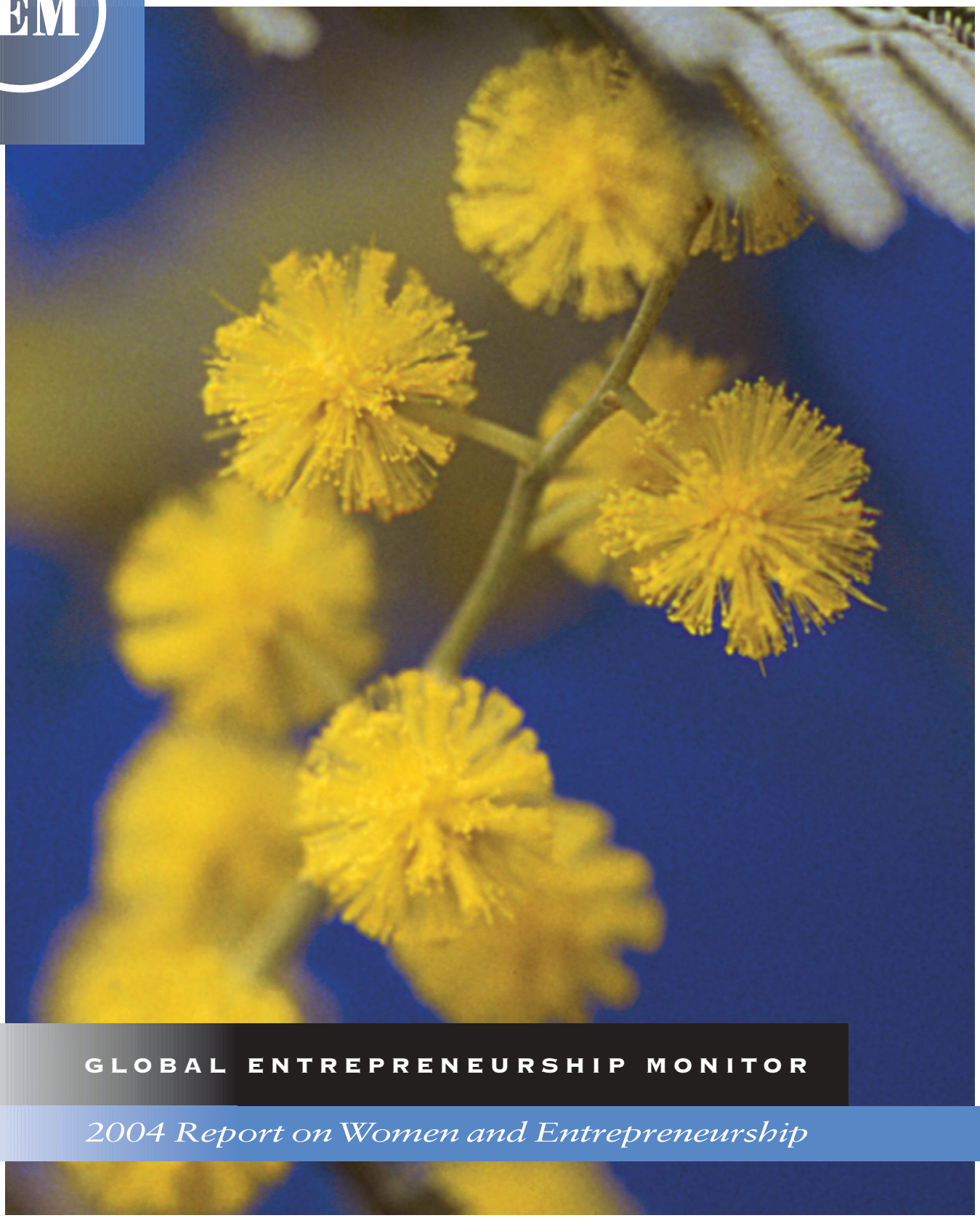
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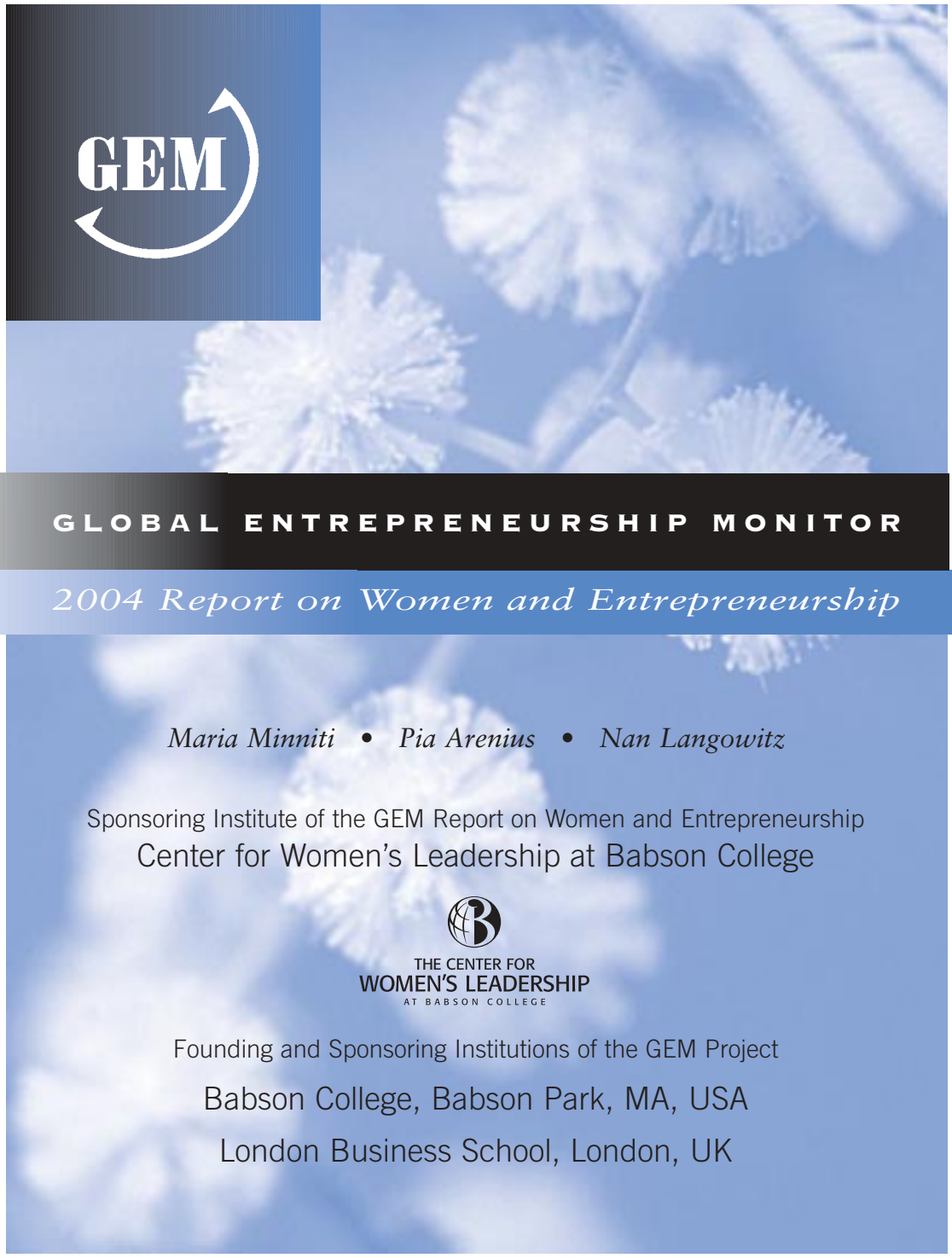
2004 Report on Women and Entrepreneurship

Maria Minniti • Pia Arenius • Nan Langowitz

THE CENTER FOR
WOMEN'S LEADERSHIP
AT BABSON COLLEGE

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

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GLOBAL ENTREPRENEURSHIP MONITOR

2004 Report on Women and Entrepreneurship

Maria Minniti • *Pia Arenius* • *Nan Langowitz*

Sponsoring Institute of the GEM Report on Women and Entrepreneurship

Center for Women's Leadership at Babson College

THE CENTER FOR
WOMEN'S LEADERSHIP
AT BABSON COLLEGE

Founding and Sponsoring Institutions of the GEM Project

Babson College, Babson Park, MA, USA

London Business School, London, UK

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GEM Teams and Sponsors

Unit	Location	Members	Financial Sponsor
GEM Project Directors	Babson College London Business School	William D. Bygrave Michael Hay	Babson College London Business School
GEM Project Coordinator	University of Lausanne	Pia Arenius	GEM Global Consortium Executive Transition Committee
GEM Coordination Team	Babson College London Business School	William D. Bygrave Marcia Cole Michael Hay Stephen Hunt Neils Bosma Erkko Autio Caroline Johns Ingvild Rytter Nancy Chin	Babson College David Potter Foundation Fellow Francis Finlay Foundation Fellow

