



GLOBAL ENTREPRENEURSHIP MONITOR

2010 Women's Report

Donna J. Kelley, Candida G. Brush, Patricia G. Greene and Yana Litovsky





Khiyal Abolahzadeh (Iran) owns and manages Antheia Herb Production & Distribution Company, Ltd., a producer of health products comprising 69 species of herbs, including flowering tips, fruit, roots and rhizomes. Her company employs 300 women.



Ana Petrona González (Chile) operates González Los Arenales de Toconao, a gastronomic eco-tourism business offering tours to San Pedro de Atacama, Toconao, and other areas in Chile, and introducing tourists to regional foods using local products.



Andrea Carvajal (Chile) is cofounder of ARKANI EIRL. Her firm offers maintenance and repair of hydraulic and pneumatic equipment for critical bolted joints: pumps, torque wrenches and impact wrenches.



Patricia Paz Silva (Brazil) operates Moura & Paz Reciclagem, a recycling services business. *Photo courtesy of Andre Conti of FNQ*



Maria de Fatima Santana de Oliveira (Brazil) participates in the Associacao de Artesaos de Tamboril, an artisans' association. *Photo courtesy of Andre Conti of FNQ*



Nikki Evans (Ireland) is the Founder and Managing Director of PerfectCard, which provides gift card programs for shopping centers and multinational and Irish corporate clients. Nikki employs 35 people and is expanding into export markets and developing PerfectCard's range of services. *Photo courtesy of Joanne Evans*



Grainne Barry (Ireland) is co-founder and managing director of AnotherFriend.com, an online dating agency. She employs over 35 people.



Dr Rehana Kassim (Malaysia) is the owner and founder of Rehanstat Sdn Bhd, a market research firm offering customized market research including assessment and impact study, ad tracking, brand research, consumer satisfaction research, segmentation research, marketing effectiveness research, purchase patterns, consumer needs, concept testing and others. Rehanstat's clients include public agencies and private companies.



Aishah bin Mat Ali (Malaysia) produces soft toy cushions that are child-safe. She imports them from China and sells them directly to customers via kiosks she rents in shopping malls. Aishah also makes soft toys herself with a Malaysian theme, which she intends to market at tourist spots in Kuala Lumpur. She employs two housewives on a part time basis to assist her. She has relied on her savings, rather than loans, to start her business.



Global Entrepreneurship Monitor

2010 Report: Women Entrepreneurs Worldwide

Executive Report

Donna J. Kelley, Candida G. Brush, Patricia G. Greene, Yana Litovsky

Babson College, Babson Park, MA, United States

Although GEM data were used in the preparation of this report, their interpretation and use are the sole responsibility of the authors.

The authors thank Marcia Cole and Mike Herrington for their help and encouragement with this report and they express their gratitude to all participating GEM 2010 national teams.

The authors also thank the women who run the programs in countries around the world who are mentioned in this report and all those many others who, while not specifically mentioned here, are still much appreciated.



Table of Contents

Executive Summary	5
Key Overall Findings	6
Attitudes	6
Activity	6
Aspirations	7
Impact of Recession	8
Key Conclusions and Policy Implications	8
Introduction	9
Participating Economies by Development Level and Geographic Location	9
Structure of the Report	10
Societal Attitudes About Entrepreneurship	11
Women’s Entrepreneurship Activity Levels and Characteristics	19
Development-Level and Geographic Patterns in TEA Rates	19
The Disparity in Women Versus Men Entrepreneurs Across the Globe and Over Time	20
Necessity and Opportunity Motives	21
Multi-Year Analysis of Necessity Motivation	24
Industrial Sector	24
Age Distribution of Women Entrepreneurs	26
Education Levels	26
The Role of Networks in Women’s Entrepreneurship and Business Ownership	29
Established Business Rates	30
Discontinued Business	32
Women Entrepreneurs’ Aspirations for Growth, Innovation, and Internationalization	35
Growth Expectations	35
Innovation	36
Internationalization	36
Impact of the Global Economic Slowdown on Women Entrepreneurs	39
Ease of Starting a Business	40
Change in Growth Expectations	40
Effect of the Global Economic Slowdown on Opportunity Perceptions	41
Key Conclusions	42
Women contribute significantly to entrepreneurship in all economies of the world.	42
In developed economies in particular, necessity-based entrepreneurship may fill in employment gaps during economic downturns.	42

Policy Implications	44
Promote positive societal attitudes toward entrepreneurship, and in particular, women's engagement in entrepreneurship.	44
Assist women-run start-ups through the availability of opportunities and resources.	44
Support women's business growth with technical assistance and education.	44
Appendix 1: Background on GEM and the GEM Model	45
The GEM Model	46
Appendix 2: Glossary of Main Measures and Terminology	48
About the Authors	49
GEM Sponsors	50
Report Sponsors	51
Contacts	51
List of Figures	
Figure 1 Relationship Between Perceived Capabilities and Opportunity Perceptions in the Female Adult Population (Ages 18 to 64) in 59 Economies, 2010	13
Figure 2 Comparison of Perceived Capabilities, Opportunity Perceptions, and Entrepreneurial Intentions in the Female Adult Population (ages 18 to 64) in 59 Economies, Ranked within Economic Development Groups by Perceived Capabilities, 2010	15
Figure 3 Fear of Failure Among Female and Male Adults (ages 18 to 64) Who Perceive Good Opportunities for Entrepreneurship in 59 Economies, 2010	15
Figure 4 Perceptions about Entrepreneurship as a Good Career Choice and in terms of Status and Media Attention for Entrepreneurship Among Female Adults (ages 18 to 64) in 59 Economies, Ranked within Economic Development Groups by Career Perceptions, 2010	17
Figure 5 Proportion of the Adult Female and Male Population (ages 18 to 64) Participating in Total Early-Stage Entrepreneurial Activity (TEA) in 59 Economies, Ranked within Economic Group by Level of Female Participation, 2010	19
Figure 6 Female and Male Necessity Motives as a Percentage of TEA Entrepreneurs in 59 Economies, Ranked within Economic Group and Percentage of Female Necessity, 2010	21
Figure 7 Female and Male Opportunity Motives as a Percentage of TEA Entrepreneurs in 59 Economies, Ranked within Economic Group by Percentage of Female Opportunity Motives, 2010	23
Figure 8 Industrial Sector Participation for Female and Male Entrepreneurs by Economic Group in 59 Economies, 2010	26
Figure 9 Age Distribution of Female and Male Entrepreneurs by Economic Group in 59 Economies, 2010	27
Figure 10 Sources of Advice for Female and Male Entrepreneurs and Business Owners in 37 Economies, 2009 to 2010	29
Figure 11 Female and Male Entrepreneurship and Established Business Ownership Rates in 59 Economies, Ranked within Economic Group by Female Established Business Ownership Rates, 2010	31
A: Factor-Driven	31
B: Efficiency-Driven	32
C: Innovation-Driven	32

Table of Contents

Figure 12	Ratio of Discontinuance to Total Business Ownership (Nascent, New, Established) for Women and Men in 59 Economies, Ranked within Economic Group by Female Ratio, 2010	33
Figure 13	Reasons for Discontinuing Businesses by Sex, 2010	34
Figure 14	Job Growth Expectations for Women Early-Stage Entrepreneurs in 54 Economies, 2008 to 2010	35
Figure 15	Level of Innovativeness for Women Entrepreneurs in 59 Economies, 2008 to 2010	37
Figure 16	Internationalization Levels for Female Entrepreneurs in 59 Economies, 2008 to 2010	38
Figure 17	Perceptions About the Presence of Opportunities Among Female Nascent and New Entrepreneurs, and Women Business Owners in 59 Economies, 2010	41
Figure A1	The Entrepreneurship Process and GEM Operational Definitions	45
Figure A2	The GEM Model	47

List of Tables

Table 1	GEM Economies Classified by Development Level and Geographic Location, 2010	9
Table 2	Entrepreneurship Attitudes for the Female and Male Adult Population (ages 18 to 64) in 59 Economies, by Economic Development Level, 2010	12
Table 3	Average Percentage of Female and Male Entrepreneurs, Established Business Owners and Non-Entrepreneurs With at Least a Post-Secondary Education, by Economic Development Level in 59 Economies, 2010	28
Table 4	Percentage of Early-Stage Female and Male Entrepreneurs Who Find Starting Businesses More Difficult in 38 Economies, 2009 and 2010	40
Table 5	Percentage of Established Female and Male Business Owners with Lower Growth Expectations in 38 Economies, 2009 and 2010	41

Executive Summary

In 2010, 104 million women in 59 economies—which represent more than 52% of the world’s population and 84% of world GDPⁱ—started and managed new business ventures. These women entrepreneurs made up between 1.5 percent and 45.4 percent of the adult female population in their respective economies. Another 83 million women across those regions ran businesses they had launched at least three and a half years before. Together, these 187 million exemplify the contribution women make to worldwide entrepreneurship and business ownership.

At the same time, in only one of these 59 economies did more women participate in entrepreneurship than men. While most policymakers and academics agree that entrepreneurship is a catalyst for economic growth and national competitiveness, they must also acknowledge that not all groups in their societies have equal access to this endeavor. When a major part of a population does not engage in entrepreneurship, these economies lose the benefits that would otherwise be provided by new products and services, additional revenues, and new jobs. More specifically, when women do not participate equally in entrepreneurship, society loses out on the value that can be created by half its populace.

The purpose of the GEM Women’s report is to examine women entrepreneurs around the world. The report seeks to understand differences in the frequency and nature of women’s entrepreneurship, and makes comparisons with men across various societies. Through interviews with more than 90,000 women, GEM discovered over 14,000 women entrepreneurs, studying their motivations for starting ventures, as well as their ambitions for growth, innovation and expansion into international markets. The researchers also analyzed societal attitudes about entrepreneurship, paying particular attention to differences in perceptions among men

and women. Furthermore, they explored the impact of the recession on views about starting and growing businesses among women and men entrepreneurs.

For 12 years, the Global Entrepreneurship Monitor (GEM) has surveyed the entrepreneurial attitudes, activities and aspirations of people around the world. It accomplishes this effort through the collaborative work of a consortium of national teams consisting of academic researchers from across the globe. Each national team oversees an annual survey of at least 2,000 working-age adults (ages 18 to 64). In total, GEM surveyed more than 175,000 adults in 59 economies during the summer of 2010.

GEM’s inaugural survey in 1999 covered just 10 developed economies. Since then, the consortium has researched more than 80 economies. Each year, GEM publishes a global report that details the latest survey results from participating teams around the world. In addition, national teams produce reports covering their particular economies. The GEM Women’s Report is a special topic report that focuses on a key aspect of entrepreneurship.

The goal of this report is to help policy makers, practitioners and educators recognize the value women entrepreneurs bring to their societies. GEM seeks to promote better understanding about the similarities and differences between men and women entrepreneurs, as well as among various groups of women. This report also aims to provide guidance for efforts aimed toward equipping women with the capabilities they need to launch and run their businesses and creating environments within which their ventures can thrive. Highlighted throughout this report are descriptions of different women’s entrepreneurship programs operating in a variety of societies.

Key Overall Findings

Attitudes

Analyses of society-wide attitudes about entrepreneurship¹ show that, overall, women in factor-driven² economies are most likely to perceive opportunities in their area and have confidence in their capabilities for entrepreneurship. They are more likely to know an entrepreneur and to intend to start a business, and they have a lower fear of failure compared to women in economies with higher levels of economic development. Additionally, people in factor-driven economies demonstrate more positive attitudes toward entrepreneurship as a career choice, and tend to believe this endeavor is conferred with status and media attention. Those measures tend to decline as wealth increases.

Compared to men, fewer women believe there are lots of opportunities for entrepreneurship and that they have the capabilities for this endeavor. Fewer women than men intend to start businesses and more are dissuaded by fear of failure. These differences are even starker in the innovation-driven economies. This indicates that, although men in the developed world are influenced by fear of failure, it is even more the case for women. Moreover, while fewer men in advanced economies perceive opportunities and believe they have the capabilities needed to start a business, even fewer women feel this way.

An analysis of changes in perceptions about opportunities for entrepreneurship over the nine years from 2002 to 2010 shows that shifts in women's perceptions very closely mirrored those of men. Positive beliefs about opportunities increased among women in each of the six efficiency-driven economies. However, in ten of the twelve innovation-driven economies, positive perceptions about opportunities declined or, at best, increased only marginally. This trend likely corresponds with the effects of the global economic downturn toward the end of this period.

Activity

Total Early-Stage Entrepreneurial Activity (TEA) includes people in the process of starting a business and those running businesses that are less than three and a half years old. TEA rates are highest in factor-driven economies and generally decline as economic development increases. At the very highest GDP levels, however, there is a slight upward trend in TEA levels.

Women's participation in entrepreneurial activity varies widely around the globe, ranging from slightly more than 1.5% of the women in the adult working-age population (between ages 18 and 64) to as high

as 45.4%. In the factor-driven economies, 19.9% of the women surveyed said they were starting or running new businesses; 9.7% said so in the efficiency-driven economies, and 3.9% in the innovation-driven economies.

The proportion of entrepreneurs who are women varies significantly across the economies, ranging from 16% in the Republic of Korea to 55% in Ghana. That is, for every five male entrepreneurs, there is one female entrepreneur in the Republic of Korea, but six in Ghana.

Across the 59 economies, only Ghana had more women entrepreneurs than men, and only a handful of economies had about equal numbers of women and men entrepreneurs; the vast majority had more men than women. This trend remained constant across a set of eighteen economies that participated in GEM from 2002 to 2010. Over time, the gap between men and women entrepreneurs increased in some economies and decreased in others.

The researchers detected notable geographic differences in the factor-driven group. Middle East/North African (MENA) economies contain the lowest proportion of women entrepreneurs; none report that more than one third of their entrepreneurs are female. These economies also report low TEA rates. In Sub-Saharan African economies, on the other hand, women make up close to or more than half of entrepreneurs. These economies also have high TEA rates.

In the efficiency-driven group, the lowest proportion of women entrepreneurs is found in Eastern Europe; this region also reports low TEA rates. (Russia is an exception; although TEA rates are low, women there represent 44% of total entrepreneurs.) The Latin America/Caribbean region shows both a high proportion of women entrepreneurs and high TEA rates.

In the innovation-driven group, women in the Asia Pacific economies exhibit both very low and very high participation levels. Korea and Japan have proportionately few women entrepreneurs, while Australia shows nearly equal levels of women and men.

Women are most often motivated by necessity in the factor-driven group, a trend that declines as economies develop. Across all economic development levels, however, women are more likely than men to become entrepreneurs out of necessity. Therefore, while necessity motivates entrepreneurs to a great extent in less-developed economies, it motivates women to an even higher degree.

¹ Attitude measures were analyzed in the entire population to capture societal-wide attitudes. Intent was assessed in the non-entrepreneur population to capture intent among those that had not, or had not yet, started businesses. Fear of failure was measured for those seeing good opportunities—to determine the extent that fear of failure would prevent these individuals from pursuing these opportunities.

² GEM groups the participating economies into three economic development levels: factor-driven, efficiency-driven, and innovation-driven. These are based on the World Economic Forum's Global Competitiveness Report, which identifies three phases of economic development based on GDP per capita and the share of exports comprising primary goods. (<http://www.weforum.org/reports>)

A multi-year analysis suggests that necessity has declined as a motivating factor for women more extensively than for men in the efficiency-driven economies. In 2010, more women in these economies cited opportunity rather than necessity as their primary motivation. This trend could mean either that necessity-motivated women have stopped becoming entrepreneurs as these economies developed, or that their motivations are shifting.

For many of the innovation-driven economies, necessity motives among women either showed little change or increased over time. This trend also emerged among men, suggesting population-level, rather than gender-level, explanations. It is likely that the economic downturn affected both men and women equally in many economies. Still, 72.3% of the women in this group cite opportunity motives, much more than in the other two economic groups.

An examination across industrial sectors shows that both men and women were more likely to be entrepreneurs in the consumer sector, as opposed to extractive, transforming and business services. The difference, however, was much greater for women: Fewer than half of men entrepreneurs work in the consumer sector, but nearly two-thirds of women do. Men participate in the transforming and business services sectors more frequently than women.

Overall, more entrepreneurs fell in the 25- to 34-year-old group than in any other age category. The factor-driven group includes comparatively more entrepreneurs in the youngest age group (18 to 24 years old). Conversely, entrepreneurs are older in the innovation-driven group; fewer are in the two youngest age groups and more are 35 years old and older. This trend is more pronounced for women, for whom the 35- to 44-year-old age group is the most prevalent age category in the innovation-driven economies; in addition, there are more women than men among 45- to 54-year-old entrepreneurs.

Education levels among entrepreneurs increase with economic development: 46% of women entrepreneurs in factor-driven economies have at least a secondary-level education, whereas 81.7% do in innovation-driven economies. Compared to non-entrepreneur women, early-stage (TEA) women entrepreneurs are more likely to have a secondary education (high school degree) or higher (some college, college degree, or graduate degree). This difference is slight in factor-driven economies but widens as economic development increases.

Among both entrepreneurs and established business owners, men are more likely to have a secondary-level education than women in the factor- and efficiency-driven economies. Women, however, appear to catch up and narrowly outpace men in the innovation-driven economies.

Women entrepreneurs and business owners tended to have smaller and less diverse networks than their male counterparts. They were more inclined to seek guidance from family, especially spouses. Men, on the other hand, tended to draw more heavily on the advice of friends. They were also more likely than women to seek other network sources from business colleagues or professional advisors.

More women start and run new businesses than manage established ones in all factor-driven economies and in most efficiency-driven economies. In more than half of the innovation-driven economies, however, more women were established business owners than entrepreneurs. The pattern is similar for men across all economies. Similar to TEA rates, fewer women than men run established businesses.

The ratio of discontinuance to total business ownership (nascent, new, and established) was highest among women in the factor-driven economies, but decreased in the efficiency-driven and even further in the innovation-driven group. Women were less likely than men to leave their business because it was not profitable; they were slightly more likely to exit because they could not get financing. In addition, women were less likely than men to exit because of another job or business opportunity, but more likely to exit for personal reasons.

Aspirations

The highest level of growth expectations among women at the 5+ level (those who expected to add five or more employees in five years) occurred in the efficiency-driven economies. The 20+ level (those who expected to add 20 or more employees in five years) sometimes saw a greater proportion of high growth women entrepreneurs where there were also fewer entrepreneurs overall. For example, some MENA economies in the factor-driven group and some Eastern European economies in the efficiency-driven group had relatively few women entrepreneurs but a proportionately high level with 20+ growth ambitions.

Growth expectations for women entrepreneurs tended to be lower than for men at all three economic development levels. In the innovation-driven economies, twice as many men as women expected to add 20 or more employees. Among men and women entrepreneurs with 5+ growth aspirations in eighteen economies that have participated in most of the GEM cycles since 2002, women have had consistently lower growth aspirations than men.

Innovation is measured as the extent to which an entrepreneur's products and services are new to customers and new to the industry. (In other words, few or no competitors offer the same or similar product.) The proportion of women entrepreneurs with innovative offerings tends to increase with economic

Key Overall Findings

development: it is lowest at the factor-driven stage and highest at the innovation-driven stage. A comparison between sexes shows that, overall, women are about as likely to offer innovative products or services as men, particularly in the innovation-driven economies.

The degree of internationalization increases with economic development. Less than one quarter of the factor-driven women entrepreneurs have at least some international customers, while more than half of women entrepreneurs in the innovation-driven economies do. On average, men are more likely than women to sell internationally at all development levels.

Impact of the Recession

The final section of the report examines the effect of the most recent recession on women's entrepreneurship. Women entrepreneurs in efficiency-driven economies were most pessimistic about starting businesses, while women in innovation-driven economies were the least pessimistic, even though the economic slowdown had its roots in the developed world.

In examining the 2009-2010 results, it appears that impressions about starting a business improved little among women in the factor-driven economies. There was more improvement for the efficiency-driven group, and a substantial improvement for the innovation-driven economies. While pessimism pervaded all three groups in 2009, the gap between the innovation-driven economies and the other two widened substantially in 2010.

These results suggest that the global economic slowdown's negative effect on impressions about starting businesses may have subsided somewhat in the wealthier economies by 2010 and that efficiency-driven ones may have experienced some spillover effect. The change for male efficiency-driven entrepreneurs was greater, however; men entrepreneurs were far more optimistic than women in this middle group in 2010.

A comparison of established business owners' future growth expectations in 2009 and 2010 showed that more women business owners in factor-driven economies saw diminished growth expectations. These women were more pessimistic than men, particularly in 2009.

Established women business owners in the innovation-driven economies were the least pessimistic in 2009. The following year, however, the efficiency-driven group saw an increase in optimism; women in that group displayed a nearly identical degree of growth expectations as women in the innovation-driven group. The shift was more dramatic among efficiency-driven men business owners, who shifted from the most

pessimistic to the most optimistic. Women established business owners were more pessimistic than men across all three economic development groups in 2010.

KEY CONCLUSIONS AND POLICY IMPLICATIONS

The findings of this report can help policy makers, practitioners and educators understand the frequency and nature of women's entrepreneurship around the world. Following are some key conclusions that arise from this report.

1. In societies where women perceive that they have the capabilities for entrepreneurship, they are more likely to believe that entrepreneurial opportunities exist.
2. Compared to men, women are equally likely to see entrepreneurship as attractive, yet they lack positive attitudes about their own personal capacities or inclinations for starting businesses, and they have less personal contact with entrepreneurs.
3. Overall, women are less likely to venture into entrepreneurship than men; this trend is magnified in particular economies.
4. Women entrepreneurs in less-developed economies are more likely than men to be motivated by necessity, but the gap may be starting to close.
5. In developed economies, necessity-based entrepreneurship may partially fill in employment gaps during economic downturns.
6. A key challenge for women entrepreneurs in early development-stage economies is sustaining their businesses beyond the startup and early phases.
7. Networks of women entrepreneurs and business owners are generally smaller and less diverse than those of their male counterparts, and women tend to draw more on their personal relationships, particularly family, than on other sources.
8. Compared with their male peers, women entrepreneurs in wealthier economies tend to be older, as equally educated and as likely to create innovative products; nonetheless, their growth expectations are half those of men.

