



GLOBAL ENTREPRENEURSHIP MONITOR

2005 Report on Women and Entrepreneurship

Maria Minniti • I. Elaine Allen • Nan Langowitz



About the Cover: In 1975, March 8th was officially ratified as International Women's Day by the United Nations. The origins of International Women's Day go back to the 1900s and the celebration is mainly connected to women's achievement of the right to vote. The yellow flower on the cover of the Report and throughout its pages is from the Mimosa tree. The flower has a delightful perfume and the tree blooms in early March in mild climates. It is often given to women on Women's Day and has therefore become known as "the women's flower".



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*Although the data used are from the Global Entrepreneurship Monitor (GEM) project,
the sole responsibility for the content rests with the authors of this report.*

TABLE OF CONTENTS

List of Tables and Figures	3
Acknowledgements	4
Methodology	5
Executive Summary	6
1. Framework for Analyzing Women’s Entrepreneurship	10
2. Women’s Entrepreneurial Activity	11
- Early-Stage Participation and Established Business Ownership	11
- Entrepreneurial Motivation and Business Outcomes	14
- Entrepreneurial Scope: Sectoral Distribution and Growth Potential	16
3. Characteristics of Women Entrepreneurs	20
- Demographic and Economic Factors Influencing Women’s Entrepreneurial Behavior	20
- Factors Influencing Perceptions about the Entrepreneurial Environment	24
Conclusion	26
Endnotes	27
Sponsors	28
Contacts	29



List of Tables

- Table 1. Prevalence Rates of Entrepreneurial Activity Across Countries by Gender 2005
- Table 2. Difference in Prevalence Rates Across Country Clusters by Gender 2005
- Table 3. Country Cluster Differences in Transition Ratios by Gender
- Table 4. Ratio of Opportunity to Necessity Early-Stage Entrepreneurship by Country and Gender
- Table 5. Country Cluster Differences in Opportunity to Necessity, Early-Stage Entrepreneurship by Gender
- Table 6. Factors Influencing the Entrepreneurs' Environment by Gender and Business Stage

List of Figures

- Figure 1. Women's Entrepreneurial Motivation by Country 2005
- Figure 2. Sectoral Distribution of Female Entrepreneurship by Country Cluster and Business Stage
- Figure 3. Newness of Products and Services from Women's Businesses by Business Stage
- Figure 4. Intensity of Expected Competition for Women's Businesses by Business Stage
- Figure 5. Age Distribution of Women's Entrepreneurs by Country Clusters and Business Stage
- Figure 6. Female Early-Stage Entrepreneurial Activity by Work-Status and Country Clusters
- Figure 7. Female Educational Attainments by Country Cluster and Business Stage
- Figure 8. Women Entrepreneurs Household Income by Country Clusters and Business Stage



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The Global Entrepreneurship Monitor (GEM) study on women's entrepreneurship is part of the overall GEM project, which focuses on measuring differences in the level of entrepreneurial activity among countries, uncovering factors leading to entrepreneurial behavior and suggesting policies that may enhance national levels of entrepreneurial activity. GEM is a collaborative effort in terms of financial resources and intellectual advancement, as well as design and analysis.

This report makes use of data collected by 35 country teams, as follows:

Asia and Oceania

Australia, China, Japan, New Zealand, Singapore, and Thailand

Africa and the Middle East

South Africa

Europe

Austria, Belgium, Croatia, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Netherlands, Norway, Slovenia, Spain, Sweden, Switzerland, and the United Kingdom

North America

Canada, Jamaica, Mexico, and the United States

South America

Argentina, Brazil, Chile, and Venezuela

We sincerely thank the members of each country team for their collegueship and collaborative research spirit. A complete listing of team members and all national reports can be found at

www.gemconsortium.org.

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METHODOLOGY

Since its inception in 1999, GEM's major activity has been the creation of a large data set and the construction of harmonized measures of entrepreneurial activity. The data used in this report comes from the 2005 GEM adult population surveys and from standardized cross-national data obtained from sources such as the World Bank, the International Monetary Fund, and the United Nations. The 2005 GEM adult population surveys were conducted by telephone or face to face, and were designed to yield a representative sample of the population within each country. The GEM data set for 2005 includes responses from 107,464 individuals, 50.4% of whom were women.

The 35 GEM countries participating in 2005 were divided into two country clusters (middle-income and high-income) based on their per capita gross domestic product (GDP) and GDP growth rate. The middle-income country cluster is comprised of 13 countries: Argentina, Brazil, Chile, China, Croatia, Hungary, Jamaica, Latvia, Mexico, Slovenia, South Africa, Thailand and Venezuela. The high-income country cluster is comprised of 22 countries: Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Japan, Netherlands, New Zealand, Norway, Singapore, Spain, Sweden, Switzerland, United Kingdom, and United States. All countries use region stratification, except very small ones like Iceland. Data are also weighted by gender and age to create representative samples of each population.

Detailed information on GEM data collection methodology and on the statistical properties of the data can be found in the Appendix of the **Global Entrepreneurship Monitor 2005 Executive Report** available through the GEM Consortium website at www.gemconsortium.org.



EXECUTIVE SUMMARY

Women's entrepreneurship is expanding around the world. Women represent more than one-third of all people involved in entrepreneurial activity and are likely to play an even greater role when informal sectors are considered. Across the world, generations of women from very different backgrounds contribute to their environments and are showing very encouraging signs of entrepreneurial spirit. The Global Entrepreneurship Monitor (GEM) 2005 Report on Women and Entrepreneurship is the second in a series of reports undertaken to provide a comprehensive and up to date study of the role played by women involved in entrepreneurial activity across the world economy.¹ GEM is a major research project aimed at describing and analyzing entrepreneurial processes within a wide range of countries. One of the comparative strengths of GEM is its unique ability to provide comparable data across countries.

GEM's contribution to our knowledge and understanding of the entrepreneurial process is unique since, to date, no other data set exists that can provide consistent cross-country information and measurements of women's entrepreneurial activity in a global context. This 2005 report provides a cross-national assessment of women's entrepreneurial activity in 35 countries and examines the existence and characteristics of both early-stage women entrepreneurs as well as established women business owners. The study provides an analysis of the key characteristics and context of female entrepreneurial activity and how that may differ from that of their male counterparts. It is our hope that this work will advance the understanding of the needs and characteristics of aspiring and existing female entrepreneurs, and will provide policy insights useful to developing and enhancing an environment in which the spirit of women's entrepreneurship may flourish.

ENTREPRENEURIAL ACTIVITY

Entrepreneurial activity varies by country across the world economy. GEM groups countries into middle-income and high-income clusters based upon

country gross domestic product (GDP). Regardless of gender, entrepreneurial activity is significantly higher in the middle-income cluster than in the high-income cluster of countries. It is important to consider entrepreneurial behavior by characterizing entrepreneurs depending upon the stage they occupy in the venture creation process. GEM distinguishes two broad categories of entrepreneurs — early-stage and established — based upon the age of their business. Across the 35 participating GEM countries, middle-income countries such as Venezuela and Thailand exhibited the highest women's early-stage entrepreneurial activity prevalence rates (23.8% and 19.3% respectively) while high-income countries like the Netherlands and Japan exhibited the lowest (2.1% and 1.2% respectively). Established business owner prevalence rates also vary among countries.

Overall, regardless of country, men are more likely to be involved in entrepreneurial activity than women. Examination of entrepreneurial behavior across the globe yields a clear picture of a gender gap in venture creation and ownership activity. The entrepreneurial gender gap exhibits varying dimension and characteristics, including the following:

- In both country clusters, a significant gender gap exists between the overall entrepreneurial activity of male versus female entrepreneurs and business owners.
- In both country clusters the gender gap exists for both early-stage entrepreneurial participation and established business ownership, and is greatest in the high-income country cluster, regardless of type of activity.
- In the high-income cluster, men are almost twice as likely to be early-stage or established business owners than women.
- The gender gap is narrower in middle-income countries, particularly for early-stage entrepreneurship. In these countries, the gender gap between male and female early-stage entrepreneurs is 25.6%, but it widens to 59.1% for established business owners.

MOTIVATIONS AND BUSINESS OUTCOME

A primary question for understanding entrepreneurial activity is to consider whether the aspiring entrepreneur engages in new venture creation out of necessity — having no better job alternatives — or because she perceives an opportunity — despite having other alternatives. Prevalence rates of entrepreneurship vary significantly by motivation between middle-income and high-income countries. That is, opportunity and necessity motivations influence entrepreneurs differently across country clusters. Opportunity is the dominant motivation for most entrepreneurs across the GEM countries, regardless of gender. However, the ratio of opportunity to necessity entrepreneurship is significantly higher in high-income countries than in middle-income countries, and this effect is significantly amplified for women entrepreneurs.

Some interesting gender differences exist with respect to entrepreneurial motivation and the likelihood of business survival, including:

- There is a significant difference in the prevalence rate of opportunity entrepreneurs by gender in both the middle-income and high-income country clusters. In both high and middle-income countries, the rate of male opportunity entrepreneurship is higher than that of women.
- A different picture emerges for necessity entrepreneurship, however. There is no significant difference by gender in the rate of necessity entrepreneurship in the middle-income country cluster, while in high-income countries such a difference exists.
- In middle-income countries, necessity is a proportionately larger motivator for women's entrepreneurial activity than for men (34.6 % and 31.4% respectively). This difference does not exist in the high-income country cluster (14.9% and 14.6% respectively).
- A comparison of early-stage and established business ownership suggests that the chances of surviving in the market for more than 42 months vary by country and, often though not always, by

gender. Male entrepreneurs seem more likely to have a business survive in Argentina, Brazil, Denmark, Finland, Hungary, Italy, Singapore, Sweden and the United Kingdom. Female entrepreneurs seem more likely to have a business survive in Belgium, Croatia, Greece, Netherlands and Spain. Only specific country studies and longitudinal data may shed light on the true causes of such differences.