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Argentina	Center for Entrepreneurship, IAE Management and Business School Universidad Austral	Silvia Torres Carbonell Hector Rocha Florencia Paolini Natalia Weisz	IAE Management and Business School HSBC Private Equity Latin America Banco Galicia	MORI Argentina
Australia	Australian Graduate School of Entrepreneurship, Swinburne University of Technology	Kevin Hindle Allan O'Connor	Westpac Banking Corporation	Australian Centre for Emerging Technologies and Society
Belgium	Vlerick Leuven Gent Management School, Universiteit Gent	Dirk De Clercq Sophie Manigart Hans Crijns Kathleen De Cock Bart Clarysse Frank Verzele	Vlerick Leuven Gent Management School Flemish Ministery of Economic Affairs (Steunpunt Ondernemerschap, Ondernemingen en Innovatie) Walloon Ministery of Economic Affairs	SNT Belgium
Brazil	IBQP - Instituto Brasileiro da Qualidade e Produtividade no Paraná	Marcos Mueller Schlemm Simara Maria S. S. Greco Mateus Fabricio Feller Paulo Alberto Bastos Junior Rodrigo Rossi Horochovski Joana Paula Machado Nerio Aparecido Cardoso	SEBRAE- Serviço Brasileiro de Apoio às Micro e Pequenas Empresas Instituto Euvaldo Lodi no Parana IEL/PR	Instituto Bonilha
Canada	HEC-Montréal University of British Columbia (UBC)	Nathaly Riverin Louis-Jacques Filion Daniel Muzyka Ilan Vertinsky Aviad Pe'er Victor Cui	HEC Montréal Chaire d'entrepreneuriat Rogers-J.A. Bombardier Développement économique Canada pour les régions du Québec The W. Maurice Young Entrepreneurship and Venture Capital Centre Venture Capital Center	SOM



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Denmark	Centre for Small Business Studies, University of Southern Denmark	Mick Hancock Torben Bager Lone Toftild Thomas Schoett Kim Klyver	Erhvervs- og Byggestyrelsen IRF - Industriens Realkredifond Syddansk Universitet Danfoss - Mads Clausens fond Vaekstfonden Ernst & Young (Denmark) Boersen	IFKA
Ecuador	Escuela Superior Politécnica del Litoral - Escuela de Postgrado en Administración de Empresas (ESPAE)	Virginia Lasio Morello Guido Caicedo Rossi Edgar Izquierdo Orellana Víctor Osorio Cevallos Alicia Guerrero Montenegro Karen Delgado Arévalo Elizabeth Arteaga	Escuela Superior Politécnica del Litoral (ESPOL University) Petróleos del Pacífico (PACIFPETROL S.A.) Cámara de Comercio de Guayaquil	MARKET ASOMARKET Cia. Ltda.
Finland	Helsinki University of Technology Turku School of Economics and Business Administration	Erkko Autio Pia Arenius Anne Kovalainen Marja Kansala	Ministry of Trade and Industry Tekes	Statistics Finland
France	EM Lyon	Oliver Torres Aurélien Eminet	Caisse des Depots et Consignations Observatoire des PME	AC Nielsen
Germany	University of Cologne Department of Economic and Social Geography	Rolf Sternberg Ingo Lueckgen	Kreditanstalt für Wiederaufbau (KfW) Institut für Arbeirsmarkt - und Berufsforschung (IAB)	Taylor Nelson Sofres EMNID
Greece	Foundation for Economic and Industrial Research (IOBE)	Stavros Ioanides Takis Politis	Greek Ministry of Development IOBE Sponsors	Metron Analysis



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Hungary	University of Pécs, University of Baltimore (USA)	László Szerb Zoltán Acs Judit Károly József Ulbert Attila Varga	Ministry of Economy and Transport	Szocio-Gráf Piac-és Közvélemény-kutató Intézet
Iceland	Reykjavik University	Gudrún Mjöll Sigurdardóttir Rögnvaldur Sæmundsson	Reykjavik University The Confederation of Icelandic Employers New Business Venture Fund Prime Minister's Office	Gallup - Iceland
Ireland	University College, Dublin	Paula Fitzsimons Colm O'Gorman Frank Roche	Enterprise Ireland Inter*Trade*Ireland	Lansdowne Market Research Ltd. *iff*
Israel	Tel Aviv University The Academic College of Tel-Aviv-Jaffa	Miri Lerner Anat Oren Amram Turjman	Israel Small Business Authority The Evens Foundation	The B. I. Cohen Institute for Public Opinion Research at Tel Aviv University
Italy	L. Bocconi University	Guido Corbetta Ugo Lassini Alexandra Dawson	Bocconi University	Nomesis
Japan	Keio University University of Marketing and Distribution Sciences Musashi University	Tsuneo Yahagi Takehiko Isobe Noriyuki Takahashi	Venture Enterprise Center	SSRI
Jordan	Young Entrepreneurs Association	Dina Dukhqan Khaled Kurdi	Ministry of Planning and International Cooperation	Al Jidara Pro Group Counsulting



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Norway	Bodø Graduate School of Business	Lars Kolvereid Bjørn Willy Åmo Gry Alsos	Inovation Norway Ministry of Trade and Industry Bodø Graduate School of Business Kunnskapsparken Bodø AS, Center for Innovation and Entrepreneurship	TNS
Peru	Centro de Desarrollo Emprendedor, Escuela de Administración de Negocios para Graduados (ESAN)	Jaime Serida Peter Yamakawa Armando Borda Oswaldo Morales	Escuela de Administración de Negocios para Graduaos (ESAN) Deltron Computer Wholesalers S.A.	SAMIMP - Research International
Poland	The Bachalski Educational Foundation	Austin Campbell Krzysztof Baclawski Przemyslaw Zbierowski Maciej Koczerga Roma Szlapka	Polish Agency for Enterprise Development The Karol Adamiecki University of Economics in Katowice The Poznan University of Economics AC Nielsen Poland National Bank of Poland	AC Nielsen



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Portugal	Faculdade de Economia da Universidade Nova de Lisboa Sociedade Portuguesa de Inovação	Rita Cunha Manuel Baganha Augusto Medina Douglas Thompson Stuart Domingos Sara Medina	POEFDS - Programa Operacional do Emprego, Formação e Desenvolvimento Social	MetrisGfK
Singapore	National University of Singapore	Poh Kam Wong Lena Lee Finna Wong Ho Yuen Ping	Economic Development Board of Singapore National University of Singapore	Joshua Research Consultants
Slovenia	Institute for Entrepreneurship and Small Business Management, Faculty of Economics and Business, University of Maribor	Miroslav Rebernik Polona Tominc Ksenja Pusnik	Ministry of Education, Science and Sports Ministry of the Economy SmartCom Finance - Slovenian Business Daily	Gral-Iteo
South Africa	The Centre for Innovation and Entrepreneurship, Graduate School of Business, University of Cape Town	Mike Herrington Eric Wood John Orford	Liberty Life South African Breweries The Shuttleworth Foundation	AC Nielsen ZA
Spain	Basque Unit Universidad de Deusto Universidad del Pais Vasco	Iñaki Peña Mikel Navarro Francisco Olarte Mª José Aranguren Juan José Gibaja María Sáiz Arturo Rodriguez	Eusko Ikaskuntza Diputación Foral de Gipuzkoa Diputación Foral de Bizkaia Sociedad para la Promoción y Reconversión Industrial	Opinòmetre
	Extramadura Unit Fundation Xavier de Salas	Ricardo Hernández Mogollón J. Carlos Díaz Casero	Sofiex Sodiex Caja Rual de Extremadura Los Santos de Maimona Foundation Junta de Extremadura Caja Badajoz Arram Consultores	Opinòmetre
	Catalonia Unit Universitat Autonoma de Barcelona	José María Veciana Yancy Vaillant David Urbano	Institut d'Estudis Regionals i Metropolitans de Barcelona	Opinòmetre



Team	Institution	Members	Financial Sponsor	APS Vendor
Spain (cont.)	Andalucia Unit Universidad de Cádiz	José Ruíz Navarro José Aurelio Medina José Daniel Lorenzo Álvaro Rojas Salustiano Martínez Antonio Rafael Ramos	CENTRA (Fundación Centro de Estudios Andaluces) UNICAJA Junta de Andalucia (Consejería de Innovación, Ciencia y Empresa)	Opinòmetre
	Comunidad Valenciana Unit Universidad Miguel Hernández	Jose Maria Gomez Gras Ignacio Mira Jesus Martinez Antonio J. Verdu	Air Nostrum LAM, S.A.	Opinòmetre
	Isla Canarias Unit Universidad de las Palmas de Gran Canaria Universidad de La Laguna	Rosa M. Batista Alicia Bolivar Esther Hormiga Alicia Correa	La Caja Insular de Ahorros de Canarias	Opinòmetre
	Castilla y León Unit Universidad de León	Mariano Nieto Antolín Constantino García Ramos Roberto Fernández Gago Sergio del Cano Rojo Noemi Huerga Castro	Centro Europeo de Empresas e Innovacion de Castilla y Leon S.A.	Opinòmetre
	Madrid Unit Universidad Autonoma de Madrid	Eduardo Bueno Campos Carlos Merino Lidia Villar	Fundación General de la Universidad Autónoma de Madrid CEIM (Confederación Empresarial de Madrid- CEOE) Caja Madrid	Opinòmetre
	National Team Unit Instituto de Empressa	Alicia Coduras Rachida Justo Ignacio de la Vega	Nejeti Instituto de Empresa	Opinòmetre
Sweden	ESBRI Entrepreneurship and Small Business Research Institute	Magnus Aronsson Helene Thorgrimsson	Confederation of Swedish Enterprise Ministry of Industry, Employment and Communications Swedish Business Development Agency (NUTEK) Swedish Institute for Growth Policy Studies (ITPS)	SKOP
The Netherlands	EIM Business and Policy Research	Sander Wennekers Niels Bosma Jolanda Hessels Andre van Stel Roy Thurik Lorraine Uhlaner Ingrid Verheul	Dutch Ministry of Economic Affairs	Survey@