We close the report with several policy recommendations for promoting entrepreneurship among women.

1. Promote societal attitudes toward entrepreneurship, and in particular, women's engagement in entrepreneurship.
2. Assist women-run business start-ups by making opportunities and resources available.
3. Support women's business growth with technical assistance and education.

Introduction

This report is based on the Global Entrepreneurship Monitor (GEM) research project.³ With its particular focus on women's entrepreneurship, it recasts GEM's three main objectives as follows:

- To measure differences in entrepreneurial attitudes, activity and aspirations among women across the participating economies, and to make comparisons with men within these economies.
- To uncover factors determining the nature and level of women's entrepreneurial activity.
- To identify policy implications for enhancing women's entrepreneurship in an economy.

GEM is based on the following four premises: first, an economy's prosperity is highly dependent on dynamic entrepreneurial activity. This is true across all stages of economic development and geographic regions. Moreover, an economy's entrepreneurship capacity requires individuals with the abilities and motivations to start businesses, but it is also enhanced by a foundation of positive societal perceptions about this activity. Consequently, entrepreneurs do not operate in isolation from their society, but thrive under its support.

Second, entrepreneurship encompasses multiple phases: from having the ability and intent to start businesses to actually starting and then running new businesses. The cycle continues as entrepreneurs become established business owners. Some, for various reasons, may close their businesses, but go on to start another business, support other entrepreneurs or contribute in other ways to their societies. As such, it is important for economies to have entrepreneurs in various stages of this cycle.

Third, the individuals involved in starting businesses can themselves vary in terms of characteristics and inspiration. Entrepreneurship can involve all groups in society, including women, people from a range of

age groups and education levels, and disadvantaged populations. Entrepreneurs may be motivated to start their businesses out of necessity or because an opportunity has sparked their initiative. They may choose particular industrial sectors in which to operate. Entrepreneurship is therefore inclusive by nature, if not always in practice.

Fourth, high-growth entrepreneurship is a key contributor to new employment in an economy, although all entrepreneurs are important and necessary. Additionally, innovative and cross-border entrepreneurial ventures can enhance national comparative advantage. Entrepreneurship therefore brings wealth and well-being to the world.

PARTICIPATING ECONOMIES BY DEVELOPMENT LEVEL AND GEOGRAPHIC LOCATION

GEM groups the participating economies into three economic development levels: factor-driven, efficiency-driven and innovation-driven. These are based on the World Economic Forum's Global Competitiveness Report,ⁱⁱ which identifies three phases of economic development based on GDP per capita and the share of exports represented by primary goods.

GEM additionally considers geographic factors, grouping countries into six geographic regions: sub-Saharan Africa, the Middle East and North Africa (MENA), Latin America and the Caribbean, Eastern Europe, Asia/Pacific, and the United States and Western Europe. With these groupings, we can compare economies across similar development levels and geographic locations. The economic and geographic groupings are shown in Table 1.

Table 1—GEM Economies Classified by Development Level and Geographic Location, 2010

	FACTOR-DRIVEN	EFFICIENCY-DRIVEN	INNOVATION-DRIVEN
Sub-Saharan Africa	Angola, Ghana, Uganda, Zambia	South Africa	
Middle East/ North Africa	Egypt, Iran, Pakistan, Saudi Arabia, West Bank and Gaza	Tunisia	Israel
Latin America and Caribbean	Jamaica, Guatemala, Bolivia	Argentina, Brazil, Chile, Colombia, Costa Rica, Ecuador, Mexico, Peru, Trinidad and Tobago, Uruguay	
Eastern Europe		Bosnia and Herzegovina, Croatia, Hungary, Latvia, Macedonia, Montenegro, Romania, Russia, Turkey	Slovenia
Asia Pacific	Vanuatu	Malaysia, China, Taiwan	Australia, Japan, Republic of Korea
United States and Western Europe			Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, United Kingdom, United States

³ For more information on the GEM methodology and framework, refer to Appendix 1. For a glossary of main measures and terminology, see Appendix 2.

Structure of the Report

Drawing on the 2010 GEM survey, this report provides insights into the entrepreneurial activities, aspirations and attitudes of women in 59 economies. It makes comparisons among women across the 59 economies and between men and women within these economies. We focus primarily on data collected in 2010. Yet, for the first time we also highlight some multi-year trends among a subset of economies that have participated in GEM for the years 2002 to 2010.

The report starts with a comparison of societal-wide attitudes about entrepreneurship. We analyze attitudes among women from different economies and investigate differences by sex. In examining attitudes, the GEM survey includes questions about the presence of good entrepreneurship opportunities in one's area, beliefs about one's capabilities for starting a business, fear of failure, perceptions about the status of entrepreneurs and their media image, the attractiveness of entrepreneurship as a career choice and, finally, intent to start a business.

We then present an overview of entrepreneurial activity for men and women in the 59 participating economies, showing Total Early-Stage Entrepreneurial Activity (TEA, which includes individuals in the process of starting a business and those running new businesses less than 3 1/2 years old). This also contains a discussion of the relationship between male and female TEA rates and economic development level: the latter expressed as GDP per capita and adjusted for purchasing power parity (PPP).

This section also considers motivations for starting businesses, comparing women from different economies and examining gender differences within the economies, based on necessity and opportunity motives. This is followed by a study of the education levels, ages and networks of entrepreneurs, as well as the industrial sectors in which they operate. This section closes with an analysis of established business rates and the rates and reasons for discontinuing businesses.

The next section discusses the aspirations of women entrepreneurs, making comparisons across economies and to men. It analyzes growth projections of entrepreneurs in 2010, with additional information on the evolution of these ambitions between 2002 and 2010. This section of the report concludes by examining levels of innovation and internationalization efforts.

The final section of the report includes an analysis of entrepreneurship and the global economy in 2010. It explores the perceptions of entrepreneurs about the difficulties of starting and growing a business, and beliefs about the presence of opportunities in a challenging and uncertain economic environment. The report closes with a summary of key conclusions and implications for policy.

Societal Attitudes About Entrepreneurship

A strong entrepreneurial economy requires the support of a range of stakeholders. Together, these stakeholders can build and sustain a healthy economic environment in which entrepreneurship can thrive. Such stakeholders can include investors, bankers, customers, suppliers, service providers, family members and others. Societal-level attitudes are therefore important because entrepreneurs depend on many people in their communities.

This section explores attitudes about entrepreneurship among the entire adult working population (ages 18 to 64). In this sense, GEM captures general societal-level attitudes about entrepreneurship. Among the attitudes assessed are the following:

- Perception that there are opportunities for entrepreneurship in one's area
- For those who perceive opportunities, would they be discouraged from pursuing these opportunities because of fear of failure?
- Belief one has the capabilities to start a business
- Whether an individual knows an entrepreneur
- Intent to start a business among non-entrepreneurs⁴
- View that entrepreneurship is a good career choice
- Perception that entrepreneurs are afforded high status in one's society
- Awareness that entrepreneurs receive attention in the media



Khoyal Abolahzadeh, Anthemia Herb Production & Distribution Company, Ltd.

The Women's Employment Bureau at the Ministry of Labor and Social Security organizes entrepreneurship seminars, forums, and workshops for women.

Iran is also a member of the Forum for Businesswomen in Islamic Countries, organized by the Islamic Chamber along with the Islamic Development Bank.

PROMOTING WOMEN ENTREPRENEURS IN IRAN

By Leyla Sarfaraz

GEM Iran

In Iran, women face no historical or legal/official barrier to economic participation. And while women make up nearly half the population, they currently outnumber men by a factor of two at the university undergraduate level. Still, there are few women entrepreneurs relative to men. This result is due, at least in part, to cultural expectations for women, a lack of business skills, and financial barriers.

Several NGOs have been established in recent years to promote women's entrepreneurship, including the Women and Youth Entrepreneurship Development Foundation (www.foundationed.net), the Women Entrepreneurs' Network (www.iranlanan.com), and the Women Entrepreneurs Association (www.ea.wenet.ir).

The Women's Employment Bureau at the Ministry of Labor and Social Security organizes entrepreneurship seminars, forums, and workshops for women. Iran is also a member of the Forum for Businesswomen in Islamic Countries, organized by the Islamic Chamber along with the Islamic Development Bank. This group offers entrepreneurship workshops for women on a regular basis. Alzahra University (<http://jahad-alzahra.blogfa.com/post-415.aspx>) and the Khorshid Entrepreneurship School (www.khorshidschool.org) offer free training in entrepreneurship for women.

The visibility of successful women entrepreneurs in male-oriented businesses and the award ceremonies held by the government to honor successful women entrepreneurs are changing the way the Iranian society views women's entrepreneurship.

⁴ Knowing an entrepreneur and intent to start a business are included in this section, although they are not explicitly classified as attitudes. Nonetheless, along with the other measures, they relate to one's perceptions, abilities and readiness for entrepreneurship.

Societal Attitudes About Entrepreneurship

Table 2 shows the average measures of attitudes across all three economic development levels. Overall, women in factor-driven economies have the highest perceptions about the prevalence of opportunities in their area and their capabilities for entrepreneurship. They are more likely to know an entrepreneur and have intentions to start businesses. The differences between the innovation-driven and factor-driven economies are quite dramatic. In innovation-driven economies, the percentage of women with positive perceptions about opportunities and their capabilities is around half that of women in factor-driven economies. Compared with the factor-driven group, women in the innovation-driven economies are one third less likely to know an entrepreneur. They are less than one-sixth as likely to have entrepreneurial intentions than those at the factor-driven stage.

Less dramatic but certainly notable is the higher fear of failure that can be observed with greater development levels. Additionally, perceptions about entrepreneurship as a career choice, as well as status and media attention for entrepreneurs, decline with greater economic wealth. This is interesting when noting that entrepreneurship declines as economic development level increases. At the same time, there are more career opportunities for women in the developed world. Considering that there are proportionately more opportunity-based entrepreneurs, who tend to be associated with ambitions to grow companies, seek international

customers and commercialize innovations, entrepreneurship may be a more selective career option in those economies.

Given this, it is important to acknowledge that attitudes may reflect different images of the average business. As the following section on entrepreneurial activity reports, factor-driven economies have more necessity-based and consumer-oriented entrepreneurs. People with no other choices for work may very actively look for ways to start businesses as a means for survival. Additionally, they may seek those businesses in which they have the capabilities to start. With few other work options, they may feel little risk associated with such an effort. In contrast, innovation-driven economies tend to have highly competitive environments and a concentration of knowledge-based businesses. As such, they have a higher share of opportunity-based entrepreneurs and entrepreneurs competing in the business services sector.

Additionally, the opportunity costs for individuals considering entrepreneurship is higher in the innovation-driven group. When an economy is early on the development scale, there are fewer employment options. Creating one's own job may be seen as a noble effort. In the developed world, entrepreneurial opportunities compete with careers in corporations, NGOs, government, and other organizations. Entrepreneurs often share high status and attention with corporate CEOs.

Table 2—Entrepreneurship Attitudes for the Female and Male Adult Population (ages 18 to 64) in 59 Economies, by Economic Development Level, 2010

	PERCEIVED OPPORTUNITIES		PERCEIVED CAPABILITIES		KNOW AN ENTREPRENEUR		FEAR OF FAILURE*	
	FEMALE	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE	MALE
Average: Factor-driven Economies	58.9	64.2	64.6	77.5	50.3	62.5	31.5	27.3
Average: Efficiency-driven Economies	41.0	44.9	49.9	61.8	40.0	50.7	35.1	28.9
Average: Innovation-driven Economies	29.5	37.1	35.2	53.2	31.1	41.2	37.9	29.9
	ENTREPRENEURSHIP AS A GOOD CAREER CHOICE		ENTREPRENEURIAL INTENTIONS **		HIGH STATUS TO SUCCESSFUL ENTREPRENEURS		MEDIA ATTENTION FOR ENTREPRENEURSHIP	
	FEMALE	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE	MALE
Average: Factor-driven Economies	75.8	74.8	39.2	46.1	80.6	81.2	66.2	64.6
Average: Efficiency-driven Economies	73.2	72.5	19.9	27.1	70.2	69.4	63.3	61.6
Average: Innovation-driven Economies	58.1	60.1	6.0	10.5	70.5	70.1	54.7	55.9

* Denominator: 18- to 64-year-old population perceiving good opportunities to start a business

** Denominator: 18- to 64-year-old population that is not involved in entrepreneurial activity

A comparison between sexes reveals that women in each economy have, on average, lower perceptions about opportunities and capabilities, lower intentions and higher fear of failure than men. This difference is even greater in the innovation-driven economies. This finding indicates that, although men in the developed world are influenced by fear of failure, the influence is stronger for women. Further, while men at this development stage are less likely to perceive opportunities and believe they have the capabilities to start businesses, even fewer women have these perceptions.

On the other hand, women across all economic development levels are about equally likely as men to perceive entrepreneurship as a good career choice, to believe successful entrepreneurs are afforded high status and to state that entrepreneurship receives attention in the media. They are less likely, however, to know an entrepreneur personally.

Figure 1 shows the relationship between perceived capabilities and opportunity perceptions.⁵ This relationship suggests that societies with women who believe they have the capabilities for entrepreneurship are more likely to have women who see opportunities for starting businesses.

Figure 1—Relationship Between Perceived Capabilities and Opportunity Perceptions in the Female Adult Population (ages 18-64) in 59 Economies, 2010

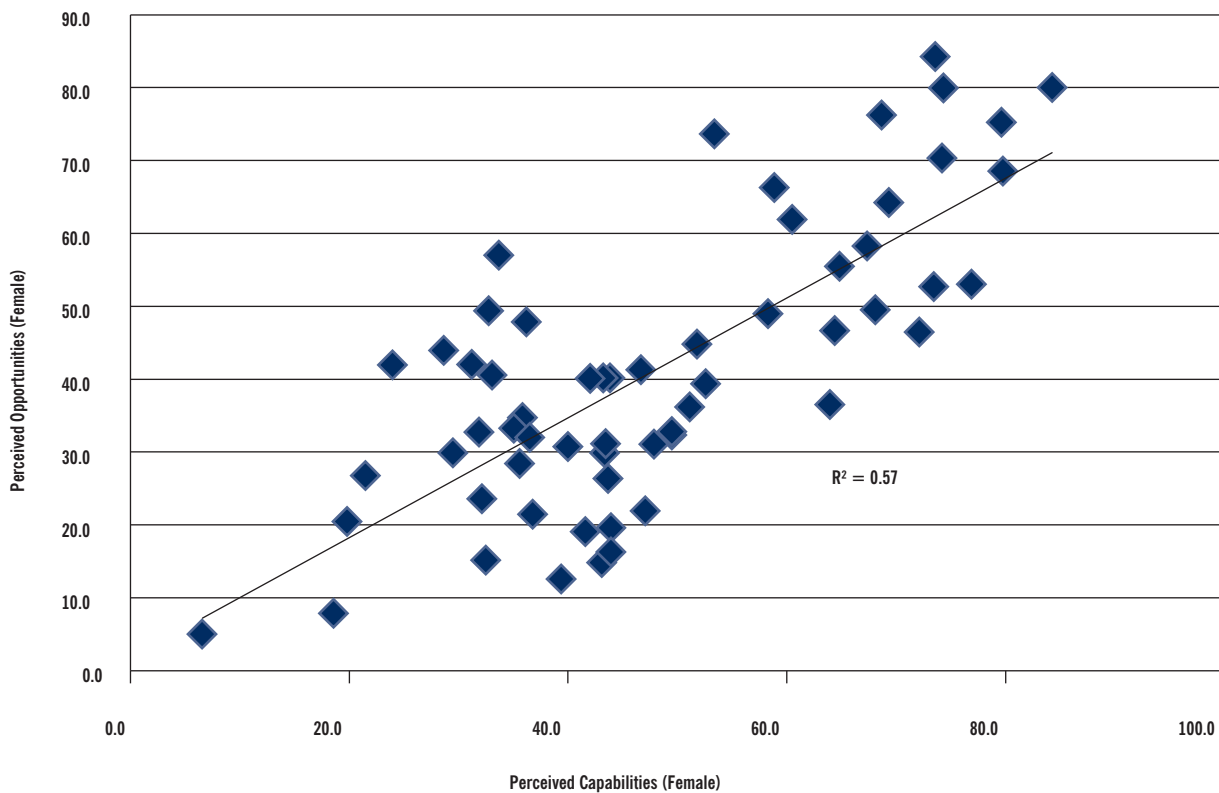


Figure 2 shows capabilities, opportunity perceptions and entrepreneurial intent by economic development level. Across the factor-driven economies, capabilities, opportunity and intent were lower for women in the MENA economies and higher in the Sub-Saharan Africa regions. In the efficiency-driven group, Eastern Europe tends toward lower attitudes, while Latin America reported higher perceptions on these measures.

In the Asia/Pacific economies, Taiwan, Malaysia and China tend to show lower perceptions of capabilities, opportunities and intent among the efficiency-driven economies. Japan and Korea exhibited the lowest

levels of all three of these measures among the innovation-driven economies.

Women in the United States had the highest capability perceptions in the innovation-driven group, but Sweden stood out for its strong positive perception about the presence of opportunities. What is perhaps most clearly evident across this economy, however, is the remarkably low intent among women. This may suggest that people perceive many entrepreneurial opportunities in Sweden, but are less inclined to pursue them.

⁵ p<.001 significance level.



Cecilia Bergh, Mando Group

...the Swedish Agency for Economic and Regional Growth identified more than 800 women entrepreneurs to serve as “ambassadors” to bring greater visibility to women entrepreneurs.

WOMEN ENTREPRENEUR AMBASSADORS IN SWEDEN

By Ulrika Stuart Hamilton

GEM Sweden

The Government Ambassador’s program was initiated in 2008 by the Swedish government to enable the growth and development of women’s entrepreneurship. Recognizing that the majority of people in Sweden associate entrepreneurship with men and the fact that only 25% of all businesses are run by women, the Swedish Agency for Economic and Regional Growth identified more than 800 women entrepreneurs to serve as “ambassadors” to bring greater visibility to women entrepreneurs.

The ambassadors share stories and lessons from their experience in schools, online, at conferences and with various organizations and associations. A key emphasis lies in representing a range of entrepreneurs (age, background, industry, experience) within these corps, to help women better identify themselves with these ambassadors. The ambassadors also blog about issues of importance to them. In addition, they cultivate contacts among Swedish women entrepreneurs, strengthening bonds and ensuring mutual support within this network.

For more information on the Swedish Government Ambassador’s program, see: www.ambassadorer.se/wiki/on-webbplatsen.

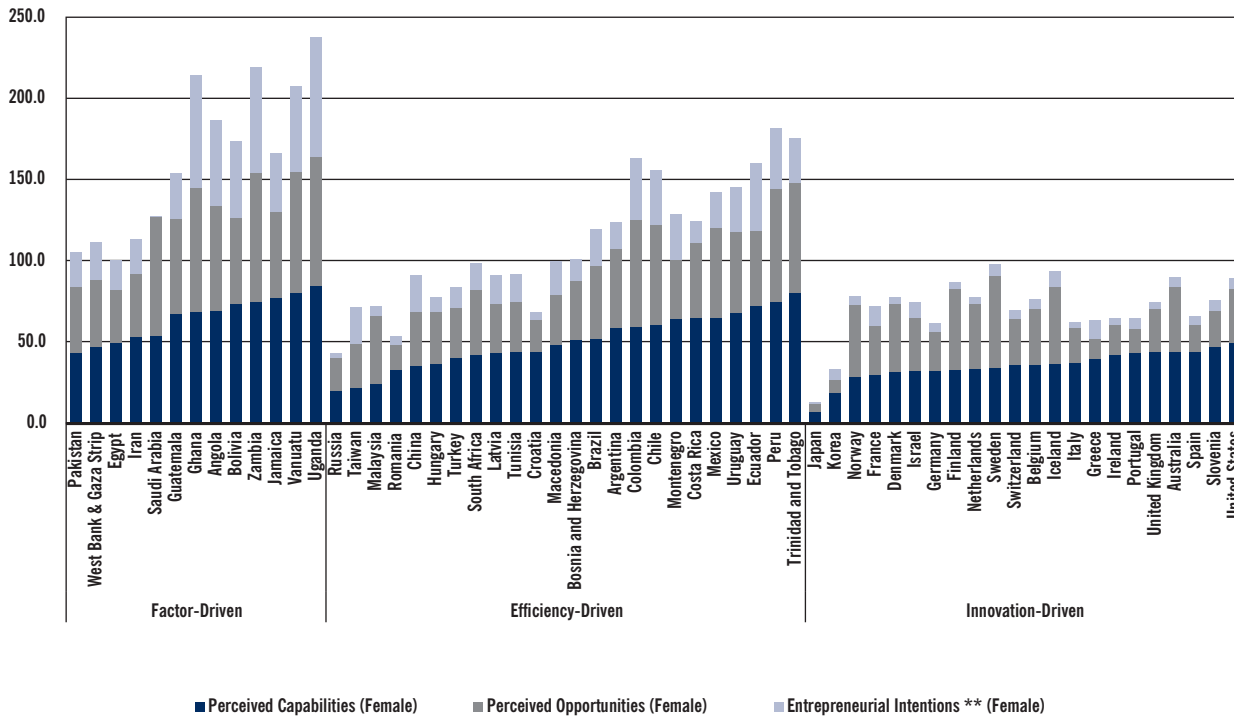
A multi-year analysis of opportunity perceptions for the nine years from 2002 to 2010 shows that, in each of the six efficiency-driven economies studied, perception of opportunities increased among females, most substantially and consistently in Chile and South Africa. The changes for women over time in positive opportunity perceptions mirrored very closely the changes reported for men in these economies.