- For both men and women, the likelihood of surviving in the market for more than 42 months is higher in high-income than in middle-income countries. There is no difference in the likelihood of business survival by gender in the high-income country group. However, in middle-income countries, the likelihood of a woman's business surviving is significantly lower than that of a man's business.

ENTREPRENEURIAL SCOPE

As might be expected, the landscape of entrepreneurial activity varies across the globe. The scope of women's entrepreneurial activity may be understood by looking at industry sector, use of technology, firm employment, and growth potential. Overall, women's businesses show many of the same patterns as those of their male counterparts, in particular:

- The distribution of women entrepreneurs across the broad industrial sectors of extraction, transformation, business services, and consumer-oriented products is comparable for both early-stage and established entrepreneurs. Further, the distribution pattern exhibited by female entrepreneurs is similar to that of male entrepreneurs.
- Despite a similar sectoral distribution among male and female entrepreneurs, there are significant differences in the level of presence within the transforming and consumer-oriented business sectors by gender and across country clusters. While the consumer-oriented sector is the leading sector for both male and female entrepreneurs, the level of participation in it is



EXECUTIVE SUMMARY

significantly higher for women than men, regardless of country cluster or stage of business development. Similarly, male businesses are significantly more prevalent in the transforming sector.

- The highest level of women's participation in consumer-oriented industry is in the middle-income cluster. Rates of women's participation in extractive, transforming and business services sectors are somewhat higher in the high-income cluster than in the middle-income cluster; nonetheless, the consumer-oriented sector is the most likely industrial sector for women's businesses.
- Female and male entrepreneurs show very similar patterns for the expected growth potential of their businesses, based upon their use of technology, level of competition, and novelty of products or service offering. This is the case regardless of stage of new venture creation.
- The percentages of entrepreneurs who expect moderate or profound growth potential for their businesses is somewhat higher for female entrepreneurs than male entrepreneurs; with the highest level of expectation for moderate or profound growth potential among early-stage women entrepreneurs in middle-income countries. Although small in absolute terms, the percentage of entrepreneurs who foresee profound growth potential in both early-stage and established entrepreneurship is higher for women (6.4% and 2.7% respectively) than men (4.8% and 1.1% respectively).
- The dominant expectation for growth is low, however. In high-income countries, the majority of early-stage and established female entrepreneurs foresee no growth potential for their businesses (55.3% and 70.5% respectively). Likewise, in middle-income countries, the majority of early-stage and established female entrepreneurs foresee no growth potential (44.2% and 66.5% respectively). The percentages in both country clusters are in line with their male counterparts.

- As in the case of men's businesses, the majority of women's businesses shows either no or only limited growth potential in terms of new jobs creation.

CHARACTERISTICS OF WOMEN ENTREPRENEURS

Finally, it is important to have a sense for the demographic characteristics and attitudes of the women engaged in entrepreneurial activity around the world. The following outlines key demographic information about these women:

- Similar to men, the age distribution of women involved in entrepreneurial activity follows an inverted U-shape curve. Early-stage entrepreneurial activity in middle-income countries is most prevalent in the age group of women 25–34 years old. Established business ownership in these countries peaks among women 35–44 years old. In high-income countries, the peaks broaden out, with early-stage entrepreneurial activity most likely among women ages 25–44 and established business ownership most likely among women 35–54 years old.
- In both country clusters, the likelihood of being involved in entrepreneurial activity is significantly higher for those women who also are employed in a wage job (whether full or part time) compared to those who are not working, are retired, or are students. This suggests that working provides access to resources, social capital, and ideas that may aid in establishing an entrepreneurial venture.
- The educational profile of women entrepreneurs is similar for early-stage and established business owners, however it varies by country cluster.
- In middle-income countries, a large proportion of women entrepreneurs have only some secondary education. 45.0% of early-stage women entrepreneurs and 48.5% of established women business owners have less than a secondary degree in middle-income countries.
- The educational profile of women entrepreneurs



in high-income countries varies considerably from that of middle-income women entrepreneurs. In high-income countries, a smaller but still considerable percentage of women entrepreneurs only have some secondary education. Early-stage women entrepreneurs and established women business owners have less than a secondary degree in high-income countries, 27.8% and 34.0% respectively. At least two-thirds of women entrepreneurs in high-income countries have secondary degrees, double the level of middle-income country women. Further, more than a quarter of high-income women entrepreneurs have graduate degrees.

- Women with higher incomes are more likely to be involved in early-stage entrepreneurial activity, regardless of country context. Nonetheless, early-stage entrepreneurial activity is highest among women in middle-income countries, regardless of income level. This is likely due to the high prevalence of necessity based entrepreneurship among women in middle-income countries.
- Higher household income levels are much more common among established women business owners in high-income countries than in the middle-income group. This suggests that high-income may be the result of successful entrepreneurship and that a more favorable country context may enable success.
- In both country clusters, there are strong similarities between women and men with respect to knowing other entrepreneurs, believing in the existence of good opportunities, and self confidence in knowledge to start a business. In general, women who are involved in entrepreneurial activity at any stage tend to be more confident in their own skills, are more likely to know other entrepreneurs, and are more alert to the existence of unexploited opportunities than women who indicate no entrepreneurial activity.
- Fear of failure is a factor that influences entrepreneurial activity and may be mitigated by country context. It clearly inhibits

entrepreneurship as more than one-third of women who engaged in no business activity expressed fear of failure.

- In high-income countries, women (and men) who are involved in entrepreneurial activity are less sensitive to the possibility of failure than other women (and men).
- Fear of failure is significantly higher for women than men in middle-income countries and 43% of necessity motivated women entrepreneurs in middle-income countries expressed such a fear. Their fear of failure may be higher because they perceive no other job alternatives. It seems likely that the context of their country conditions combined with their lack of alternatives is a powerful motivation for entrepreneurship.
- Among women entrepreneurs (and among men) fear of failure was least often expressed by those in high-income countries motivated by opportunity. This may be understood since these entrepreneurs are women who have other work alternatives and live in countries with higher per capita incomes. Again, country context may play a powerful influence on entrepreneurial motivation.

IMPLICATIONS FOR POLICY

This report makes it clear that the entrepreneurial activity of women is diverse and pervasive across the globe. Clearly, country and social contexts play strong roles in determining the entrepreneurial inclination and success of women. Also, there can be no mistaking the gender gap that exists between women and men as they pursue new venture creation and business ownership. While it is beyond the scope of this research to be prescriptive about policy recommendations to enhance women's entrepreneurship, it is clear that understanding the differences that exist is an important first step to formulating sound strategies and initiatives.



1. A FRAMEWORK FOR THE STUDY OF WOMEN'S ENTREPRENEURSHIP

Entrepreneurship is a complex phenomenon and can be found in a variety of settings and situations. Thus, no single measurement, no matter how precise, can capture the entrepreneurial landscape of a country. As a result, GEM takes a holistic approach to the study of women's entrepreneurship, and provides a comprehensive (though by no means exhaustive) set of measurements aimed at describing several aspects of the female entrepreneurial make-up of a country.

The basic distinction is between the point where women operate along the cycle of the entrepreneurial process, and the characteristics of their actions. Within this context, the GEM data collection process covers the life cycle of the entrepreneurial process and looks at women at the point when they commit resources or start a business (women nascent entrepreneurs); when they own and manage a new business that has paid salaries for more than three months but less than 42 months (women new business owners); and when they own and manage an established business that has been in operation for more than 42 months (established women business owners). When considered together, women nascent entrepreneurs and women new business owners may be viewed as an indicator of women's early-stage entrepreneurial activity in a country.² Throughout this report, we will compare the behavior and characteristics of women in early-stage entrepreneurial activity with that of established women business owners, and with their respective male counterparts.

It is not only important to know the number of women who start and own businesses, but also to know what motivates them to do so, and what characteristics their businesses possess. With respect to motivation, GEM classifies women entrepreneurs as being either necessity-driven or opportunity-driven. The difference between these classifications is that some women start new businesses due to the recognition of opportunities, while others do so because of the lack of better job alternatives. With respect to the characteristics of

business ownership that can be viewed as "entrepreneurial" regardless of the age of the business, there exists wide consensus that growth expectations and innovativeness are fundamental aspects of the entrepreneurial process. Specifically, GEM defines three aspects of an innovation's potential value: product novelty, competitor differentiation, and use of technology.

Finally, the quantity and quality of women's entrepreneurial activity taking place in a country is a function of the entrepreneurial capacity of women in that country. GEM looks at the socio-demographic characteristics of women as well as the factors that influence women's subjective perceptions and expectations about the entrepreneurial environment.



2. WOMEN'S ENTREPRENEURIAL ACTIVITY

EARLY-STAGE PARTICIPATION AND ESTABLISHED BUSINESS OWNERSHIP

Entrepreneurial activity varies by country across the world economy. GEM groups countries into a middle-income cluster and high-income cluster based upon their per capita gross domestic product (GDP). The first cluster consists of 13 countries from South America, Eastern Europe, and Africa.

