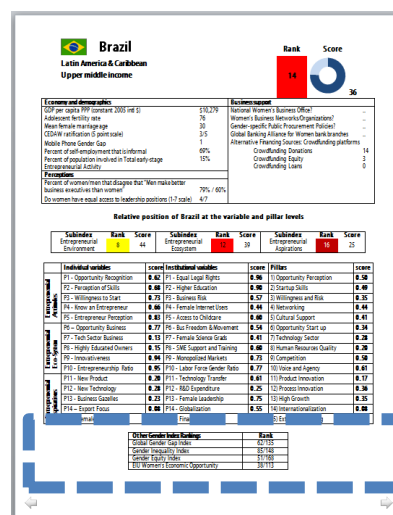
Normalized pillar scores:

Each pillar score is comprised of two indicators combined: an individual-level indicator and an institutional-level indicator. Each score has been normalized to range from zero to one, with one being the best score.



Other Gender Index Rankings:

This section lists the country's rank on four other gender indices out of the 17 countries in the Gender-GEDI Index.





Australia

Australia and Oceania

High income: OECD

Rank



Score



70

| Economy and demographics | | Business support | |
|--|-----------|---|------|
| GDP per capita PPP (constant 2005 intl \$) | \$34,853 | National Women's Business Office? | n.d. |
| Adolescent fertility rate | 13 | Women's Business Networks/Organizations? | Yes |
| Mean female marriage age | 30 | Gender-specific Public Procurement Policies? | No |
| CEDAW ratification (5 point scale) | 2/5 | Global Banking Alliance for Women bank branches | 1 |
| Mobile Phone Gender Gap | No gap | Alternative Financing Sources: Crowdfunding platforms | |
| Percent of female self-employment that is informal | n.d.* | Crowdfunding Donations | 8 |
| Percent of population involved in Entrepreneurship Startups | 7% | Crowdfunding Equity | 1 |
| | | Crowdfunding Loans | 2 |
| Perceptions | | | |
| Percent of women/men that disagree that "Men make better business executives than women" | 90% / 72% | | |
| Do women have equal access to leadership positions (1-7 scale) | 5/7 | | |

Relative position of Australia at the variable and pillar levels

| Subindex | Rank | Score | Subindex | Rank | Score | Subindex | Rank | Score |
|-----------------------------|------|-------|----------------------------|------|-------|-----------------------------|------|-------|
| Entrepreneurial Environment | 2 | 69 | Entrepreneurial Eco-system | 2 | 74 | Entrepreneurial Aspirations | 3 | 67 |

| | Individual variables | score | Institutional variables | score | Pillars | score |
|-----------------------------|------------------------------|-------|--------------------------------|-------|----------------------------|-------|
| Entrepreneurial Environment | P1 – Opportunity Recognition | 0.55 | P1 – Equal Legal Rights | 1.00 | 1) Opportunity Perception | 0.67 |
| | P2 – Perception of Skills | 0.56 | P2 – Higher Education | 0.88 | 2) Startup Skills | 0.63 |
| | P3 – Willingness to Start | 0.81 | P3 – Business Risk | 1.00 | 3) Willingness and Risk | 0.80 |
| | P4 – Know an Entrepreneur | 0.41 | P4 – Female Internet Users | 0.80 | 4) Networking | 0.68 |
| | P5 – Entrepreneur Perception | 0.70 | P5 – Access to Childcare | 0.80 | 5) Cultural Support | 0.65 |
| Entrepreneurial Eco-System | P6 – Opportunity Business | 0.88 | P6 – Bus Freedom & Movement | 0.93 | 6) Opportunity Start up | 0.78 |
| | P7 – Tech Sector Business | 0.28 | P7 – Female Science Grads | 0.47 | 7) Technology Sector | 0.54 |
| | P8 – Highly Educated Owners | 0.92 | P8 – SME Support and Training | 1.00 | 8) Human Resources Quality | 0.91 |
| | P9 – Innovativeness | 0.73 | P9 – Monopolized Markets | 0.78 | 9) Competition | 0.64 |
| | P10 – Entrepreneurship Ratio | 0.85 | P10 – Labor Force Gender Ratio | 0.85 | 10) Voice and Agency | 0.84 |
| Entrepreneurial Aspirations | P11 – New Product | 0.36 | P11 – Technology Transfer | 0.78 | 11) Product Innovation | 0.55 |
| | P12 – New Technology | 0.39 | P12 – R&D Expenditure | 0.55 | 12) Process Innovation | 0.70 |
| | P13 – Business Gazelles | 0.56 | P13 – Female Leadership | 0.76 | 13) High Growth | 0.84 |
| | P14 – Export Focus | 0.73 | P14 – Globalization | 0.77 | 14) Internationalization | 0.75 |
| | P15 – Female Bus Investors | 0.47 | P15 – Financial Access | 1.00 | 15) External Financing | 0.85 |

| Other Gender Index Rankings | Rank |
|----------------------------------|------|
| Global Gender Gap Index | 5 |
| Gender Inequality Index | 3 |
| Gender Equity Index | 2 |
| EIU Women's Economic Opportunity | 2 |

* Missing data is indicated with "n.d." for no data.



Brazil

Latin America & Caribbean
Upper middle income

Rank

14

Score



36

| Economy and demographics | | Business support | |
|--|-----------|---|-------|
| GDP per capita PPP (constant 2005 intl \$) | \$10,279 | National Women's Business Office? | n.d.* |
| Adolescent fertility rate | 76 | Women's Business Networks/Organizations? | n.d. |
| Mean female marriage age | 30 | Gender-specific Public Procurement Policies? | n.d. |
| CEDAW ratification (5 point scale) | 3/5 | Global Banking Alliance for Women bank branches | n.d. |
| Mobile Phone Gender Gap | 1% | Alternative Financing Sources: Crowdfunding platforms | |
| Percent of female self-employment that is informal | 69% | Crowdfunding Donations | 14 |
| Percent of population involved in Entrepreneurship Startups | 15% | Crowdfunding Equity | 3 |
| | | Crowdfunding Loans | 0 |
| Perceptions | | | |
| Percent of women/men that disagree that "Men make better business executives than women" | 79% / 60% | | |
| Do women have equal access to leadership positions (1-7 scale) | 4/7 | | |

Relative position of Brazil at the variable and pillar levels

| Subindex | Rank | Score | Subindex | Rank | Score | Subindex | Rank | Score |
|-----------------------------|------|-------|----------------------------|------|-------|-----------------------------|------|-------|
| Entrepreneurial Environment | 8 | 44 | Entrepreneurial Eco-system | 12 | 39 | Entrepreneurial Aspirations | 16 | 25 |

| | Individual variables | score | Institutional variables | score | Pillars | score |
|-----------------------------|------------------------------|-------|--------------------------------|-------|----------------------------|-------|
| Entrepreneurial Environment | P1 – Opportunity Recognition | 0.62 | P1 – Equal Legal Rights | 0.96 | 1) Opportunity Perception | 0.50 |
| | P2 – Perception of Skills | 0.68 | P2 – Higher Education | 0.90 | 2) Startup Skills | 0.49 |
| | P3 – Willingness to Start | 0.73 | P3 – Business Risk | 0.57 | 3) Willingness and Risk | 0.35 |
| | P4 – Know an Entrepreneur | 0.66 | P4 – Female Internet Users | 0.44 | 4) Networking | 0.44 |
| | P5 – Entrepreneur Perception | 0.83 | P5 – Access to Childcare | 0.60 | 5) Cultural Support | 0.41 |
| Entrepreneurial Eco-System | P6 – Opportunity Business | 0.77 | P6 – Bus Freedom & Movement | 0.54 | 6) Opportunity Start up | 0.34 |
| | P7 – Tech Sector Business | 0.13 | P7 – Female Science Grads | 0.41 | 7) Technology Sector | 0.28 |
| | P8 – Highly Educated Owners | 0.15 | P8 – SME Support and Training | 0.60 | 8) Human Resources Quality | 0.20 |
| | P9 – Innovativeness | 0.94 | P9 – Monopolized Markets | 0.73 | 9) Competition | 0.50 |
| | P10 – Entrepreneurship Ratio | 0.95 | P10 – Labor Force Gender Ratio | 0.77 | 10) Voice and Agency | 0.61 |
| Entrepreneurial Aspirations | P11 – New Product | 0.20 | P11 – Technology Transfer | 0.61 | 11) Product Innovation | 0.17 |
| | P12 – New Technology | 0.28 | P12 – R&D Expenditure | 0.25 | 12) Process Innovation | 0.36 |
| | P13 – Business Gazelles | 0.23 | P13 – Female Leadership | 0.75 | 13) High Growth | 0.35 |
| | P14 – Export Focus | 0.08 | P14 – Globalization | 0.55 | 14) Internationalization | 0.08 |
| | P15 – Female Bus Investors | 0.01 | P15 – Financial Access | 0.20 | 15) External Financing | 0.29 |

| Other Gender Index Rankings | Rank |
|----------------------------------|------|
| Global Gender Gap Index | 9 |
| Gender Inequality Index | 13 |
| Gender Equity Index | 8 |
| EIU Women's Economic Opportunity | 7 |

* Missing data is indicated with "n.d." for no data.