Like the efficiency-driven economies, changes in opportunity perceptions among women in the innovation-driven economies paralleled those of men. The difference between sexes was generally much greater in the innovation-driven economies, however. Belgium, the United States, and Norway stand out among those economies as places where women exhibited much lower opportunity perceptions than men. What’s also notable is that there was a decline, or just a slight increase, in opportunity perceptions over time in every innovation-driven economy except Germany and Norway. This decline was most noticeable in Spain. This trend may correspond with the effects of the global recession.

Figure 3 shows the level of fear of failure among women and men across the sample. Among women in the factor- and efficiency-driven economies, the highest levels were found in the MENA and Eastern European regions. In addition, women tended to show a substantially greater fear of failure compared to men in these economies. In the Sub-Saharan Africa and Latin America/Caribbean regions, fear of failure was generally low among women, with less difference between the sexes. Among the exceptions were Turkey, where women showed a low fear of failure (men were even lower) and Brazil, which reflected a high fear of failure among women (Brazilian men reported an average level on this measure).

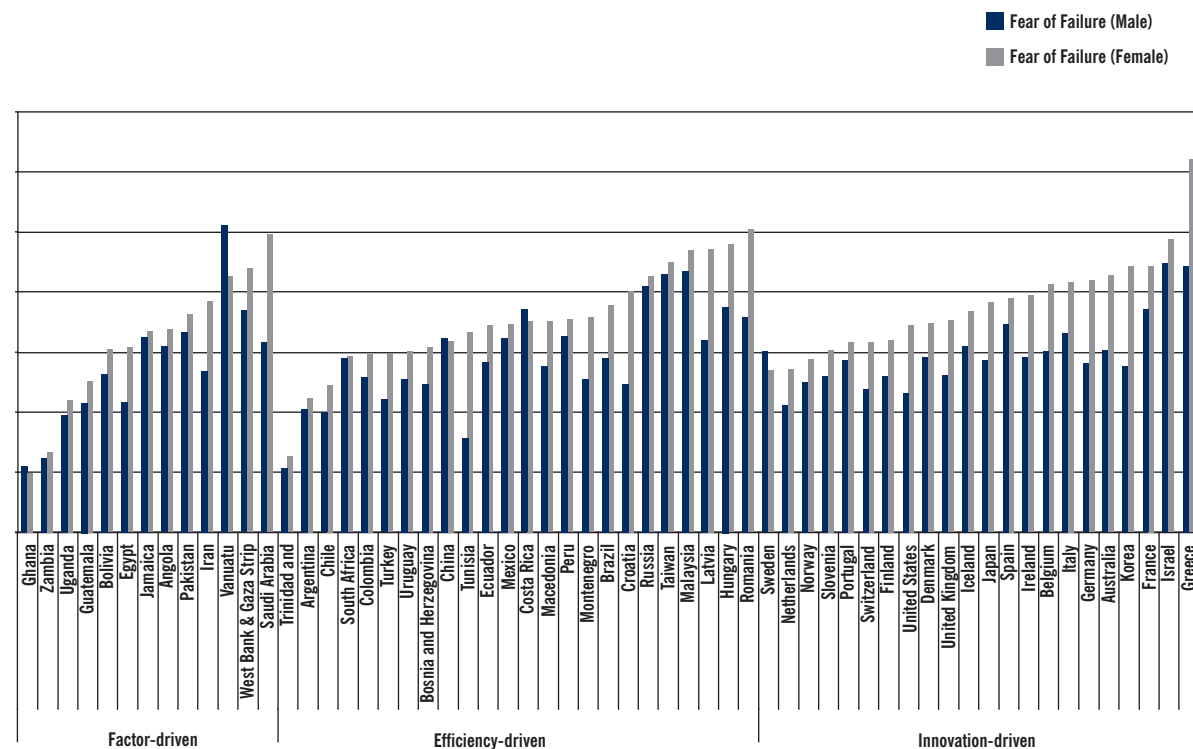
In the Asia-Pacific region, Chinese women showed a lower than average fear of failure and close to the same level as men. Taiwan and Malaysia showed a much higher level, but the levels were similar for both sexes. Innovation-driven economies displayed a divide between the sexes, however. Men in Japan were below average, while women were above average on this measure. Australian and Korean women displayed some of the highest levels of fear of failure in this economic group, while men showed about average levels.

Figure 2—Comparison of Perceived Capabilities, Opportunity Perceptions, and Entrepreneurial Intentions in the Female Adult Population (ages 18-64) in 59 Economies, Ranked within Economic Development Groups by Perceived Capabilities, 2010



**intentions measured for non-entrepreneurs only

Figure 3—Fear of Failure Among Female and Male Adults (ages 18-64) Who Perceive Good Opportunities for Entrepreneurship in 59 Economies, 2010





*Nikki Evans, PerfectCard
Photo courtesy of Joanne Evans*

*The Lead
Entrepreneurs share
their experiences
and facilitate discussion
among participants
facing common
challenges.*

GOING FOR GROWTH IN THE REPUBLIC OF IRELAND

By Paula Fitzsimons

GEM Ireland

The Going for Growth initiative in Ireland started in 2008 with the aim to inspire women entrepreneurs to pursue growth for their businesses and to provide support for these efforts. It is funded by the European Social Fund, Enterprise Ireland, and the Department of Justice and Equality. It is open to women who have run a business for at least two years, own 50% or more of their companies, and are focused on growth.

Women business owners participate in monthly roundtables led by Lead Entrepreneurs: women who have built and grown successful businesses. These volunteers meet in different locations around Ireland with small groups of women owner-managers to provide advice and support in the development of their businesses. The roundtables are practice-oriented, providing participants with lessons on what has worked and what hasn't worked in real-life situations. The Lead Entrepreneurs share their experiences and facilitate discussion among participants facing common challenges.

Over 150 women entrepreneurs have benefited from participation in previous cycles of Going for Growth. They report that the round table sessions led them to make practical changes in their businesses, and helped them achieve their growth goals. Enterprise Ireland is also supporting a follow-on initiative Continuing the Momentum for selected participants who have completed a cycle of Going for Growth and continue to be focused on achieving growth. The program was included among the 2009 EU Good Practices, and voted into the Top 10 of those initiatives. It was also selected to represent Ireland at the 2011 European Enterprise Awards.

For more information on Going for Growth, go to: www.goingforgrowth.com.

Figure 4—Perceptions about Entrepreneurship as a Good Career Choice in terms of Status and Media Attention for Entrepreneurship Among Female Adults (ages 18-64) in 59 Economies, Ranked within Economic Development Groups by Career Perceptions, 2010

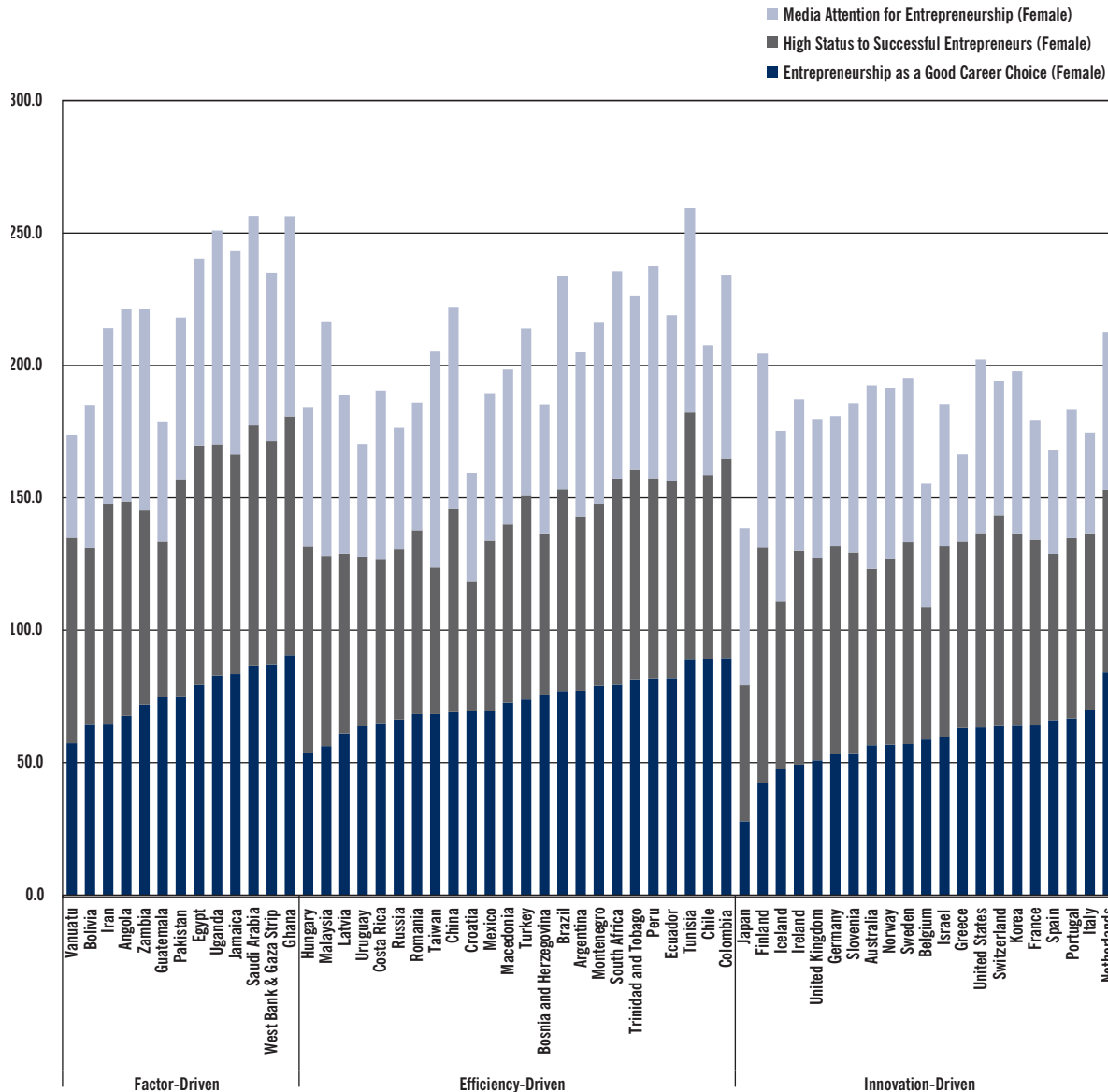


Figure 4 shows beliefs about entrepreneurship as a career choice and perceptions about the status and positive media attention for entrepreneurs. Rankings within economic development group are in order of increasing career perceptions. Saudi Arabia, Ghana (both factor-driven) and Tunisia (efficiency-driven) stand out for having high levels of all three perceptions among women. We might infer that entrepreneurship is both favored and admired in these economies. In contrast, Croatia (efficiency-driven), Japan and Belgium (both innovation-driven) rate low on all three of these measures.

In some economies, women think entrepreneurship is a good career choice, despite lower perceptions

about status and media attention. Chile (efficiency-driven) and Italy (innovation-driven) could be cited as examples. In these countries, entrepreneurship is considered a worthy job alternative, but there seems to be little visibility or glamour attached to it.

On the other hand, there are economies where entrepreneurship is not preferred as a career, but there is high status and media recognition associated with it. Malaysia (efficiency-driven) and Finland (innovation-driven) exemplify this combination of factors. In these economies, other entrepreneurs are admired and popular, but women are nonetheless not inclined to pursue this path.



This full-time, six-month program teaches basic life skills, numeracy, literacy and business skills. Since its start, almost 80% of the graduates either get full-time employment, go on to further education or start their own businesses.

ACADEMY OF ENTREPRENEURIAL DEVELOPMENT IN SOUTH AFRICA

By Mike Herrington

GEM South Africa

In 2005, South African businessman and philanthropist Raymond Ackerman provided an endowment to start the Raymond Ackerman Academy of Entrepreneurial Development in partnership with the City of Cape Town and the University of Cape Town. The academy offers young aspiring entrepreneurs the opportunity to develop skills needed to start and operate their own businesses, find employment, or pursue further education. The course is highly subsidised to make it accessible to capable people from disadvantaged communities, attracting high participation among women (60% of the participants are female).

This full-time, six month program teaches basic life-skills, numeracy, literacy and business skills. Since its start, almost 80% of the graduates either get full time employment, go on to further education or start their own businesses. In 2009 the Raymond Ackerman Academy, in partnership with Goldman Sach's *10,000 Women* program, expanded the academy to Soweto, just outside Johannesburg.

Women's Entrepreneurship Activity Levels and Characteristics

GEM identifies, among the individuals it surveys, those that are involved in starting and running businesses. These individuals are classified by business phase: nascent entrepreneurs in the process of starting businesses, new entrepreneurs running businesses less than 3 1/2 years old and owners/managers of established businesses (more than 3 1/2 years old). The first two measures of business activity—nascent and new—are equated with entrepreneurship and are represented as Total Entrepreneurial Activity (TEA).

DEVELOPMENT-LEVEL AND GEOGRAPHIC PATTERNS IN TEA RATES

Women's participation in entrepreneurial activity varies widely across the globe, ranging from just over 1.5% to 45.4% of the adult women in an economy. In the factor-driven economies, 19.9% of women between the ages of 18 and 64 say they are starting or running new businesses. This figure was 9.7% in the efficiency-driven economies and 3.9% in the innovation-driven economies.

Figure 5 shows the percentages of entrepreneurs in the female and male population for each economy. There are, on average, more men than women entrepreneurs at each economic development level. The gap between women and men decreases with economic development level, however, and moves from 5.2 percentage points lower for women than men entrepreneurs at the factor-driven stage to a 4 point difference in the efficiency-driven stage and 3.4 in the innovation-driven stage.

The ratio of female to male entrepreneurs varies considerably across the sample: from 1:5 in the

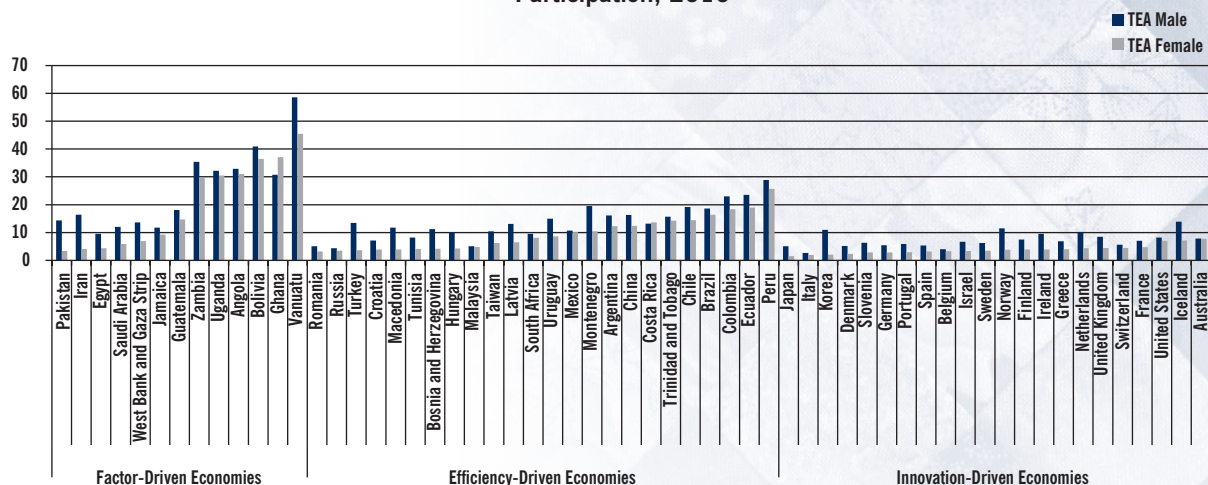
Republic of Korea to 6:5 in Ghana. This means that for every five male entrepreneurs there is one female entrepreneur in the Republic of Korea but six in Ghana.

In the factor-driven group, MENA economies have the fewest women entrepreneurs relative to men entrepreneurs, with none reporting that more than 1/3 of their entrepreneurs are female. These economies also report low overall TEA rates. In the Sub-Saharan African economies, on the other hand, women make up close to, or more than, half of entrepreneurs. These economies also have high TEA rates.

In the efficiency-driven group, the lowest proportion of women entrepreneurs is found in Eastern Europe. Russia is an exception, however; women there represent 44% of total entrepreneurs. The Eastern European economies also tend to exhibit low TEA rates. The Latin America/Caribbean region shows both a high relative number of women entrepreneurs and high TEA rates.

In the innovation-driven group, Asia Pacific economies exhibit among the lowest and highest levels of women's entrepreneurship, showing the most diverse spread with regard to participation in this activity. Korea and Japan have among the fewest numbers of women entrepreneurs in the entire sample and also low ratios of women to men entrepreneurs. Australia, on the other hand, shows both a high level of women entrepreneurs and a high ratio of women to men participating in entrepreneurship. In the efficiency group, Malaysia also has a high percentage of women entrepreneurs. China, and to a lesser extent Taiwan, show moderately high levels. The U.S./Western European group ranges from Norway, where one fourth of the entrepreneurs are women, to the United States, where nearly half are women.

Figure 5—Proportion of the Adult Female and Male Population (ages 18-64) Participating in Total Early-Stage Entrepreneurial Activity (TEA) in 59 Economies, Ranked within Economic Group by Level of Female Participation, 2010



THE DISPARITY IN WOMEN VERSUS MEN ENTREPRENEURS ACROSS THE GLOBE AND OVER TIME

Across the 59 economies studied, only one economy had proportionately more women than men entrepreneurs, and only a handful had equal proportions of women and men. The vast majority of economies had more men than women entrepreneurs. Since, for various reasons, there are far fewer women engaging in entrepreneurial activity, starting and running businesses is a predominantly male occupation. This finding indicates that, with very few exceptions, nearly every society—no matter what its level of entrepreneurship—is not fully benefiting from the enterprising activities of half their working age population.

This pattern was also observed in a nine-year analysis of a select group of economies from 2002 to 2010.⁶ In all eighteen economies, new firm ownership for women started and ended at lower levels than men. In China, a gender gap opened up; women started out almost equally likely to participate in entrepreneurship, but did not keep up with the marked increase in male entrepreneurship and ended this period with a large gap. Conversely, in Brazil and Argentina, a wide gender gap at the beginning of this period closed markedly by the end—almost entirely for Brazil. In Europe, three countries located closely together—Belgium, Germany, and Denmark—showed a narrowed gender gap by the end of the period of observation. For Denmark, this occurred as male entrepreneurship experienced a significant drop, while female entrepreneurship remained more or less steady.



Aishah bin Mat Ali,
soft toy cushions

The women are given skills-based training integral to running home-based businesses or small retail businesses.

TRAINING AND MENTORING WOMEN IN MALAYSIA

By Datin Rehana Kassim

GEM Malaysia

The Federation of Women Entrepreneur Associations Malaysia (FEM) consists of nine different organizations, of which the National Association of Women Entrepreneurs of Malaysia (NAWEM) is a member. Officially launched in 1994, its mission is to encourage, support, and inspire women in business, provide them with leadership abilities, and facilitate the transformation of the role of women in business into a dynamic force in Malaysia.

NAWEM's funding comes from the public sector (the Ministry of Women, Family and Community Development), the private sector (Star Foundation, Hong Kong Shanghai Bank Corporation (HSBC) and NAWEM's own fund-raising activities (for instance, a Members' Networking Day and the NAWEM Trust Fund).

Among the main initiatives undertaken by NAWEM is training. The HSBC-NAWEM Capacity and Capability Building Program for women entrepreneurs is one example. This program is aimed at training and mentoring women from financially challenged low-income groups. Launched in April 2011, NAWEM has received a grant of RM 150,000 to train 40 women in 2011.

The women are given skills-based training integral to running home-based businesses or small retail businesses. This includes floral design, basic sewing, beauty training and pastry preparation. These skills are complemented with ancillary training such as basic book-keeping, IT, communications, language, and other skills (for example developing an entrepreneurial mindset and attitude). A tracking system is put in place to gauge the women's pre-training, post-training as well as monitoring of the women's performance for two years after completing the program.

⁶ These economies were chosen because they had participated in GEM for most of the nine years from 2002 to 2010. The data were aggregated into three three-year periods to smooth out year-to-year differences and to allow for the inclusion of some economies that skipped a year of data collection during this period. Included in this analysis were 6 efficiency-driven economies (Argentina, Brazil, Chile, China, Hungary, South Africa) and 12 innovation-driven economies (Belgium, Denmark, Germany, Greece, Iceland, Ireland, Italy, Netherlands, Norway, Spain, United Kingdom, United States).

NECESSITY AND OPPORTUNITY MOTIVES

GEM asked all entrepreneurs about their primary motivation for starting a business, whether due to necessity or opportunity. Those with necessity motives entered entrepreneurship mostly because they had no other options for work, while entrepreneurs with opportunity motives chose to pursue an opportunity. In general, those with necessity motives can be viewed as having been pushed into entrepreneurship. Opportunity-motivated entrepreneurs, on the other hand, can be seen as having been pulled into entrepreneurship.