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United Kingdom	London Business School	Rebecca Harding Marc Cowling Niels Billou Michael Hay Dennis Harding	Small Business Service Barclays Bank PLC East Midlands Development Agency Yorkshire Forward Merseyside Enterprise Insight Countryside Agency British Chamber of Commerce	*iff*
	Scotland Unit University of Strathclyde	Jonathan Levie Sarah Cooper Sara Carter	Hunter Centre for Entrepreneurship	*iff*
	Wales Unit University of Glamorgan North East Wales Institute of Higher Learning	David Brooksbank Dylan Jones-Evans	Welsh Development Agency	*iff*
	Northern Ireland Unit Small Business Research Centre, Kingston University Economic Research Institute of Northern Ireland	Mark Hart Maureen O'Reilly	Invest Northern Ireland Belfast City Council Enterprise Northern Ireland	*iff*
United States	Babson College	Maria Minniti William D. Bygrave Marcia Cole	Babson College	Opinion Research Corp.



Preface

This is the first Global Entrepreneurship Monitor (GEM) cross-national assessment on women's entrepreneurial activity. The 2004 GEM study on women's entrepreneurship includes 34 countries and focuses on three main objectives:

- To measure the level of women's entrepreneurial activity across countries
- To understand why women become involved in entrepreneurial activity
- To suggest policies that may increase women's involvement in entrepreneurship

The goal of this Report on Women's Entrepreneurship is to provide a comprehensive and up to date study of the role played by women involved in entrepreneurial activity in the world economy.

Women's entrepreneurship is expanding around the world. Women-owned businesses comprise between one-quarter and one-third of businesses in the formal economy and are likely to play an even greater role in informal sectors.[1] Across the world, generations of women from very different backgrounds contribute to their environment and are showing very encouraging signs of entrepreneurial spirit. It is our hope that this study will contribute to our understanding of their needs and characteristics, and will provide insight on how governments at all levels may work to provide an environment in which this spirit may flourish.

The GEM study on women's entrepreneurship is part of the overall GEM project, which focuses on measuring differences in the level of entrepreneurial activity among countries, uncovering factors leading to entrepreneurial behavior and suggesting policies that may enhance national levels of entrepreneurial activity. GEM is a collaborative effort in terms of financial resources and intellectual advancement, as well as design and analysis. The Appendix provides a brief description of the overall scope of the GEM Project. New developments, national reports, and reports on specific topics such as financing can be found at **www.gemconsortium.org.**

Participating countries in 2004 are:

Asia and Oceania

Australia, Hong Kong, Japan, New Zealand, and Singapore

Africa and the Middle East

Israel, Jordan, South Africa, and Uganda

Europe

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

North America

Canada and the United States

South America

Argentina, Brazil, Ecuador, and Peru.

The GEM Report on Women and Entrepreneurship complements and draws upon material presented in the GEM 2004 Executive Report. Consulting both reports will provide readers with a comprehensive understanding of the role played by early-stage entrepreneurial activity in the global economy.

This special Report on Women's Entrepreneurship is made possible by the Center for Women's Leadership at Babson College. The GEM research program is made possible thanks to the support of Babson College and London Business School. A particular thank you goes to the 34 National Teams that participated in the 2004 GEM studies for granting us the use of the data. Finally, we would like to thank Philippe Jacquart for his invaluable research assistance.

Maria Minniti
Director of the GEM Research Team on Women's Entrepreneurship



Executive Summary



Entrepreneurial activity performs a crucial role in creating a vibrant and dynamic economy. This report provides an in-depth cross-national look at women's entrepreneurship and highlights the important role that women play in developing and developed economies. The findings suggest that public policy directed at supporting education, financial assistance, network development and mentoring would enable the increased involvement of women in new venture creation.

The report also examines the socio-economic factors that influence women's willingness to embrace the entrepreneurial landscape of risk and reward. By carefully examining these factors we can come to a greater understanding of women's role in the contemporary business environment and how it relates to issues of social equity.

Key findings in 2004

In 2004, the average level of female total entrepreneurial activity (TEA) rate across the 34 GEM countries varied from 39.1% in Peru to 1.2% in Japan.

In every country in our study, men are more active in entrepreneurship than women. The largest gap occurs in middle income nations where men are 75% more likely than women to be active entrepreneurs, compared to 33% in high-income countries and 41% in low-income countries.

Overall, opportunity is the dominant motivation for women's entrepreneurship, similar to men. Nonetheless, many more women than men are involved in entrepreneurship because of the lack of alternative job opportunities. Necessity entrepreneurship is much more widespread among women in low-income countries where the opportunity to necessity ratio is 1.7, as opposed to high-income countries where the ratio is 6.

Socio-economic factors and entrepreneurial activity

New venture activity is driven both by personal as well as socio-economic factors. Age, education, work experience and exposure to other entrepreneurs are important influences on women's entrepreneurial behavior.

- In low and middle income countries, the peak years to become involved in entrepreneurial activities for women are ages 25-34. In high income countries, on the other hand, the peak years for women are ages 35-44.
- In low income countries, the majority of entrepreneurially active women (54%) have not completed a secondary degree. In high income countries, on the other end, women with post secondary education are the most likely (34%) to start a new business.
- As in the case of men, and regardless of per capita income, the largest majority of women involved in starting a new business hold other jobs.
- Regardless of per capita income, a strong positive and significant correlation exists between knowing other entrepreneurs and a woman's involvement with starting a new business.

These results indicate that employed women who know other entrepreneurs are the most likely to start a new business. These women tend to be older and better educated in high-income countries than in low and middle-income countries.

Perceptual factors as powerful predictors of entrepreneurial activity

A woman's perceptions of environmental opportunities as well as confidence in her own capabilities are a powerful predictor of her entrepreneurial behavior.

- Across all countries, a strong positive and significant correlation exists between opportunity perception and a woman's likelihood of starting a new business. Women who perceived the existence of business opportunities were more likely to make the decision to start a new business.
- Across all countries, a strong positive and significant correlation exists between a woman's belief of having the knowledge, skills and experience required to start a new business and her likelihood of starting one. Conversely, a strong negative and significant correlation exists

between fear of failure and a woman's likelihood of starting a new business.

These results indicate that subjective assessments about the availability of opportunities, the ability to exploit them, and the possibility of failing in doing so are all crucial factors in a woman's decision to start a new business.

Characteristics of women's early-stage entrepreneurship

The majority of businesses started by women employed less start-up capital as compared to men, used known technology, and targeted existing markets. This suggests that women entrepreneurs may take a more conservative approach to business formation, perhaps because of their higher involvement in necessity driven entrepreneurship.

- On average, businesses started by men used more capital than those started by women (US$65,010 vs. US$33,201 respectively). One reason for this discrepancy may be because women are more likely than men to start consumer-oriented businesses rather than service-oriented enterprises, where startup costs tend to be higher. Consistent with overall GEM results for both genders, the majority of women entrepreneurs provide all the required start-up capital themselves.
- Women tend to have slower early growth trajectories. The vast majority of women involved in starting a new business expect to create 5 or fewer additional jobs within a 5 year period. In low and middle income countries, only 1% of women's new businesses qualify as having high employment potential. The percentage increases to only 1.6 in high income countries.
- Further, women entrepreneurs tend to start businesses with known technology and in established markets. On average, at least 70% of the female respondents involved in starting a new business reported that the technology they adopted was available at least one year prior to the survey. Most also reported a known set of existing competitors.

Overall, at inception, women's businesses tend to be smaller and less expensive to operate than those of men. Women entrepreneurs also face immediate competition and tend to bear the full cost of starting their businesses.

Policy Implications

The main policy implication provided by the GEM 2004 Global Report is that, when it comes to entrepreneurship, "one size does not fit all." In order to be effective, many policies with respect to entrepreneurship need to be tailored to a country's specific context and, perhaps, even to that of sub-national regions. This is particularly important for women since they tend to be much more sensitive than men to conditions in their local environment.

That said, there are universal best practices that address the need of reforming the social entrepreneurial environment. Eliminating barriers to competition, reducing regulatory burdens, and providing more efficient services for new and developing firms will benefit all individuals interested in starting a business.

Support policies by themselves are not sufficient to increase women's involvement in entrepreneurship. Mentoring and network support, especially at the local level, are at least as crucial in boosting women's attitudes with respect to business leadership and new venture creation.

Regardless of per capita income, some of the most successful policies and programs world wide are those able to increase women's awareness about entrepreneurship and provide them with role models and networking possibilities.

Policy Implications for Low-Income Countries

Although much female entrepreneurship in low-income countries is motivated by necessity, starting a new business represents an effective and flexible way for women from all groups to emancipate themselves and provide for their families. Areas of importance for policy makers should include literacy, financial assistance, management assistance, and training.