China

East Asia & Pacific

Upper middle income

Rank

8

Score



41

| Economy and demographics | | Business support | |
|--|-----------|---|------|
| GDP per capita PPP (constant 2005 intl \$) | \$7,418 | National Women's Business Office? | n.d. |
| Adolescent fertility rate | 9 | Women's Business Networks/Organizations? | n.d. |
| Mean female marriage age | 25 | Gender-specific Public Procurement Policies? | n.d. |
| CEDAW ratification (5 point scale) | 2/5 | Global Banking Alliance for Women bank branches | n.d. |
| Mobile Phone Gender Gap | 17% | Alternative Financing Sources: Crowdfunding platforms | |
| Percent of female self-employment that is informal | n.d.* | Crowdfunding Donations | 3 |
| Percent of population involved in Entrepreneurship Startups | 16% | Crowdfunding Equity | 0 |
| | | Crowdfunding Loans | 1 |
| Perceptions | | | |
| Percent of women/men that disagree that "Men make better business executives than women" | 66% / 59% | | |
| Do women have equal access to leadership positions (1-7 scale) | 5/7 | | |

Relative position of China at the variable and pillar levels

| Subindex | Rank | Score | Subindex | Rank | Score | Subindex | Rank | Score |
|-----------------------------|------|-------|----------------------------|------|-------|-----------------------------|------|-------|
| Entrepreneurial Environment | 10 | 42 | Entrepreneurial Eco-system | 10 | 42 | Entrepreneurial Aspirations | 11 | 39 |

| | Individual variables | score | Institutional variables | score | Pillars | score |
|-----------------------------|------------------------------|-------|--------------------------------|-------|----------------------------|-------|
| Entrepreneurial Environment | P1 – Opportunity Recognition | 0.44 | P1 – Equal Legal Rights | 0.89 | 1) Opportunity Perception | 0.37 |
| | P2 – Perception of Skills | 0.46 | P2 – Higher Education | 0.79 | 2) Startup Skills | 0.34 |
| | P3 – Willingness to Start | 0.84 | P3 – Business Risk | 0.43 | 3) Willingness and Risk | 0.33 |
| | P4 – Know an Entrepreneur | 0.93 | P4 – Female Internet Users | 0.39 | 4) Networking | 0.53 |
| | P5 – Entrepreneur Perception | 0.82 | P5 – Access to Childcare | 0.80 | 5) Cultural Support | 0.53 |
| Entrepreneurial Eco-System | P6 – Opportunity Business | 0.57 | P6 – Bus Freedom & Movement | 0.47 | 6) Opportunity Start up | 0.24 |
| | P7 – Tech Sector Business | 0.03 | P7 – Female Science Grads | 0.40 | 7) Technology Sector | 0.25 |
| | P8 – Highly Educated Owners | 0.24 | P8 – SME Support and Training | 0.60 | 8) Human Resources Quality | 0.26 |
| | P9 – Innovativeness | 1.00 | P9 – Monopolized Markets | 0.80 | 9) Competition | 0.72 |
| | P10 – Entrepreneurship Ratio | 0.80 | P10 – Labor Force Gender Ratio | 0.88 | 10) Voice and Agency | 0.64 |
| Entrepreneurial Aspirations | P11 – New Product | 0.85 | P11 – Technology Transfer | 0.68 | 11) Product Innovation | 0.64 |
| | P12 – New Technology | 0.55 | P12 – R&D Expenditure | 0.34 | 12) Process Innovation | 0.50 |
| | P13 – Business Gazelles | 0.23 | P13 – Female Leadership | 0.35 | 13) High Growth | 0.22 |
| | P14 – Export Focus | 0.19 | P14 – Globalization | 0.54 | 14) Internationalization | 0.15 |
| | P15 – Female Bus Investors | 0.52 | P15 – Financial Access | 0.36 | 15) External Financing | 0.44 |

| Other Gender Index Rankings | Rank |
|----------------------------------|------|
| Global Gender Gap Index | 10 |
| Gender Inequality Index | 6 |
| Gender Equity Index | 10 |
| EIU Women's Economic Opportunity | 13 |

* Missing data is indicated with "n.d." for no data.



Egypt, Arab Rep.

Middle East & North Africa

Lower middle income

Rank

15

Score



34

| Economy and demographics | | Business support | |
|--|-----------|---|------|
| GDP per capita PPP (constant 2005 intl \$) | \$5,547 | National Women's Business Office? | n.d. |
| Adolescent fertility rate | 42 | Women's Business Networks/Organizations? | Yes |
| Mean female marriage age | 23 | Gender-specific Public Procurement Policies? | n.d. |
| CEDAW ratification (5 point scale) | 1/5 | Global Banking Alliance for Women bank branches | 2 |
| Mobile Phone Gender Gap | 24% | Alternative Financing Sources: Crowdfunding platforms | |
| Percent of female self-employment that is informal | n.d.* | Crowdfunding Donations | n.d. |
| Percent of population involved in Entrepreneurship Startups | 10% | Crowdfunding Equity | n.d. |
| | | Crowdfunding Loans | n.d. |
| Perceptions | | | |
| Percent of women/men that disagree that "Men make better business executives than women" | 18% / 11% | | |
| Do women have equal access to leadership positions (1-7 scale) | 5/7 | | |

Relative position of Egypt, Arab Rep. at the variable and pillar levels

| Subindex | Rank | Score | Subindex | Rank | Score | Subindex | Rank | Score |
|-----------------------------|------|-------|----------------------------|------|-------|-----------------------------|------|-------|
| Entrepreneurial Environment | 11 | 40 | Entrepreneurial Eco-system | 15 | 34 | Entrepreneurial Aspirations | 14 | 28 |

| | Individual variables | score | Institutional variables | score | Pillars | score |
|-----------------------------|------------------------------|-------|--------------------------------|-------|----------------------------|-------|
| Entrepreneurial Environment | P1 – Opportunity Recognition | 0.43 | P1 – Equal Legal Rights | 0.85 | 1) Opportunity Perception | 0.36 |
| | P2 – Perception of Skills | 0.64 | P2 – Higher Education | 0.74 | 2) Startup Skills | 0.43 |
| | P3 – Willingness to Start | 0.78 | P3 – Business Risk | 0.43 | 3) Willingness and Risk | 0.31 |
| | P4 – Know an Entrepreneur | 0.63 | P4 – Female Internet Users | 0.30 | 4) Networking | 0.35 |
| | P5 – Entrepreneur Perception | 0.92 | P5 – Access to Childcare | 0.80 | 5) Cultural Support | 0.58 |
| Entrepreneurial Eco-System | P6 – Opportunity Business | 0.77 | P6 – Bus Freedom & Movement | 0.64 | 6) Opportunity Start up | 0.40 |
| | P7 – Tech Sector Business | 0.14 | P7 – Female Science Grads | 0.60 | 7) Technology Sector | 0.32 |
| | P8 – Highly Educated Owners | 0.56 | P8 – SME Support and Training | 0.60 | 8) Human Resources Quality | 0.43 |
| | P9 – Innovativeness | 0.87 | P9 – Monopolized Markets | 0.53 | 9) Competition | 0.39 |
| | P10 – Entrepreneurship Ratio | 0.37 | P10 – Labor Force Gender Ratio | 0.33 | 10) Voice and Agency | 0.14 |
| Entrepreneurial Aspirations | P11 – New Product | 0.45 | P11 – Technology Transfer | 0.49 | 11) Product Innovation | 0.30 |
| | P12 – New Technology | 1.00 | P12 – R&D Expenditure | 0.05 | 12) Process Innovation | 0.35 |
| | P13 – Business Gazelles | 0.41 | P13 – Female Leadership | 0.23 | 13) High Growth | 0.24 |
| | P14 – Export Focus | 0.31 | P14 – Globalization | 0.52 | 14) Internationalization | 0.21 |
| | P15 – Female Bus Investors | 0.18 | P15 – Financial Access | 0.05 | 15) External Financing | 0.31 |

| Other Gender Index Rankings | Rank |
|----------------------------------|------|
| Global Gender Gap Index | 16 |
| Gender Inequality Index | 16 |
| Gender Equity Index | 15 |
| EIU Women's Economic Opportunity | 11 |

* Missing data is indicated with "n.d." for no data.