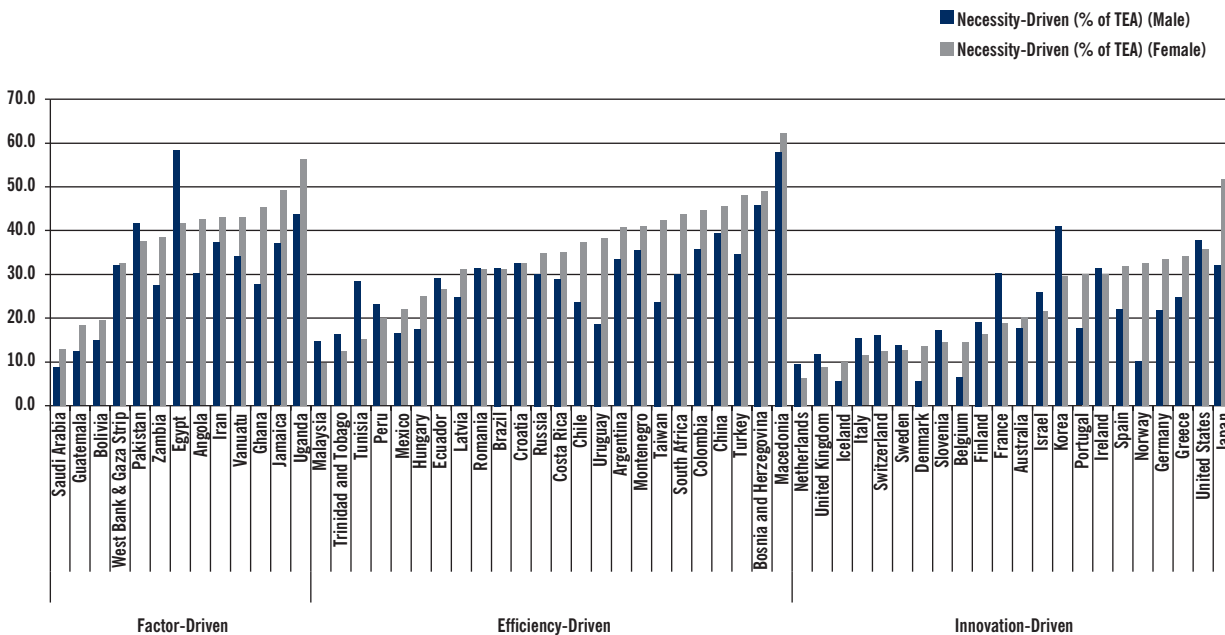
Necessity-driven entrepreneurship, particularly in less developed regions or among those experiencing job losses, can help an economy benefit from self-employment initiatives and the subsequent creation of jobs for others when fewer work options are available. More developed economies, on the other hand, can leverage their wealth and innovation capacity, yet they also offer more employment options to attract those that might otherwise become

entrepreneurs. Therefore, fewer individuals venture into entrepreneurship, but those that do so are more likely motivated by opportunity.

Necessity motivations are highest in the factor-driven economies, where 36.6% of women entrepreneurs cite necessity motives. This proportion declines in the efficiency-driven group (33.8%) and in the innovation-driven economies (23.6%). On average, women are 4 percentage points more likely to be motivated by necessity than men; the difference is highest in the factor-driven group (5.6 percentage points higher) and lowest in the innovation-driven group (2.4 percentage points higher). As economies develop, entrepreneurship tends to decline because society provides more employment options. Because there are more jobs, a lower percentage of entrepreneurs are necessity-driven, while the proportion of opportunity-based entrepreneurship increases.

Figure 6 shows the percentage of necessity-motivated TEA entrepreneurs that are male and female. The economies are grouped by economic development level. Within each group, the countries are ranked by level of female necessity motives as a percentage of TEA.

Figure 6—Female and Male Necessity Motives as a Percentage of TEA Entrepreneurs in 59 Economies, Ranked within Economic Group and Percentage of Female Necessity, 2010



In contrast to necessity motives, which are highest in the factor-driven economies, opportunity motivations are highest in the innovation-driven group; 72.3% of the women entrepreneurs in this group cite opportunity motives. The factor-driven economies report far fewer women entrepreneurs

with opportunity-based motives (58.5%). While women were more likely than men to be motivated by necessity in each economy, opportunity motives were more prevalent among men. Overall, men were 4.3 percentage points more likely to report this motive across the entire sample.



Andrea Carvajal, ARKANI EIRL

...in Antofagasta, in the northern region of Chile, 28 women micro-business owners participated in a one-year training program to implement a Quality Management Model in their businesses.

This addressed business planning and management, how to obtain and interpret feedback from customers, making improvements in production and sales, managing personnel, and understanding legislation.

SUPPORTING SOCIAL ENDEAVORS IN CHILE

By Gianni Romani and Jose Ernesto Amoros

GEM Chile

The Solidarity and Social Investment Fund (FOSIS), under the Chilean Planning Ministry, has, since 2007, offered a national-level initiative called the Support Program for Social Endeavours in all regions of Chile. The program's objective is to improve the entrepreneurial skills of people with service enterprises that provide social value for their communities. By making their businesses more sustainable, this program aims to increase incomes for heads of households. While open to both men and women, participants have been predominantly women.

For example, in Antofagasta, in the northern region of Chile, 28 women micro-business owners participated in a one-year training program to implement a Quality Management Model in their businesses. This addressed business planning and management, how to obtain and interpret feedback from customers, making improvements in production and sales, managing personnel, and understanding legislation.

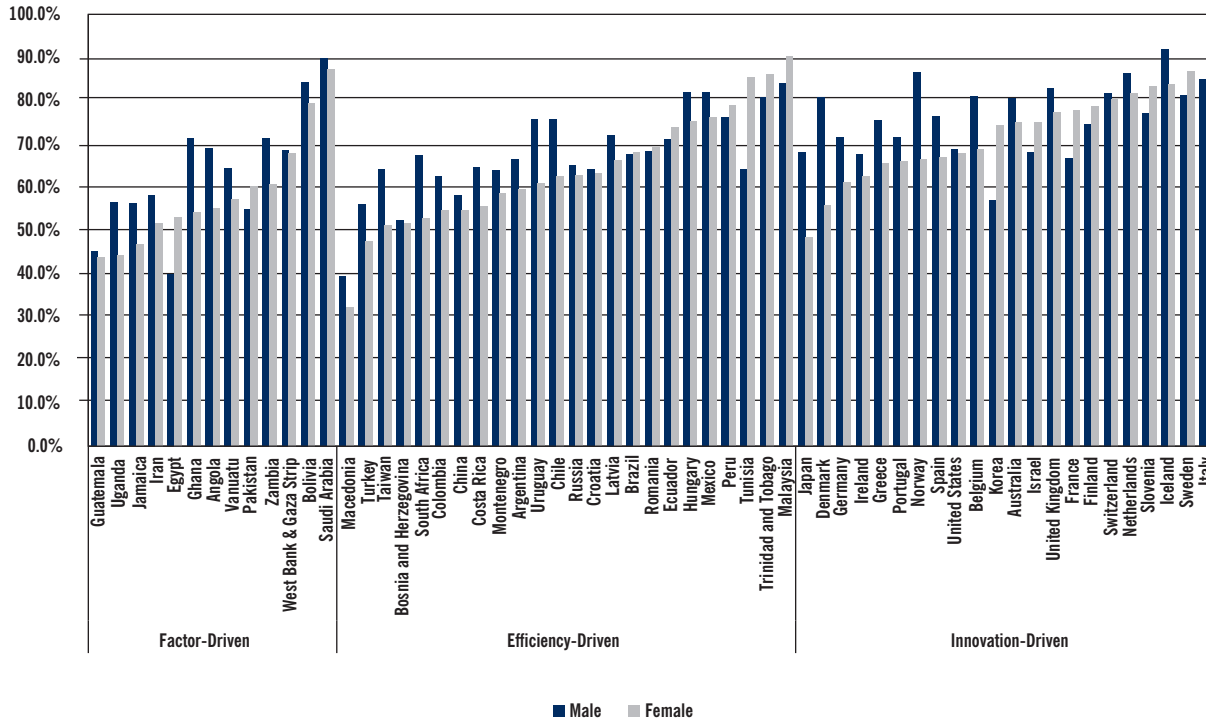
The micro-business owners were then audited. In the great majority of cases they received a certification or seal in the Quality Management Model for micro-businesses. Further efforts are being pursued to provide recognition and benefits for those receiving certification, such as access to government entrepreneurship programs.

For more information on FOSIS, go to: www.fosis.cl.

Figure 7 shows the percentage of male and female entrepreneurs with opportunity motives. The economies are shown in order of increasing

percentage of female opportunity motives within the three economic development groups.

Figure 7—Female and Male Opportunity Motives as a Percentage of TEA Entrepreneurs in 59 Economies, Ranked within Economic Group by Percentage of Female Opportunity Motives, 2010



In the factor-driven group, Egypt stands out as particularly high on male necessity motivation—highest, in fact, among the entire sample of 59 economies. This country also has the lowest male opportunity-based motivation in its development group and, along with Pakistan, has a higher proportion of women with opportunity-based motives. Overall, Egypt reports low TEA rates and low participation of women in entrepreneurship. Thus, there are few women entrepreneurs in this country, with only moderate levels of both opportunity and necessity motives. Hence, low TEA rates in this region might be explained by the fact that many of the men enter entrepreneurship only when there are no other options for work. Women, on the other hand, are generally neither pushed nor pulled into entrepreneurship. This raises questions about women’s roles in the workplace: for example, to what extent do those without jobs simply not participate in the workforce.

Uganda, on the other hand, exhibits the highest level of female necessity motives in the factor-driven group, but low opportunity motives. Uganda has high TEA rates, with women participating at nearly an equal level as men. Men in this country also have high necessity motives, as well as high opportunity motives. In this case, we might conclude that high rates of entrepreneurship here are due to the involvement

of women who are pushed into this activity out of necessity. On the other hand, it appears that men are both pushed and pulled into entrepreneurship.

In the efficiency-driven group, women entrepreneurs in Tunisia have a low level of necessity motives, accompanied by high opportunity motives, proportionately much higher than men. This is similar to Egypt. Like Egypt, Tunisia has both low TEA rates and few women participating in entrepreneurship. In Malaysia, women also have low necessity motives and high opportunity motives, yet they engage in entrepreneurship at almost equal levels as men. Men are similarly motivated: rarely by necessity and much more by opportunity. Given Malaysia’s low TEA rates, we can infer that Malay women and men are both less likely to become entrepreneurs, and when they do, it is mostly to pursue opportunities.

In the innovation-driven group, the Republic of Korea reported the lowest proportion of women TEA entrepreneurs in the entire sample. Although women entrepreneurs were scarce in that economy, they were most likely to have opportunity motives, while men entrepreneurs were most likely motivated by necessity. Thus, it is interesting to note that Korea’s above-average TEA rate appears to be primarily attributed to a proportionately high number of men being pushed into entrepreneurship out of

necessity. Women have notably less effect on Korea's entrepreneurship rate overall, and for those that do venture into this activity, it is more likely that they are motivated by the pursuit of opportunities.

Korea's neighbor, Japan, reported the opposite result for the motivations of women entrepreneurs, with the highest proportion of necessity-driven women entrepreneurs and the lowest level of opportunity motives among all the innovation-driven economies. Men also exhibited one of the highest necessity motivation levels in this group, but only a moderate amount of opportunity motivation. Japan's low overall TEA and women entrepreneurship rates might therefore be attributed to a lack of opportunity-driven motives on the part of women and not-overly strong opportunity motivations in men. Both women and men are more likely to be pushed into entrepreneurship when there is a lack of other job options. But given the low TEA rate, motivations for entrepreneurship do not appear to be driven by either a lack of job options or the pursuit of opportunity.

In sum, male entrepreneurs tend to cite opportunity motives more often than women across the entire sample. Women entrepreneurs, on the other hand, tend more often to be motivated by necessity. There is also a higher percentage of both male and female entrepreneurs with necessity motives in the early development stage economies, but as countries become wealthier, opportunity motivations are more prevalent. Since women are comparatively more necessity-motivated than men in the less-developed economies, they contribute disproportionately to the trend toward necessity in less developed economies.

MULTI-YEAR ANALYSIS OF NECESSITY MOTIVATION

To examine necessity motivations in women further, we conducted a multi-year analysis of eighteen economies that had participated in GEM for most of the nine years from 2002 to 2010.⁷ In the efficiency-driven economies, women were almost always more likely to have started businesses out of necessity than men over the entire time period. However, the proportion of women with necessity motivations declined over the time period. With the exception of Chile, this decline outpaced that of men over time, thereby contributing to a narrowing of the gender gap.

The decline in necessity motives for women was greatest in Brazil and China. In Brazil, necessity motivations for women started at a higher level than

for men, but then dropped below men in the most recent period; this was the only instance in this economic development group where proportionately fewer women than men entrepreneurs were motivated by necessity. China started out with a large gap between the proportion of necessity-motivated men and women entrepreneurs. However, while little change occurred among men over the nine years, a large drop in the percentage of necessity-motivated women narrowed this gender gap by the end of the time period.

For women in the efficiency-driven economies, necessity motives decreased and in many cases closed the gap with men over time. Many of the innovation-driven economies, however, showed increases in necessity motivations among women, with men also increasing or showing little change. It is likely that the economic downturn affected the necessity motives of both men and women in many of these economies. In Ireland, the increase in necessity motivations for men outpaced that for women, leaving proportionately more necessity-motivated men entrepreneurs in the most recent period.

In Norway, however, a large increase in necessity motives for women, combined with a slight decline for men, left a large gender gap at the end of the time period. On the other hand, necessity motives for women declined in Belgium and Greece, closing a gender gap with men.

INDUSTRIAL SECTOR

To gain insights into the types of businesses women start, we examined four main industrial sectors: extraction (farming, forestry, fishing, mining), transforming (manufacturing and construction), business services and consumer-oriented.

Overall, both men and women are more likely to be entrepreneurs in the consumer sector, compared to extractive, transforming and business services. Yet women's participation in the consumer sector is much greater. While fewer than half of the male entrepreneurs across the sample participate in the consumer sector, nearly two thirds of the female entrepreneurs are in this sector. Figure 8 shows sector differences for male and female entrepreneurs in the three development groups.

Men compete more frequently in the transforming and business services sector. In the innovation-driven economies, more male entrepreneurs

⁷ These 18 economies were selected for this study because they have been involved in the GEM survey since 2002 and could therefore provide sufficient data for the longitudinal analysis. Included in this analysis were 6 efficiency-driven economies (Argentina, Brazil, Chile, China, Hungary, South Africa) and 12 innovation-driven economies (Belgium, Denmark, Germany, Greece, Iceland, Ireland, Italy, Netherlands, Norway, Spain, United Kingdom, United States).



Zada Micivoda, school canteen

BUSINESS NETWORKS FOR WOMEN IN BOSNIA AND HERZEGOVINA

By Mirela Arifovic

GEM Bosnia and Herzegovina

The “Women’s Business Network” project is conducted by the Microcredit Foundation MI-BOSPO, which operates in the northeastern region of Bosnia and Herzegovina. Supported by the U.S. Agency for International Development (USAID), this initiative is aimed at a key development challenge in this region: the need for employment and income generation for women.

Activities include: (1) women’s clubs in the towns where MCF MI-BOSPO’s offices are located, in order to provide networking and support in their regions, (2) training centers to provide business management training, (3) assistance in providing market connections to increase sales, and (4) cooperation with local authorities and non-government organizations to represent the interests of women entrepreneurs.

This project was initiated in January 2011. The goal is to open 24 clubs in 24 towns within Bosnia and Herzegovina, targeting about 2,000 women business owners. Expected results for these women include: expansion of their businesses, strengthened market positions, better access to financial resources and enhanced management capabilities.

For more information on the Women’s Business Network, go to: <http://mi-bospo.org/index.php/mzb>.

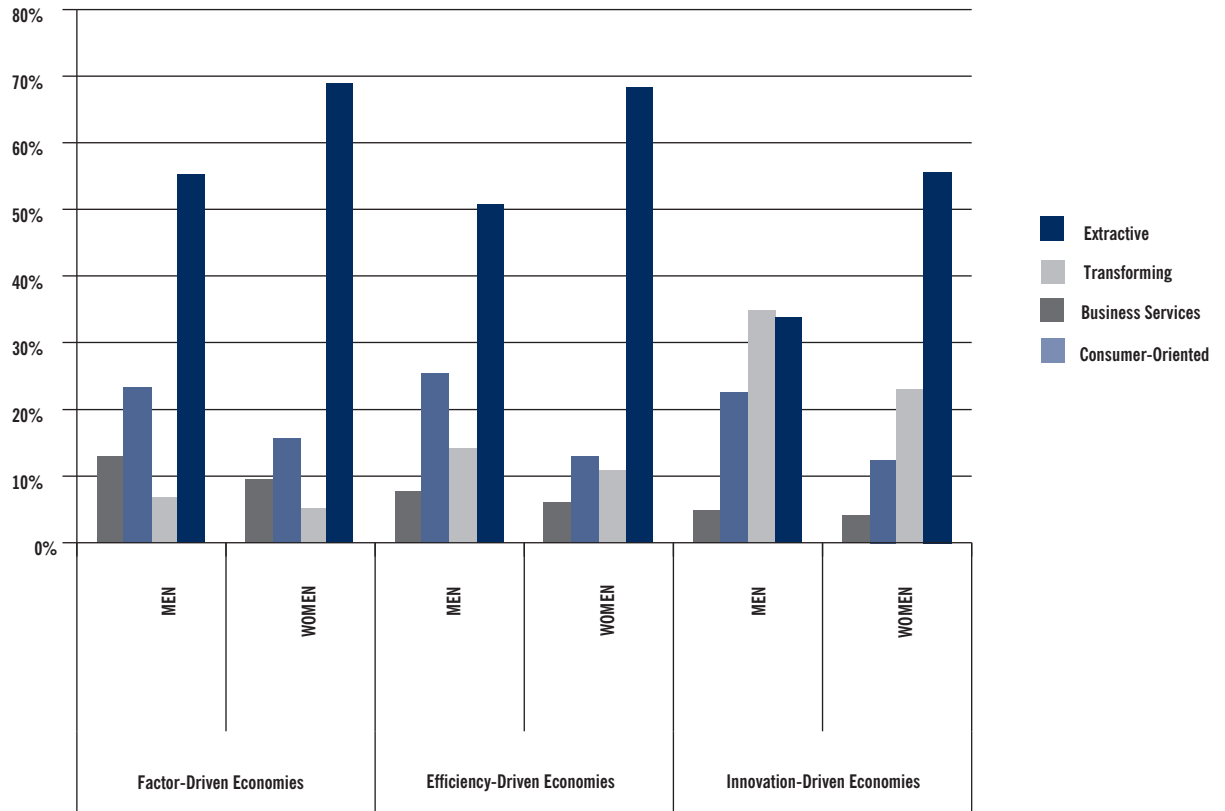
The goal is to open 24 clubs in 24 towns within Bosnia and Herzegovina, targeting about 2,000 women business owners.

Expected results for these women include: expansion of their businesses, strengthened market positions, better access to financial resources and enhanced management capabilities.

compete in business services than in the consumer sector. In contrast, women in the innovation-driven economies are more than twice as likely to compete in the consumer sector than in business services. Yet compared to the other development levels, the innovation-driven economies report fewer women entrepreneurs in the consumer sector and many more in business services.

Geographically, women dominate the consumer sector in Latin America/Caribbean and Sub-Saharan Africa; nearly three fourths of the women entrepreneurs run consumer businesses. Women pursue these businesses, in fact, at the expense of the other three sectors; women are nearly absent from the transforming sector. This is likely due to the fact that consumer businesses typically have low entry barriers and require less capital investment at startup.

Figure 8—Industrial Sector Participation for Female and Male Entrepreneurs by Economic Group in 59 Economies, 2010



AGE DISTRIBUTION OF WOMEN ENTREPRENEURS

GEM divides the adult population it surveys into five age groups. Overall, the most prevalent age group for entrepreneurs is 25 to 34 years old. The next largest age group is the 35 to 44 year olds. The factor-driven group tends to have comparatively more entrepreneurs in the youngest age group (18 to 24).

In the innovation-driven economies, entrepreneurs are as a whole older; there are fewer entrepreneurs in the two youngest age groups and more entrepreneurs in the older ages, age 35 and up. This tendency is more pronounced for women, as Figure 9 shows. While there are nearly the same number of 25 to 34 year old male entrepreneurs as 35 to 44 year old ones, the percentage of women in the younger age group declines, with the gap taken up by more 35 to 44 and 45 to 54 year olds.