All of them exhibit relatively high GDP growth rates and middle per capita GDP levels. In fact, the average GDP per capita in this group is only USD 6,252, whereas their average level of GDP growth is 4.5%. The second cluster contains 22 countries. All of them exhibit high per capita GDP levels, but comparatively lower GDP growth rates. This cluster contains the G7/8 countries and most member

Table 1. Prevalence Rates of Entrepreneurial Activity Across Countries by Gender 2005

	Early-Stage Entrepreneurial Activity (Nascent + New)		Established Business Owners		Overall Business Owners (Nascent + New + Established)	
	Male	Female	Male	Female	Male	Female
Argentina	14.82%	7.39%	8.38%	1.58%	23.21%	8.97%
Australia	11.62%	7.55%	12.08%	7.09%	23.70%	14.65%
Austria	9.68%	3.66%	5.10%	2.58%	14.78%	6.23%
Belgium	1.39%	2.42%	7.23%	4.03%	8.62%	6.46%
Brazil	15.24%	10.83%	13.33%	7.00%	28.58%	17.84%
Canada	14.21%	5.56%	9.72%	5.09%	23.93%	10.65%
Chile	14.17%	8.21%	4.82%	2.76%	18.98%	10.97%
China	11.82%	11.60%	16.06%	10.27%	27.88%	21.87%
Croatia	5.43%	2.58%	4.74%	2.61%	10.17%	5.19%
Denmark	5.08%	3.09%	6.56%	2.12%	11.64%	5.21%
Finland	7.17%	4.41%	12.43%	4.73%	19.59%	9.14%
France	6.40%	3.33%	2.76%	1.79%	9.16%	5.11%
Germany	8.67%	3.82%	5.99%	2.35%	14.66%	6.18%
Greece	7.40%	3.37%	11.36%	9.63%	18.76%	13.00%
Hungary	6.58%	2.39%	2.08%	1.95%	8.66%	4.34%
Iceland	13.11%	6.40%	9.05%	5.48%	22.16%	11.88%
Ireland	9.56%	5.48%	12.26%	3.88%	21.81%	9.35%
Italy	6.90%	3.70%	9.17%	3.64%	16.07%	7.34%
Jamaica	21.65%	15.69%	9.57%	9.49%	31.22%	25.18%
Japan	3.20%	1.20%	7.67%	3.11%	10.87%	4.31%
Latvia	7.28%	5.02%	6.57%	3.60%	13.85%	8.62%
Mexico	5.88%	4.55%	3.11%	0.77%	8.99%	5.32%
Netherlands	3.20%	2.11%	7.35%	3.94%	10.55%	6.05%
New Zealand	15.73%	13.75%	13.83%	8.03%	29.56%	21.77%
Norway	5.52%	4.47%	10.10%	4.38%	15.62%	8.85%
Singapore	8.47%	5.04%	7.49%	2.15%	15.95%	7.19%
Slovinia	9.78%	2.92%	8.74%	3.78%	18.52%	6.70%
South Africa	13.91%	4.49%	1.63%	1.00%	15.54%	5.49%
Spain	6.92%	4.15%	8.75%	6.68%	15.67%	10.83%
Sweden	5.79%	2.99%	8.68%	3.91%	14.48%	6.90%
Switzerland	7.38%	4.89%	11.86%	7.59%	19.24%	12.47%
Thailand	18.37%	19.33%	15.09%	13.15%	33.46%	32.49%
United Kingdom	6.17%	3.74%	8.06%	2.08%	14.24%	5.82%
United States	14.15%	9.65%	6.01%	3.35%	20.15%	13.00%
Venezuela	22.20%	23.86%	10.93%	6.25%	33.13%	30.12%



WOMEN'S ENTREPRENEURIAL ACTIVITY

states of the European Union, plus Australia and New Zealand. The average GDP per capita for this group is USD 38,722 and their average growth rate is 2.6%.³

Regardless of gender, entrepreneurial activity is significantly higher in middle-income than in the high-income countries. Significant differences exist in the size of the gender gap for both early-stage entrepreneurial participation and established business owners, and for both country clusters. Yet, the gender gap is more pronounced in high-income countries than in middle-income countries. This is partially due to higher shares of female necessity-driven entrepreneurial activity in middle-income countries where women have reduced access to established labor markets. Also, in richer countries, larger companies and public employment may be more likely to offer health care and support for working mothers, thereby tilting women's incentives away from start-ups and self-employment.

Overall, regardless of country, men are more likely to be involved in entrepreneurial activity than women. In both country clusters, a significant gender gap exists between the overall entrepreneurial activity of male versus female early-stage entrepreneurs and established business owners as shown in Table 1.⁴

It is interesting to consider entrepreneurial behavior by characterizing entrepreneurs depending upon the stage they occupy in the venture creation process. GEM distinguishes two broad categories of

entrepreneurs — early-stage and established — based upon the age of their businesses. Across the 35 participating GEM countries, middle-income countries such as Venezuela and Thailand exhibited the highest women's early-stage entrepreneurial activity prevalence rates (23.8% and 19.3% respectively) while high-income countries like the Netherlands and Japan exhibited the lowest (2.1% and 1.2% respectively). The situation is different when women's established business ownership is considered. In this case, middle-income countries exhibit both the lowest rates, such as those of Mexico and South Africa (0.8% and 1.0% respectively), and the highest rates, such as those of Thailand, and China (13.2% and 10.3% respectively). It is interesting to notice that in Belgium, Thailand and Venezuela, the female rate of early-stage entrepreneurial activity exceeds that of males; such difference is statistically significant only for Belgium, however. When established business ownership is considered, on the other hand, in no countries is the female rate higher than the male rate of established business ownership.

Overall, in both country clusters the gender gap exists for both early-stage entrepreneurial participation and established business ownership, and is greatest in the high-income country cluster, regardless of type of activity. The existence of systematic differences between female and male entrepreneurship across each country group suggests that entrepreneurial attitudes are

Table 2. Difference in Prevalence Rates Across Country Clusters by Gender 2005

	Early-Stage Entrepreneurial Activity (Nascent + New)		Established Business Owners		Overall Business Owners (Nascent + New + Established)	
	Male	Female	Male	Female	Male	Female
Middle-Income Countries	5.40%	4.30%	3.50%	2.20%	9.20%	6.60%
High-Income Countries	4.30%	2.20%	4.30%	2.30%	8.80%	4.70%
Significant difference between country clusters	p < 0.0001	p < 0.0001	p < 0.0001	p < 0.0001	p < 0.0001	p < 0.0001

Table 3. Country Cluster Differences in Transition Ratios by Gender

	Male Transition Ratio	Female Transition Ratio	Comparison of Genders
Middle-Income Countries	0.648	0.512	$p < 0.05$
High-Income Countries	1.000	1.045	$p < 0.05$
Comparison of Country Clusters	$p < 0.001$	$p < 0.001$	

influenced by some universal factors and that, when making decisions with respect to starting a new business, women and men are influenced by many of the same variables. However, the fact that male entrepreneurship rates are systematically and significantly higher than female entrepreneurship rates in almost all countries also indicates that these factors do not influence both genders necessarily in the same way or with the same intensity.

Table 2 shows that, in the high-income cluster, men are almost twice as likely to be early-stage or established business owners than women. The Table also shows that the gender gap is narrower in middle-income countries, particularly for early-stage entrepreneurship. In these countries, the gender gap between male and female early-stage entrepreneurs is 25.6%, but it widens to 59.1% for established business owners. In high-income countries, the gender gap between male and female early-stage entrepreneurs is 95.5% and 87% for established business owners.

Table 2 also shows that there is an important difference between early-stage and established entrepreneurial activity among women. While the middle-income cluster exhibits a higher rate of early-stage entrepreneurial activity (nascent entrepreneurs and new business owners) than established business ownership activity, the cluster of high-income countries shows virtually no difference in the prevalence rate of women across these two business stages. This suggests that the ratio of established to early-stage women entrepreneurs also varies significantly among country groups and it is, most likely, different from

that of men. This ratio can be interpreted as a proxy for the survival chances of early-stage women entrepreneurs in a country, under the assumption that both the early-stage rate and the established business ownership rate remain constant over time. The higher the transition ratio of early-stage entrepreneurs to established business owners, the higher are the approximated chances of early-stage entrepreneurs succeeding with their business venture in the sense of surviving in the market for longer than 42 months. Obviously, the ratios are sensitive to sampling issues and must be interpreted with caution.

Table 3 shows the early-stage entrepreneurship to established business ownership transition ratios for both genders by country groups. Specifically, the Table suggests that transition ratios are significantly different across country clusters and across gender in middle-income countries but there is no significant difference across genders in high-income countries (although the ratio is slightly higher for females than males). Table 3 also suggests that early-stage women entrepreneurs in high-income countries on average are twice as likely to make the transition to become established business owners than their counterparts in middle-income countries; their chances of business survival beyond 42 months far exceed their peers in middle-income countries.

Finally, with respect to participation rates, GEM data show that, in 2005, male entrepreneurs seemed more likely to have a business survive in Argentina, Brazil, Denmark, Finland, Hungary, Italy, Singapore, Sweden and the United Kingdom,



WOMEN'S ENTREPRENEURIAL ACTIVITY

whereas female entrepreneurs seemed more likely to have a business survive in Belgium, Croatia, Greece, Netherlands and Spain. Of course, only specific country studies and longitudinal data may shed light on the true causes of such differences.

ENTREPRENEURIAL MOTIVATION AND BUSINESS OUTCOMES

The GEM surveys allow for differentiation according to the reasons that motivate entrepreneurial behavior. In the GEM framework, women (and men) start a business either because they want to exploit a perceived business opportunity (opportunity entrepreneurs) or because all other options for work are either absent or unsatisfactory (necessity entrepreneurs). GEM identifies both groups by asking respondents involved in entrepreneurial activity whether they are doing so to take advantage of a business opportunity or because they have no better employment alternative.

Prevalence rates of entrepreneurship vary

significantly by motivation between middle-income and high-income countries. That is, opportunity and necessity motivations influence entrepreneurs differently across country clusters. Opportunity is the dominant motivation for most entrepreneurs across all GEM countries, regardless of gender. Figure 1 shows the distribution of opportunity and necessity early-stage female entrepreneurship for each country in our sample. It also shows that, in some cases, both motivations are important for a woman's decision to start a business.