France

Europe

High income: OECD

Rank
4
Score

56

| Economy and demographics | | Business support | |
|--|-----------|---|------|
| GDP per capita PPP (constant 2005 intl \$) | \$29,820 | National Women's Business Office? | n.d. |
| Adolescent fertility rate | 6 | Women's Business Networks/Organizations? | Yes |
| Mean female marriage age | 32 | Gender-specific Public Procurement Policies? | n.d. |
| CEDAW ratification (5 point scale) | 2/5 | Global Banking Alliance for Women bank branches | 2 |
| Mobile Phone Gender Gap | No gap | Alternative Financing Sources: Crowdfunding platforms | |
| Percent of female self-employment that is informal | n.d.* | Crowdfunding Donations | 14 |
| Percent of population involved in Entrepreneurship Startups | 4% | Crowdfunding Equity | 16 |
| | | Crowdfunding Loans | 1 |
| Perceptions | | | |
| Percent of women/men that disagree that "Men make better business executives than women" | 89% / 82% | | |
| Do women have equal access to leadership positions (1-7 scale) | 3/7 | | |

Relative position of France at the variable and pillar levels

| Subindex | Rank | Score | Subindex | Rank | Score | Subindex | Rank | Score |
|-----------------------------|------|-------|----------------------------|------|-------|-----------------------------|------|-------|
| Entrepreneurial Environment | 4 | 54 | Entrepreneurial Eco-system | 7 | 49 | Entrepreneurial Aspirations | 4 | 64 |

| | Individual variables | score | Institutional variables | score | Pillars | score |
|-----------------------------|------------------------------|-------|--------------------------------|-------|----------------------------|-------|
| Entrepreneurial Environment | P1 – Opportunity Recognition | 0.37 | P1 – Equal Legal Rights | 0.96 | 1) Opportunity Perception | 0.37 |
| | P2 – Perception of Skills | 0.30 | P2 – Higher Education | 0.87 | 2) Startup Skills | 0.27 |
| | P3 – Willingness to Start | 0.71 | P3 – Business Risk | 1.00 | 3) Willingness and Risk | 0.61 |
| | P4 – Know an Entrepreneur | 0.56 | P4 – Female Internet Users | 0.82 | 4) Networking | 0.67 |
| | P5 – Entrepreneur Perception | 0.75 | P5 – Access to Childcare | 1.00 | 5) Cultural Support | 0.79 |
| Entrepreneurial Eco-System | P6 – Opportunity Business | 0.94 | P6 – Bus Freedom & Movement | 0.84 | 6) Opportunity Start up | 0.63 |
| | P7 – Tech Sector Business | 0.23 | P7 – Female Science Grads | 0.48 | 7) Technology Sector | 0.36 |
| | P8 – Highly Educated Owners | 0.56 | P8 – SME Support and Training | 0.80 | 8) Human Resources Quality | 0.56 |
| | P9 – Innovativeness | 0.66 | P9 – Monopolized Markets | 0.78 | 9) Competition | 0.46 |
| | P10 – Entrepreneurship Ratio | 0.48 | P10 – Labor Force Gender Ratio | 0.86 | 10) Voice and Agency | 0.46 |
| Entrepreneurial Aspirations | P11 – New Product | 0.60 | P11 – Technology Transfer | 0.82 | 11) Product Innovation | 0.62 |
| | P12 – New Technology | 0.77 | P12 – R&D Expenditure | 0.52 | 12) Process Innovation | 0.73 |
| | P13 – Business Gazelles | 0.46 | P13 – Female Leadership | 0.80 | 13) High Growth | 0.64 |
| | P14 – Export Focus | 0.63 | P14 – Globalization | 0.86 | 14) Internationalization | 0.60 |
| | P15 – Female Bus Investors | 0.43 | P15 – Financial Access | 0.97 | 15) External Financing | 0.63 |

| Other Gender Index Rankings | Rank |
|----------------------------------|------|
| Global Gender Gap Index | 7 |
| Gender Inequality Index | 2 |
| Gender Equity Index | 4 |
| EIU Women's Economic Opportunity | 3 |

* Missing data is indicated with "n.d." for no data.



Germany

Europe

High income: OECD

Rank

3

Score



63

| Economy and demographics | | Business support | |
|--|-----------|---|------|
| GDP per capita PPP (constant 2005 intl \$) | \$34,573 | National Women's Business Office? | n.d. |
| Adolescent fertility rate | 7 | Women's Business Networks/Organizations? | Yes |
| Mean female marriage age | 32 | Gender-specific Public Procurement Policies? | n.d. |
| CEDAW ratification (5 point scale) | 4/5 | Global Banking Alliance for Women bank branches | n.d. |
| Mobile Phone Gender Gap | No gap | Alternative Financing Sources: Crowdfunding platforms | |
| Percent of female self-employment that is informal | n.d.* | Crowdfunding Donations | 9 |
| Percent of population involved in Entrepreneurship Startups | 5% | Crowdfunding Equity | 6 |
| | | Crowdfunding Loans | 1 |
| Perceptions | | | |
| Percent of women/men that disagree that "Men make better business executives than women" | 90% / 76% | | |
| Do women have equal access to leadership positions (1-7 scale) | 4/7 | | |

Relative position of Germany at the variable and pillar levels

| Subindex | Rank | Score | Subindex | Rank | Score | Subindex | Rank | Score |
|-----------------------------|------|-------|----------------------------|------|-------|-----------------------------|------|-------|
| Entrepreneurial Environment | 5 | 54 | Entrepreneurial Eco-system | 3 | 67 | Entrepreneurial Aspirations | 2 | 68 |

| | Individual variables | score | Institutional variables | score | Pillars | score |
|-----------------------------|------------------------------|-------|--------------------------------|-------|----------------------------|-------|
| Entrepreneurial Environment | P1 – Opportunity Recognition | 0.33 | P1 – Equal Legal Rights | 0.96 | 1) Opportunity Perception | 0.40 |
| | P2 – Perception of Skills | 0.51 | P2 – Higher Education | 0.81 | 2) Startup Skills | 0.48 |
| | P3 – Willingness to Start | 0.67 | P3 – Business Risk | 1.00 | 3) Willingness and Risk | 0.65 |
| | P4 – Know an Entrepreneur | 0.50 | P4 – Female Internet Users | 0.76 | 4) Networking | 0.66 |
| | P5 – Entrepreneur Perception | 0.74 | P5 – Access to Childcare | 0.60 | 5) Cultural Support | 0.49 |
| Entrepreneurial Eco-System | P6 – Opportunity Business | 0.83 | P6 – Bus Freedom & Movement | 0.91 | 6) Opportunity Start up | 0.68 |
| | P7 – Tech Sector Business | 0.35 | P7 – Female Science Grads | 0.59 | 7) Technology Sector | 0.52 |
| | P8 – Highly Educated Owners | 0.89 | P8 – SME Support and Training | 0.80 | 8) Human Resources Quality | 0.81 |
| | P9 – Innovativeness | 0.79 | P9 – Monopolized Markets | 0.97 | 9) Competition | 0.69 |
| | P10 – Entrepreneurship Ratio | 0.64 | P10 – Labor Force Gender Ratio | 0.83 | 10) Voice and Agency | 0.63 |
| Entrepreneurial Aspirations | P11 – New Product | 0.56 | P11 – Technology Transfer | 0.93 | 11) Product Innovation | 0.72 |
| | P12 – New Technology | 0.37 | P12 – R&D Expenditure | 0.66 | 12) Process Innovation | 0.66 |
| | P13 – Business Gazelles | 0.26 | P13 – Female Leadership | 0.79 | 13) High Growth | 0.50 |
| | P14 – Export Focus | 0.79 | P14 – Globalization | 0.84 | 14) Internationalization | 0.76 |
| | P15 – Female Bus Investors | 0.54 | P15 – Financial Access | 0.99 | 15) External Financing | 0.77 |

| Other Gender Index Rankings | Rank |
|----------------------------------|------|
| Global Gender Gap Index | 1 |
| Gender Inequality Index | 1 |
| Gender Equity Index | 1 |
| EIU Women's Economic Opportunity | 1 |

* Missing data is indicated with "n.d." for no data.