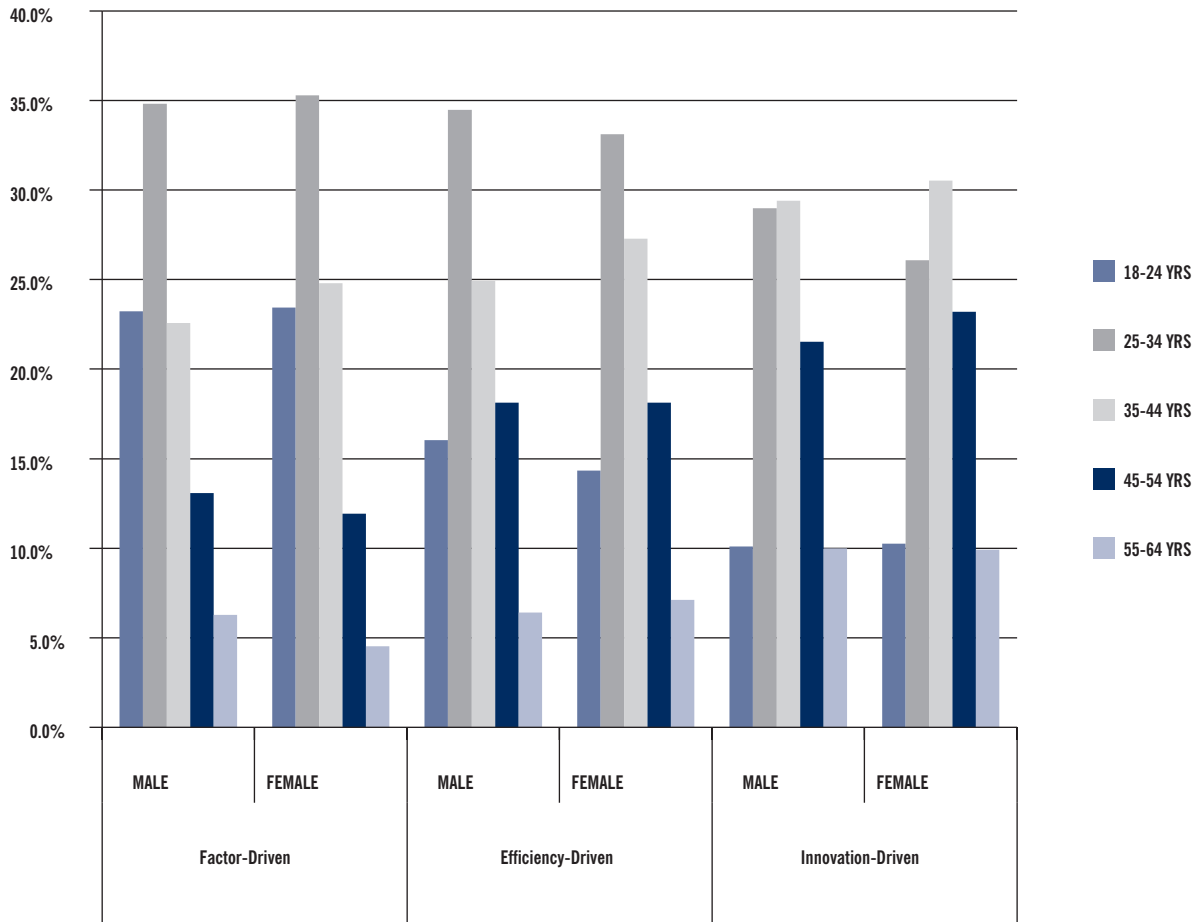
The tendency for older women to be involved in entrepreneurship is evident in many geographic

regions: Latin America/Caribbean, MENA, Eastern European, and the United States/Western Europe. In these areas there are fewer women than men in the 25 to 34 year age range and more women than men in the 35 to 44 year old age group. Sub-Saharan Africa shows a different pattern. While there are comparatively fewer women entrepreneurs among 25 to 34 year olds, there are more women than men entrepreneurs in the youngest age group (18 to 24).

EDUCATION LEVELS

The popular media often celebrates the idea of successful entrepreneurs that have less rather than more education. While high school or college dropouts make for good new stories, GEM shows that this is not the reality. As Table 3 illustrates, overall when women entrepreneurs are compared with non-entrepreneurs, they are more likely to have a secondary education (completed high school) or higher (some college, college graduate or graduate education).

Figure 9—Age Distribution of Female and Male Entrepreneurs by Economic Group in 59 Economies, 2010



For factor-driven economies, however, the difference in education levels between entrepreneurs and non-entrepreneurs is slight. It is the established business owner group that reflects the lowest level of women with a secondary or higher education. However, the gap between non-entrepreneurs and entrepreneurs widens with economic development level; established business owners fall somewhere in between.

Education levels among entrepreneurs increase with economic development stage; 46% of women entrepreneurs in factor-driven economies have at least a secondary-level education, and 81.7% do in the innovation-driven economies. Men show somewhat similar patterns, both in the differences among entrepreneurs, non-entrepreneurs and established business owners at each stage of development, and in the changes in education level with greater development level.

Interestingly, although non-entrepreneur males are more likely to have at least a secondary education compared with women across all economic development stages, this is not the case for entrepreneurs in the innovation-driven economies, where there are more women educated at this level than men. The same pattern can be seen with established business owners, where men are more likely to have a secondary or higher level of education than women in the factor- and efficiency-driven economies, but women seem to catch up and narrowly outpace men in the innovation-driven stage of economic development. When this analysis is conducted for only those that have had some, or have completed, tertiary-level (college) education, the same relative results were observed.

Women's Entrepreneurship Activity Levels and Characteristics

Table 3—Average Percentage of Female and Male Entrepreneurs, Established Business Owners and Non-Entrepreneurs with at Least a Post-Secondary Education, by Economic Development Level in 59 Economies, 2010

	ENTREPRENEURS WOMEN	ESTABLISHED BUSINESS OWNERS WOMEN	NON- ENTREPRENEURS WOMEN	ENTREPRENEURS MEN	ESTABLISHED BUSINESS OWNERS MEN	NON- ENTREPRENEURS MEN
AVERAGE: Factor-Driven	46.01%	35.76%	45.37%	54.62%	47.50%	52.91%
AVERAGE: Efficiency-Driven	73.09%	67.42%	65.64%	76.64%	72.58%	70.52%
AVERAGE: Innovation-Driven	81.67%	75.91%	72.95%	79.65%	74.76%	74.89%

The Role of Networks in Women's Entrepreneurship and Business Ownership⁸

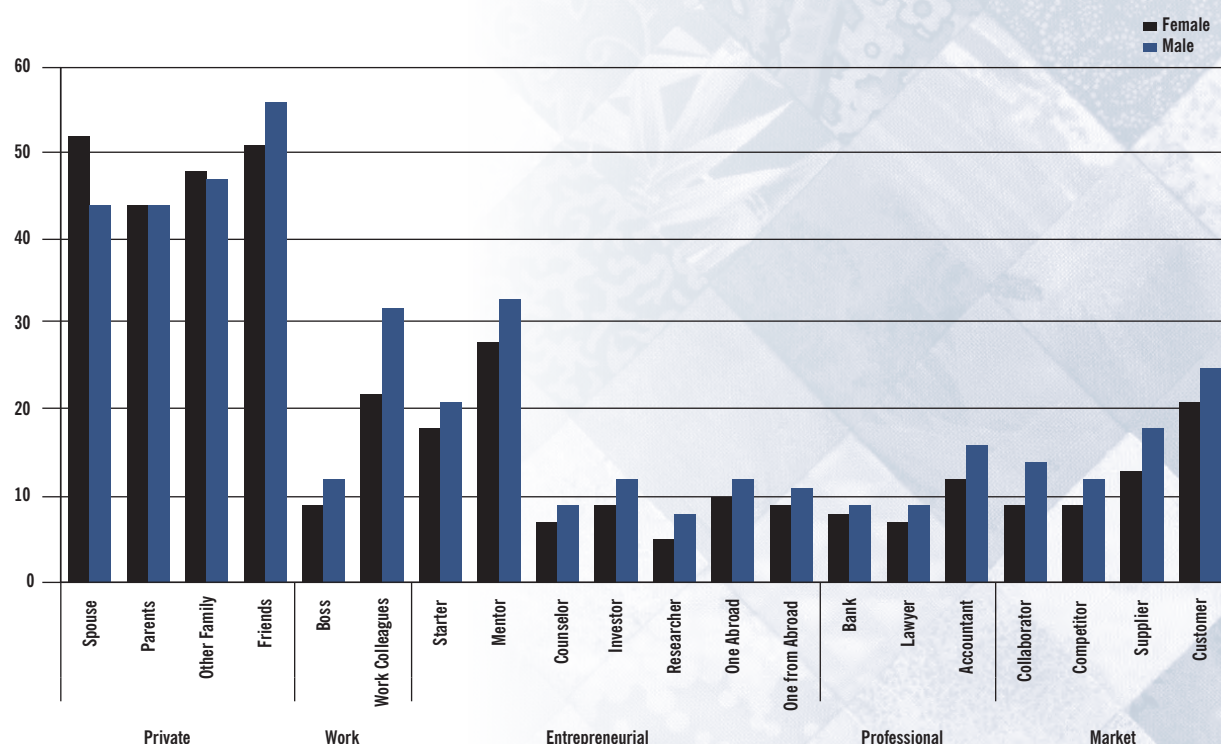
Networks play a multifaceted role for women entrepreneurs and business owners, helping them to gain advice, form partnerships, secure financing, access qualified management and employees, and build value chain relationships. To examine these networks, the GEM survey asked prospective, nascent and new entrepreneurs, as well as established business owners, in 37 GEM economies⁹ whether they received advice from people in their personal, work, entrepreneurial, professional and market environments.

The analysis showed that, in many economies, women entrepreneurs and business owners tended to have smaller networks than their male counterparts.

Further, only in Israel did women exhibit more diverse networks than men; women in other economies reported the same or lower network diversity.

As Figure 10 shows, both women and men entrepreneurs and business owners tended to seek advice most often from those with whom they had personal relationships—their private environment. Women were more inclined to seek guidance from family, and spouses in particular. On the other hand, men tended to draw more heavily on the advice of friends. Men were also more likely to use other network sources, such as their work environment or professional advisors.

Figure 10—Sources of Advice for Female and Male Entrepreneurs and Business Owners in 37 Economies, 2009-2010



Overall, the men and women entrepreneurs who had larger and more diverse networks, and those who emphasized non-private advisors (business, professional, etc.), also tended to report greater levels of innovation, internationalization and growth-expectations. Yet compared to men, women may be at

a disadvantage because their networks were overall smaller and less diverse, and they emphasized private sources of advice—conditions that were associated with lower innovation, internationalization and growth expectations.

⁸ Contributed by Thomas Schøtt, GEM Denmark. For more information, see: Schott, Thomas. 2011. "Training and Network Organization in Entrepreneurship in Denmark 2010: Studied via Global Entrepreneurship Monitor." (Kolding: University of Southern Denmark). Available at: http://www.gemconsortium.org/region_new.aspx?region=14.

⁹ The 37 economies studied were: Algeria, Angola, Bolivia, Bosnia and Herzegovina, Brazil, China, Colombia, Croatia, Denmark, Ecuador, Egypt, Greece, Guatemala, Hungary, Iran, Ireland, Israel, Jordan, Republic of Korea, Latvia, Lebanon, Morocco, Pakistan, Palestine, Peru, Portugal, Romania, Saudi Arabia, Sweden, Syria, Taiwan, Tonga, Trinidad and Tobago, Tunisia, United States, Uruguay and Yemen. The analysis is based on GEM 2009 and 2010 data.

ESTABLISHED BUSINESS RATES

Just as consistently fewer women are entrepreneurs (i.e., running nascent and new businesses), so fewer women than men manage established businesses. Exceptions are Guatemala and Zambia in the factor-driven economies and Romania and Russia in the efficiency-driven economies; in those economies, more than half of established business owners are women. It should be noted that these economies have only low or moderate rates of established business ownership. This suggests that, although women contribute at least equally to the mature business environment, those economies have comparatively low levels of established firm owners overall.

Figure 11 shows a comparison of established business ownership rates for men and women. It also includes a comparison of TEA and established business owners for both sexes. In each of the factor-driven economies, more women are starting and running new businesses than running established ones. Most of the efficiency-driven economies also have more women entrepreneurs than established business owners. (Only four economies have more women established business owners, and the difference is slight.) In the innovation-driven group, more than half the economies show more women established business owners than entrepreneurs. Men show similar patterns across the economies.



Anagha Kulkarni, *Nirmala Pet A Pack Pvt Ltd.*

The 10,000 Women program operates through a network of more than 75 academic and nonprofit institutions.

These partnerships help develop locally relevant coursework and improve the quality and capacity of business education worldwide.

GOLDMAN SACHS 10,000 WOMEN INITIATIVE

By Noa Meyer

Goldman Sachs Corporation

10,000 Women is a five-year investment to provide underserved female entrepreneurs around the world with a business and management education. Research conducted by Goldman Sachs and the World Bank over several years has shown that investing in education for women has a significant multiplier effect, leading to more productive workers, healthier and better-educated families, and ultimately to more prosperous communities.

The 10,000 Women program operates through a network of more than 75 academic and nonprofit institutions. These partnerships help develop locally relevant coursework and improve the quality and capacity of business education worldwide. The women selected for the program enroll in customized certificate programs ranging from five weeks to six months. Topics covered include marketing, accounting, writing business plans and accessing capital. Students are offered mentoring and post-graduate support by partner institutions, local businesses and the people of Goldman Sachs. Funding for 10,000 Women is provided by Goldman Sachs and The Goldman Sachs Foundation.

For more information on the Goldman Sachs 10,000 Women project, go to: <http://www2.goldmansachs.com/citizenship/10000women/index.html>.

The Role of Networks in Women’s Entrepreneurship and Business Ownership

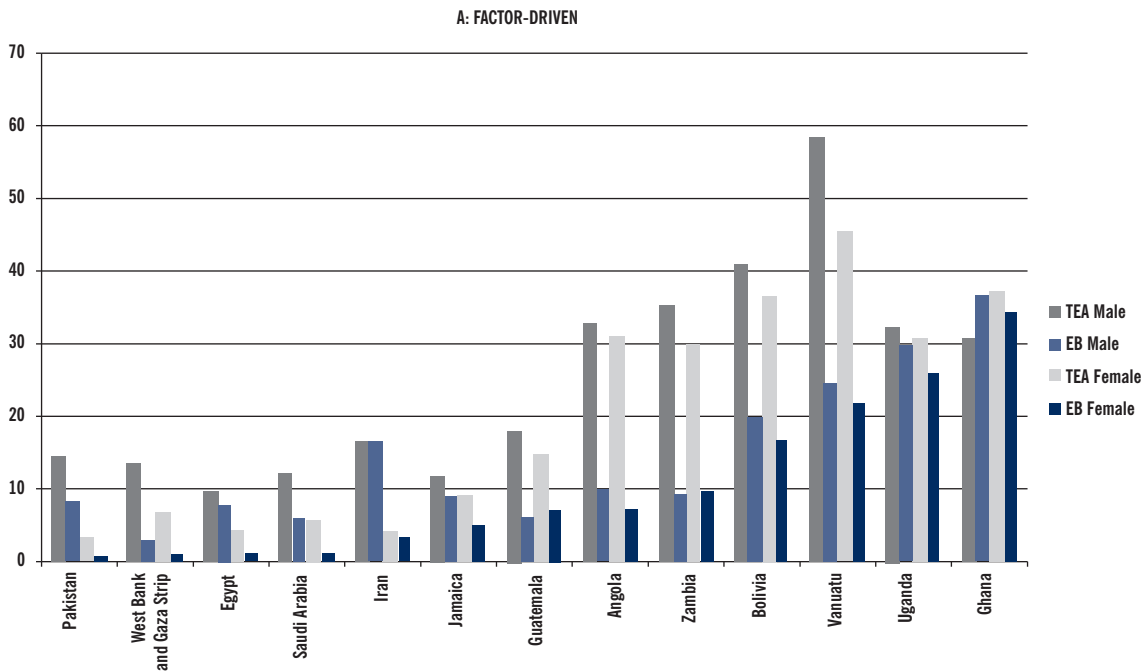
In comparing men and women across economic development levels, it is interesting to note that the ratio of entrepreneurs to established business owners is much higher for women than for men, specifically in the factor-driven economies. At that stage of economic development, the ratio of entrepreneurs to established business owners for males is a little more than 2:1, while it is 3:1 for females. This suggests that, even though there are fewer female than male entrepreneurs in early development stage economies, even fewer run mature businesses. This gap declines with higher levels of economic development.

In the factor-driven group, the MENA countries reported the lowest rate of established women-owned businesses. In Pakistan, for example, the ratio of female-to-male established business owners is 1:10. On the other hand, the Sub-Saharan African economies generally have higher established business rates for women. At the same time, in all factor-driven economies except Uganda and Ghana, the rate of established business owners is not nearly as high as the TEA rate for women; in those economies, the two were fairly close.

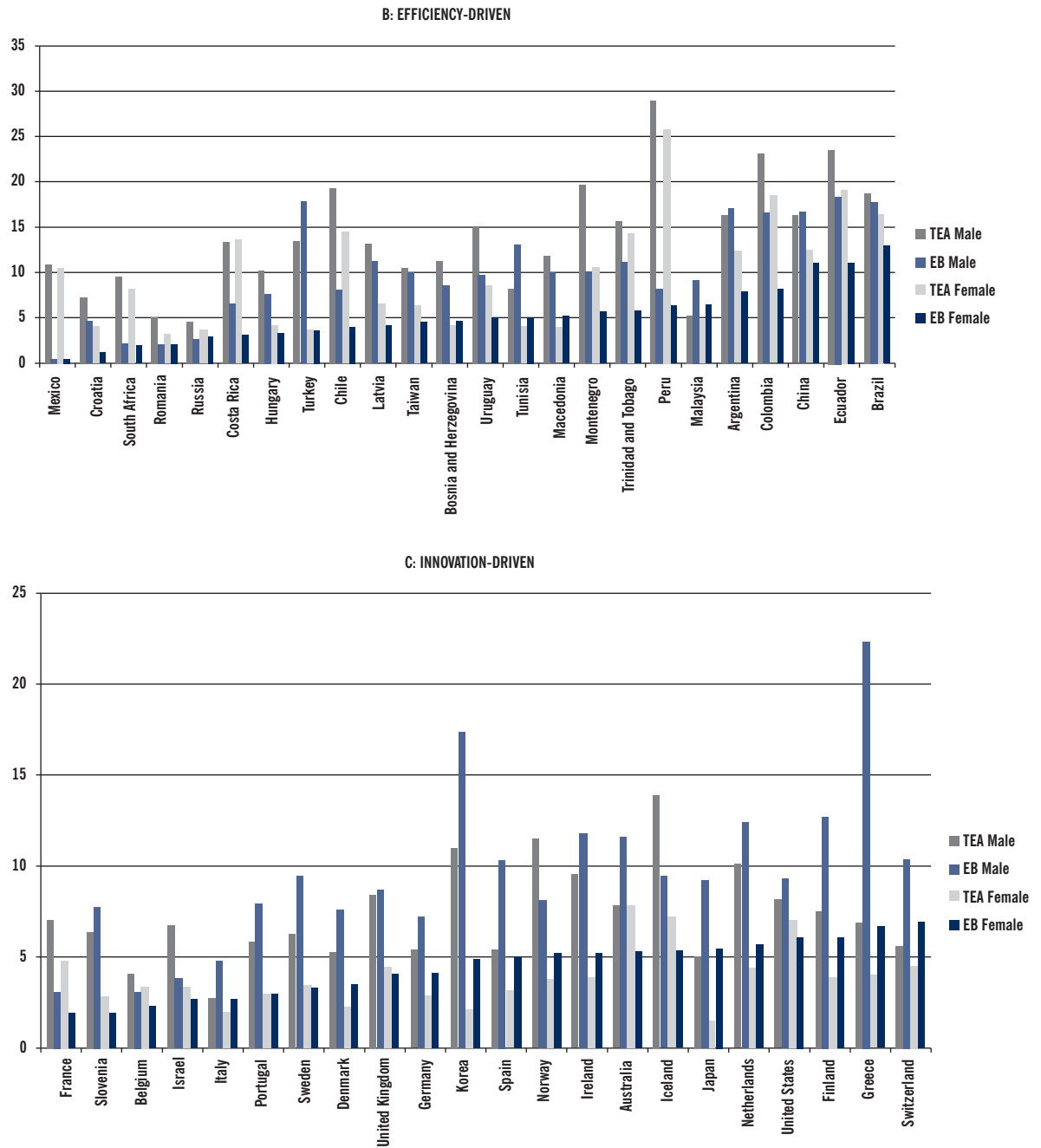
For the efficiency-driven economies, South Africa and several Latin American/Caribbean economies (Costa Rica, Chile, Peru) had relatively more women entrepreneurs than established business owners. This tendency was even more apparent in Mexico, which had a moderate TEA rate, but a negligible mature firm ownership rate. Turkey showed the greatest difference in gender for established business ownership, with a rate of one woman to five men owning mature firms.

In the innovation-driven group, France, which reported a jump in overall TEA rates in 2010, had a much higher entrepreneurship rate among women—two and a half times the rate of female established business owners. Conversely, Japan had more than three and a half times as many established women business owners as women entrepreneurs. Slovenia exhibited the largest gender gap in the innovation group; it had about one female for every four male established business owners.

Figure 11–Female and Male Entrepreneurship and Established Business Ownership Rates in 59 Economies, Ranked within Economic Group by Female Established Business Ownership Rates, 2010



The Role of Networks in Women's Entrepreneurship and Business Ownership



DISCONTINUED BUSINESS

While women are slightly less likely to discontinue their businesses compared to men, they are also less likely to start and run businesses. It would therefore make sense that if fewer women started and ran businesses in an economy, fewer women would then close businesses. For this reason, GEM analyzed the ratio of discontinuance to total business ownership (nascent, new and established). This ratio is shown in Figure 12.

For women, the average ratio of discontinuance to total business ownership was highest in the factor-driven economies. This ratio decreased in the efficiency-driven group, and then declined again in the innovation-driven group. A high ratio means that more individuals stopped businesses (the numerator) relative to the base of individuals starting and running businesses (the denominator). Because the factor-driven group has more entrepreneurs and business owners on average, one would expect more businesses overall to be closed. But the evidence shows that women in these less-developed economies

are closing businesses at a proportionately higher rate than in the developed ones.