Policy Implications for Middle-Income Countries

More than in other groups, women in middle income countries shy away from starting their own businesses. Areas of importance for policy makers should include education about entrepreneurship. There is a need to instill fundamental aspects of the entrepreneurial mindset and to increase the attractiveness of entrepreneurship as an income producing activity for women.

Policy Implications for High-Income Countries

High-income countries need to sustain innovation rates and encourage the involvement of women in entrepreneurship, especially when faced with an aging labor force. Areas of importance for policy makers should include promoting entrepreneurial education at the college and post-graduate level and encouraging more women to pursue technical degrees and to commercialize their ideas. Coordinating policy to encourage equal benefits for women in the workforce, whether in traditional or entrepreneurial business roles, is vital.



Understanding Women's Entrepreneurship

All over the world, and throughout history, people have created businesses. Entrepreneurship is a cross-cultural phenomenon with culture-specific aspects, and understanding it requires two different, though related, components.

First, there are factors that influence entrepreneurial behavior across countries. These factors are universal determinants of entrepreneurial behavior. Among them are objective socio-economic characteristics of the individual such as age, education and work status, as well as subjective perceptions about one's own skills, fear of failure, and about the existence of unexploited opportunities. Second, there are aspects of entrepreneurial behavior that are country specific. Although there is no simple way to approximate a country's environment, the 2004 GEM Global Report has shown that the quality and quantity of entrepreneurship varies when countries with different levels of per capita income are considered.[2]

At low levels of national per capita income, the entrepreneurial sector provides job opportunities and potential for the creation of markets. As per capita income increases, the emergence of new technologies and economies of scale allows larger and more established firms to satisfy the increasing demand of growing markets and to increase their relative role in the economy. Thus, the numbers of business start-ups decrease as a growing number of people are able to find stable employment. Finally, as further increases in per capita income are considered, the role played by the entrepreneurial sector increases again, as more individuals have the resources to go into business for themselves in an economic environment that allows the exploitation of opportunities.

Variations in entrepreneurial activity due to per capita income levels are more pronounced when women's entrepreneurship is considered, because women's employment choices are more sensitive to the local environment than those of men. In fact, recent studies have shown that the choice to start a new business is far more complex for women then men, and that women tend to be more sensitive than men to a variety of non-monetary incentives.[3] For women more than for men, the choice to start a new business is often linked to necessity or to time and location flexibility; that is, to the type of independence that can accommodate family needs and child rearing.

In this Report, the entrepreneurial behavior of women will be discussed by dividing the 34 countries participating in the GEM study in 2004 into low, middle and high-income economies. The low-income group includes countries with per capita incomes not exceeding US$10,000 (Argentina, Brazil, Croatia, Ecuador, Hungary, Jordan, Peru, Poland, South Africa, and Uganda). The middle-income group includes countries with per capita incomes between US$10,000 and US$25,000 (Greece, Hong Kong, Israel, New Zealand, Portugal, Singapore, Slovenia, and Spain). The high-income group includes countries with per capita incomes exceeding US$25,000 (Australia, Belgium, Canada, Denmark, Finland, France, Germany, Iceland, Italy, Ireland, Japan, Netherlands, Norway, Sweden, UK, and the USA). The purpose of the report is to identify what factors are most significant for women's entrepreneurship and how their influence varies between high, middle and low-income countries. For each income group, the behavior of women entrepreneurs will be discussed considering universal factors such as age, education, work status, network, perceived skills, opportunity recognition, and fear of failure. Finally, the characteristics of women's start-ups will be discussed by considering team size, innovativeness, start-up financing, and relative cost of inception.



The Scope of Women's Entrepreneural Activity



Cross-Country Differences

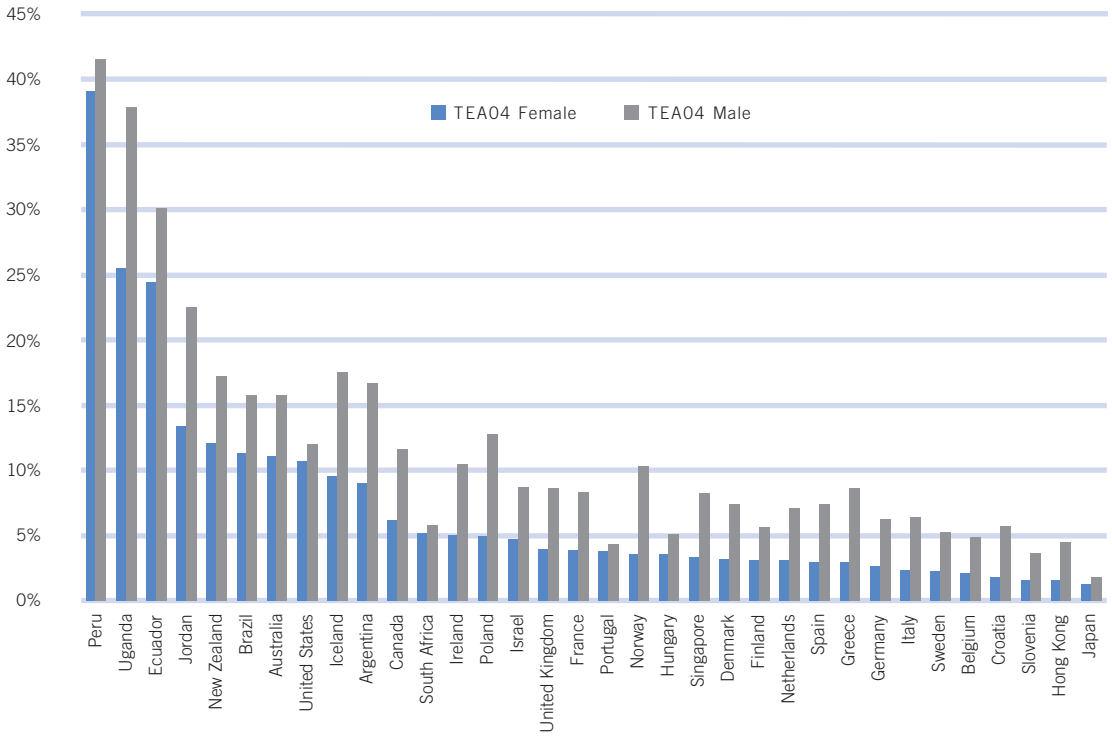
The female Total Entrepreneurial Activity (TEA) index measures the percent of women in the labor force that is either actively involved in starting a new business or who own or manage a business that is less than 42 months old. Figure 1 shows the comparative results for men and women in each country. Clearly, the participation of women in entrepreneurship varies significantly across the 34 GEM 2004 countries, ranging from 39.1% in Peru, 25.5% in Uganda, and 24.4% in Ecuador, to 1.2% in Japan and 1.6% in Hong Kong and Slovenia.

Figure 1 shows that the differences between men and women are remarkably stable across countries. There is no country where women are more active than men. The gender gap is widest in France, Greece, Hong Kong and Spain. There are also a few countries where the gender gap is not statistically significant. They are Ecuador, Finland, Hungary, Japan, South Africa, and the United States, The narrower division in this group of countries may be the result of different sets of circumstances.

The ratio of female to male entrepreneurs is higher in the case of necessity based entrepreneurship, which constitutes a high proportion of activity in the low-income countries (Ecuador, Hungary, Peru, and South Africa). For high-income countries such as Finland and the United States, closing the gender gap may be the result of targeted programs, cultural changes, and more stress on entrepreneurial education leading to more equal opportunities for women. Of course, what appears to be either a closing or a widening of the gender gap may possibly be the result of sample bias, particularly in cases such as that of Japan, where the very low overall level of activity results in large standard errors and make existing gender differences hard to capture statistically.

On average, participation rates for men tend to be 50% higher than those of women, a result that has been confirmed by GEM researchers for several years in a row. In addition, a very strong positive correlation (0.97) exists between the TEA rate for men and the TEA rate for women. The same

Figure 1. Total Entrepreneurial Activity (TEA prevalence) 2004 by Gender and Country