India

South Asia

Lower middle income

Rank
Score
16

32

| Economy and demographics | | Business support | |
|--|-----------|---|-------|
| GDP per capita PPP (constant 2005 intl \$) | \$3,223 | National Women's Business Office? | n.d.* |
| Adolescent fertility rate | 77 | Women's Business Networks/Organizations? | Yes |
| Mean female marriage age | 20 | Gender-specific Public Procurement Policies? | Yes |
| CEDAW ratification (5 point scale) | 2/5 | Global Banking Alliance for Women bank branches | n.d. |
| Mobile Phone Gender Gap | 37% | Alternative Financing Sources: Crowdfunding platforms | |
| Percent of female self-employment that is informal | 98% | Crowdfunding Donations | 3 |
| Percent of population involved in Entrepreneurship Startups | 14% | Crowdfunding Equity | 0 |
| | | Crowdfunding Loans | 2 |
| Perceptions | | | |
| Percent of women/men that disagree that "Men make better business executives than women" | 45% / 32% | | |
| Do women have equal access to leadership positions (1-7 scale) | 4/7 | | |

Relative position of India at the variable and pillar levels

| Subindex | Rank | Score | Subindex | Rank | Score | Subindex | Rank | Score |
|-----------------------------|------|-------|----------------------------|------|-------|-----------------------------|------|-------|
| Entrepreneurial Environment | 13 | 39 | Entrepreneurial Eco-system | 17 | 33 | Entrepreneurial Aspirations | 15 | 25 |

| | Individual variables | score | Institutional variables | score | Pillars | score |
|-----------------------------|------------------------------|-------|--------------------------------|-------|----------------------------|-------|
| Entrepreneurial Environment | P1 – Opportunity Recognition | 0.87 | P1 – Equal Legal Rights | 0.85 | 1) Opportunity Perception | 0.60 |
| | P2 – Perception of Skills | 0.71 | P2 – Higher Education | 0.63 | 2) Startup Skills | 0.40 |
| | P3 – Willingness to Start | 0.76 | P3 – Business Risk | 0.57 | 3) Willingness and Risk | 0.38 |
| | P4 – Know an Entrepreneur | 0.94 | P4 – Female Internet Users | 0.07 | 4) Networking | 0.18 |
| | P5 – Entrepreneur Perception | 0.79 | P5 – Access to Childcare | 0.60 | 5) Cultural Support | 0.41 |
| Entrepreneurial Eco-System | P6 – Opportunity Business | 0.83 | P6 – Bus Freedom & Movement | 0.24 | 6) Opportunity Start up | 0.18 |
| | P7 – Tech Sector Business | 0.54 | P7 – Female Science Grads | 0.32 | 7) Technology Sector | 0.39 |
| | P8 – Highly Educated Owners | 0.52 | P8 – SME Support and Training | 0.40 | 8) Human Resources Quality | 0.32 |
| | P9 – Innovativeness | 0.90 | P9 – Monopolized Markets | 0.78 | 9) Competition | 0.53 |
| | P10 – Entrepreneurship Ratio | 0.53 | P10 – Labor Force Gender Ratio | 0.38 | 10) Voice and Agency | 0.23 |
| Entrepreneurial Aspirations | P11 – New Product | 0.25 | P11 – Technology Transfer | 0.62 | 11) Product Innovation | 0.22 |
| | P12 – New Technology | 0.72 | P12 – R&D Expenditure | 0.18 | 12) Process Innovation | 0.43 |
| | P13 – Business Gazelles | 0.18 | P13 – Female Leadership | 0.29 | 13) High Growth | 0.17 |
| | P14 – Export Focus | 0.19 | P14 – Globalization | 0.45 | 14) Internationalization | 0.12 |
| | P15 – Female Bus Investors | 0.03 | P15 – Financial Access | 0.11 | 15) External Financing | 0.30 |

| Other Gender Index Rankings | Rank |
|----------------------------------|------|
| Global Gender Gap Index | 14 |
| Gender Inequality Index | 17 |
| Gender Equity Index | 17 |
| EIU Women's Economic Opportunity | 16 |

* Missing data is indicated with "n.d." for no data.



Japan

East Asia & Pacific

High income: OECD

Rank

Score

12



39

| Economy and demographics | | Business support | |
|--|-----------|---|------|
| GDP per capita PPP (constant 2005 intl \$) | \$30,660 | National Women's Business Office? | n.d. |
| Adolescent fertility rate | 6 | Women's Business Networks/Organizations? | Yes |
| Mean female marriage age | 30 | Gender-specific Public Procurement Policies? | n.d. |
| CEDAW ratification (5 point scale) | 3/5 | Global Banking Alliance for Women bank branches | n.d. |
| Mobile Phone Gender Gap | No gap | Alternative Financing Sources: Crowdfunding platforms | |
| Percent of female self-employment that is informal | n.d.* | Crowdfunding Donations | 2 |
| Percent of population involved in Entrepreneurship Startups | 4% | Crowdfunding Equity | 0 |
| | | Crowdfunding Loans | 1 |
| Perceptions | | | |
| Percent of women/men that disagree that "Men make better business executives than women" | 71% / 55% | | |
| Do women have equal access to leadership positions (1-7 scale) | 4/7 | | |

Relative position of Japan at the variable and pillar levels

| Subindex | Rank | Score | Subindex | Rank | Score | Subindex | Rank | Score |
|-----------------------------|------|-------|----------------------------|------|-------|-----------------------------|------|-------|
| Entrepreneurial Environment | 17 | 26 | Entrepreneurial Eco-system | 9 | 44 | Entrepreneurial Aspirations | 9 | 45 |

| | Individual variables | score | Institutional variables | score | Pillars | score |
|-----------------------------|------------------------------|-------|--------------------------------|-------|----------------------------|-------|
| Entrepreneurial Environment | P1 – Opportunity Recognition | 0.09 | P1 – Equal Legal Rights | 0.96 | 1) Opportunity Perception | 0.09 |
| | P2 – Perception of Skills | 0.09 | P2 – Higher Education | 0.72 | 2) Startup Skills | 0.07 |
| | P3 – Willingness to Start | 0.85 | P3 – Business Risk | 1.00 | 3) Willingness and Risk | 0.60 |
| | P4 – Know an Entrepreneur | 0.22 | P4 – Female Internet Users | 0.77 | 4) Networking | 0.31 |
| | P5 – Entrepreneur Perception | 0.44 | P5 – Access to Childcare | 0.60 | 5) Cultural Support | 0.24 |
| Entrepreneurial Eco-System | P6 – Opportunity Business | 0.80 | P6 – Bus Freedom & Movement | 0.83 | 6) Opportunity Start up | 0.48 |
| | P7 – Tech Sector Business | 0.69 | P7 – Female Science Grads | 0.34 | 7) Technology Sector | 0.42 |
| | P8 – Highly Educated Owners | 0.82 | P8 – SME Support and Training | 0.60 | 8) Human Resources Quality | 0.51 |
| | P9 – Innovativeness | 0.80 | P9 – Monopolized Markets | 0.98 | 9) Competition | 0.55 |
| | P10 – Entrepreneurship Ratio | 0.34 | P10 – Labor Force Gender Ratio | 0.72 | 10) Voice and Agency | 0.26 |
| Entrepreneurial Aspirations | P11 – New Product | 0.53 | P11 – Technology Transfer | 0.97 | 11) Product Innovation | 0.56 |
| | P12 – New Technology | 0.65 | P12 – R&D Expenditure | 0.81 | 12) Process Innovation | 0.67 |
| | P13 – Business Gazelles | 0.69 | P13 – Female Leadership | 0.19 | 13) High Growth | 0.28 |
| | P14 – Export Focus | 0.52 | P14 – Globalization | 0.61 | 14) Internationalization | 0.35 |
| | P15 – Female Bus Investors | 0.17 | P15 – Financial Access | 0.97 | 15) External Financing | 0.40 |

| Other Gender Index Rankings | Rank |
|----------------------------------|------|
| Global Gender Gap Index | 13 |
| Gender Inequality Index | 4 |
| Gender Equity Index | 12 |
| EIU Women's Economic Opportunity | 6 |

* Missing data is indicated with "n.d." for no data.



Malaysia

East Asia & Pacific

Upper middle income

Rank

9

Score



40

| Economy and demographics | | Business support | |
|--|-----------|---|------|
| GDP per capita PPP (constant 2005 intl \$) | \$14,174 | National Women's Business Office? | n.d. |
| Adolescent fertility rate | 11 | Women's Business Networks/Organizations? | Yes |
| Mean female marriage age | 26 | Gender-specific Public Procurement Policies? | n.d. |
| CEDAW ratification (5 point scale) | 1/5 | Global Banking Alliance for Women bank branches | 1 |
| Mobile Phone Gender Gap | 17% | Alternative Financing Sources: Crowdfunding platforms | |
| Percent of female self-employment that is informal | n.d.* | Crowdfunding Donations | 0 |
| Percent of population involved in Entrepreneurship Startups | 5% | Crowdfunding Equity | 1 |
| | | Crowdfunding Loans | 0 |
| Perceptions | | | |
| Percent of women/men that disagree that "Men make better business executives than women" | 57% / 34% | | |
| Do women have equal access to leadership positions (1-7 scale) | 6/7 | | |