From Figure 1 it is clear that, although opportunity motives are dominant, the ratio of female opportunity to necessity entrepreneurship is significantly different across countries. Although this is true for men also, this effect is significantly amplified for women entrepreneurs. Table 4 shows the ratio of opportunity to necessity driven early-stage entrepreneurship for women for all countries in our sample and the corresponding country rank. Iceland and Finland exhibit the highest ratios of

Figure 1. Women's Entrepreneurial Motivation by Country 2005

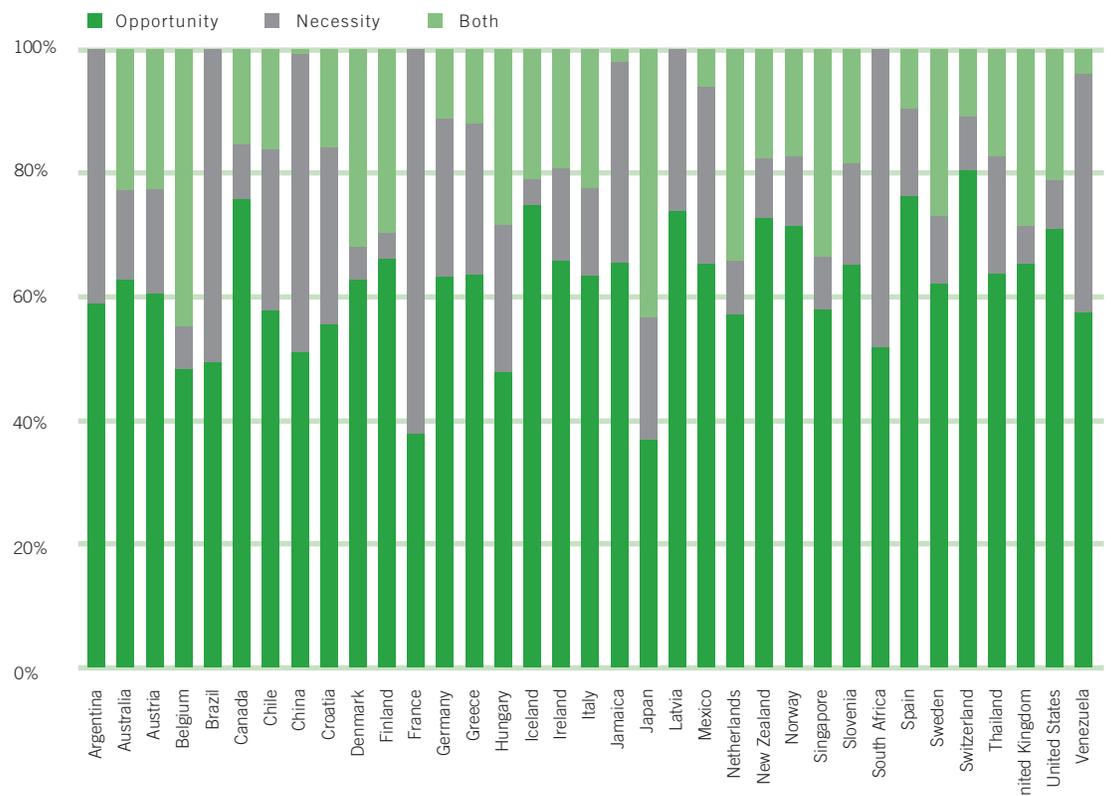


Table 4. Ratio of Opportunity to Necessity Early-Stage Entrepreneurship by Country and Gender

	Male Opportunity to Necessity Ratio	Female Opportunity to Necessity Ratio	Female Opportunity to Necessity Ranking
Argentina	2.64	1.44	5
Australia	7.66	4.70	21
Austria	7.87	3.72	17
Belgium	11.59	8.25	28
Brazil	1.15	0.98	2
Canada	5.08	8.92	29
Chile	3.15	2.31	12
China	1.42	1.10	3
Croatia	0.72	1.93	8
Denmark	37.68	13.79	33
Finland	7.69	19.62	34
France	1.67	0.61	1
Germany	2.49	2.56	13
Greece	11.01	2.75	14
Hungary	1.44	2.30	11
Iceland	16.74	21.21	35
Ireland	4.28	4.52	20
Italy	6.85	4.42	19
Jamaica	1.46	1.96	9
Japan	6.29	1.84	7
Latvia	5.55	2.91	15
Mexico	8.43	2.27	10
Netherlands	12.79	6.95	25
New Zealand	33.71	8.05	27
Norway	11.30	6.62	24
Singapore	4.38	7.29	26
Slovenia	10.66	4.01	18
South Africa	1.83	1.16	4
Spain	6.09	5.33	22
Sweden	5.54	5.59	23
Switzerland	4.74	9.10	30
Thailand	2.67	3.43	16
United Kingdom	6.58	10.22	32
United States	6.73	9.68	31
Venezuela	1.83	1.50	6

opportunity to necessity driven female entrepreneurship with 21.2 and 19.6 respectively.⁵ At the other end of the ranking we find France and Brazil with 0.6 and 1.0 respectively. In general, countries exhibiting healthy and diversified labor markets or stronger safety nets, in terms of social welfare provisions, show a more favorable ratio of opportunity to necessity-driven women entrepreneurs. An explanation for this is that women living in such countries have more alternative income options available, which limits the pressure to start a business out of necessity.

Table 5 shows that the ratio of opportunity to necessity-driven motives for starting a business is more favorable for women in high-income countries than in middle-income countries. The difference in this ratio between the two country clusters is statistically significant at 99% confidence. This supports the argument that qualitative differences exist in the types of businesses started by women in high-income and middle-income countries, and is consistent with the results on sectoral distribution and growth potential presented later in this report.



WOMEN'S ENTREPRENEURIAL ACTIVITY

Some interesting gender differences also exist with respect to entrepreneurial motivation. For example, there is a significant difference in the prevalence rate of opportunity entrepreneurs by gender in both the middle-income and high-income country clusters. Also, in both high and middle-income countries, the rate of male opportunity entrepreneurship is higher than that of women.

A different picture emerges, however, when necessity entrepreneurship is considered. In fact, there is no significant difference by gender in the rate of necessity entrepreneurship in the middle-income country cluster, while in high-income countries such a difference exists. This suggests that women are over represented among necessity driven entrepreneurs in middle-income countries. Specifically, in middle-income countries, 34.6 % of women but only 31.4% of men are motivated by necessity. This difference does not exist in the high-income country cluster where necessity entrepreneurship accounts for 14.9% of female activity and 14.6% of male activity.

ENTREPRENEURIAL SCOPE: SECTORAL DISTRIBUTION AND GROWTH POTENTIAL

Innovative entrepreneurs are the main link between entrepreneurship and economic growth.⁶ To measure innovativeness and growth expectations, GEM asks women entrepreneurs and business

owners how they evaluate the newness of their product or service, the competition they face, and the novelty of their technology. Of course, it is important to remember that innovativeness and growth expectations are context specific and that what is innovative in one country may not necessarily be innovative in another. Globalization erodes, to some extent, these differences. Yet, most newer and entrepreneurial businesses target national markets and, as a result, benefit and suffer more than others from the condition of their local economy.

To analyze the sectors in which women attempt to start businesses and compare their distribution with those of established business, GEM codes activity according to the International Standard Industry Codes (ISIC), then consolidate them into four main headings for ease of analysis.⁷ The following comprises the four sectoral groups consolidated by GEM:

- Extraction: agriculture, forestry, fishing, and mining (extraction of products from the natural environment)
- Transformation: construction, manufacturing, transportation, and wholesale distribution (physical transformation or relocation of goods and people)
- Business Services: where the primary customer is another business

Table 5. Country Cluster Differences in Opportunity to Necessity Early-Stage Entrepreneurship by Gender

	Male Opportunity Entrepreneurship	Female Opportunity Entrepreneurship	Male Necessity Entrepreneurship	Female Necessity Entrepreneurship
Middle-Income Countries	6.36	4.63	2.94	2.55
High-Income Countries	5.77	3.09	1.02	0.54
	Male Opportunity to Necessity Ratio	Female Opportunity to Necessity Ratio		
Middle-Income Countries	2.17	1.82		
High-Income Countries	5.64	5.68		

- Consumer-Oriented: where the primary customer is a physical person (e.g., retail, restaurants and bars, lodging, health, education, social services, and recreation)

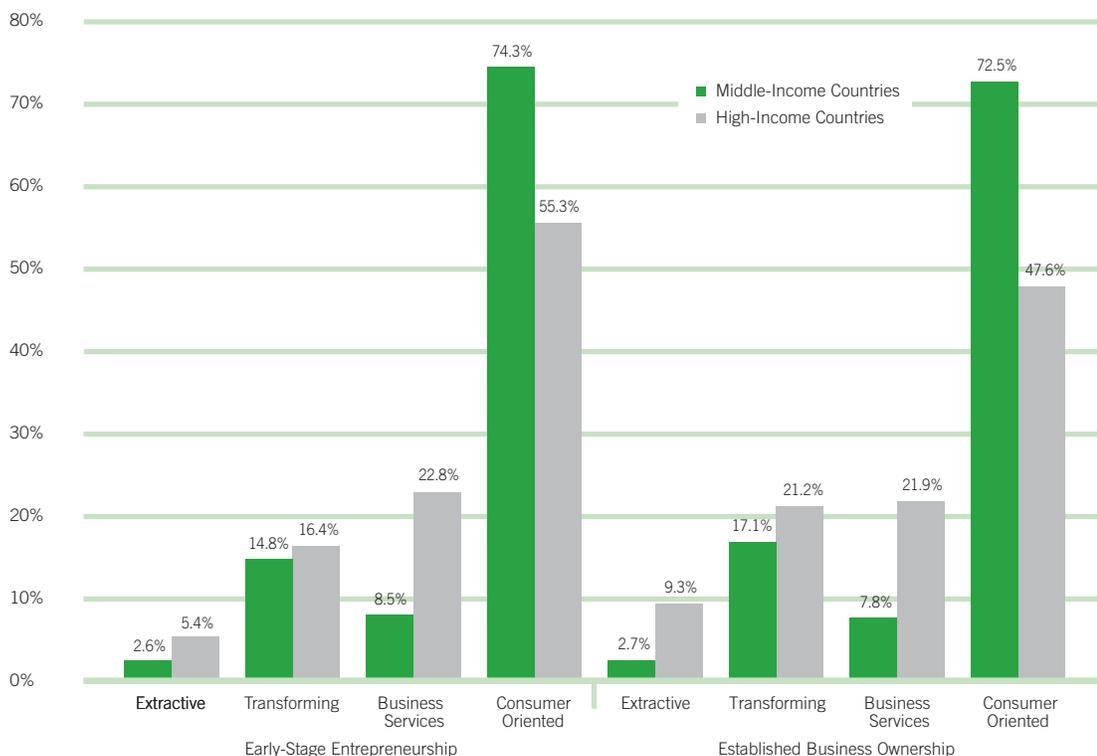
Figure 2 shows that the largest share of women entrepreneurs are active in consumer-oriented activities, while extractive activities exhibit the smallest share. The sectoral distributions of early-stage women entrepreneurs and established women business owners are comparable. However, middle-income countries show a larger share of women in consumer-oriented business activity, while high-income countries exhibit a relatively higher share of women in activities in business services. This pattern suggests that a link between the income level of a country and the distribution of women's business activities across sectors may exist (the same is true for men businesses).