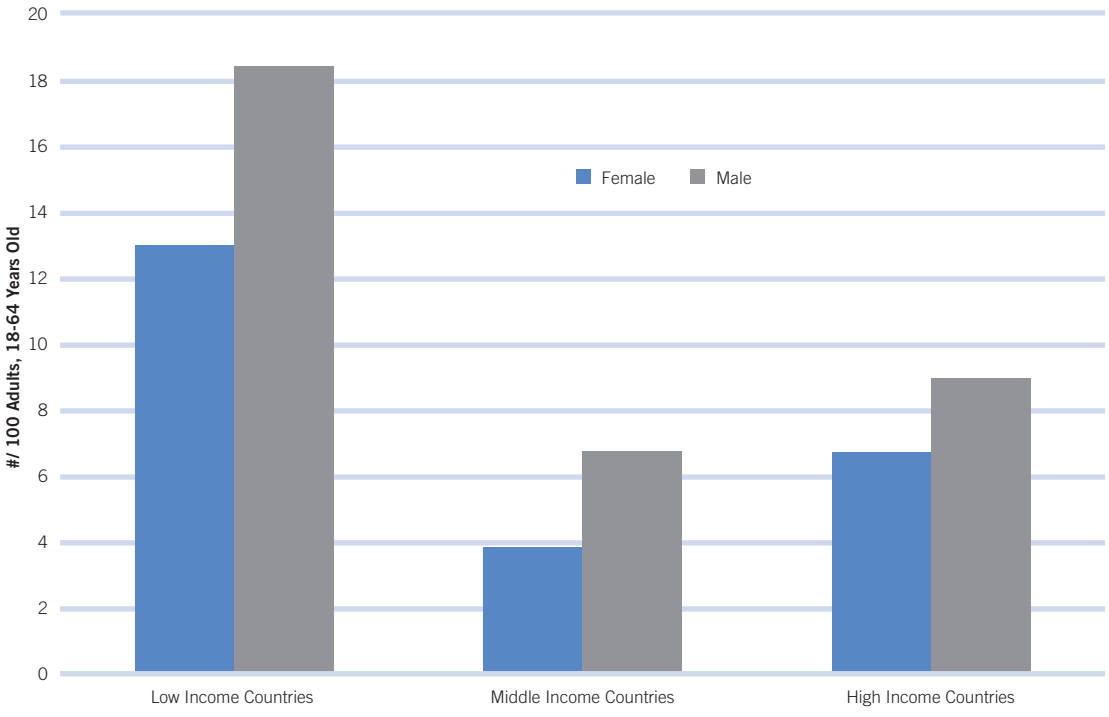
correlation was 0.96 for the countries that participated in GEM 2003. This suggests that our results are consistent over time. The stability and strength of the positive correlation between TEA rates suggest that those countries with a higher overall rate and a higher men's prevalence rate are also likely to have higher percentages of women involved in entrepreneurship. Finally, Figure 1 shows that high prevalence rate countries tend to be low-income countries. In fact, New Zealand leads the middle-income group with a women's TEA rate of 12.1%, while Australia leads the high-income group with a women's TEA rate of 11%.

Figure 2 illustrates that the level of male entrepreneurial activity is higher than that of women across all national income categories. This figure shows that, overall, the largest gender division occurs within the middle-income nations where men are 75% more likely than women to be active entrepreneurs. The smallest gap, instead, appears in the high-income countries where the percentage difference falls to 33%. In low-income countries men are 41% more likely to be active in entrepreneurial activity then women. One possible interpretation of Figure 2 is that women in low-income countries are active entrepreneurs out of necessity, while in high-income countries, both men and women have more chances to pursue entrepreneurial opportunities even when other job options are available. It is clear that in the case of necessity entrepreneurship there is much less gender distinction than in opportunity entrepreneurship.

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



Figure 2. TEA 2004 by Gender and Country Income Group (GDP per capita)





Motivation and types

In the 2004 GEM study, more than 97% of the respondents are involved in entrepreneurial activities out of two primary reasons: opportunity or necessity. Opportunity entrepreneurship estimates the number of people who choose to start their own business as one of several desirable career options. In other words, opportunity entrepreneurship reflects the desire to take advantage of an entrepreneurial opportunity. Necessity entrepreneurship instead estimates the number of people who start their own business because other employment options are either absent or unsatisfactory.

Among people involved in starting a new business, 77.9% of men choose entrepreneurship in order to exploit an opportunity while 71.4% of women choose entrepreneurship for this reason. However, 19.4% of men choose entrepreneurship out of necessity versus 24.8% of women. The number of women who choose entrepreneurship because of necessity is concentrated in low-income countries. In recent years, self-employment and home-based work has expanded opportunities for women's participation in the labor force, but is characterized by lack of security, lack of benefits, and low-income. This observation suggests that for women, entrepreneurship may represent an important means to circumvent unemployment and, in some countries, a way out of poverty, but that the number of women that pursue an entrepreneurial opportunity when other income producing activities are available is still very low compared to that of men.

Analogously to men, the majority of women are involved in starting a new business in order to pursue an opportunity. Nonetheless, necessity entrepreneurship is much more widespread among women than men. Figure 3 shows the women's TEA opportunity and women's TEA necessity by income group.

In low-income countries, the opportunity prevalence rate is 1.7 times the necessity prevalence rate. In middle-income countries, the opportunity prevalence rate is 3.8 times the necessity prevalence rate. Finally, in high-income

Figure 3. Women TEA 2004: Opportunity and Necessity by Country Income Group (GDP per capita)

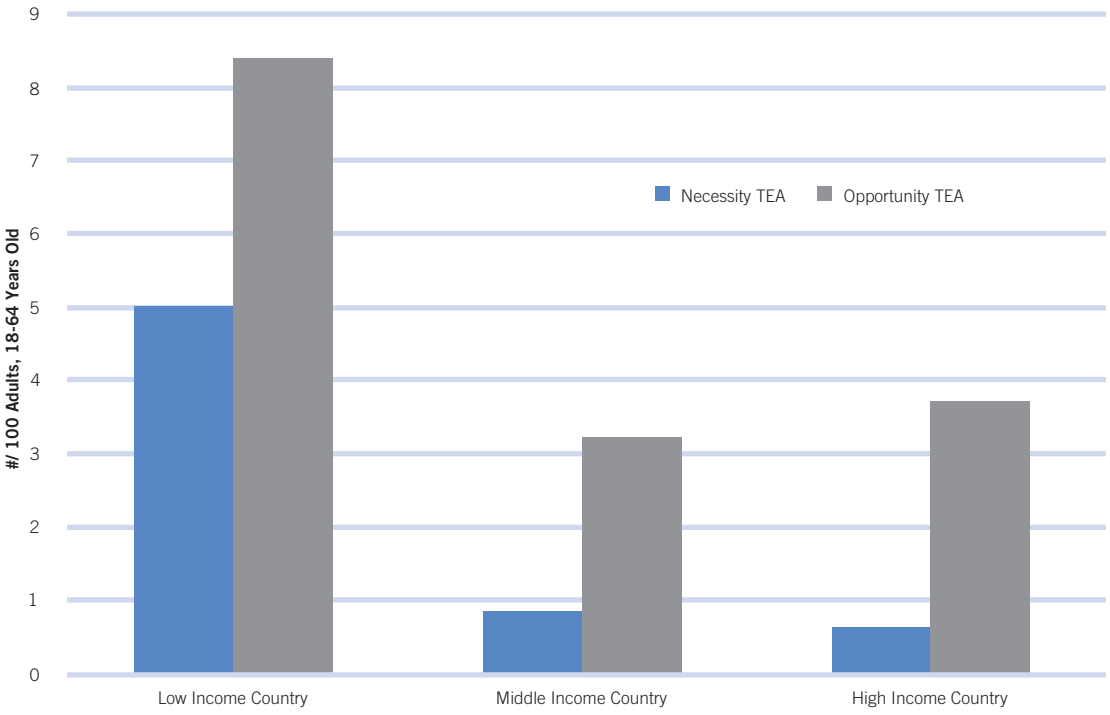
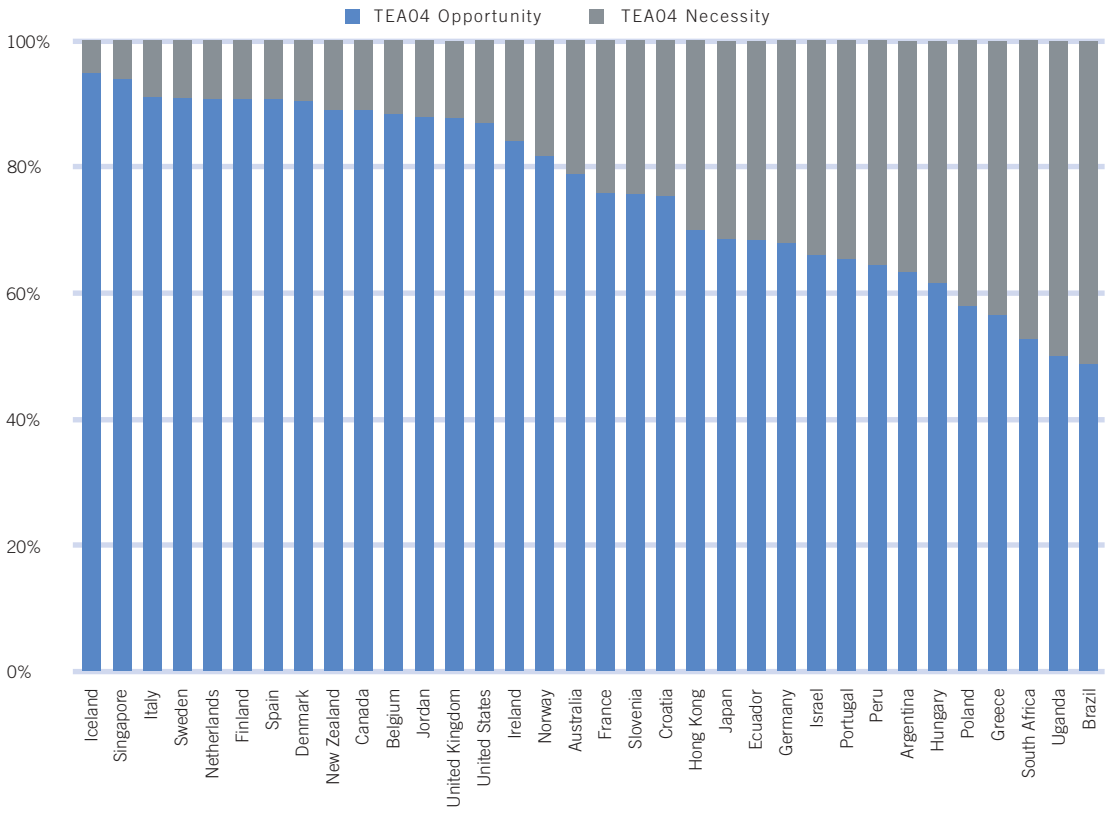


Figure 4. Women TEA 2004: Opportunity and Necessity by Country



countries, the opportunity prevalence rate is 6.0 times the necessity prevalence rate. These results clearly show that as higher level of per capita income are considered, the rate of female necessity entrepreneurship decreases.