Relative position of Malaysia at the variable and pillar levels

| Subindex | Rank | Score | Subindex | Rank | Score | Subindex | Rank | Score |
|-----------------------------|------|-------|----------------------------|------|-------|-----------------------------|------|-------|
| Entrepreneurial Environment | 9 | 44 | Entrepreneurial Eco-system | 8 | 47 | Entrepreneurial Aspirations | 13 | 31 |

| | Individual variables | score | Institutional variables | score | Pillars | score |
|-----------------------------|------------------------------|-------|--------------------------------|-------|----------------------------|-------|
| Entrepreneurial Environment | P1 – Opportunity Recognition | 0.62 | P1 – Equal Legal Rights | 0.81 | 1) Opportunity Perception | 0.49 |
| | P2 – Perception of Skills | 0.36 | P2 – Higher Education | 0.89 | 2) Startup Skills | 0.32 |
| | P3 – Willingness to Start | 0.70 | P3 – Business Risk | 0.71 | 3) Willingness and Risk | 0.45 |
| | P4 – Know an Entrepreneur | 0.75 | P4 – Female Internet Users | 0.59 | 4) Networking | 0.64 |
| | P5 – Entrepreneur Perception | 0.70 | P5 – Access to Childcare | 0.40 | 5) Cultural Support | 0.27 |
| Entrepreneurial Eco-System | P6 – Opportunity Business | 1.00 | P6 – Bus Freedom & Movement | 0.53 | 6) Opportunity Start up | 0.45 |
| | P7 – Tech Sector Business | 0.38 | P7 – Female Science Grads | 0.76 | 7) Technology Sector | 0.52 |
| | P8 – Highly Educated Owners | 0.38 | P8 – SME Support and Training | 0.60 | 8) Human Resources Quality | 0.35 |
| | P9 – Innovativeness | 0.83 | P9 – Monopolized Markets | 0.83 | 9) Competition | 0.56 |
| | P10 – Entrepreneurship Ratio | 0.69 | P10 – Labor Force Gender Ratio | 0.59 | 10) Voice and Agency | 0.45 |
| Entrepreneurial Aspirations | P11 – New Product | 0.21 | P11 – Technology Transfer | 0.75 | 11) Product Innovation | 0.22 |
| | P12 – New Technology | 0.49 | P12 – R&D Expenditure | 0.15 | 12) Process Innovation | 0.39 |
| | P13 – Business Gazelles | 0.29 | P13 – Female Leadership | 0.50 | 13) High Growth | 0.33 |
| | P14 – Export Focus | 0.30 | P14 – Globalization | 0.78 | 14) Internationalization | 0.30 |
| | P15 – Female Bus Investors | 0.01 | P15 – Financial Access | 0.38 | 15) External Financing | 0.32 |

| Other Gender Index Rankings | Rank |
|----------------------------------|------|
| Global Gender Gap Index | 12 |
| Gender Inequality Index | 8 |
| Gender Equity Index | 13 |
| EIU Women's Economic Opportunity | 10 |

* Missing data is indicated with "n.d." for no data.



Mexico

Latin America & Caribbean Upper middle income

Rank

Score

5



55

| Economy and demographics | | Business support | |
|--|-----------|---|-------|
| GDP per capita PPP (constant 2005 intl \$) | \$12,814 | National Women's Business Office? | n.d.* |
| Adolescent fertility rate | 67 | Women's Business Networks/Organizations? | n.d. |
| Mean female marriage age | 23 | Gender-specific Public Procurement Policies? | No |
| CEDAW ratification (5 point scale) | 4/5 | Global Banking Alliance for Women bank branches | n.d. |
| Mobile Phone Gender Gap | 1% | Alternative Financing Sources: Crowdfunding platforms | |
| Percent of female self-employment that is informal | 79% | Crowdfunding Donations | 1 |
| Percent of population involved in Entrepreneurship Startups | 12% | Crowdfunding Equity | 0 |
| | | Crowdfunding Loans | 1 |
| Perceptions | | | |
| Percent of women/men that disagree that "Men make better business executives than women" | 81% / 74% | | |
| Do women have equal access to leadership positions (1-7 scale) | 4/7 | | |

Relative position of Mexico at the variable and pillar levels

| Subindex | Rank | Score | Subindex | Rank | Score | Subindex | Rank | Score |
|-----------------------------|------|-------|----------------------------|------|-------|-----------------------------|------|-------|
| Entrepreneurial Environment | 3 | 62 | Entrepreneurial Eco-system | 4 | 56 | Entrepreneurial Aspirations | 7 | 48 |

| | Individual variables | score | Institutional variables | score | Pillars | score |
|-----------------------------|------------------------------|-------|--------------------------------|-------|----------------------------|-------|
| Entrepreneurial Environment | P1 – Opportunity Recognition | 0.75 | P1 – Equal Legal Rights | 0.96 | 1) Opportunity Perception | 0.74 |
| | P2 – Perception of Skills | 0.84 | P2 – Higher Education | 0.79 | 2) Startup Skills | 0.69 |
| | P3 – Willingness to Start | 0.85 | P3 – Business Risk | 0.57 | 3) Willingness and Risk | 0.55 |
| | P4 – Know an Entrepreneur | 0.89 | P4 – Female Internet Users | 0.32 | 4) Networking | 0.59 |
| | P5 – Entrepreneur Perception | 0.73 | P5 – Access to Childcare | 0.60 | 5) Cultural Support | 0.52 |
| Entrepreneurial Eco-System | P6 – Opportunity Business | 0.90 | P6 – Bus Freedom & Movement | 0.83 | 6) Opportunity Start up | 0.69 |
| | P7 – Tech Sector Business | 0.35 | P7 – Female Science Grads | 0.64 | 7) Technology Sector | 0.57 |
| | P8 – Highly Educated Owners | 0.51 | P8 – SME Support and Training | 0.40 | 8) Human Resources Quality | 0.44 |
| | P9 – Innovativeness | 0.73 | P9 – Monopolized Markets | 0.51 | 9) Competition | 0.44 |
| | P10 – Entrepreneurship Ratio | 0.88 | P10 – Labor Force Gender Ratio | 0.57 | 10) Voice and Agency | 0.63 |
| Entrepreneurial Aspirations | P11 – New Product | 0.63 | P11 – Technology Transfer | 0.55 | 11) Product Innovation | 0.57 |
| | P12 – New Technology | 0.35 | P12 – R&D Expenditure | 0.09 | 12) Process Innovation | 0.45 |
| | P13 – Business Gazelles | 0.25 | P13 – Female Leadership | 0.64 | 13) High Growth | 0.46 |
| | P14 – Export Focus | 0.50 | P14 – Globalization | 0.61 | 14) Internationalization | 0.49 |
| | P15 – Female Bus Investors | 0.13 | P15 – Financial Access | 0.09 | 15) External Financing | 0.43 |

| Other Gender Index Rankings | Rank |
|----------------------------------|------|
| Global Gender Gap Index | 11 |
| Gender Inequality Index | 11 |
| Gender Equity Index | 9 |
| EIU Women's Economic Opportunity | 8 |

* Missing data is indicated with "n.d." for no data.



Morocco

Middle East & North Africa

Lower middle income

Rank

13

Score



38

| Economy and demographics | | Business support | |
|--|-----------|---|------|
| GDP per capita PPP (constant 2005 intl \$) | \$4,373 | National Women's Business Office? | n.d. |
| Adolescent fertility rate | 12 | Women's Business Networks/Organizations? | Yes |
| Mean female marriage age | 26 | Gender-specific Public Procurement Policies? | n.d. |
| CEDAW ratification (5 point scale) | 1/5 | Global Banking Alliance for Women bank branches | n.d. |
| Mobile Phone Gender Gap | 24% | Alternative Financing Sources: Crowdfunding platforms | |
| Percent of female self-employment that is informal | n.d.* | Crowdfunding Donations | n.d. |
| Percent of population involved in Entrepreneurship Startups | 16% | Crowdfunding Equity | n.d. |
| | | Crowdfunding Loans | n.d. |
| Perceptions | | | |
| Percent of women/men that disagree that "Men make better business executives than women" | 61% / 24% | | |
| Do women have equal access to leadership positions (1-7 scale) | 5/7 | | |