GEM also creates a growth potential index based upon respondents' assessments of the newness of their products and services, their use of new technology, and the level of competition they face in

the marketplace. Overall, growth potential is highest for those entrepreneurs who use the latest technology, expect no competition and offer a product or service that is new to all customers. At the other extreme, the growth potential is lowest for those who enter an existing market with high competition and an established technology. Essentially, these businesses imitate existing business ideas and have more limited growth potential. Yet, they contribute to the economy by increasing the level of competition and forcing markets to be more efficient. Female and male entrepreneurs show very similar patterns for the expected growth potential of their businesses. This is the case regardless of stage of new venture creation. Figure 3 shows the growth potential index for early-stage women entrepreneurs and established women business owners in middle-income and high-income countries. Comparing the growth potential of women's businesses in the two country clusters, middle-income countries exhibit a significantly higher share of women who are



Figure 2. Sectoral Distribution of Female Entrepreneurship by Country Cluster and Business Stage



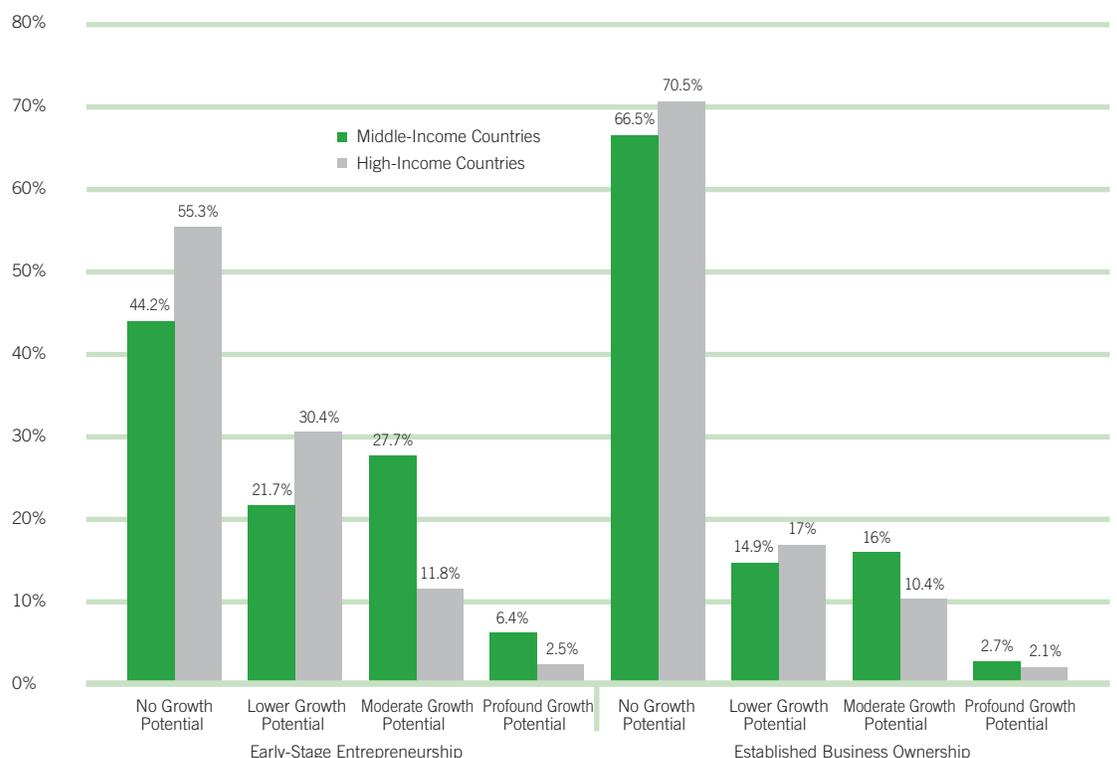
WOMEN'S ENTREPRENEURIAL ACTIVITY

engaged in a business venture with profound growth potential than do high-income countries (6.4% versus 2.5%). The dominant expectation for growth is low, however. In high-income countries, the majority of early-stage and established female entrepreneurs foresee no growth potential for their businesses (55.3% and 70.5% respectively). Likewise, in middle-income countries, the majority of early-stage and established female entrepreneurs foresee no growth potential (44.2% and 66.5% respectively). The percentages in both country clusters mirror the pattern of growth expectations of male entrepreneurs.

Looking behind the growth potential index, it is important to consider the role of product or service novelty and use of technology within a country context. The majority of women's businesses offer products or services that are not new to customers and only a small fraction claim that what they offer is new to all customers. Not surprisingly, early-stage entrepreneurs claim more often to offer innovative products than established women entrepreneurs,

while the latter say more frequently that their products are not new to any customer. There is no statistically significant difference in this pattern between the two country clusters; women in both country clusters are equally innovative. Across both country clusters, women entrepreneurs offering very innovative products and services are relatively rare; a finding GEM confirms for men as well. With respect to technology, both early-stage women entrepreneurs and established women business owners in the middle-income country cluster claim to be using the latest or newer technologies more often than their counterparts in the high-income country cluster. This result makes perfect sense once novelty is interpreted in a relative sense: starting from a comparatively lower level, women in middle-income countries have more room and opportunities to upgrade and modernize their technologies. Some of the technologies that are already standard and common knowledge in the industrialized countries can still be novel for women producing in less-developed economies. This does

Figure 3. Newness of Products and Services from Women's Businesses by Business Stage



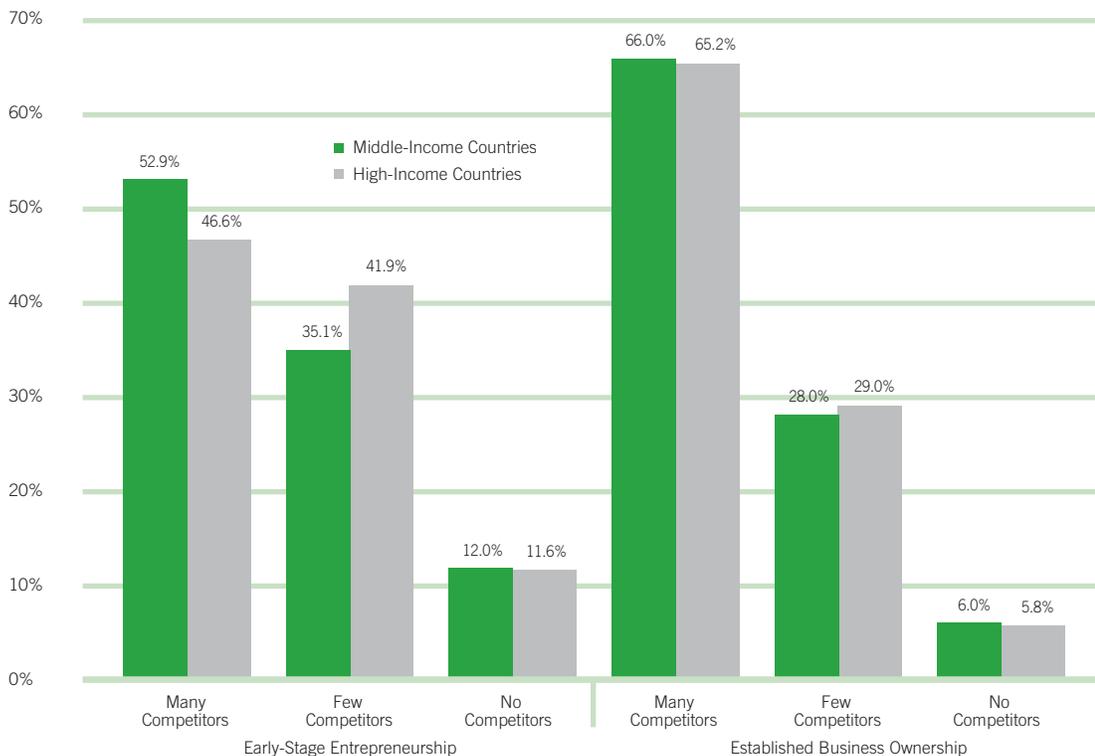
not limit, but rather enhances, the growth potential these new technologies offer in markets that are not yet highly developed.

Figure 4 shows that most women entrepreneurs also say that they expect to face many competitors in their market. Not surprisingly, this share is higher for established women business owners (65.5%) than for early-stage women entrepreneurs (49.0%). The difference between early-stage women entrepreneurs and established women business owners may partially reflect a higher innovative potential of those who are just starting out with a new business idea, but also it may reflect overly optimistic expectations of early-stage entrepreneurs that are based on a limited knowledge of the market they plan to enter or have just entered.

Overall, women's businesses show many of the same patterns as those of their male counterparts with respect to growth potential. Of particular note, however, is that the percentages of entrepreneurs who expect some or profound growth potential of their businesses is somewhat higher for female

entrepreneurs than male entrepreneurs; with the highest level of expectation for some or profound growth potential among early-stage women entrepreneurs in middle-income countries. As 2005 is the first year in which GEM has collected the data that comprises the growth potential index, it will be of particular interest to see whether these patterns persist over future research studies.