Figure 4 complements the information provided in Figure 3 by showing the distribution of women's entrepreneurial motivation country by country. In Brazil and Uganda, 50% of women involved in starting a new business are doing so out of necessity. In all other countries, more women are involved in opportunity entrepreneurship than in necessity entrepreneurship.

In South Africa, the ratio of female opportunity to necessity TEA is 1.1, followed by Greece with 1.3 and Poland with 1.4. The highest ratio is found in Iceland, where, for every woman motivated by necessity, there are 18 women involved in starting a new business because of opportunity. This is followed by Singapore and Italy, where for each women involved out of necessity, there are, respectively, 15 and 10 women pursuing opportunities.



Women and Entrepreneurial Activity



GEM estimates that about 73 million people are active entrepreneurs in the 34 nations that participated in the study in 2004. Of those, 30 million are women. But who are these women and do they have anything in common? GEM data allow researchers to establish a profile of women entrepreneurs around the world. This profile is created by considering 1) demographic and socio-economic factors such as age, education, work status, and the presence of role models and 2) more subjective factors such as fear of failure, opportunity perception, and confidence in one's own skills. Both sets of factors are put in relation to the GDP per capita of the GEM nations.

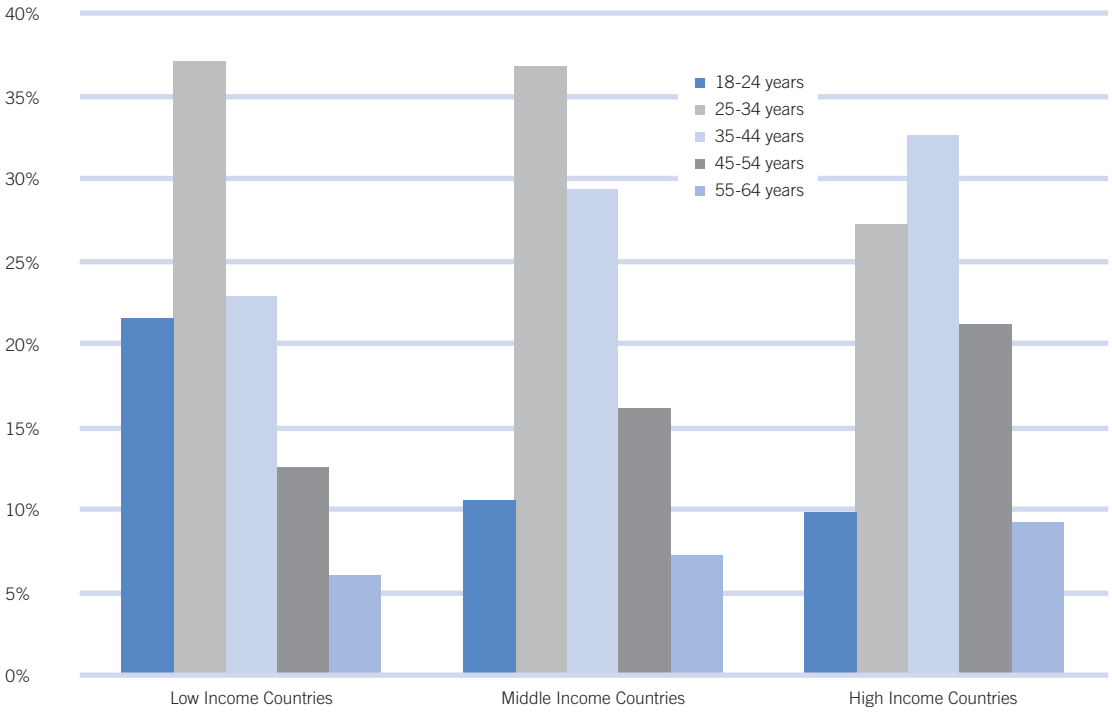
Socio-economic factors

Age

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

Some differences emerge when different groups of countries are considered. In low and middle-income countries, the peak years to become involved in entrepreneurial activities for women are ages 25-34. In high-income countries, on the other hand, the peak years to become involved in entrepreneurial activities for women are ages 35-44.[4] The picture clearly shows that as countries with higher per capita income are considered, the average age at which women become involved in starting a new business increases also. Thus, although women 25-44 are still the ones most likely to start new businesses, there seems to be a tendency for older women to also get involved. This trend may reflect the fact that in richer countries women spend more time on their education, together with the fact that in richer countries the percentage of women starting new businesses to pursue an opportunity is significantly larger than that of women that do so out of necessity. Opportunity start-ups are more likely to require more education, experience, and better networking.

Figure 5. Women TEA 2004: Age Categories and Country Income Group (GDP per capita)



Also, the percentage of women entrepreneurs aged 18-24 is about the same in middle and high-income countries (10.6% and 10% respectively), whereas their rate of involvement jumps to about 22% in low-income countries. These percentages are likely to reflect the involvement of women in necessity entrepreneurship in low-income countries.

Education

Worldwide, employment rates are much higher, and the gender gap lower, among women with a tertiary qualification (some college) than among less educated women.[5] Higher education is likely to give women access to more interesting and better-paid occupations. Women have made significant gains in higher-education enrolment in most regions of the world. In the majority of high-income countries, the female labor force has a higher tendency to attain tertiary education than the male labor force. By contrast, in low-income countries, although the gender gap in primary and secondary schooling is closing, women still lag behind men in some countries especially in Africa and Southern Asia.[6] Two thirds of the world's 876 million illiterates are women, and the number of illiterates is not expected to decrease significantly in the next twenty years.[7] In almost all economies for which information on illiteracy is available, women are more likely than men to be illiterate. Entrepreneurial activity is highest in countries where more of the female population cannot read and write. Previous assessments, however, make clear that it is not the illiterate that are starting the businesses in these countries, but those with the education and skills to exploit profit opportunities.

In low-income countries, the majority of entrepreneurially active women (54%) have not completed a secondary degree. For example, in both Peru and Uganda more than 80% of the entrepreneurially active women have only some secondary education. An exception among low-income countries is Jordan where most entrepreneurially active women (42%) have graduate level education. In high-income countries,



Figure 6. Women TEA 2004: Education by Country Income Group (GDP per Capita)