Relative position of Morocco at the variable and pillar levels

| Subindex | Rank | Score | Subindex | Rank | Score | Subindex | Rank | Score |
|-----------------------------|------|-------|----------------------------|------|-------|-----------------------------|------|-------|
| Entrepreneurial Environment | 6 | 46 | Entrepreneurial Eco-system | 14 | 34 | Entrepreneurial Aspirations | 12 | 34 |

| | Individual variables | score | Institutional variables | score | Pillars | score |
|-----------------------------|------------------------------|-------|--------------------------------|-------|----------------------------|-------|
| Entrepreneurial Environment | P1 – Opportunity Recognition | 0.65 | P1 – Equal Legal Rights | 0.93 | 1) Opportunity Perception | 0.52 |
| | P2 – Perception of Skills | 0.93 | P2 – Higher Education | 0.73 | 2) Startup Skills | 0.56 |
| | P3 – Willingness to Start | 0.95 | P3 – Business Risk | 0.57 | 3) Willingness and Risk | 0.45 |
| | P4 – Know an Entrepreneur | 0.70 | P4 – Female Internet Users | 0.36 | 4) Networking | 0.42 |
| | P5 – Entrepreneur Perception | 0.94 | P5 – Access to Childcare | 0.40 | 5) Cultural Support | 0.34 |
| Entrepreneurial Eco-System | P6 – Opportunity Business | 0.89 | P6 – Bus Freedom & Movement | 0.78 | 6) Opportunity Start up | 0.52 |
| | P7 – Tech Sector Business | 0.23 | P7 – Female Science Grads | 0.61 | 7) Technology Sector | 0.36 |
| | P8 – Highly Educated Owners | 0.03 | P8 – SME Support and Training | 0.60 | 8) Human Resources Quality | 0.13 |
| | P9 – Innovativeness | 0.87 | P9 – Monopolized Markets | 0.63 | 9) Competition | 0.44 |
| | P10 – Entrepreneurship Ratio | 0.59 | P10 – Labor Force Gender Ratio | 0.36 | 10) Voice and Agency | 0.25 |
| Entrepreneurial Aspirations | P11 – New Product | 0.24 | P11 – Technology Transfer | 0.52 | 11) Product Innovation | 0.18 |
| | P12 – New Technology | 0.74 | P12 – R&D Expenditure | 0.15 | 12) Process Innovation | 0.41 |
| | P13 – Business Gazelles | 0.41 | P13 – Female Leadership | 0.27 | 13) High Growth | 0.26 |
| | P14 – Export Focus | 1.00 | P14 – Globalization | 0.52 | 14) Internationalization | 0.54 |
| | P15 – Female Bus Investors | 0.01 | P15 – Financial Access | 0.16 | 15) External Financing | 0.30 |

| Other Gender Index Rankings | Rank |
|----------------------------------|------|
| Global Gender Gap Index | 17 |
| Gender Inequality Index | 12 |
| Gender Equity Index | 16 |
| EIU Women's Economic Opportunity | 15 |

* Missing data is indicated with "n.d." for no data.



Russian Federation

Europe & Central Asia

Upper middle income

Rank

10

Score



40

| Economy and demographics | | Business support | |
|--|-----------|---|-------|
| GDP per capita PPP (constant 2005 intl \$) | \$14,714 | National Women's Business Office? | n.d.* |
| Adolescent fertility rate | 25 | Women's Business Networks/Organizations? | n.d. |
| Mean female marriage age | 24 | Gender-specific Public Procurement Policies? | n.d. |
| CEDAW ratification (5 point scale) | 4/5 | Global Banking Alliance for Women bank branches | n.d. |
| Mobile Phone Gender Gap | 16% | Alternative Financing Sources: Crowdfunding platforms | |
| Percent of female self-employment that is informal | 90% | Crowdfunding Donations | 3 |
| Percent of population involved in Entrepreneurship Startups | 4% | Crowdfunding Equity | 0 |
| | | Crowdfunding Loans | 0 |
| Perceptions | | | |
| Percent of women/men that disagree that "Men make better business executives than women" | 59% / 37% | | |
| Do women have equal access to leadership positions (1-7 scale) | 4/7 | | |

Relative position of Russian Federation at the variable and pillar levels

| Subindex | Rank | Score | Subindex | Rank | Score | Subindex | Rank | Score |
|-----------------------------|------|-------|----------------------------|------|-------|-----------------------------|------|-------|
| Entrepreneurial Environment | 16 | 29 | Entrepreneurial Eco-system | 6 | 52 | Entrepreneurial Aspirations | 10 | 40 |

| | Individual variables | score | Institutional variables | score | Pillars | score |
|-----------------------------|------------------------------|-------|--------------------------------|-------|----------------------------|-------|
| Entrepreneurial Environment | P1 – Opportunity Recognition | 0.31 | P1 – Equal Legal Rights | 0.89 | 1) Opportunity Perception | 0.27 |
| | P2 – Perception of Skills | 0.25 | P2 – Higher Education | 0.90 | 2) Startup Skills | 0.22 |
| | P3 – Willingness to Start | 0.60 | P3 – Business Risk | 0.43 | 3) Willingness and Risk | 0.24 |
| | P4 – Know an Entrepreneur | 0.54 | P4 – Female Internet Users | 0.35 | 4) Networking | 0.35 |
| | P5 – Entrepreneur Perception | 0.72 | P5 – Access to Childcare | 0.60 | 5) Cultural Support | 0.38 |
| Entrepreneurial Eco-System | P6 – Opportunity Business | 0.76 | P6 – Bus Freedom & Movement | 0.66 | 6) Opportunity Start up | 0.40 |
| | P7 – Tech Sector Business | 0.96 | P7 – Female Science Grads | 0.72 | 7) Technology Sector | 0.71 |
| | P8 – Highly Educated Owners | 1.00 | P8 – SME Support and Training | 0.40 | 8) Human Resources Quality | 0.51 |
| | P9 – Innovativeness | 1.00 | P9 – Monopolized Markets | 0.56 | 9) Competition | 0.45 |
| | P10 – Entrepreneurship Ratio | 0.64 | P10 – Labor Force Gender Ratio | 0.83 | 10) Voice and Agency | 0.52 |
| Entrepreneurial Aspirations | P11 – New Product | 0.57 | P11 – Technology Transfer | 0.54 | 11) Product Innovation | 0.40 |
| | P12 – New Technology | 0.45 | P12 – R&D Expenditure | 0.29 | 12) Process Innovation | 0.43 |
| | P13 – Business Gazelles | 0.99 | P13 – Female Leadership | 0.77 | 13) High Growth | 0.71 |
| | P14 – Export Focus | 0.17 | P14 – Globalization | 0.52 | 14) Internationalization | 0.13 |
| | P15 – Female Bus Investors | 0.04 | P15 – Financial Access | 0.19 | 15) External Financing | 0.31 |

| Other Gender Index Rankings | Rank |
|----------------------------------|------|
| Global Gender Gap Index | 8 |
| Gender Inequality Index | 9 |
| Gender Equity Index | 6 |
| EIU Women's Economic Opportunity | 12 |

* Missing data is indicated with "n.d." for no data.



South Africa

Sub-Saharan Africa

Upper middle income

Rank



Score



43

| Economy and demographics | | Business support | |
|--|-----------|---|-------|
| GDP per capita PPP (constant 2005 intl \$) | \$9,678 | National Women's Business Office? | n.d.* |
| Adolescent fertility rate | 52 | Women's Business Networks/Organizations? | n.d. |
| Mean female marriage age | 31 | Gender-specific Public Procurement Policies? | n.d. |
| CEDAW ratification (5 point scale) | 4/5 | Global Banking Alliance for Women bank branches | 1 |
| Mobile Phone Gender Gap | 23% | Alternative Financing Sources: Crowdfunding platforms | |
| Percent of female self-employment that is informal | 79% | Crowdfunding Donations | 3 |
| Percent of population involved in Entrepreneurship Startups | 7% | Crowdfunding Equity | 1 |
| | | Crowdfunding Loans | 0 |
| Perceptions | | | |
| Percent of women/men that disagree that "Men make better business executives than women" | 66% / 47% | | |
| Do women have equal access to leadership positions (1-7 scale) | 5/7 | | |

Relative position of South Africa at the variable and pillar levels

| Subindex | Rank | Score | Subindex | Rank | Score | Subindex | Rank | Score |
|-----------------------------|------|-------|----------------------------|------|-------|-----------------------------|------|-------|
| Entrepreneurial Environment | 12 | 40 | Entrepreneurial Eco-system | 11 | 39 | Entrepreneurial Aspirations | 6 | 51 |

| | Individual variables | score | Institutional variables | score | Pillars | score |
|-----------------------------|------------------------------|-------|--------------------------------|-------|----------------------------|-------|
| Entrepreneurial Environment | P1 – Opportunity Recognition | 0.48 | P1 – Equal Legal Rights | 0.96 | 1) Opportunity Perception | 0.44 |
| | P2 – Perception of Skills | 0.47 | P2 – Higher Education | 0.80 | 2) Startup Skills | 0.36 |
| | P3 – Willingness to Start | 0.96 | P3 – Business Risk | 0.71 | 3) Willingness and Risk | 0.57 |
| | P4 – Know an Entrepreneur | 0.55 | P4 – Female Internet Users | 0.12 | 4) Networking | 0.19 |
| | P5 – Entrepreneur Perception | 0.79 | P5 – Access to Childcare | 0.60 | 5) Cultural Support | 0.43 |
| Entrepreneurial Eco-System | P6 – Opportunity Business | 0.71 | P6 – Bus Freedom & Movement | 0.51 | 6) Opportunity Start up | 0.32 |
| | P7 – Tech Sector Business | 0.37 | P7 – Female Science Grads | 0.41 | 7) Technology Sector | 0.39 |
| | P8 – Highly Educated Owners | 0.18 | P8 – SME Support and Training | 0.80 | 8) Human Resources Quality | 0.27 |
| | P9 – Innovativeness | 0.68 | P9 – Monopolized Markets | 0.73 | 9) Competition | 0.43 |
| | P10 – Entrepreneurship Ratio | 0.74 | P10 – Labor Force Gender Ratio | 0.76 | 10) Voice and Agency | 0.57 |
| Entrepreneurial Aspirations | P11 – New Product | 0.68 | P11 – Technology Transfer | 0.61 | 11) Product Innovation | 0.52 |
| | P12 – New Technology | 0.98 | P12 – R&D Expenditure | 0.25 | 12) Process Innovation | 0.58 |
| | P13 – Business Gazelles | 0.50 | P13 – Female Leadership | 0.62 | 13) High Growth | 0.55 |
| | P14 – Export Focus | 0.75 | P14 – Globalization | 0.72 | 14) Internationalization | 0.57 |
| | P15 – Female Bus Investors | 0.03 | P15 – Financial Access | 0.41 | 15) External Financing | 0.32 |

| Other Gender Index Rankings | Rank |
|----------------------------------|------|
| Global Gender Gap Index | 2 |
| Gender Inequality Index | 14 |
| Gender Equity Index | 3 |
| EIU Women's Economic Opportunity | 9 |

* Missing data is indicated with "n.d." for no data.