Figure 4. Intensity of Expected Competition for Women's Businesses by Business Stage



3. CHARACTERISTICS OF WOMEN ENTREPRENEURS

The previous sections show the importance of the socioeconomic environment for women’s entrepreneurial decisions. The aggregate level of women’s entrepreneurship in a country, however, is crucially influenced also by their entrepreneurial capacity. This section draws a profile of the demographic, economic and perceptual characteristics of women entrepreneurs around the world.

DEMOGRAPHIC AND ECONOMIC FACTORS INFLUENCING WOMEN’S ENTREPRENEURIAL BEHAVIOR

Scholars of entrepreneurship in a variety of disciplines agree that age, work status, education, and income are all significant factors in a woman’s decision to start a business. The following is an analysis of the relationship between each factor and the behavior of both early-stage and established women entrepreneurs in the global context. It should be noticed that, given the lack of time series data, we do not make any assumption about the causality of the relationship between these variables

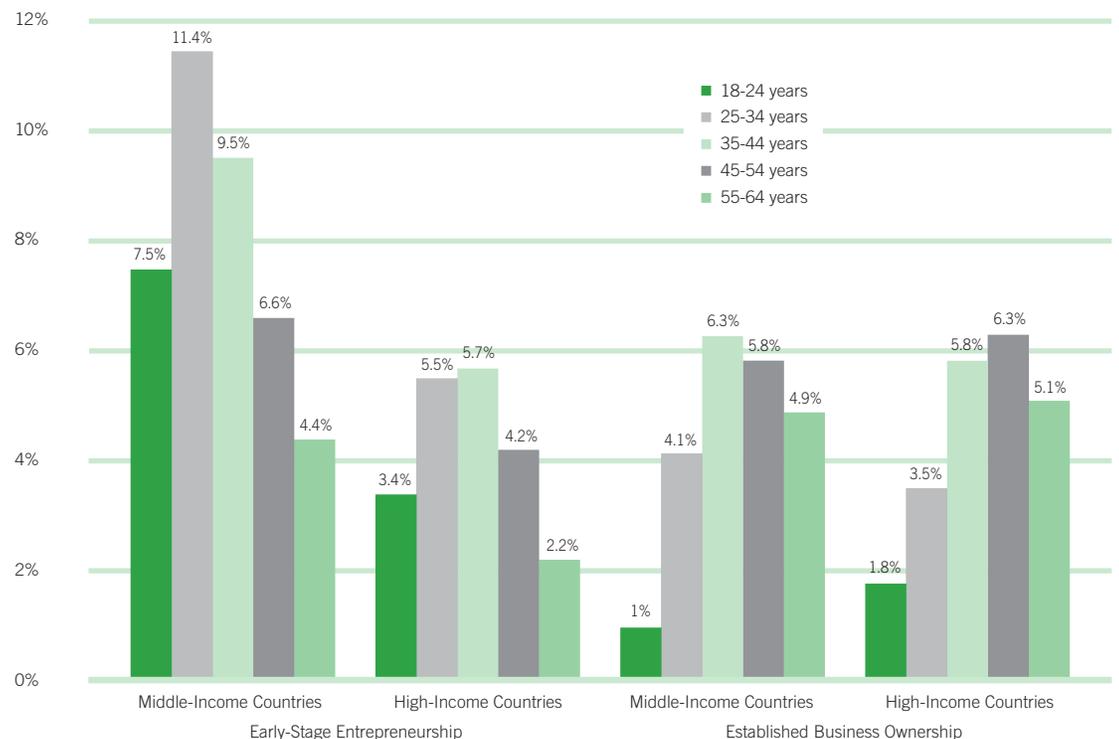
and entrepreneurial participation. We namely describe the existence of systematic patterns by country clusters or worldwide, or state the existence of significant relationship.

Age

Overall, 2005 GEM data confirm results found in the past and reveal that patterns in entrepreneurial activity do not vary from country to country and across gender with respect to age. While it is true that women’s prevalence rates are systematically lower than those of men, overall, the distribution of women’s entrepreneurial involvement across age brackets follows that of men.

Figure 5 illustrates female entrepreneurial prevalence rates by age groups in the two country clusters. Similar to men, the age distribution of women involved in all stages of the entrepreneurial process follows an inverted U-shape curve.⁸ Early-stage entrepreneurial activity in middle-income countries is most prevalent in the age group of women 25–34 years old, while established business ownership in these countries peaks among women

Figure 5. Age Distribution of Women’s Entrepreneurs by Country Clusters & Business Stage



35–44 years old. As illustrated in Figure 5, the peaks broaden out in high-income countries, with early-stage entrepreneurial activity most likely among women ages 25-44 and established business ownership most likely among women 35-54 years old. The lower average age of women entrepreneurs in middle-income countries compared with their peers in high-income countries may be connected to the higher rate of necessity entrepreneurship among women in middle-income countries; these women may not have the ability to forestall entrepreneurial activity. Also, not surprisingly, established women business owners are, on average, older than early-stage women entrepreneurs.

Work Status

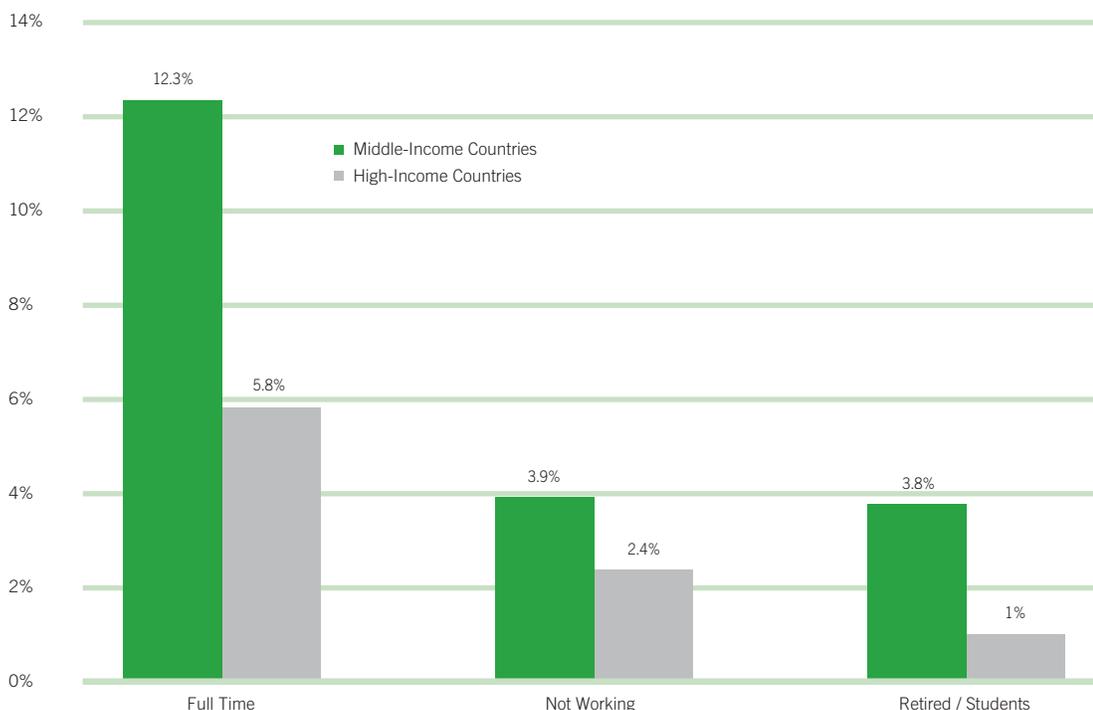
In both country clusters, and for both males and females, the likelihood of being involved in entrepreneurial activity is significantly higher for those also who are employed in a wage job (whether full or part time) compared to those who are not working, are retired, or are students. This suggests

that working may provide access to resources, social capital, and ideas that may aide in establishing an entrepreneurial venture. Figure 6 shows that the employment patterns of women involved in entrepreneurial activity are quite similar between the two country clusters and across gender, except that the participation rates of non-working, students, and retired women are significantly higher in the middle-income countries. This is likely to result from the lack of safety nets and social welfare for unemployed women (and men) that force them into starting necessity businesses in those countries. Finally, the distributions of women involved in both early-stage and established entrepreneurship that are employed full-time and part-time are not significantly different across country clusters.

Education

Illiteracy takes a bigger toll on women across the globe than on men. Two-thirds of the world's illiterates are women, and the number (about 600 million) is not expected to decrease significantly in the next 20 years.⁹ Clearly, the educational

Figure 6. Female Early-Stage Entrepreneurial Activity by Work-Status and Country Clusters



WOMEN'S ENTREPRENEURIAL ACTIVITY

background of women influences both their chances in the regular labor market and their potential for starting a business. As a result, the relationship between education and aggregate entrepreneurial activity is complex and varies among countries. Figure 7 shows the relationship between educational attainment and entrepreneurial activity among women in the two country clusters.