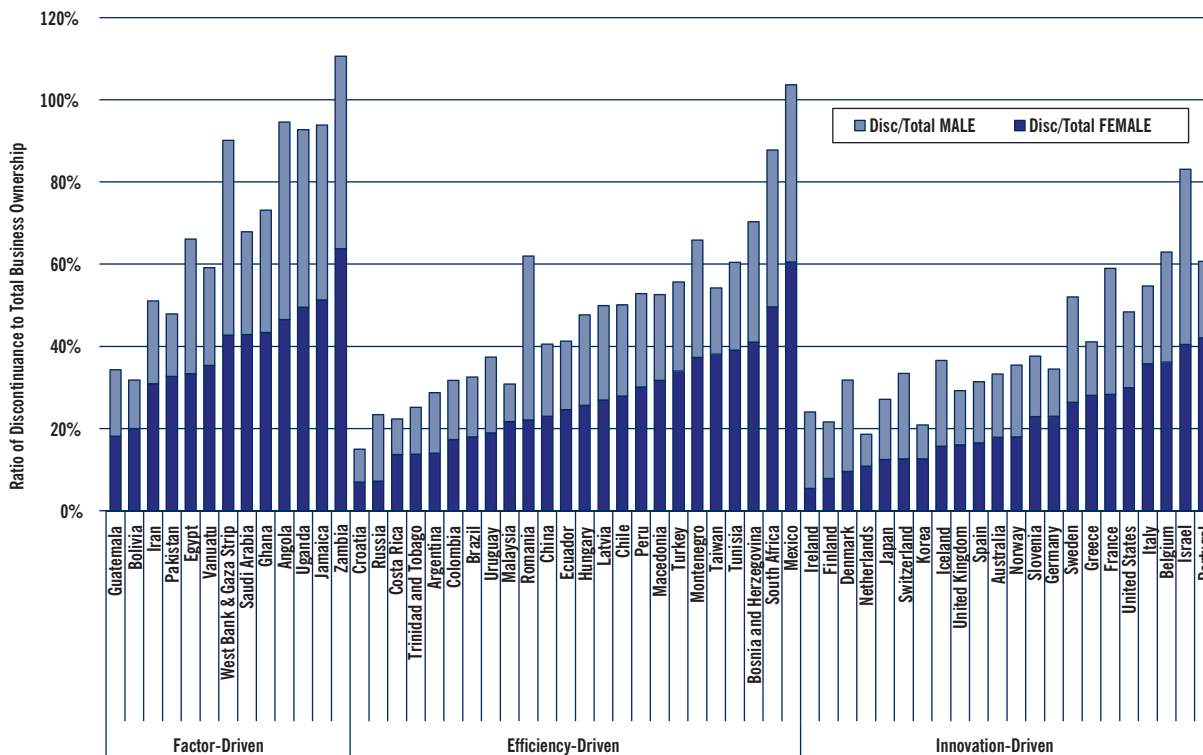
In the factor-driven economies, men are slightly less likely to discontinue businesses relative to their startup and ownership rates. For example, Zambia has a high number of women entrepreneurs and business owners, as well as high rates of discontinuance for this sex; this ratio is much lower for men in this country. Conversely, Bolivia also has a high total business ownership rate but revealed a low discontinuance ratio for women. However, this ratio is even lower for Bolivian men—in fact, it is the lowest in the factor-driven economies. Therefore, it appears that women show a greater ratio of exits than men at the factor-driven stage. This gender gap gradually disappears with greater levels of economic development.

Women in Croatia and Russia, which are in the efficiency-driven group, have low rates of

discontinuance relative to other economies at this stage of development. These two countries also have low total business ownership rates, suggesting that there is not a lot of business activity here, in either starts or closures, especially for women. For Russia, the relative rate of discontinuance for men is much higher, more than twice that for females. Taiwan shows the opposite effect: women have a high relative incidence of exits that is well more than twice that of men.

In the innovation-driven group, women in Ireland are much less likely to discontinue businesses compared with their entrepreneurship and business ownership rates. In this country, men are almost four times as likely to discontinue relative to business starts and ownership. Portugal showed the opposite effect; women have a high discontinuance rate relative to starting and owning businesses, almost twice the ratio of men.

Figure 12—Ratio of Discontinuance to Total Business Ownership (Nascent, New, Established) for Women and Men in 59 Economies, Ranked within Economic Group by Female Ratio, 2010



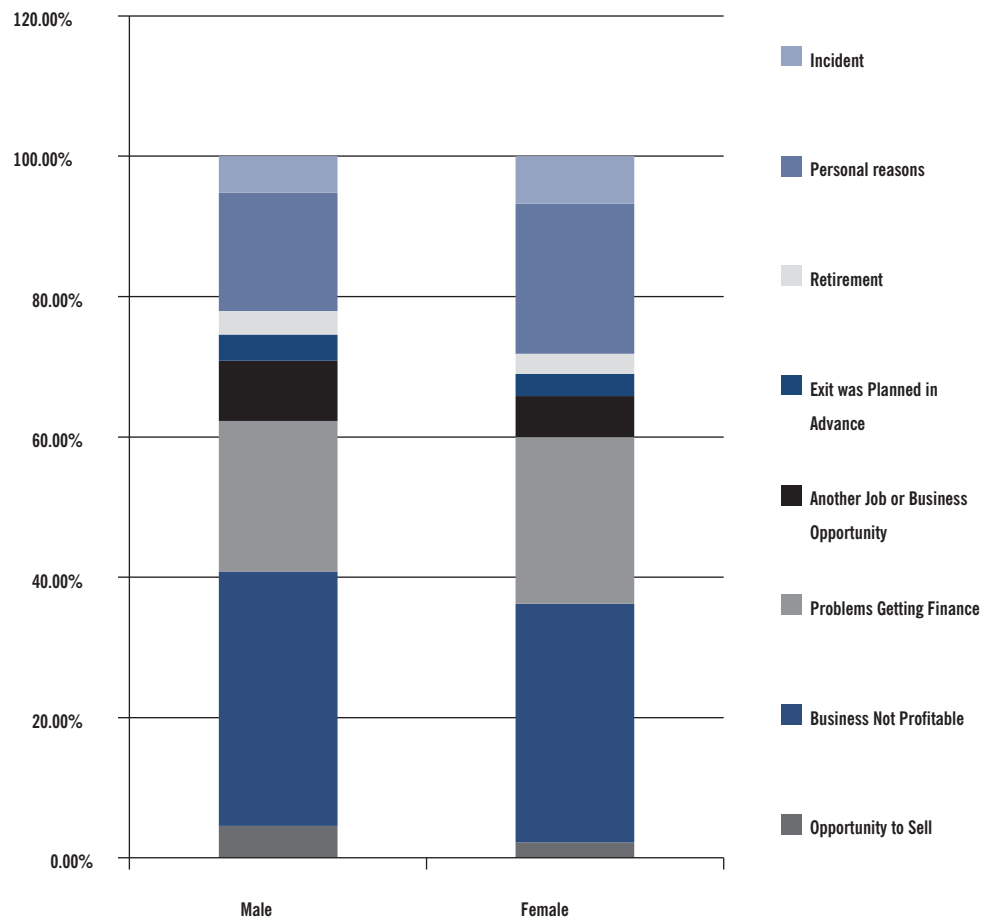
The Role of Networks in Women’s Entrepreneurship and Business Ownership

People discontinue their businesses for a variety of personal or business reasons. Business reasons include unprofitability, inability to acquire financing, costs associated with hiring employees, stiff competition, a merger or a business transformation. Personal reasons include retirement, family reasons, selling the business, getting another job or following other pursuits. It is important to recognize that business discontinuance can occur for either positive or negative reasons. A dynamic entrepreneurial economy, in fact, contains both businesses that open and those that close. Businesses may shut down and the entrepreneurs may restart with a

reconfigured market, business model, product or team. “Discontinuance” does not therefore always equate to “failure.”

Figure 13 shows a comparison by sex of the reasons for discontinuing a business. A few interesting contrasts are evident. Women are less likely than men to exit because their businesses are not profitable, but they are slightly more likely to exit because they cannot get financing. In addition, women are less likely than men to exit because of another job or business opportunity, but more likely to exit for personal reasons.

Figure 13—Reasons for Discontinuing Businesses by Gender, 2010



GROWTH EXPECTATIONS

The GEM survey asks individuals how many employees they have at the time of the survey and how many they expect to employ in five years. The difference represents growth expectations. We recognize that expectations about the number of employees one expects to employ in five years may not match exactly how many one actually does employ at that future point in time. Therefore, this measure is not entirely a measure of growth potential, but one of expectations or intentions, which over time can be influenced by a variety of factors.

Figure 14 displays the number of entrepreneurs in 54 economies that expect to employ an additional five or more (5+) employees and those that expect to add twenty or more (20+) over the next five years. Very few entrepreneurs expected to grow their businesses, particularly at the 20+ level. Because of these small percentages, we combined three years of data (2008 to 2010), and we included only those economies that participated in GEM over that period, leaving us 54 economies that had sufficient data for this analysis.

For women who expect to add more than five employees, the highest level of growth expectations exists in the efficiency-driven economies. For those who expect to employ an additional twenty or more employees, a larger proportion of high growth women entrepreneurs were observed in some economies with low entrepreneurship rates. This is apparent in Saudi Arabia and Iran in the factor-driven group, as well

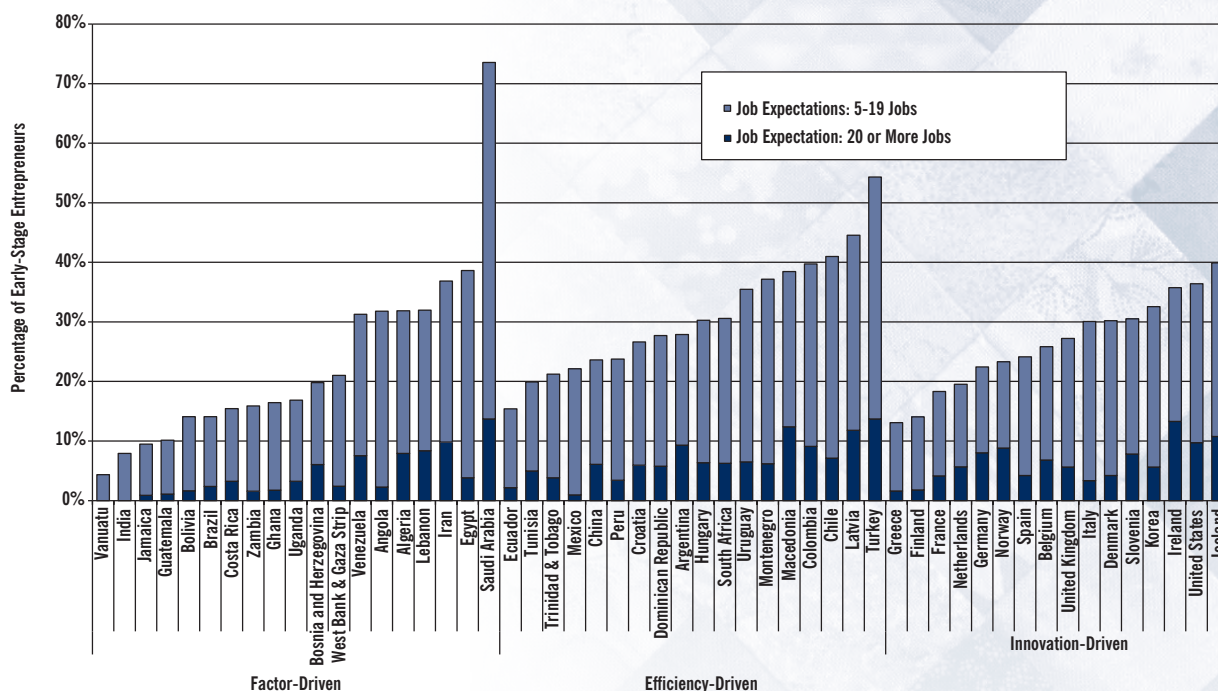
as in three Eastern European economies—Turkey, Latvia, and Macedonia—in the efficiency-driven group. Those economies have few entrepreneurs overall and even fewer women entrepreneurs. But the women that started businesses are likely to have high expectations for growth.

Growth expectations for women entrepreneurs tend to be lower than for men at all three economic development levels. In the innovation-driven economies, twice as many men as women have growth expectations of 20+ employees. Israel has one of the highest levels of male growth expectations at the 20+ level, but women in Israel are only one-third as likely to have these same expectations.

On the other hand, Iceland had the highest percentage of women's growth expectations at the 20+ level in the innovation-driven group; yet men were well over one-third more likely to have these ambitions. Additionally, Iceland reported the highest overall TEA rate, yet women participated in entrepreneurship at little more than half the rate of men. The United States appears to be an exception; it has a high level of growth-oriented women entrepreneurs and both high TEA rates and high participation by women in entrepreneurship overall.

A similar observation can be made in China and South Africa. China had more than three times as many males as females with 20+ growth expectations. South Africa had over two and a half times as many males as females with this level of growth projections.

Figure 14– Job Growth Expectations for Women Early-Stage Entrepreneurs in 54 Economies, 2008 to 2010



A multi-year analysis of 5+ growth aspirations for men and women in 18 economies¹⁰ shows that women had consistently lower growth aspirations than men over time. In the efficiency-driven economies, this gap widened with time in South Africa and Chile, and in Argentina and Brazil to a lesser extent. Hungary, on the other hand, showed a narrowing of this gap during the period.

In the innovation-driven economies, the gender gap narrowed over time in every economy except Spain and Greece, where it widened slightly. In Italy, women held their ground while growth ambitions in men dropped below that of women. In the United States, women's growth ambitions increased, while men stayed relatively the same.

INNOVATION

GEM's approach to innovation focuses on the extent to which entrepreneurs offer products that are new to some or all customers. GEM also explores the level of industry newness by asking whether there are few or no other businesses offering the same product. It is important to acknowledge that these questions are answered within the context of very diverse economies.

Figure 15 shows the percentage of entrepreneurs that are (1) both offering products that are new for some or all customers, and (2) have products with either of these aspects. The first can be considered the stronger measure of innovation because both conditions are present. This measure, on average, increases with economic development level: lowest at the factor-driven stage and highest at the innovation-driven stage.

A comparison between sexes shows that overall, women are about as likely to have innovative products or services as men, particularly in the innovation-driven economies. There is a slight negative difference for the efficiency-driven entrepreneurs, particularly with the weaker measure. In other words, fewer women entrepreneurs have products that are either new to customers or for which few or no businesses offer the same product. In contrast, more women than men entrepreneurs in the factor-driven group meet this measure of innovation, even though more men meet the strong measure of innovation (both customer newness and few/no competitors).

Interestingly, there are no discernible patterns between innovation levels and entrepreneurial

activity. Some of the factor-driven economies with the highest proportions of innovative women entrepreneurs, like Saudi Arabia and West Bank and Gaza, report low TEA rates and low female participation in entrepreneurship. On the other hand, Chile and Peru, in the efficiency-driven group, also report many women with innovative businesses, yet these economies have high TEA rates and high proportions of women entrepreneurs. For the innovation-driven economies, Norway, Denmark and Iceland report a high percentage of innovative women entrepreneurs. Norway and Iceland report high levels of TEA, but low proportions of women entrepreneurs relative to men. Denmark is low on both of these other measures.

The innovation-driven group shows at least one noteworthy result in a comparison by sex. While the economies in the efficiency group with the highest levels of innovative women entrepreneurs also have the highest levels of innovative men entrepreneurs, Norway and Ireland present an anomaly in the innovation-driven group. Norway reports the highest proportion of innovative female entrepreneurs in the group, but only an average level of male innovative entrepreneurs. Conversely, Ireland exhibits the opposite condition: high levels of innovation for males and just above average for females. Both of these economies have relatively high TEA but lower women participation in entrepreneurship.

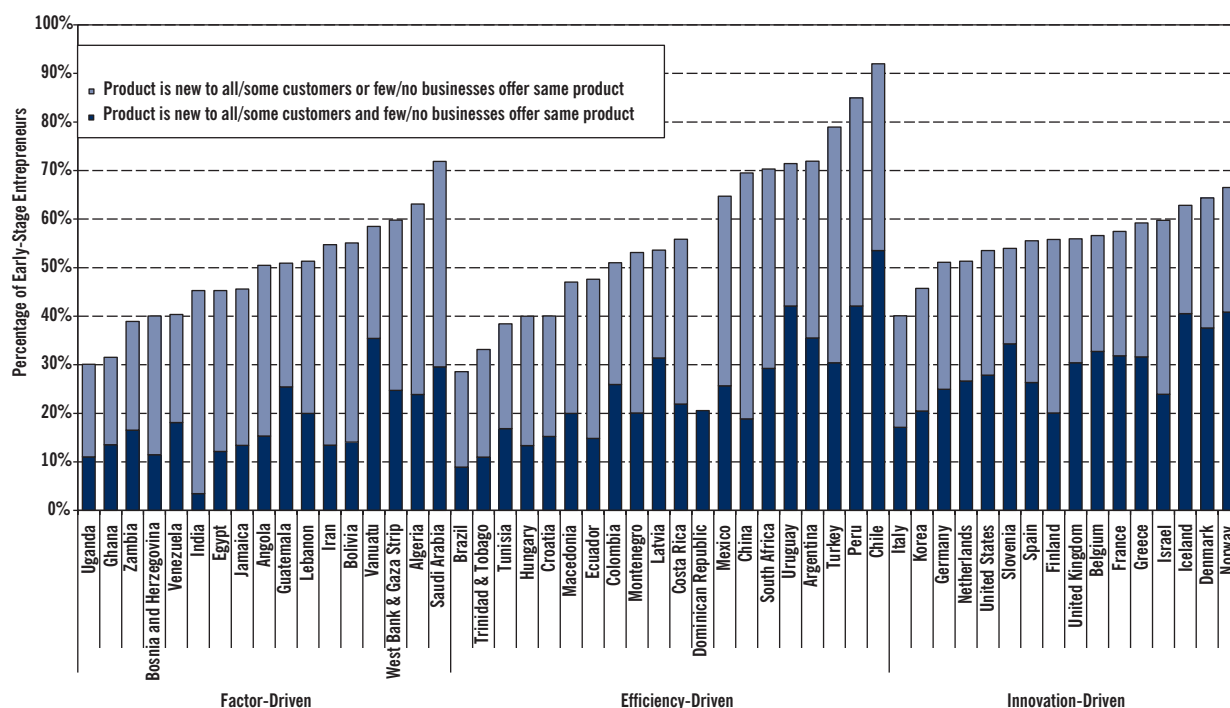
INTERNATIONALIZATION

Entrepreneurs seek international markets for a variety of reasons. They may have products or services that are more suitable for international markets. Their internal markets may be too small or immature. They may face intense local competition that motivates them to pursue customers outside their borders. Alternatively, internationalization may be motivated by a desire to more broadly leverage substantial investments in their businesses. Geographic factors, like country size or location, as well as connections with strategic partners in new locales, can also affect their cross-border activities.

In assessing internationalization, GEM asks entrepreneurs what percentage of their customers come from outside their economy. Figure 16 shows results for women entrepreneurs with at least some international customers and for those with more than 25% international customers. Overall, for women, the degree of internationalization increases with economic development level. Less than one quarter of the factor-

¹⁰ These 18 economies were selected for this study because they have been involved in the GEM survey since 2002 and could therefore provide sufficient data for the longitudinal analysis. Included in this analysis were 6 efficiency-driven economies (Argentina, Brazil, Chile, China, Hungary, South Africa) and 12 innovation-driven economies (Belgium, Denmark, Germany, Greece, Iceland, Ireland, Italy, Netherlands, Norway, Spain, United Kingdom, United States).

Figure 15– Level of Innovativeness for Women Entrepreneurs in 59 Economies, 2008 to 2010



driven women entrepreneurs on average have at least some international customers, while this average is over half in the innovation-driven economies. Men at all development levels are more likely than women to sell internationally.

In the factor-driven group, Lebanon stands out for having a very high number of women entrepreneurs who sell internationally. This country had a relatively moderate TEA rate and about one woman for every two men entrepreneurs. Interestingly, Lebanese women entrepreneurs are proportionately more likely to internationalize than men. In other MENA countries, like Saudi Arabia and Egypt, women showed moderate levels of internationalization but were substantially outpaced by men in these efforts.

Lebanon is a relatively small country, especially compared with Brazil and China, which have large and growing internal markets and, perhaps consequently, a low level of internationalization for women. In the efficiency-driven group, the highest levels of internationalization can be found in South

Africa and several Eastern European economies. Eastern Europe's high levels of internationalization may be affected by a history of trade and movement of people across the region, along with some countries' historical experience as part of other nation-states. In South Africa, women entrepreneurs additionally show higher internationalization levels than men.

Iceland and the United States were among the most highly internationalized innovation-driven economies. Iceland's population of little more than 300,000 people, its island geography and the high-growth expectations of its entrepreneurs may explain its international reach. The United States also contains many high-growth entrepreneurs, but it has a large and diverse population. High internal competition may account for the number of entrepreneurs seeking markets outside the U.S. border. Gender differences could be seen in Israel, where male entrepreneurs are far more likely to internationalize than females. The opposite is the case in Greece and Italy, where women are more likely to venture to markets outside their national borders.



Patricia Paz Silva, Moura & Paz Reciclagem

The overall winner receives recognition at the national event and travels internationally to receive global exposure.

AWARDING WOMEN'S BUSINESSES IN BRAZIL

By Romeu Friedlaender Jr.