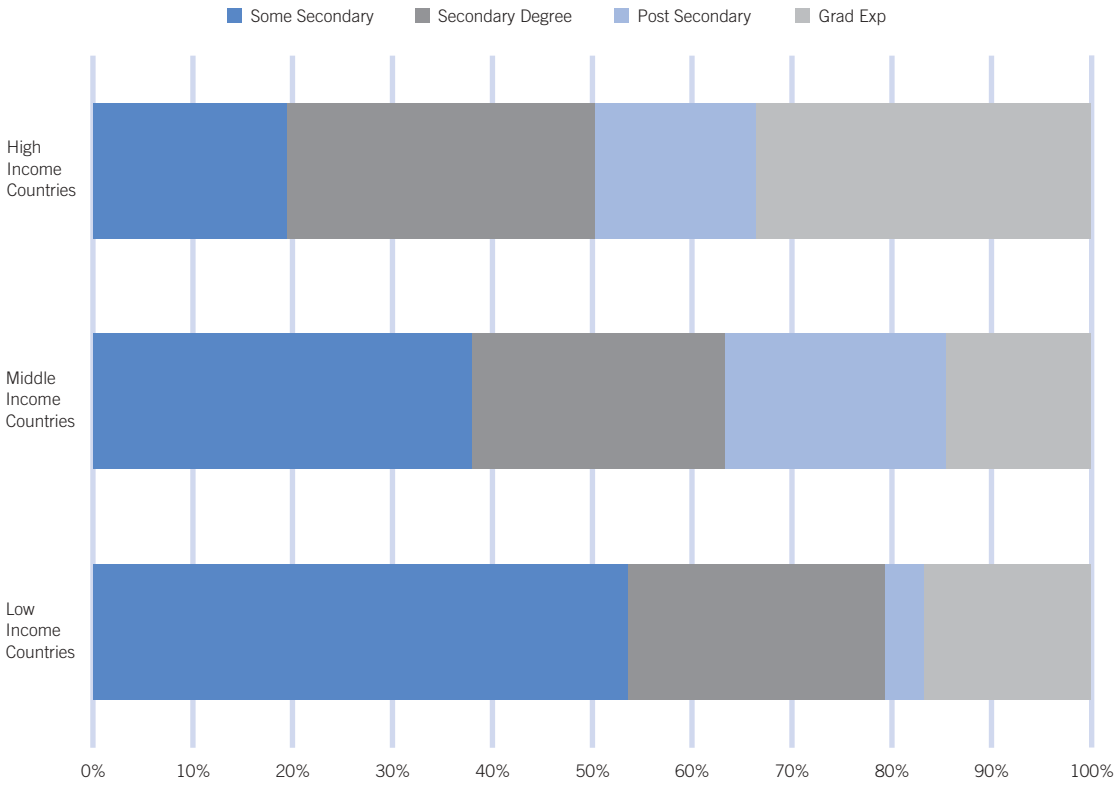
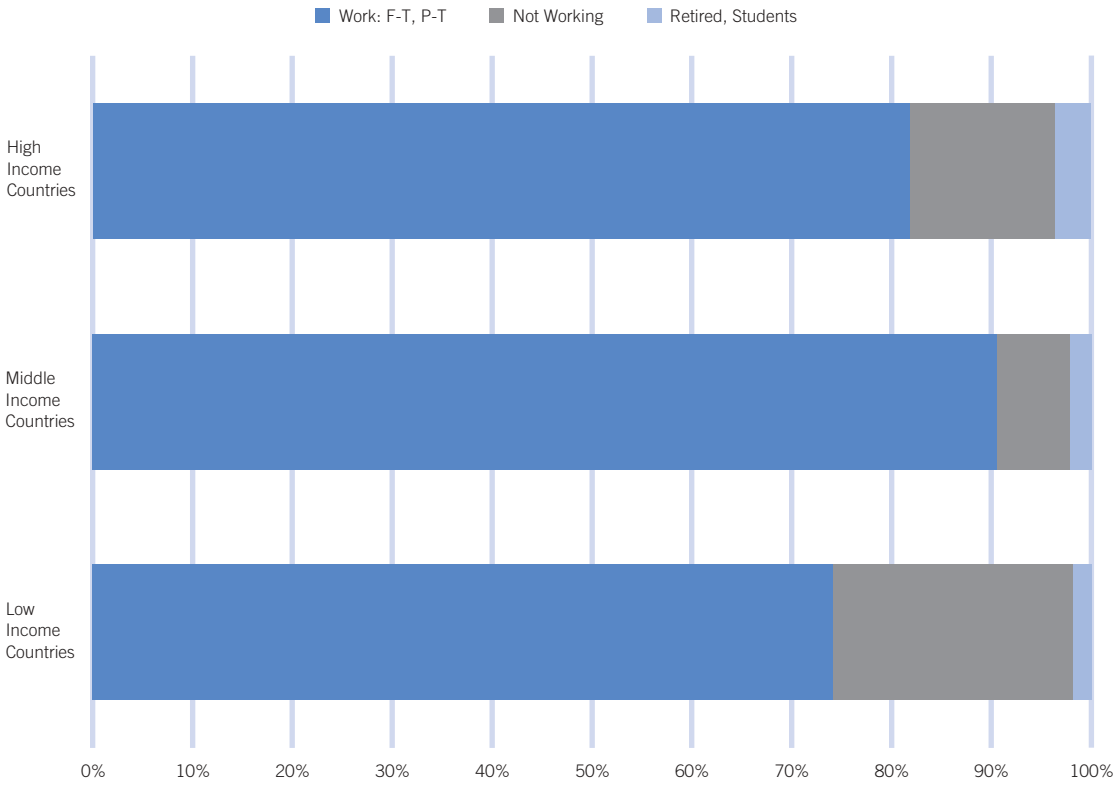


Figure 7. Women TEA 2004: Work Status by Country Income Group (GDP per Capita)



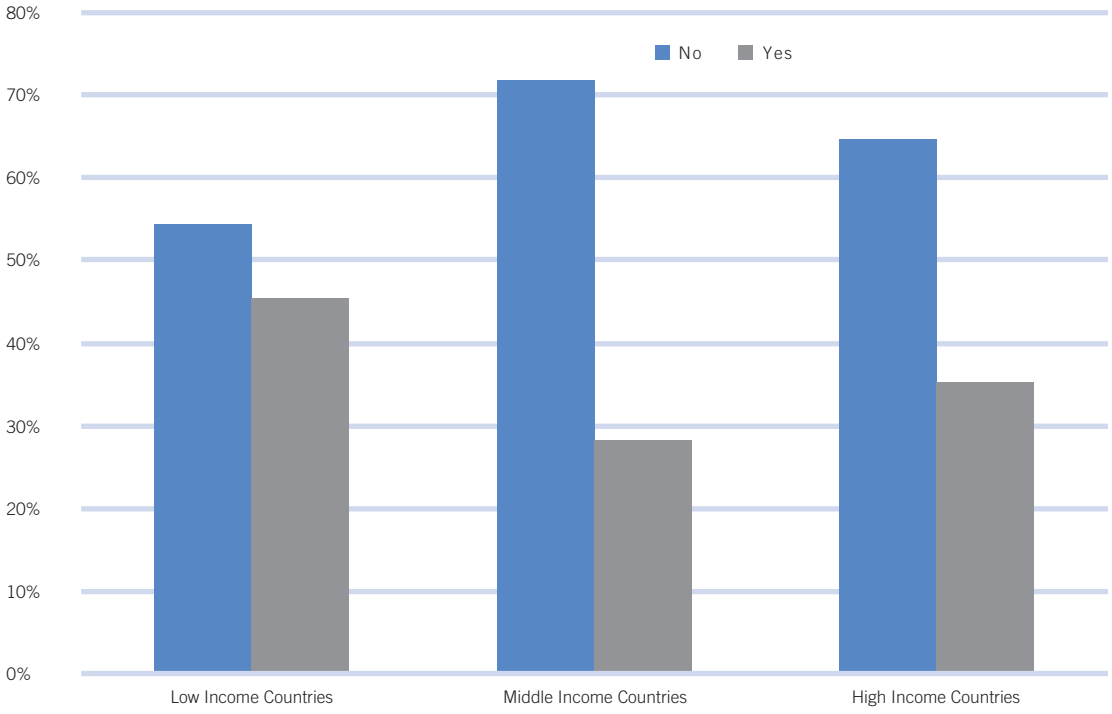


on the other hand, women with some graduate experience are the most likely (34%) to start a new business. Noticeably, in low-income countries, the number of women with graduate experience involved in starting a new business (16%) is higher than its counterpart in middle-income countries (15%). This probably reflects the fact that, in middle-income countries, highly educated women have access to very attractive job opportunities in the private and public sector and, as a result, do not choose to start their own businesses. Among high-income countries, Sweden and Finland present significant exceptions. In Finland and Sweden, the largest percent of entrepreneurially active women (55% and 46% respectively) is found among those who have only some secondary education. This is surprising since in general, the educational attainment of women in these countries is very high. Clearly, Finland and Sweden have not been able to attract highly educated women into entrepreneurial careers, as opposed to neighbouring countries such as Denmark where 78% of women involved in entrepreneurship have graduate experience. This puzzle suggests the existence of gender asymmetries in the labor market.

Work Status

GEM 2004 data show a negative correlation between female entrepreneurial activity and both current and long-term levels of female unemployment. The results are stronger for low-income countries. Higher levels of unemployment for both men and women are most likely associated with a reduction in the demand for goods and services. This decline, in turn, reduces the opportunities and expected profits for potential new firms thereby discouraging the rate of new business formation. This result is consistent with the relationship between women's entrepreneurial activity and their work status depicted in Figure 7.

Figure 8. Women's Knowledge of Other Entrepreneurs by Country Income Group (GDP per capita)





As in the case of men, and regardless of per capita income, the largest majority of women involved in starting a new business hold other jobs. In low-income countries, 74% of women entrepreneurs are working full or part-time, 24% are not working, and only 2% are either retired or in school. In middle-income countries, 91% of women entrepreneurs are working full or part-time, 7% are not working, and again only 2% are either retired or in school. In high-income countries, 82% of women entrepreneurs are working full or part-time, 14% are not working, and about 4% are either retired or in school. In low-income countries, the relatively low proportion of women entrepreneurs who work elsewhere (74%), and the relatively high portion of women entrepreneurs who are not holding other jobs (24%) is likely to be a reflection of the high level of necessity entrepreneurship in those countries where people, women in particular, start businesses because no better option exists.

The proportion of women entrepreneurs who are not otherwise employed in middle-income countries (7%) is only half that of their counterparts in high-income countries (14%) and less than a third that in low-income countries (24%). In low-income countries, the lack of job opportunities and social welfare services is likely to force women to seek other activities. As higher per capita incomes are considered, more educated women might be without work because of industrial restructuring, outsourcing, or production shifts due to new technologies. Because of the increasing levels of social benefits, however, only a few of them are forced to seek employment through entrepreneurial activity.

Knowledge of Other Entrepreneurs

Both male and female entrepreneurs rely on role models and social networks for both information and access to resources. In many cases, the networks women rely on operate quite differently from the networks men rely on. Women in low-income countries, for example, often have significantly smaller networks and less geographical mobility. As a result, they construct relatively



personal but strong networks that allow them to partially substitute these personal network relationships for formal legal contracts. Thus, the position of the woman entrepreneur within the larger community is important because it affects her ability to observe role models and to acquire resources.