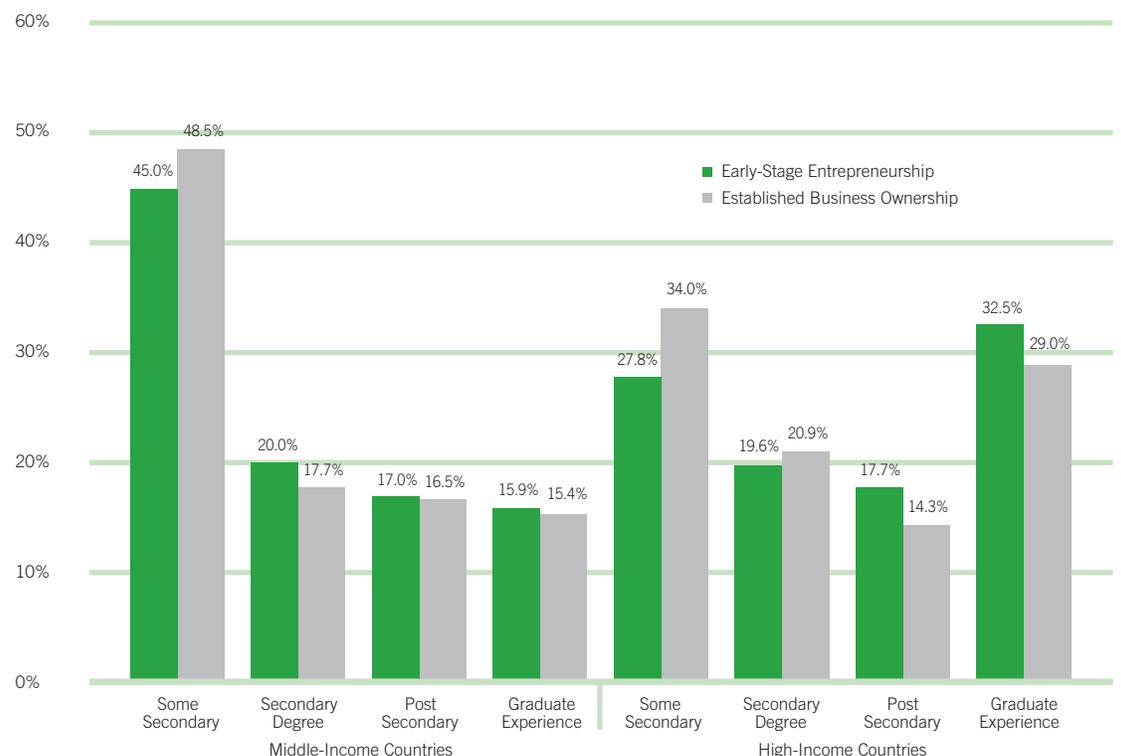
The educational profile of women entrepreneurs is similar for early-stage and established business owners; however it varies by country cluster. In middle-income countries, a large proportion of women entrepreneurs have only some secondary education. 45.0% of early-stage women entrepreneurs and 48.5% of established women business owners have less than a secondary degree in middle-income countries. The educational profile of women entrepreneurs in high-income countries varies considerably from that of middle-income women entrepreneurs. In high-income countries, a smaller but still considerable percentage of women entrepreneurs have only some secondary education.

27.8% of early-stage women entrepreneurs and 34.0% of established women business owners have less than a secondary degree in high-income countries. At least two-thirds of women entrepreneurs in high-income countries have secondary degrees, double the level of middle-income country women. Further, more than a quarter of high-income women entrepreneurs have graduate degrees. This suggests that the educational profile of women involved in entrepreneurship in high-income countries may be changing and that, as a result, the type of businesses women starts will also change.

Household Income

Scholars in several disciplines have discussed the importance of financial resources and constraints on entrepreneurial decision-making.¹⁰ In their work, entrepreneurial decisions are shown to be positively related to individuals' incomes and wealth. Overall, the evidence suggests that entrepreneurs face liquidity constraints and that individuals with greater

Figure 7. Female Educational Attainments by Country Cluster and Business Stage



family wealth are more likely to switch from employment to entrepreneurship.

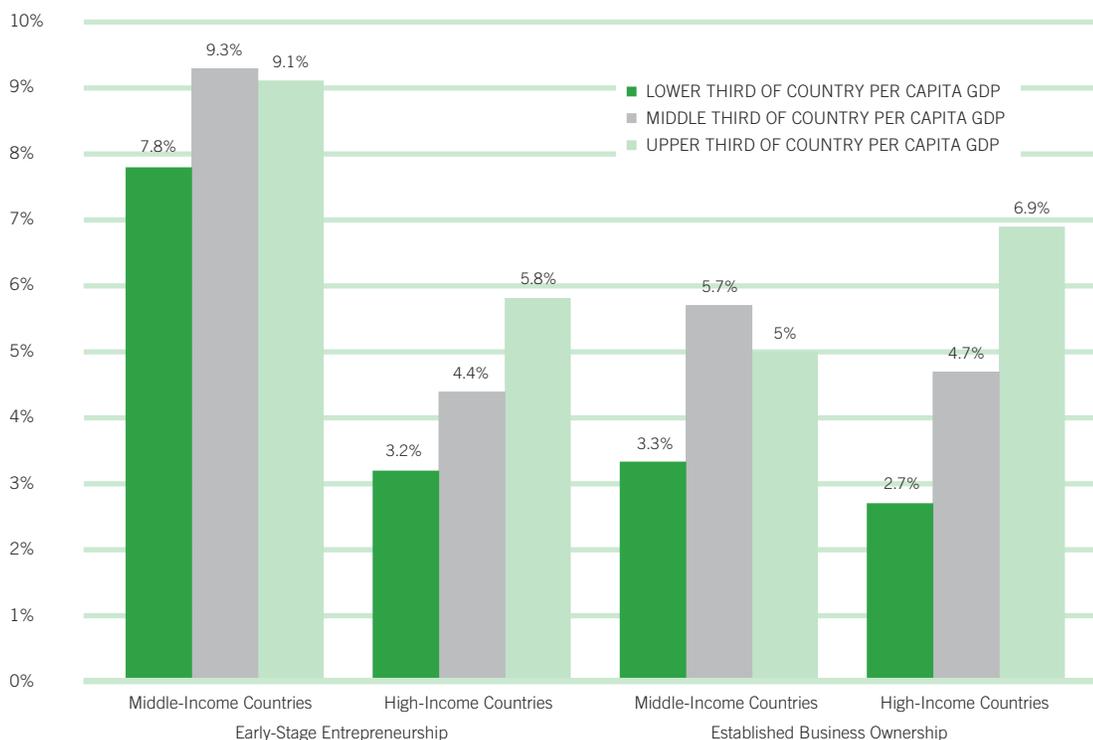
Figure 8 shows that, in general, the differences among the income groups are less pronounced in the middle-income cluster where early-stage entrepreneurial activity is highest among women regardless of income level. This is intuitively consistent with the higher rates of necessity-driven entrepreneurship found among women in these countries. Figure 8 also shows that in high-income countries, women in households with income in the upper third of country per capita GDP are more likely to be involved in entrepreneurial activity in both early-stage and established entrepreneurship and that the distribution of female entrepreneurial activity is similar for early-stage and established businesses. In middle-income countries, on the other hand, women in households with income in the middle third of country per capita GDP are more likely to be involved in entrepreneurial activity in both early-stage and established entrepreneurship. The prevalence of established business ownership among women shows a different pattern for the two

country clusters. Higher income levels are much more common among women who are established business owners in high-income countries than in the middle-income group. This suggests that there are differences in the type and quality of women's businesses between these two clusters and also that high-income may be the result of successful entrepreneurship.

Finally, it is important to note that there is a significant correlation between household income level and educational level attained. Fifty-percent of women reporting income in the lower third of country per capita GDP have only some secondary education, whereas only half that many report this level of education in the upper third. Similarly, more than fifty percent of women (53.3%) reporting income in the upper third of country per capita GDP have a post secondary level of education; more than twice the corresponding level (24.4%) for women in the lower third of country per capita GDP of household income.

Overall, the demographic data on women entrepreneurs and established women business

Figure 8. Women Entrepreneurs Household Income by Country Clusters and Business Stage



WOMEN'S ENTREPRENEURIAL ACTIVITY

owners suggests that businesses started by women in high-income countries may be qualitatively different than those started by women in low income countries. Access to education, work status, level of household income, and country context all play a role in the likelihood of entrepreneurial activity by women.

FACTORS INFLUENCING PERCEPTIONS ABOUT THE ENTREPRENEURIAL ENVIRONMENT

The decision to start a business is a complex one and individuals' choices are influenced not only by their socio-demographic circumstances but by their personal perceptions and knowledge as well. GEM collects data with respect to these individual factors. Participants were asked whether they personally

knew other entrepreneurs, to what extent they saw good opportunities, whether they believed they had the requisite knowledge for business start up, and whether fear of failure would prevent them from business start up. These subjective and possibly biased perceptions have been found to correlate significantly with women's entrepreneurial "mind-set."¹¹ Table 6 shows the percentage, by country cluster and stage of entrepreneurial activity, of males and females who answered "yes" to each of four questions related to factors influencing perceptions.

Examination of the perceptual factors data allows for an interesting description of the "entrepreneurial mindset." There are clear differences between individuals who are involved in entrepreneurial activity (whether early-stage or established) and

Table 6. Factors Influencing the Entrepreneurs' Perceptions by Gender and Business Stage

		Personally Knows an Entrepreneur Who Started a Business in the Past Two Years		
		No Entrepreneurial Activity	Early-Stage	Established
Middle-Income Countries	Male	40.9%	67.4%	62.9%
	Female	31.8%	60.6%	54.5%
High-Income Countries	Male	38.4%	68.3%	54.8%
	Female	30.5%	57.5%	45.1%
		Sees Good Start-Up Opportunities in the Next Six Months in His/Her Area		
		No Entrepreneurial Activity	Early-Stage	Established
Middle-Income Countries	Male	33.4%	60.1%	45.8%
	Female	29.7%	62.6%	46.8%
High-Income Countries	Male	38.4%	63.3%	50.5%
	Female	31.8%	55.6%	40.8%
		Has the Required Knowledge and Skills to Start a Business		
		No Entrepreneurial Activity	Early-Stage	Established
Middle-Income Countries	Male	46.3%	85.4%	85.1%
	Female	36.0%	81.8%	76.5%
High-Income Countries	Male	49.5%	89.8%	89.0%
	Female	35.6%	84.2%	84.2%
		Fear of Failure Would Prevent from Starting a Business		
		No Entrepreneurial Activity	Early-Stage	Established
Middle-Income Countries	Male	29.4%	23.3%	30.2%
	Female	35.2%	33.7%	35.0%
High-Income Countries	Male	37.8%	20.1%	20.4%
	Female	43.3%	27.6%	24.5%

those who are not regardless of country clusters or gender. Specifically, males and females who are involved in entrepreneurial activity at any stage tend to be more confident in their own skills, are more likely to know other entrepreneurs, and are more alert to the existence of unexploited opportunities than people who indicate no involvement in entrepreneurial activity. Although patterns are qualitatively similar, in both country clusters and in both early-stage and established entrepreneurship, a lower percentage of women than men know other entrepreneurs and believe themselves to have the sufficient skills for running a business. This suggests that men tend to have a more optimistic perception of their ability and to have more role models or social connections.