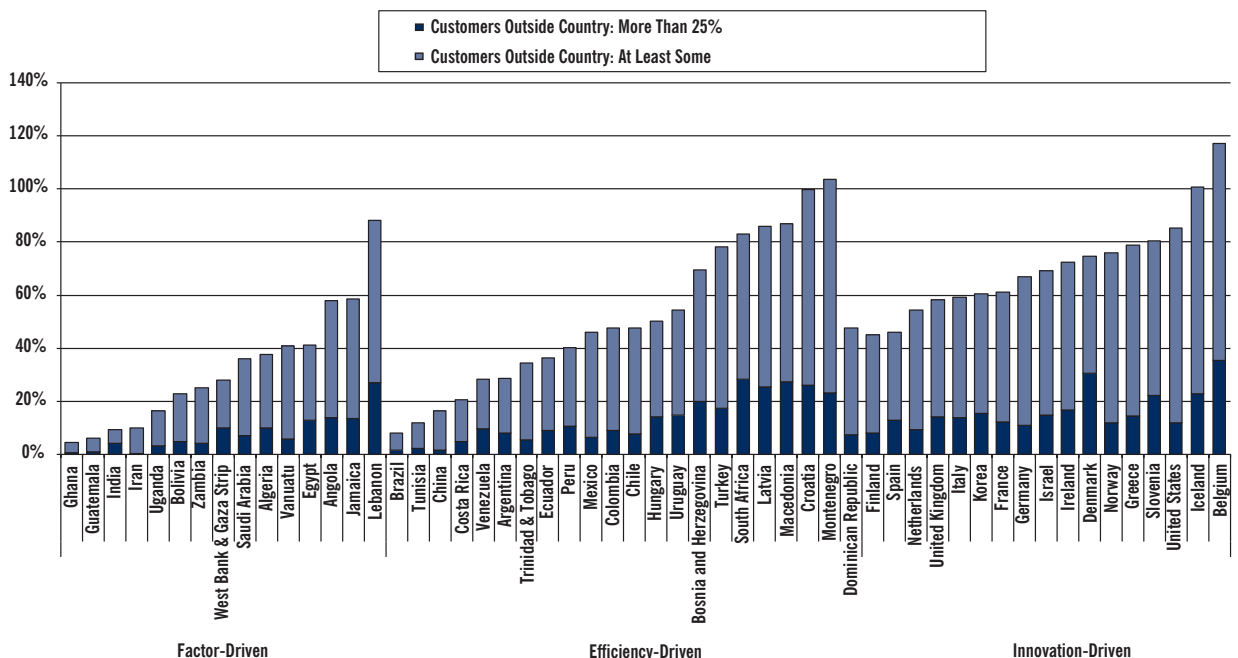
GEM Brazil

The Sebrae Business Women's Award was initiated in Brazil to identify and reward the accomplishments of women entrepreneurs. Participation is open to all woman entrepreneurs in Brazil. Two winners are selected in each of Brazil's 27 states. These winners receive awards, publicity, advice, and training. They then progress to the regional level. The overall winner receives recognition at the national event and travels internationally to receive global exposure.

Sebrae, a non-profit organization that supports small and micro enterprises, partnered with several non-profit organizations and government officials to launch this program in 2004. In 2006 there were 1,700 women participating, growing to more than 3,000 in 2009. To showcase examples of women entrepreneurs in Brazil, and to inspire other women around the country, the sponsoring organizations produce videos of participants, posting these on their websites and distributing them on YouTube.

For more information, go to:
<http://www.mulherdenegocios.sebrae.com.br/>.

Figure 16– Internationalization Levels for Female Entrepreneurs in 59 Economies, 2008 to 2010



Impact of the Global Economic Slowdown on Women Entrepreneurs

The GEM 2010 survey was conducted during the months of June and July, at a time when the world was still struggling to emerge from the 2008 recession and when the future economic stability of many nations was still in question. The prolonged effect of the recession could be seen in the continued negative or sluggish GDP growth in the developed world, while

new growth was apparent in developing countries, particularly in Asia and Africa. By the summer of 2010, the slowdown had eased in some economies, while other economies experienced continued volatility or remained stuck in a morass of high unemployment, weak consumer spending and out-of-control debt loads.



Sanaa Hyder, ZH Collection Bags

The Diana Project has expanded into Diana International which is focused more broadly on scholarship regarding all types and forms of women's entrepreneurship and growth.

Diana International serves as a convener for researchers interested in this topic, holding bi-annual conferences in locations around the world.

THE DIANA PROJECT

By Candida Brush and Patricia Greene

Babson College

The Diana Project (http://www.linkedin.com/groups?gid=3382502&trk=hb_side_g) is a research collaborative focused upon the study of female business owners and their business growth activities. The original purpose of the Diana Project was to investigate the apparent disconnect between the high growth potential of women-owned businesses and the resources needed, particularly equity funding, to finance this growth. There were two primary objectives: (1) to raise the awareness and expectations of women business owners around pursuing growth for their firms, and to educate these women about the characteristics of equity-funded businesses and how the equity funding process works; (2) to increase recognition among equity capital providers about the advantages of investing in women-owned businesses.

The Diana Project has expanded into Diana International which is focused more broadly on scholarship regarding all types and forms of women's entrepreneurship and growth. Diana International serves as a convener for researchers interested in this topic, holding bi-annual conferences in locations around the world. Diana International highlights high-growth, women-led ventures around the world. Currently, more than 250 researchers from 37 countries and more than 45 universities are involved in this consortium. Diana International has produced 7 International Conferences, 3 books, and 7 special issues of academic journals. This research is used as an impetus and foundation for the implementation of policy, training, and resources that help advance the state of practice of women entrepreneurs. The next conference of the Diana Project will be held on January 31 – Feb. 3 in Fremantle, Western Australia. www.aceredianaconference.com.au

For more information on the Diana Project, go to: <http://www.dianaproject.org/>.

EASE OF STARTING A BUSINESS

Table 4 shows the percentage of men and women entrepreneurs who believed it was more difficult to start a business at the time of the survey. As this table shows, women in efficiency-driven economies were most pessimistic about starting businesses. Women entrepreneurs in innovation-driven economies were the least pessimistic, despite the fact that the economic slowdown had its roots in the developed world. Many efficiency-driven economies that rely on exports to wealthier economies may have felt the effect of the downturn as spending contracted in these markets. By comparison, entrepreneurs in the factor-driven economies may have been less affected due to their reliance on local markets, which could create some immunity to the financial crisis in the rest of the world.

At the same time, developed economies rank higher on the ease of starting businesses, as shown in the World Bank Index.¹¹ The challenges that accompany

starting a business in the efficiency and factor-driven economies may thus weigh heavily regardless of the effect of economic conditions. In examining the results from 2009 and 2010, it appears that the slowdown had less effect on the factor-driven economies. For women, however, impressions about starting a business improved little in these economies. Perceptions about the ease of starting a business improved slightly for women in the efficiency-driven economies and substantially in the innovation-driven ones. While there was a somewhat similar level of pessimism across all three groups in 2009, the gap between the innovation-driven economies and the other two widened substantially in 2010 for both men and women.

These results suggest that an easing—or anticipation of an easing—of the global economic slowdown may have improved perceptions in some wealthier economies, with some spillover effect for efficiency-driven ones. The change for men in efficiency-driven economies was greater than for women, however; men entrepreneurs were more optimistic than women in 2010.

Table 4—Percentage of Early-Stage Female and Male Entrepreneurs Who Find Starting Businesses More Difficult in 38 Economies, 2009 and 2010

	2009 MALE	2010 MALE	2009 FEMALE	2010 FEMALE
AVERAGE: Factor-Driven	60.5%	57.2%	60.5%	58.5%
AVERAGE: Efficiency-Driven	63.9%	48.4%	63.2%	57.7%
AVERAGE: Innovation-Driven	56.0%	45.9%	58.7%	44.2%

CHANGE IN GROWTH EXPECTATIONS

While the economic slowdown may have affected perceptions among entrepreneurs, it could also affect those with established businesses. Table 5 shows the percentage of men and women business owners who reported lowered growth expectations at the time of the 2009 and 2010 surveys. In both years, women business owners in factor-driven economies reported the highest level of diminished growth expectations. Hence, women were more pessimistic than men, particularly in 2009.

The oval shapes in Table 5 show the change in these percentages from 2009 to 2010; they all show that fewer men and women business owners had diminished growth expectations in 2010. While established women business owners in the innovation-driven economies were the least pessimistic (or the most optimistic) in 2009, the efficiency-driven group seemed to experience a jump in optimism during the 2010 survey to show a nearly identical level of growth expectations as women in the innovation-driven group. The shift was more dramatic among efficiency-driven men business owners, where they went from the most pessimistic to the most optimistic group.

Table 5—Percentage of Established Female and Male Business Owners with Lower Growth Expectations in 38 Economies, 2009 and 2010

	2009 MALE	2010 MALE	2009 FEMALE	2010 FEMALE
AVERAGE: Factor-Driven	48.6%	47.2%	55.2%	48.4%
	1.4% ↓		6.8% ↓	
AVERAGE: Efficiency-Driven	54.5%	38.9%	53.7%	42.7%
	15.6% ↓		11% ↓	
AVERAGE: Innovation-Driven	51.7%	41.4%	47.2%	42.6%
	10.3% ↓		4.6% ↓	

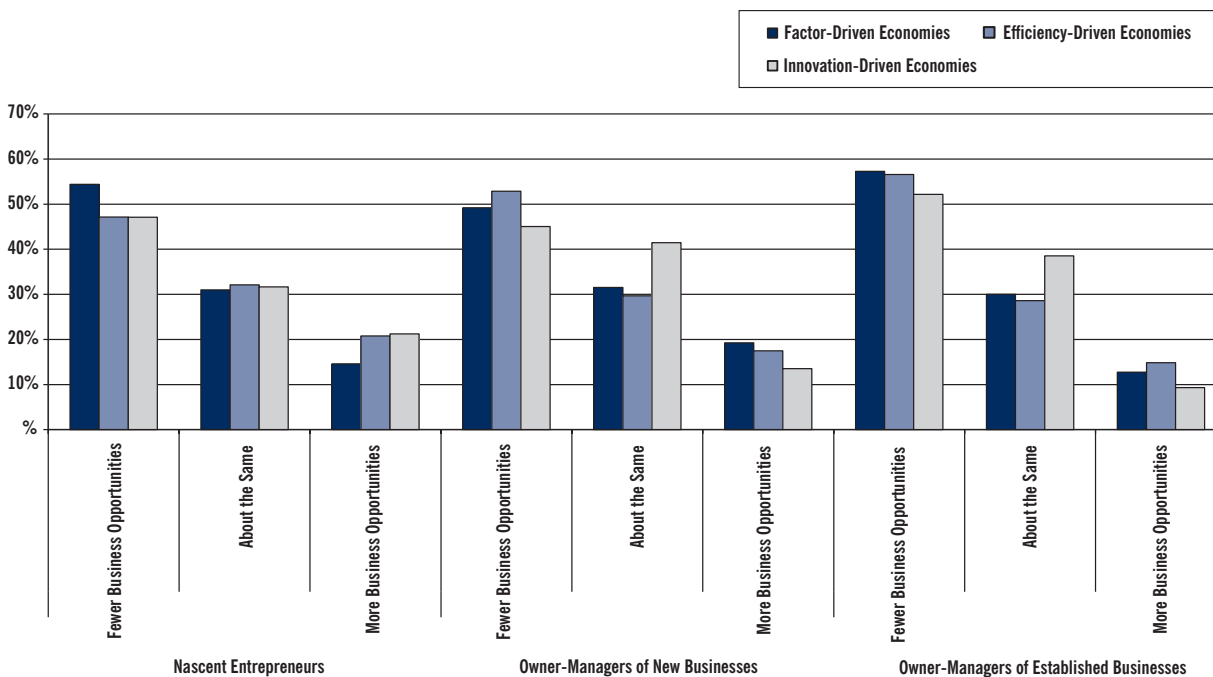
EFFECT OF THE GLOBAL ECONOMIC SLOWDOWN ON OPPORTUNITY PERCEPTIONS

As Figure 17 illustrates, more women entrepreneurs and business owners thought there were fewer business opportunities during 2010. In all three economic development groups, women established

business owners were more pessimistic than men with regard to the presence of business opportunities.

In the factor-driven group, new business owners were most optimistic, while nascent entrepreneurs were most optimistic in the efficiency and innovation-driven economies. This could point to earlier movement toward starting businesses in the efficiency and innovation-driven economies, while some challenges, perhaps more longer-term ones, remained for nascent entrepreneurs in the factor-driven group.

Figure 17— Perceptions About the Presence of Opportunities Among Female Nascent and New Entrepreneurs, and Women Business Owners in 59 Economies, 2010



This report examines key aspects of entrepreneurship among women worldwide, measuring their attitudes, activities, and aspirations in different geographies and economic development levels, and making comparisons to men on these measures. This research contributes to the emerging knowledge about women entrepreneurs around the world. The findings also provide governments with a foundation for reviewing current and prospective policies in order to enhance and highlight the vital role of women in their economies. We conclude this report by highlighting nine key findings and a discussion of policy implications.

WOMEN CONTRIBUTE SIGNIFICANTLY TO ENTREPRENEURSHIP IN ALL ECONOMIES OF THE WORLD.

In 59 economies across the globe, representing over 52% of the world's population and 84% of the world's GDP, 104 million women between 18 and 64 years old were actively engaged in starting and running new business ventures in 2010. Another 83 million were running established businesses that they started over 3 1/2 years earlier. Taken together, 187 million women were involved in creating and operating enterprises, ranging from just over 1.5% to 45.4% of the adult female population in these 59 economies. These individuals exemplify the contribution women make to entrepreneurship worldwide.

In societies where women perceive that they have the capabilities for entrepreneurship, there is a greater likelihood women will also perceive entrepreneurial opportunities.

The relationship between perceptions of capabilities and opportunity suggests that, in societies where women believe they have the capabilities for entrepreneurship, they are more likely to see opportunities for starting businesses. To the extent that this is true, it calls to attention the importance of developing women's capabilities and their confidence in their abilities.

While, compared with men, women are equally likely to see entrepreneurship as attractive, they lack positive attitudes about their own personal capabilities or inclinations for starting businesses. They also have less personal contact with entrepreneurs.

Women are nearly as likely as men to perceive entrepreneurship as a good career choice and to believe that entrepreneurs have high status and receive media attention, but they score lower than men on nearly every other attitude measure.

In addition, women are less likely to know an entrepreneur. The latter suggests that, although entrepreneurs have equal visibility and respect among both sexes, women are less likely to have personal role models and affiliations with them, along with less positive attitudes about their own capabilities, opportunity perception, and fear of failure.

Women, overall, are less likely to venture into entrepreneurship than men, and this happens with greater magnitude in particular economies.

Women's participation in entrepreneurship is lower than that of men, as low as less than one-sixth of all entrepreneurs (in the Republic of Korea). It is only in Ghana that women represent more half of entrepreneurs. A multi-year analysis of 18 economies from 2002 to 2010 suggests that this has long been the case. While the reasons for these variations are not clear, it is likely that the true potential and contributions of women to all economies may not be fully realized.

Women entrepreneurs in less-developed economies are more likely than men to be motivated by necessity, but the gap may be starting to close.

The results show that the proportion of necessity-motivated entrepreneurs tends to be highest in early development-stage economies, and this motivation is even more prevalent for women. This indicates that women contribute more notably to the high levels of necessity motivations in the less developed areas of the world. However, the multi-year analysis of necessity motives in the efficiency-driven economies shows a decline in the proportion of necessity motives among women entrepreneurs from 2002 to 2010, a rate that outpaces the decline observed in men over time. Further, more women cited opportunity rather than necessity motives in 2010. This may indicate a trend away from necessity motives and more toward opportunity motives for women.

IN DEVELOPED ECONOMIES IN PARTICULAR, NECESSITY-BASED ENTREPRENEURSHIP MAY FILL IN EMPLOYMENT GAPS DURING ECONOMIC DOWNTURNS.

The multi-year analysis of necessity-motivation in women entrepreneurs showed that this motive stayed the same or increased in the innovation-driven economies. A similar pattern was reported for men. Given that these patterns coincided with the global economic downturn, it might be reasoned

that necessity entrepreneurship may fill in gaps in employment at times of economic instability. It is possible that entrepreneurship can thus be viewed as, not only a job creator, but a job stabilizer in an economy.

The ability to start a sustainable business, or to sustain businesses that have been started, may be a key challenge for women entrepreneurs in early development-stage economies.

Overall, there are a significant number of people starting and running businesses in the factor- and efficiency-driven economies, but relative to this base, a high number of entrepreneurs are discontinuing their businesses compared to wealthier economies. In addition, there are proportionately more women entrepreneurs than established women business owners, particularly in the factor-driven economies. When there are many startups, but few mature-phase businesses, and high levels of discontinuance, this may reinforce an assumption about the lack of sustainability of entrepreneurial efforts in early development-stage economies. Given that there are more women necessity entrepreneurs in these economies, and more women with consumer businesses, it is possible that these businesses are less sustainable, or that women are less likely or able to maintain them into their mature phase. In addition, women and men cite different reasons for discontinuance, women citing personal reasons and, lack of financing. Therefore, it may thus be important to pay attention to why women are not sustaining their businesses.

The networks of women entrepreneurs and businesses owners are generally smaller and less diverse than those of their male counterparts, and they tend to draw more on their personal relationships, particularly family, over other sources.

Men's networks tended to be as large or larger than that of women, and extend beyond personal sources to encompass more people in one's work, entrepreneurial, professional, and market environment. Given that these non-private advisors were more likely associated with expansive ambitions (growth, innovation, and internationalization), this draws attention to the type and value of guidance women can receive from those they typically rely on in their networks. Academic research suggests that entrepreneurs having broad and diverse networks are more likely to have better access to the information and knowledge that is associated with high growth potential and venture performance.

Women entrepreneurs in wealthier economies tend to be older than, as equally educated as and as likely to create equally innovative products as their male peers; yet they have half the growth expectations of men.

Women entrepreneurs are older in the innovation-driven economies, and they are slightly more likely than their male counterparts to have a secondary or higher education. In addition, the level of innovation of their products is reported to be about equal. Yet twice as many men compared to women had growth expectations of 20+ employees in these wealthier economies. This research showed that women have greater fear of failure than men across all economic development levels, and the gap is greater at the innovation-driven stage. Other reasons for this disparity may include choice, whereby women are choosing to maintain smaller ventures, and low perceptions about their chances for acquiring resources, especially growth capital. Then again, they may face family and role expectation pressures to maintain smaller firms.

Policies for entrepreneurial economic development must promote the creation of environments in which women are enlightened about entrepreneurship and can envision how this can be a viable and attractive path for them. Their enthusiasm for starting and growing businesses needs to be further supported by the availability of appropriate and relevant opportunities and resources (Greene, 2008). Additionally, their efforts will be shaped by macro influences that include economic and political institutions, government philosophy, religion, culture and so forth. A unified global approach to policies that promote women's business ownership may not be entirely feasible. We offer some general guidelines, however, that may help resolve some challenges facing many women entrepreneurs today.

Promote positive societal attitudes toward entrepreneurship, and in particular, women's engagement in entrepreneurship. While societal attitudes can be deeply entrenched and often difficult to change, policymakers can begin to shape perceptions about women's capabilities and opportunities for entrepreneurship. Programs can raise awareness about entrepreneurship among women and help them build their capabilities for business ownership. Role models and mentors can set examples and provide valuable lessons for aspiring entrepreneurs. Peer networks promote the sharing of ideas, advice and mutual support among women. Professional networks can lead to financing and other benefits for these women.

Policies need to recognize the diversity of starting points, motivations, educational levels and role expectations that influence women entrepreneurs' practices and approaches. In addition, education systems need to present entrepreneurship as a viable choice for women, not only through teaching materials, cases and speakers, but also in co-curricular activities and other forms of support. Finally, since men and women differ with respect to their reasons for business discontinuance and their fear of failure, these topics need to be addressed in a way that recognizes and prepares women to manage these differences.

Assist women-run start-ups through the availability of opportunities and resources. Women need both opportunities to participate in their economies and training in identifying and evaluating

opportunities as a foundation for starting businesses. They need to be cognizant of different pathways to business ownership. This can include buying a business, franchising, family business succession and technology commercialization. Policymakers can evaluate and address ways to help women move toward entrepreneurship, but they also need to address conditions that present barriers to these efforts, such as child care benefits that are only available to women who work in large, established firms. Policies that focus on access to capital should be reviewed to ascertain the actual fit between the sources of financing and the needs of the women entrepreneurs. Innovative sources of funding for start-ups are a global need.

Support women's business growth with technical assistance and education. Educational programs need to be available not only for women business owners, but also for those participating in the support infrastructure for entrepreneurship; this includes attorneys, accountants, bankers, policymakers and so forth. Business growth policies should recognize that there are many approaches to growing a business and a variety of definitions of success. Large companies might be encouraged to offer venture financing and technical assistance and to consider strategic partnerships with women-led firms. In addition, growing—and sustaining—a business requires a different skill set than starting one; educational and technical assistance programs therefore need to adjust accordingly.

Most economic policies around the world are made by individuals who are educated primarily about the world of big business and who function in their roles to support such businesses. At the same time, most of the businesses in the world are small to medium-sized firms and the majority of the world's workforce is employed in these businesses. Therefore, blanket policies that take the perspective of large companies, or that fail to consider differences between women and men, or even among groups of women, will likely fall short in facilitating the growth of economies around the world. Policies will need to consider this diversity and its relationship to motivations, attitudes and approaches to start-up and growth. As women emerge as key participants in the entrepreneurial phenomenon, they will contribute increasingly to economic development, innovation and societal value of their communities and the world.