Turkey

Europe & Central Asia

Upper middle income

Rank

11

Score



40

| Economy and demographics | | Business support | |
|--|-----------|---|-------|
| GDP per capita PPP (constant 2005 intl \$) | \$13,468 | National Women's Business Office? | n.d.* |
| Adolescent fertility rate | 32 | Women's Business Networks/Organizations? | Yes |
| Mean female marriage age | 24 | Gender-specific Public Procurement Policies? | n.d. |
| CEDAW ratification (5 point scale) | 3/5 | Global Banking Alliance for Women bank branches | 1 |
| Mobile Phone Gender Gap | 16% | Alternative Financing Sources: Crowdfunding platforms | |
| Percent of female self-employment that is informal | n.d. | Crowdfunding Donations | 1 |
| Percent of population involved in Entrepreneurship Startups | 6% | Crowdfunding Equity | 0 |
| | | Crowdfunding Loans | 1 |
| Perceptions | | | |
| Percent of women/men that disagree that "Men make better business executives than women" | 52% / 41% | | |
| Do women have equal access to leadership positions (1-7 scale) | 4/7 | | |

Relative position of Turkey at the variable and pillar levels

| Subindex | Rank | Score | Subindex | Rank | Score | Subindex | Rank | Score |
|-----------------------------|------|-------|----------------------------|------|-------|-----------------------------|------|-------|
| Entrepreneurial Environment | 15 | 37 | Entrepreneurial Eco-system | 13 | 37 | Entrepreneurial Aspirations | 8 | 46 |

| | Individual variables | score | Institutional variables | score | Pillars | score |
|-----------------------------|------------------------------|-------|--------------------------------|-------|----------------------------|-------|
| Entrepreneurial Environment | P1 – Opportunity Recognition | 0.45 | P1 – Equal Legal Rights | 0.85 | 1) Opportunity Perception | 0.38 |
| | P2 – Perception of Skills | 0.52 | P2 – Higher Education | 0.70 | 2) Startup Skills | 0.36 |
| | P3 – Willingness to Start | 0.83 | P3 – Business Risk | 0.57 | 3) Willingness and Risk | 0.43 |
| | P4 – Know an Entrepreneur | 0.42 | P4 – Female Internet Users | 0.20 | 4) Networking | 0.23 |
| | P5 – Entrepreneur Perception | 0.86 | P5 – Access to Childcare | 0.60 | 5) Cultural Support | 0.46 |
| Entrepreneurial Eco-System | P6 – Opportunity Business | 0.57 | P6 – Bus Freedom & Movement | 0.68 | 6) Opportunity Start up | 0.35 |
| | P7 – Tech Sector Business | 0.24 | P7 – Female Science Grads | 0.57 | 7) Technology Sector | 0.38 |
| | P8 – Highly Educated Owners | 0.53 | P8 – SME Support and Training | 0.60 | 8) Human Resources Quality | 0.43 |
| | P9 – Innovativeness | 0.93 | P9 – Monopolized Markets | 0.71 | 9) Competition | 0.53 |
| | P10 – Entrepreneurship Ratio | 0.29 | P10 – Labor Force Gender Ratio | 0.41 | 10) Voice and Agency | 0.16 |
| Entrepreneurial Aspirations | P11 – New Product | 1.00 | P11 – Technology Transfer | 0.55 | 11) Product Innovation | 0.64 |
| | P12 – New Technology | 0.39 | P12 – R&D Expenditure | 0.20 | 12) Process Innovation | 0.40 |
| | P13 – Business Gazelles | 0.90 | P13 – Female Leadership | 0.20 | 13) High Growth | 0.39 |
| | P14 – Export Focus | 0.78 | P14 – Globalization | 0.57 | 14) Internationalization | 0.50 |
| | P15 – Female Bus Investors | 0.22 | P15 – Financial Access | 0.20 | 15) External Financing | 0.36 |

| Other Gender Index Rankings | Rank |
|----------------------------------|------|
| Global Gender Gap Index | 15 |
| Gender Inequality Index | 10 |
| Gender Equity Index | 14 |
| EIU Women's Economic Opportunity | 14 |

* Missing data is indicated with "n.d." for no data.



Uganda

Sub-Saharan Africa

Low income

Rank

Score

17



32

| Economy and demographics | | Business support | |
|--|-------------|---|-----------|
| GDP per capita PPP (constant 2005 intl \$) | \$1,188 | National Women's Business Office? | n.d. * |
| Adolescent fertility rate | 131 | Women's Business Networks/Organizations? | Yes |
| Mean female marriage age | 20 | Gender-specific Public Procurement Policies? | n.d. |
| CEDAW ratification (5 point scale) | 3/5 | Global Banking Alliance for Women bank branches | 7 |
| Mobile Phone Gender Gap | 23% | Alternative Financing Sources: Crowdfunding platforms | |
| Percent of female self-employment that is informal | 87% | Crowdfunding Donations | 1 |
| Percent of population involved in Entrepreneurship Startups | 33% | Crowdfunding Equity | 0 |
| | | Crowdfunding Loans | 0 |
| Perceptions | | | |
| Percent of women/men that disagree that "Men make better business executives than women" | n.d. / n.d. | | |
| Do women have equal access to leadership positions (1-7 scale) | 6/7 | | |

Relative position of Uganda at the variable and pillar levels

| Subindex | Rank | Score | Subindex | Rank | Score | Subindex | Rank | Score |
|-----------------------------|------|-------|----------------------------|------|-------|-----------------------------|------|-------|
| Entrepreneurial Environment | 14 | 39 | Entrepreneurial Eco-system | 16 | 33 | Entrepreneurial Aspirations | 17 | 24 |

| | Individual variables | score | Institutional variables | score | Pillars | score |
|-----------------------------|------------------------------|-------|--------------------------------|-------|----------------------------|-------|
| Entrepreneurial Environment | P1 – Opportunity Recognition | 1.00 | P1 – Equal Legal Rights | 0.96 | 1) Opportunity Perception | 0.70 |
| | P2 – Perception of Skills | 1.00 | P2 – Higher Education | 0.33 | 2) Startup Skills | 0.35 |
| | P3 – Willingness to Start | 0.99 | P3 – Business Risk | 0.29 | 3) Willingness and Risk | 0.26 |
| | P4 – Know an Entrepreneur | 1.00 | P4 – Female Internet Users | 0.05 | 4) Networking | 0.18 |
| | P5 – Entrepreneur Perception | 0.93 | P5 – Access to Childcare | 0.60 | 5) Cultural Support | 0.46 |
| Entrepreneurial Eco-System | P6 – Opportunity Business | 0.56 | P6 – Bus Freedom & Movement | 0.33 | 6) Opportunity Start up | 0.17 |
| | P7 – Tech Sector Business | 0.03 | P7 – Female Science Grads | 0.36 | 7) Technology Sector | 0.24 |
| | P8 – Highly Educated Owners | 0.09 | P8 – SME Support and Training | 0.40 | 8) Human Resources Quality | 0.15 |
| | P9 – Innovativeness | 0.91 | P9 – Monopolized Markets | 0.54 | 9) Competition | 0.41 |
| | P10 – Entrepreneurship Ratio | 0.93 | P10 – Labor Force Gender Ratio | 1.00 | 10) Voice and Agency | 0.70 |
| Entrepreneurial Aspirations | P11 – New Product | 0.26 | P11 – Technology Transfer | 0.51 | 11) Product Innovation | 0.19 |
| | P12 – New Technology | 0.43 | P12 – R&D Expenditure | 0.26 | 12) Process Innovation | 0.41 |
| | P13 – Business Gazelles | 0.11 | P13 – Female Leadership | 0.69 | 13) High Growth | 0.21 |
| | P14 – Export Focus | 0.15 | P14 – Globalization | 0.51 | 14) Internationalization | 0.11 |
| | P15 – Female Bus Investors | 0.02 | P15 – Financial Access | 0.06 | 15) External Financing | 0.30 |

| Other Gender Index Rankings | Rank |
|----------------------------------|------|
| Global Gender Gap Index | 6 |
| Gender Inequality Index | 15 |
| Gender Equity Index | 11 |
| EIU Women's Economic Opportunity | 17 |

* Missing data is indicated with "n.d." for no data.