The finding that men are more likely than women to know other entrepreneurs is very significant since the role of knowing other entrepreneurs has been found to be particularly important for women. In fact, some of the most effective programs aimed at increasing women's participation in new venture creation seem to be very often connected to networking opportunities and availability of role models.¹² Both male and female entrepreneurs rely on role models and social networks for both information and access to resources. In many cases, the networks women rely on operate quite differently from the networks men rely on. Women in poorer communities, for example, often have significantly smaller networks and less geographic mobility. Thus, the position of the woman entrepreneur within the larger community is important because it affects her ability to observe role models and to acquire resources.

Consistent with other research, GEM data clearly shows that women who choose to pursue entrepreneurial activity, at any stage, tend to be more optimistic about their own ability and about the existence of unexploited market opportunity than those who stay away from new venture creation. Scholars have shown that entrepreneurs and non-entrepreneurs differ on such attributes, that entrepreneurs score significantly higher on self-confidence, and that people's beliefs in their capability to perform tasks influences the

development of both entrepreneurial intentions and actions or behaviors.¹³ Furthermore, scholars have shown that confidence in one's own skills to start a business increases entrepreneurial alertness and leads to the creation of more new firms, but also that these effects may be asymmetric across genders.¹⁴

Finally, entrepreneurs have been shown to be individuals able to deal with risky situations, and there is some evidence that women may be more risk averse than men when making certain types of decisions. Fear of failure has been found to be an important determinant of the difference in rate of new business creation between men and women, and the idea that women fear failure more than men, also has been used to explain alleged lower growth rates in female owned companies. The GEM data suggests that fear of failure is, in fact, highly correlated to entrepreneurial activity, although such relationship may be mitigated by country context. Noticeably, more than one-third of women who engaged in no business activity expressed fear of failure.

Table 6 shows that men and women who are involved in entrepreneurial activity at any stage tend to be less afraid of failure than people who indicate no involvement in entrepreneurial activity. However, while patterns for both early-stage and established entrepreneurship are qualitatively similar by gender, a higher percentage of females than males would let fear of failure prevent them from starting a business. Further, fear of failure is significantly higher for women than men in middle-income countries, where 43% of necessity motivated women entrepreneurs expressed fear of failure. Their fear of failure may be higher because they perceive no other job alternatives. Among women entrepreneurs (and among men) fear of failure was least often expressed by those in high-income countries motivated by opportunity. This may be understood since these entrepreneurs are women who have other work alternatives and live in countries with higher per capita incomes. Thus, country context may have a powerful influence on entrepreneurial motivation.



CONCLUSION

The advancing pace of women's entrepreneurial activity across the globe represents a promising trend to fuel economic development and social progress. It is clear that the entrepreneurial spirit lives in women from very different backgrounds and in very different contexts. Their contributions to their communities and countries cannot be ignored and, if cultivated, could present significant opportunities for social welfare and country wealth over time.

Entrepreneurial activity by women varies by country and business development stage across the world economy. Women show nearly double the rate of early-stage entrepreneurship in middle-income countries than in high-income countries, with similar rates of business ownership activity regardless of country cluster. And, while women are most frequently motivated to become entrepreneurs by opportunity, necessity entrepreneurship is a larger motivator for women in middle-income countries.

The scope of women's new venture activity also varies from that of men. Indeed, there is a significant gender gap in entrepreneurial activity. Overall, men are nearly twice as likely to engage in entrepreneurial activity as women. The gender gap is apparent across all countries and while it is somewhat narrower in middle-income countries, these countries are also places where the likelihood of a woman's business surviving is significantly lower. While the entrepreneurial mind-set of women is strong and comparable to that of men, fear of failure nonetheless plays a bigger role for women than men in middle-income countries. This may be connected to the higher rate of necessity as a motivation for women's entrepreneurship in these locales.

Women's entrepreneurial ventures are most frequently found in the consumer-oriented sector, particularly in middle-income countries. A shift toward the business services sector is evident among women's entrepreneurial activity in high-income countries. Women who are entrepreneurs tend to fall in age between 25–44 years, depending upon their country's per capita GDP. When women are employed in the workforce, they have a greater likelihood of becoming an entrepreneur. It seems

likely that employment provides access to resources, social capital, and ideas that may aid in establishing an entrepreneurial venture. Education also may be an important lever for accelerating women's entrepreneurial activity. Given the strong correlation between income level and educational level, income may also be a factor in providing a woman entrepreneur with access to the network, capital, and resources she may need to pursue her business activity.

This report makes it clear that the entrepreneurial activity of women is diverse and pervasive across the globe. Clearly, country and social contexts play strong roles in determining the entrepreneurial inclination and success of women. Also, there can be no mistaking the gender gap that exists among women and men as they pursue new venture creation and business ownership. While it is beyond the scope of this research to be prescriptive about policy recommendations to enhance women's entrepreneurship, it is clear that understanding the differences that exist is an important first step to formulating sound strategies and initiatives. It is generally agreed that the institutions that entrepreneurs operate in — political, legal, and cultural — may determine their incentives and opportunities. Given that the experience of women in a society is often different from that of men, the role of institutions may be particularly important in fostering female entrepreneurial activity. Effective policy strategies to encourage and support women's entrepreneurship will need to take into account not only the varying contexts of country economies, institutions, and cultures but also the differences in experience, background and mindset that women may bring to the entrepreneurial landscape and, ultimately, to economic growth.



ENDNOTES

- 1 The first report in this series is the *2004 Global Entrepreneurship Monitor (GEM) Report on Women and Entrepreneurship* by M. Minniti, P. Arenius and N. Langowitz. This report can be downloaded free of charge at www.gemconsortium.org.
- 2 It should be noted that, because of its focus on individuals rather than firms, GEM's "established businesses" are only those still containing at least one founding owner-operator. This may cause GEM data to suggest prevalence rates lower than those suggested from other statistics on registered women's firms.
- 3 For a detailed description of the rationale behind this decision and of the cluster analysis conducted to identify the country cluster, see the *2005 Global Entrepreneurship Monitor - Executive Report*, pp.14-15 and p.59. The 2005 GEM report can be downloaded free of charge at www.gemconsortium.org.
- 4 It should be noted that in the 2004 GEM Executive Report on Women, early-stage entrepreneurial activity is referred to as TEA or Total Entrepreneurial Activity Index. Statistically, the two measurements are identical and, as a result, comparable.
- 5 This year's GEM data shows France as an outlier. This could be due to random influences in the sample since, in past years, France showed a more favorable ratio of opportunity to necessity-driven motives.
- 6 Acs, Z.J., Audrestch, D.B., Braunerhjelm, P. and B. Carlsson. 2004. "The Missing Link: The Knowledge Filter and Entrepreneurship in Endogenous Growth", CEPR Discussion paper 4783, CEPR, London.
- 7 ISIC is an international statistical standard used to classify businesses according to their main activity. ISIC is supported by all members of the United Nations and widely adopted in scientific studies.
- 8 For a theoretical explanation see Levesque, M. and M. Minniti. 2006 The Effect of Aging on Entrepreneurial Behavior *Journal of Business Venturing* 21(2): 177-194.
- 9 United Nations. Demographic, Social and Housing Statistics. *The World's Women 2000: Trends and Statistics*.
- 10 Among others, see Evans, D. and Jovanovic, B. 1989. An estimated model of entrepreneurial choice under liquidity constraints. *Journal of Political Economy* 97: 808-827; and Kihlstrom, R. and Laffont, J. 1979. A general equilibrium entrepreneurial theory of firm formation based on risk aversion. *Journal of Political Economy*. 87: 719-740.
- 11 For further analysis of these issues see Minniti M. and C. Nardone. 2006. Being in Someone Else's Shoes: Gender and Nascent Entrepreneurship. *Small Business Economics* Forthcoming
- 12 On this point see the policy section in the *Global Entrepreneurship Monitor (GEM) 2004 Report on Women Entrepreneurship* and *The Impact and Influence of Women's Business Centers in the United States* by M. Godwin, N. Langowitz and N. Sharpe. Both reports can be downloaded free of charge at www.babson.edu/cwl/research.
- 13 For example, see Boyd, N. G., G. S. Vozikis. 1994. The influence of self-efficacy on the development of entrepreneurs. *Entrepreneurship Theory and Practice* 18(4): 63-77; and Busenitz, L.W., J.B. Barney. 1997. Differences between entrepreneurs and managers in large organizations: Biases and heuristics in strategic decision-making. *Journal of Business Venturing* 12: 9-30.
- 14 Verheul, I., L. Uhlaner, R. Thurik. 2003. Business accomplishments, gender and entrepreneurial self-image. SCALES-paper N200312, Zoetermeer, The Netherlands.



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GERA & GEM

The Global Entrepreneurship Research Association "GERA" is, for formal constitutional and regulatory purposes, the umbrella organization that hosts the GEM project. GERA is an association formed of Babson College, London Business School and representatives of the Association of GEM national teams.

The GEM program is a major initiative aimed at describing and analyzing entrepreneurial processes within a wide range of countries. The program has three main objectives:

- To measure differences in the level of entrepreneurial activity between countries
- To uncover factors leading to appropriate levels of Entrepreneurship
- To suggest policies that may enhance the national level of entrepreneurial activity.

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Nations not currently represented in the GEM
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