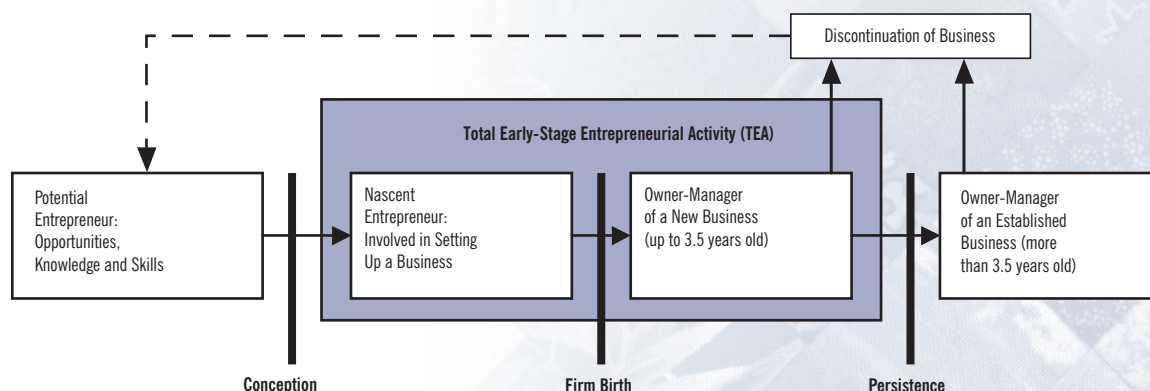
Appendix 1: Background on GEM and the GEM Model

The main guiding purpose of GEM is to measure individual involvement in venture creation. This differentiates GEM from other data sets, most of which record firm-level data. A second aim of this research is to promote entrepreneurship as a process comprising different phases, from intending to start, to just starting, to running new or established enterprises and even discontinuing them.

Figure A1 summarizes the entrepreneurship process and GEM's operational definitions.

For more information on the GEM methodology, visit the website at www.gemconsortium.org.

Figure A1– The Entrepreneurship Process and GEM Operational Definitions



Through the wealth of measures it tracks, GEM research can uncover which types of people are (and are not) participating in entrepreneurship. The research captures both those who formally register their businesses and those who run informal ones. These unregistered businesses, in fact, can compose as much as 80% of economic activity in developing countries.^{iv}

People launch businesses for a variety of reasons. They may be led into entrepreneurship out of necessity: the pursuit of self-employment when there are no better options for work. In contrast, their efforts may be powered by the pursuit of opportunity. GEM therefore assesses the motivations that individuals have for starting businesses.

GEM additionally measures aspirations. These aspirations may be evident in innovative products or services or the pursuit of customers beyond national borders. They may also include high-growth ambitions, thereby contributing more markedly to new employment in their economies.

Recognizing that entrepreneurs are driven not only by their own perceptions about starting a business, but also by the attitudes of those around them, GEM considers the attitudes that represent the climate for entrepreneurship in a society. Entrepreneurs need to have positive beliefs about the availability of opportunities around them, their ability to start

businesses and the value of doing so, and they can't allow fear of failure to deter their efforts. At the same time, they need customers who are willing to buy from them, vendors willing to supply them and families and investors ready to support their efforts. Even positive societal perceptions about entrepreneurship may indirectly stimulate this activity.

Economic Development Level and the GEM Model

As an economy develops, productivity increases and, consequently, so does per capita income. This is often accompanied by the migration of labor across different industrial sectors. For example, labor may move from agricultural and extractive sectors to manufacturing, and then eventually to services.^v In their early stages of development, economies typically have a higher proportion of necessity-driven activities. Here, the demand for jobs in high-productivity sectors outpaces supply. As a result, many people must create their own source of income.

With further development comes the growth of productive sectors. This increases employment capacity but leads to gradual declines in the level of necessity-driven entrepreneurship. At the same time, improvements in wealth and infrastructure stimulate opportunity-based businesses, shifting the nature of entrepreneurship activity. These ventures are more likely associated with greater aspirations for growth,

Appendix 1: Background on GEM and the GEM Model

innovation and internationalization. They rely, however, on the economic and financial institutions created during the developing phases. To the extent that these institutions are able to accommodate and support opportunity-seeking entrepreneurship activity, innovative entrepreneurial firms may emerge as significant drivers of economic growth and wealth creation.^{vi}

THE GEM MODEL

Figure A2 illustrates the GEM model, which shows, first, the relationship between the social, cultural and political context and three sets of framework conditions: basic requirements, efficiency enhancers, and innovation and entrepreneurship boosters. These framework conditions are modeled as affecting the attitudes of a population toward entrepreneurship, and the activity and aspirations of entrepreneurs. In turn, entrepreneurship activity, as well as the growth of established firms, influences economic growth.

As Figure A2 shows, the key imperative in factor-driven economies lies in building basic requirements such as primary education, healthcare, infrastructure and so forth. Later-stage factors like entrepreneurial finance and government entrepreneurship programs are unlikely to have substantial effects if, for instance, entrepreneurs don't have good roads to transport goods or a sufficiently educated labor force from which they can recruit employees. In other words, investments in entrepreneurship-specific framework conditions may be less effective in enabling business

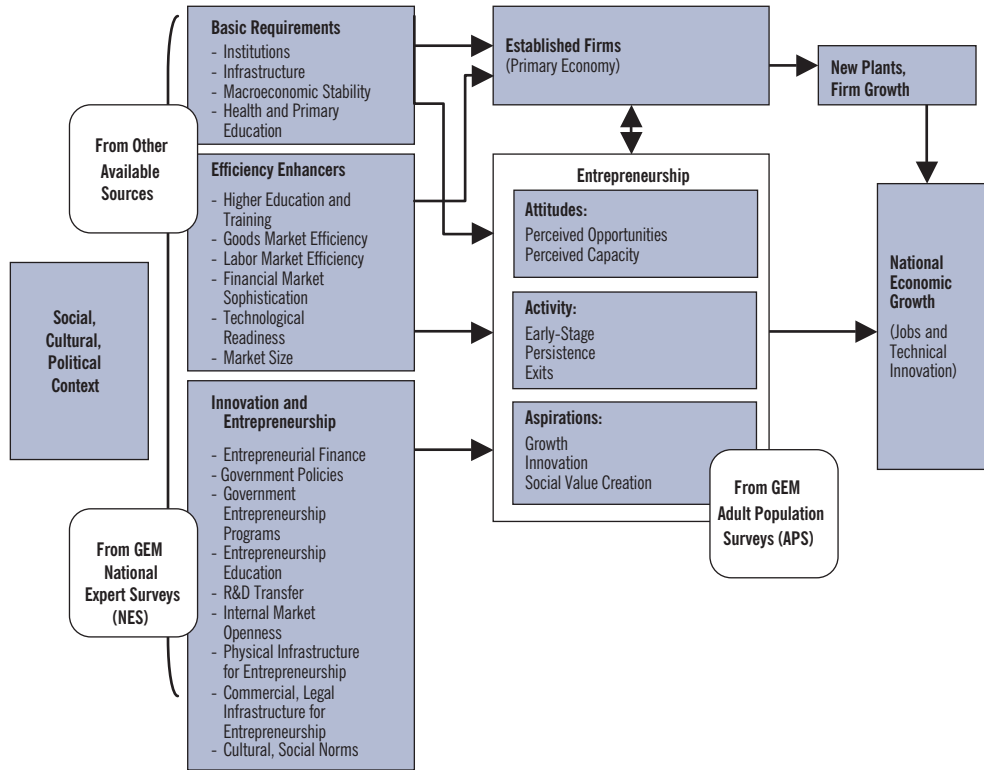
creation if they are made at the expense of basic requirements.

Entrepreneurs with high aspirations fare better in countries with stable economic and political climates and well-developed institutions. This, in fact, may account for the activities of certain groups of immigrants into wealthier economies. At the same time, economic progress begets scale economies. Large firms are more efficient from a national perspective and, for many individuals, a more attractive employment alternative to necessity-based entrepreneurship.

To replace the migration of necessity entrepreneurs toward employment in large companies, efficiency-driven economies must attract more opportunity-based entrepreneurship. The second set of framework conditions represents efficiency enhancers. These are directed toward ensuring that markets function properly. The nurturing of economies of scale can, in fact, be complemented by the emergence of growth- and technology-oriented entrepreneurs, expanding the scope of employment in a society.

Advanced economies have a relatively sophisticated foundation of basic requirements and efficiency enhancers. While these factors are essential to sustaining necessity-based entrepreneurship, they may be insufficient drivers of opportunity-based behavior. Here, knowledge is prevalent but labor is expensive. Entrepreneurship-specific framework conditions become the levers that drive dynamic, innovation-oriented behavior, while the foundation of basic requirements and efficiency enhancers needs to be maintained.

Figure A2– The GEM Model



Appendix 2: Glossary of Main Measures and Terminology

MEASURE	DESCRIPTION
ENTREPRENEURIAL ATTITUDES AND PERCEPTIONS	
Perceived Opportunities	Percentage of 18 to 64 age group who see good opportunities to start a firm in the area where they live
Perceived Capabilities	Percentage of 18 to 64 age group who believe they have the required skills and knowledge to start a business
Entrepreneurial Intention	Percentage of 18 to 64 age group (individuals involved in any stage of entrepreneurial activity excluded) who intend to start a business within three years
Fear of Failure Rate	Percentage of 18 to 64 age group with positive perceived opportunities who indicate that fear of failure would prevent them from setting up a business
Entrepreneurship as Desirable Career Choice	Percentage of 18 to 64 age group who agree with the statement that, in their country, most people consider starting a business to be a desirable career choice
High Status Successful Entrepreneurship	Percentage of 18 to 64 age group who agree with the statement that, in their country, successful entrepreneurs receive high status
Media Attention for Entrepreneurship	Percentage of 18 to 64 age group who agree with the statement that, in their country, they will often see stories in the public media about successful new businesses
ENTREPRENEURIAL ACTIVITY	
Nascent Entrepreneurship Rate	Percentage of 18 to 64 age group who are currently a nascent entrepreneur, i.e., actively involved in setting up a business they will own or co-own; this business has not paid salaries, wages or any other payments to the owners for more than three months
New Business Ownership Rate	Percentage of 18 to 64 age group who are currently an owner-manager of a new business, i.e., owning and managing a running business that has paid salaries, wages or any other payments to the owners for more than three months, but not more than 42 months
Total Early-Stage Entrepreneurial Activity (TEA)	Percentage of 18 to 64 age group who are either a nascent entrepreneur or owner-manager of a new business (as defined above)
Established Business Ownership Rate	Percentage of 18 to 64 age group who are currently owner-manager of an established business, i.e., owning and managing a running business that has paid salaries, wages or any other payments to the owners for more than 42 months
Business Discontinuation Rate	Percentage of 18 to 64 age group who have, in the past 12 months, discontinued a business, either by selling, shutting down or otherwise discontinuing an owner/management relationship with the business (Note: This is <i>not</i> a measure of business failure rates)
Necessity-Driven Entrepreneurial Activity: Relative Prevalence	Percentage of those involved in total early-stage entrepreneurial activity (as defined above) who are involved in entrepreneurship because they had no other option for work
Improvement-Driven Opportunity Entrepreneurial Activity: Relative Prevalence	Percentage of those involved in total early-stage entrepreneurial activity (as defined above) who (i) claim to be driven by opportunity, as opposed to finding no other option for work; and (ii) indicate the main driver for being involved in this opportunity is being independent or increasing their income, rather than just maintaining their income
ENTREPRENEURIAL ASPIRATIONS	
High-Growth Expectation Early-Stage Entrepreneurial Activity: Relative Prevalence	Percentage of total early-stage entrepreneurs (as defined above) who expect to employ at least 20 employees five years from now Weak measure: expects at least <i>five</i> employees five years from now
New Product-Market Oriented Early-Stage Entrepreneurial Activity: Relative Prevalence	Percentage of total early-stage entrepreneurs (as defined above) who indicate that their product or service is new to at least some customers and indicate that not many businesses offer the same product or service Weak measure: product is new <i>or</i> not many businesses offer the same product or service
International Orientation Entrepreneurial Activity with International Orientation	Percentage of total early-stage entrepreneurs (as defined above) with more than 25% of the customers coming from other countries Weak measure: <i>more than 1%</i> customers coming from other countries

About the Authors

DONNA J. KELLEY

Donna Kelley is an Associate Professor of Entrepreneurship at Babson College and holds the Frederic C. Hamilton Chair of Free Enterprise. She holds a doctorate in management from Rensselaer Polytechnic Institute. Her entrepreneurship experience includes businesses in the health/fitness, computer hardware and education fields. Donna has published research in top entrepreneurship and innovation management journals on the topics of innovation in startups and established corporations in the U.S. and Korea, and on entrepreneurship education in China. She is a board member of the Global Entrepreneurship Research Association, the oversight board of the GEM project. She co-authored the 2010 GEM Global Report, the 2008 GEM Korea Report, and a 2008 GEM special topic report on education and training.

CANDIDA G. BRUSH

Candida Brush is Professor of Entrepreneurship and Chair of the Entrepreneurship Division at Babson College. She holds the Franklin W. Olin Chair in Entrepreneurship and serves as Director of the Arthur M. Blank Center at Babson College. She holds a doctorate in management from Boston University, an honorary doctorate from Jonkoping University in Sweden, and she has an appointment to the Norwegian School of Engineering and Technology in Trondheim, Norway, as a Visiting Professor. Dr. Brush has more than 100 publications about women entrepreneurs and new venture strategies, is a founding member of The Diana Project International and winner of the 2007 Global Award for Outstanding Research in Entrepreneurship. She serves as an Editor for *Entrepreneurship: Theory & Practice* and is an angel investor and board member for several companies and organizations.

PATRICIA G. GREENE

Patricia Greene holds the Paul T. Babson Chair in Entrepreneurial Studies at Babson College where she formerly served as Provost (2006-2008) and Dean of the Undergraduate School (2003-2006). She earned a Ph.D. from the University of Texas at Austin. Her current assignment at Babson is as the national academic director for the Goldman Sachs *10,000 Small Businesses* initiative and advisor to the *10,000 Women* program. Dr. Greene feeds her passion for supporting women entrepreneurs and their businesses through her service as Chair of the Board of the Center for Women's Business Research, a co-founder of the Diana Project, a member of the SBA's advisory board for the SBDC program, and as special academic advisor to the Guardian Life Small Business Research Institute. Most recently she was named as a Small Business Influencer by Small Business Technology. She is a business owner as well as an angel investor and advisor to several small businesses.

YANA LITOVSKY

Yana Litovsky is the GEM Data Manager. Before she joined GEM in 2008, she worked as a Research Associate for Professor Teresa Amabile in the Entrepreneurial Management Unit at the Harvard Business School. She received Bachelors Degrees in Psychology and Philosophy from Brandeis University and is currently pursuing a Masters Degree in Psychology at Hunter College. She has co-authored a Harvard Business School case and contributed to the 2010 GEM Global Report, among other publications.



GERA AND 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.

New developments, and all global, national and special topic reports, can be found at www.gemconsortium.org.



BABSON COLLEGE

Babson College in Wellesley, Massachusetts, USA, is recognized internationally as a leader in entrepreneurial management education. Babson College is the Leading Sponsoring Institution and a Founding Institution. Babson grants BS degrees through its innovative undergraduate program, and it grants MBA and custom MS and MBA degrees through the F.W. Olin Graduate School of Business at Babson College. Babson Executive Education offers executive development programs to experienced managers worldwide. For information, visit www.babson.edu.



UNIVERSIDAD DEL DESARROLLO

Universidad Del Desarrollo, UDD, Educational project was driven by outstanding leaders of the Chilean public and business scene and is today one of the top three prestigious private universities in Chile. Success came quickly; after just twenty years, its rapid growth has become an expression of the University's main facet: Entrepreneurship. UDD's MBA is rated one of the best in Latin America and also one of the best in Entrepreneurship education, according to *AméricaEconomía* magazine, an achievement that once again represents the "entrepreneurial" seal that is embedded in the spirit of the University. For more information visit www.udd.cl.



UNIVERSITY TUN ABDUL RAZAK

University Tun Abdul Razak was established on 18 December 1997 as one of the first private universities in Malaysia. The University was named after Malaysia's second Prime Minister, the late YAB Tun Abdul Razak bin Dato' Hussein, and was officially launched on 21 December 1998 by Tun Abdul Razak's eldest son, YAB Dato' Seri Mohd Najib bin Tun Abdul Razak, current Prime Minister of Malaysia and then Minister of Education. On 1 March 2007, the Tun Abdul Razak Education Foundation (Yayasan PINTAR) acquired Universiti Tun Abdul Razak Sdn. Bhd. (owner of Universiti Tun Abdul Razak) from KUB Malaysia Berhad.

Report Sponsors



THE CENTER FOR WOMEN'S LEADERSHIP

The Center for Women's Leadership (CWL) investigates, educates and celebrates women entrepreneurial leaders everywhere. Today CWL provides high-impact programs, creates powerful collaborations, and funds and disseminates action research, which impacts lives, enhances careers and evolves organizations. This enables women to provide innovative leadership to their organizations and communities.



THE CENTER FOR WOMEN'S BUSINESS RESEARCH

The Center for Women's Business Research provides data-driven knowledge that advances the economic, social, and political impact of women business owners and their enterprises. We do this by setting the national agenda; creating insight on the status and achievements of women business owners; altering perceptions about the economic viability and progress of women-owned enterprises; and driving awareness of the economic and social impact of this vital business sector.

Contacts

The complete version of the *Global Entrepreneurship Monitor 2010 Report: Women Entrepreneurs Worldwide* can be downloaded at www.gemconsortium.org

For more information on this report, contact Donna J. Kelley at dkelley@babson.edu; Candida Brush at cbrush@babson.edu; or Patricia Greene at greene@babson.edu.

To download copies of the GEM Global Report(s) or GEM National Team Reports, and to access select data sets, please visit the GEM Web site at www.gemconsortium.org.

Nations not currently represented in the GEM Consortium may express interest in joining and request additional information by e-mailing the Executive Director, Mike Herrington at Mike.Herrington@gsb.uct.ac.za.

ⁱ These percentages are based on IMF's *World Economic Outlook Database, October 2010* and USA Bureau of Census.

ⁱⁱ Schwab, Klaus, ed. *The Global Competitiveness Report 2010–2011*. Geneva: World Economic Forum, 2010.

ⁱⁱⁱ Greene, P.G. *The Diana Project: Past, Present, and Future*. Diana International Conference. Belfast, Nov. 4, 2008.

^{iv} The World Bank. *Doing Business 2010*. Washington, D.C.: The International Bank for Reconstruction and Development/The World Bank, 2010.

^v Gries, T. and W. Naude (2010), "Entrepreneurship and Structural Economic Transformation," in *Small Business Economics*, 34(1): 13–29.

^{vi} Henrekson, M. (2005), "Entrepreneurship: A weak link in the welfare state," in *Industrial and Corporate Change*, 14(3): 437–467.



Lin and Zhan, Lavender Cottage

Ten years ago, two young girls (Lin and Zhan) quit their jobs and created a Lavender Cottage to fulfill their simple and small dream. Now, they have five new product brands (coffee shop, restaurant, B & B, on-line shop, wedding service) and 12 locations in Taiwan and Japan. In 2011, their businesses turned over more than 16 million US dollars.

CULTIVATING WOMEN ENTREPRENEURS IN TAIWAN

By Ru-Mei Hsieh

GEM Taiwan

The Female Entrepreneur Cultivation Network Plan is one of the programs initiated under the Female Entrepreneurship Guidance Plan by the Taiwan government's Small and Medium Enterprise Administration. This program, launched in 2007, is specifically designed to provide a comprehensive range of resources and business connections for female entrepreneurs in cultural and creative industries, the high technology sector, health and beauty, and software. By promoting the dissemination of entrepreneurship experience and knowledge, this initiative aims to encourage female entrepreneurs to focus on innovative, knowledge-intensive fields.

Activities include training courses and consulting services specifically designed for women, grants for research on women entrepreneurship, and networking opportunities for sharing experiences, providing business advice, and offering support and encouragement across multiple cities in Taiwan. In addition, women entrepreneurs with high-growth potential businesses can participate in award programs and apply for government subsidies. Women business owners also receive sponsorship to attend international entrepreneurship events, to help them keep pace with international trends.

During the first three years of this program, over 7,000 women startup managers have been cultivated and 611 female-owned businesses have been successfully established.

For more information on Taiwan's Small and Medium Enterprise Association programs, go to:
www.moeasmea.gov.tw/lp.asp?ctNode=307&CtUnit=36&BaseDSD=7&mp=2.



Anagha Kulkarni (India) is a Goldman Sachs *10,000 Women* program graduate from Hyderabad, India. She runs Nirmala Pet A Pack Pvt Ltd, a manufacturer of specialized packaging materials for the pharmaceutical, electronic and food industries. Since graduating from *10,000 Women*, Anagha has doubled the number of people she employs and has increased her revenues by 63%.



Sanaa Hyder (United States) founded ZH Collection Bags, a producer of unique, original hand-drawn proprietary textile prints and functional, affordable travel bags that depict a bold and evocative artistic style. Inspired by a colorful and international childhood, Sanaa's prints bolster her mission to spread a bit of joy with functional travel bags and meaningful art.



Asja Kamberovic (Bosnia) operates a milk production business with thirteen dairy cows and an investment in all the necessary machinery, including a milk cooling tank. Asja's entire family is engaged in the business, and they have even managed to invest in its expansion.



Zada Micivoda (Bosnia) is the owner of a school canteen. Starting with sales of premade sandwiches and pies, Zada bravely borrowed money to invest in the business, buying an oven, renovating the business premises, and recruiting an expert in pie making. She now has a cuisine centered on variety, health and freshness.



Chien-yi Wei (Taiwan) created a new clothing brand, Anewei, which combines Chinese culture and design creativity. The clothes are hand-made, using Chinese traditional blue-dyeing techniques.



Lin and Zhan (Taiwan) founded Lavender Cottage, which includes coffee shops, bed-and-breakfasts, an on-line shop, and wedding services. The business creates a new lifestyle in Taiwan by embracing the core value of being close to nature. As of 2011, they have twelve locations in Taiwan and Japan with turnover exceeding \$16 million USD.



Cecilia Bergh, M.D. (Sweden) is founder and CEO of Mando Group, a privately owned healthcare company with five Mandometer® Clinics in three countries. These clinics treat anorexia and bulimia, along with all other eating disorders, using the patented Mandometer® Method.