United Kingdom

Europe

High income: OECD

Rank

Score

6



51

| Economy and demographics | | Business support | |
|--|-----------|---|------|
| GDP per capita PPP (constant 2005 intl \$) | \$32,809 | National Women's Business Office? | n.d. |
| Adolescent fertility rate | 30 | Women's Business Networks/Organizations? | Yes |
| Mean female marriage age | 32 | Gender-specific Public Procurement Policies? | n.d. |
| CEDAW ratification (5 point scale) | 2/5 | Global Banking Alliance for Women bank branches | 4 |
| Mobile Phone Gender Gap | No gap | Alternative Financing Sources: Crowdfunding platforms | |
| Percent of female self-employment that is informal | n.d.* | Crowdfunding Donations | 31 |
| Percent of population involved in Entrepreneurship Startups | 4% | Crowdfunding Equity | 10 |
| | | Crowdfunding Loans | 9 |
| Perceptions | | | |
| Percent of women/men that disagree that "Men make better business executives than women" | 91% / 75% | | |
| Do women have equal access to leadership positions (1-7 scale) | 5/7 | | |

Relative position of United Kingdom at the variable and pillar levels

| Subindex | Rank | Score | Subindex | Rank | Score | Subindex | Rank | Score |
|-----------------------------|------|-------|----------------------------|------|-------|-----------------------------|------|-------|
| Entrepreneurial Environment | 7 | 46 | Entrepreneurial Eco-system | 5 | 52 | Entrepreneurial Aspirations | 5 | 55 |

| | Individual variables | score | Institutional variables | score | Pillars | score |
|-----------------------------|------------------------------|-------|--------------------------------|-------|----------------------------|-------|
| Entrepreneurial Environment | P1 – Opportunity Recognition | 0.28 | P1 – Equal Legal Rights | 1.00 | 1) Opportunity Perception | 0.31 |
| | P2 – Perception of Skills | 0.47 | P2 – Higher Education | 0.89 | 2) Startup Skills | 0.43 |
| | P3 – Willingness to Start | 0.85 | P3 – Business Risk | 1.00 | 3) Willingness and Risk | 0.70 |
| | P4 – Know an Entrepreneur | 0.28 | P4 – Female Internet Users | 0.87 | 4) Networking | 0.45 |
| | P5 – Entrepreneur Perception | 0.66 | P5 – Access to Childcare | 0.60 | 5) Cultural Support | 0.39 |
| Entrepreneurial Eco-System | P6 – Opportunity Business | 0.86 | P6 – Bus Freedom & Movement | 0.96 | 6) Opportunity Start up | 0.65 |
| | P7 – Tech Sector Business | 0.03 | P7 – Female Science Grads | 0.49 | 7) Technology Sector | 0.28 |
| | P8 – Highly Educated Owners | 0.69 | P8 – SME Support and Training | 1.00 | 8) Human Resources Quality | 0.74 |
| | P9 – Innovativeness | 0.57 | P9 – Monopolized Markets | 0.92 | 9) Competition | 0.48 |
| | P10 – Entrepreneurship Ratio | 0.46 | P10 – Labor Force Gender Ratio | 0.85 | 10) Voice and Agency | 0.46 |
| Entrepreneurial Aspirations | P11 – New Product | 0.51 | P11 – Technology Transfer | 0.86 | 11) Product Innovation | 0.58 |
| | P12 – New Technology | 0.48 | P12 – R&D Expenditure | 0.43 | 12) Process Innovation | 0.56 |
| | P13 – Business Gazelles | 0.40 | P13 – Female Leadership | 0.72 | 13) High Growth | 0.55 |
| | P14 – Export Focus | 0.57 | P14 – Globalization | 0.87 | 14) Internationalization | 0.57 |
| | P15 – Female Bus Investors | 0.17 | P15 – Financial Access | 0.98 | 15) External Financing | 0.47 |

| Other Gender Index Rankings | Rank |
|----------------------------------|------|
| Global Gender Gap Index | 3 |
| Gender Inequality Index | 5 |
| Gender Equity Index | 5 |
| EIU Women's Economic Opportunity | 4 |

* Missing data is indicated with "n.d." for no data.



United States

North America

High income: OECD

Rank



Score



76

| Economy and demographics | | Business support | |
|--|-----------|---|-----|
| GDP per capita PPP (constant 2005 intl \$) | \$42,486 | National Women's Business Office? | Yes |
| Adolescent fertility rate | 30 | Women's Business Networks/Organizations? | Yes |
| Mean female marriage age | 27 | Gender-specific Public Procurement Policies? | Yes |
| CEDAW ratification (5 point scale) | 0/5 | Global Banking Alliance for Women bank branches | 2 |
| Mobile Phone Gender Gap | No gap | Alternative Financing Sources: Crowdfunding platforms | |
| Percent of female self-employment that is informal | n.d.* | Crowdfunding Donations | 155 |
| Percent of population involved in Entrepreneurship Startups | 6% | Crowdfunding Equity | 52 |
| | | Crowdfunding Loans | 26 |
| Perceptions | | | |
| Percent of women/men that disagree that "Men make better business executives than women" | 88% / 79% | | |
| Do women have equal access to leadership positions (1-7 scale) | 5/7 | | |

Relative position of United States at the variable and pillar levels

| Subindex | Rank | Score | Subindex | Rank | Score | Subindex | Rank | Score |
|-----------------------------|------|-------|----------------------------|------|-------|-----------------------------|------|-------|
| Entrepreneurial Environment | 1 | 70 | Entrepreneurial Eco-system | 1 | 76 | Entrepreneurial Aspirations | 1 | 83 |

| | Individual variables | score | Institutional variables | score | Pillars | score |
|-----------------------------|------------------------------|-------|--------------------------------|-------|----------------------------|-------|
| Entrepreneurial Environment | P1 – Opportunity Recognition | 0.39 | P1 – Equal Legal Rights | 1.00 | 1) Opportunity Perception | 0.54 |
| | P2 – Perception of Skills | 0.63 | P2 – Higher Education | 0.90 | 2) Startup Skills | 0.68 |
| | P3 – Willingness to Start | 0.95 | P3 – Business Risk | 1.00 | 3) Willingness and Risk | 0.93 |
| | P4 – Know an Entrepreneur | 0.40 | P4 – Female Internet Users | 0.78 | 4) Networking | 0.66 |
| | P5 – Entrepreneur Perception | 0.76 | P5 – Access to Childcare | 0.80 | 5) Cultural Support | 0.69 |
| Entrepreneurial Eco-System | P6 – Opportunity Business | 0.85 | P6 – Bus Freedom & Movement | 0.92 | 6) Opportunity Start up | 0.77 |
| | P7 – Tech Sector Business | 0.54 | P7 – Female Science Grads | 0.55 | 7) Technology Sector | 0.68 |
| | P8 – Highly Educated Owners | 0.98 | P8 – SME Support and Training | 0.80 | 8) Human Resources Quality | 0.93 |
| | P9 – Innovativeness | 0.64 | P9 – Monopolized Markets | 0.88 | 9) Competition | 0.64 |
| | P10 – Entrepreneurship Ratio | 0.71 | P10 – Labor Force Gender Ratio | 0.86 | 10) Voice and Agency | 0.77 |
| Entrepreneurial Aspirations | P11 – New Product | 0.51 | P11 – Technology Transfer | 0.97 | 11) Product Innovation | 0.76 |
| | P12 – New Technology | 0.44 | P12 – R&D Expenditure | 0.65 | 12) Process Innovation | 0.78 |
| | P13 – Business Gazelles | 0.51 | P13 – Female Leadership | 0.89 | 13) High Growth | 0.87 |
| | P14 – Export Focus | 0.91 | P14 – Globalization | 0.75 | 14) Internationalization | 0.85 |
| | P15 – Female Bus Investors | 0.82 | P15 – Financial Access | 0.84 | 15) External Financing | 0.92 |

| Other Gender Index Rankings | Rank |
|----------------------------------|------|
| Global Gender Gap Index | 4 |
| Gender Inequality Index | 7 |
| Gender Equity Index | 7 |
| EIU Women's Economic Opportunity | 5 |

* Missing data is indicated with "n.d." for no data.

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