An indicator of entrepreneurial capacity of a country is represented by the share of women who reported personally knowing an entrepreneur in 2004. It is assumed that if a woman knows at least one other entrepreneur, she will have some access to experience-based information about how to start and manage a business.

For each income group, Figure 8 shows the percentage of women involved in starting a new business who have met at least one other entrepreneur in the two years preceding the GEM survey. Regardless of per capita income level, there are more women involved in business who don't know other entrepreneurs than women who do. In low-income countries, the gap is narrowest and 45.6% of women involved in new businesses know other entrepreneurs. This may be due to the higher prevalence rate observed on low-income countries and, in particular, to the high necessity rates. In middle-income countries, where the gap is widest, 28.3% of women entrepreneurs know other entrepreneurs and 35.3% in high-income countries. These results are consistent with our findings showing that TEA rates are higher for low-income countries and lowest for middle-income ones. Regardless of per capita income, a strong positive and significant correlation exists between knowing another entrepreneur and a woman's involvement with starting a new business. This indicates that the existence of role models is a crucial factor in the decision to start a new venture. The highest concentration is found in Jordan, Iceland, Peru and Uganda, where more than 60% of women involved in starting a business know other entrepreneurs, followed by Ecuador with 46.6%. Except for Iceland, these are the countries with the highest female TEA rates. The high figure registered for Iceland could, in part, reflect the relatively small size of the country, as well as the recent creation of some very successful programs for women. Iceland has also the highest overall TEA of all Nordic countries

Perceptual Factors

Perceptual variables are powerful predictors of entrepreneurial activity. GEM data indicates that perceptual variables have a very important impact on new business creation across all countries in our sample. Subjective perceptions about one's own skills, likelihood of failure, and the existence of opportunities are all highly and significantly correlated to women's (and men's) decisions to start new businesses.[8] GEM data are exceptionally well suited for studying the early-stage entrepreneurial decisions, because they provide information about individuals who are in the process of starting a new business at that particular point in time and are not, like most other data sets, the result of hindsight evaluations of past decisions by successful entrepreneurs.

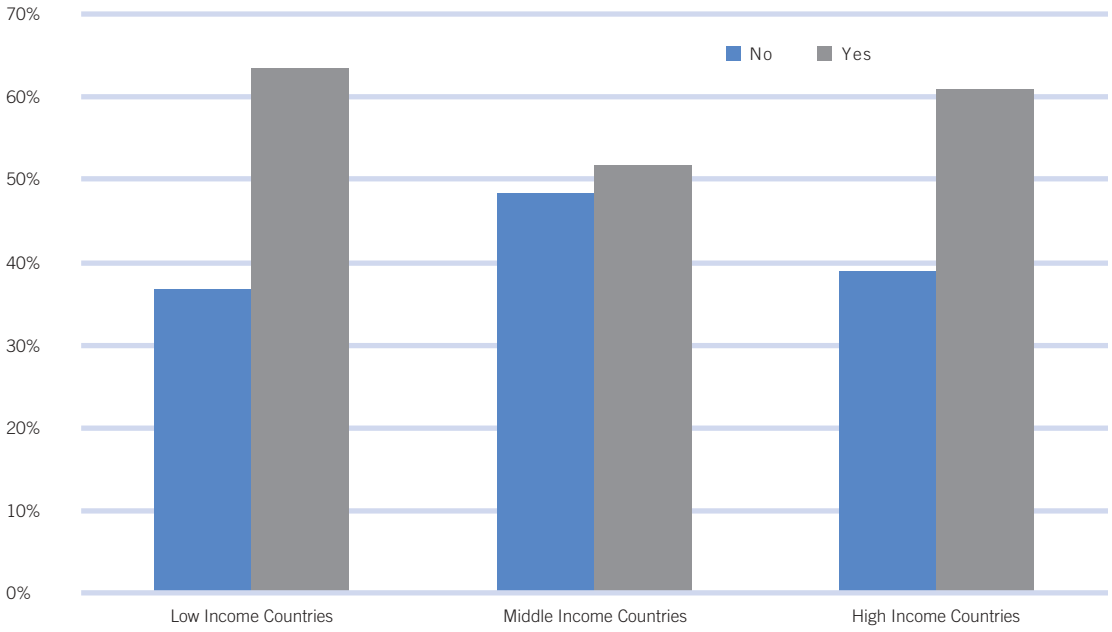
Opportunity Perception

Respondents were asked whether they thought that good opportunities for starting a business would exist in the area where they lived in the six months following the survey. Regardless of per capita income, a strong positive and significant correlation exists between opportunity perception and a woman's likelihood of starting a new business. In fact, in each income group, countries with high women's TEA rates (such as Australia, Iceland, Ecuador, New Zealand, Peru', and Uganda) also exhibit a high percentage of affirmative answers to the question concerning the existence of opportunities. This indicates that the subjective perception of available opportunities is a crucial component of the decision to start a new venture.

Figure 9 shows the distribution of responses by women for each of the 3 groups of countries.

Although the number of positive answers exceeds the negative ones for all three groups of countries, the difference is not statistically significant for the middle-income group and significant variations in the level of opportunity

Figure 9. Opportunity Perception among Women by Country Income Group (GDP per capita)





perception exist across countries. The highest opportunity perception rate among women is registered in Uganda, where 73% of the respondents perceive good business opportunities opening up in the area where they live. The lowest rate of opportunity perception is reported in Germany where only 12% of the respondents respond positively. From a regional point of view, South America emerges as a region with very high female opportunity perception, whereas economies in transition such as Croatia, Hungary and Poland exhibit low opportunity perception rate. The latter result is consistent with the idea that, over time, communist type regimes may have somewhat crippled, at least for a while, people's alertness toward entrepreneurial opportunity.

Skills and Knowledge

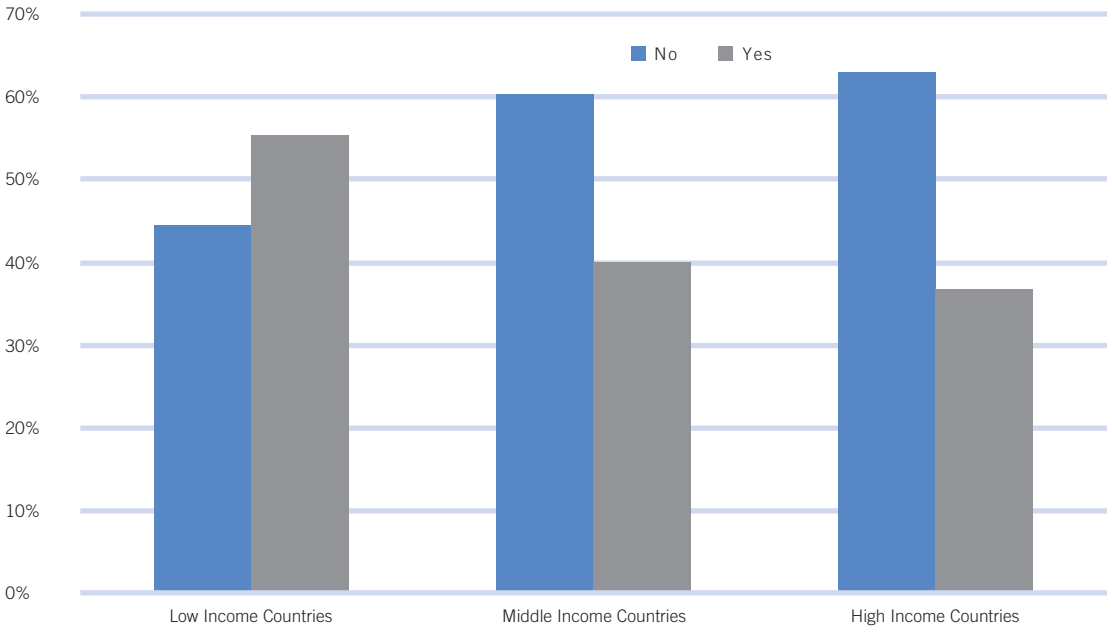
Respondents were asked whether they believed that they have the knowledge, skill and experience required to start a new business.

Regardless of per capita income, a very strong positive and significant correlation exists between opportunity recognition and a woman's likelihood of starting a new business. In fact, the perception of having sufficient skills is a dominant variable that seems to have an effect independent of institutional settings, culture and overall level of entrepreneurial activity.[9] This indicates that the subjective perception of having sufficient skills is a crucial factor in the decision to start a new venture. Clearly, individual perceptions may differ from actual abilities and risk levels. On the other hand, a person might perceive her own entrepreneurial adeptness as a signal of potential success, and, as a result, be more receptive to entrepreneurial opportunities.

Figure 10 shows the distribution of responses by women for each of the 3 groups of countries.

In middle and high-income countries, the majority of women do not believe they have the skills and knowledge necessary to start a new business. The reverse is true in low-income countries where 55.3% of women believe they possess such skills. In 6 of the 10 low-income countries, the majority of women respondents answered positively, with Uganda exhibiting the highest percentage of positive answers (78.0%). The lowest rate of positive answers is registered in

Figure 10. Perception of Own Skills among Women by Country Income Group (GDP per capita)





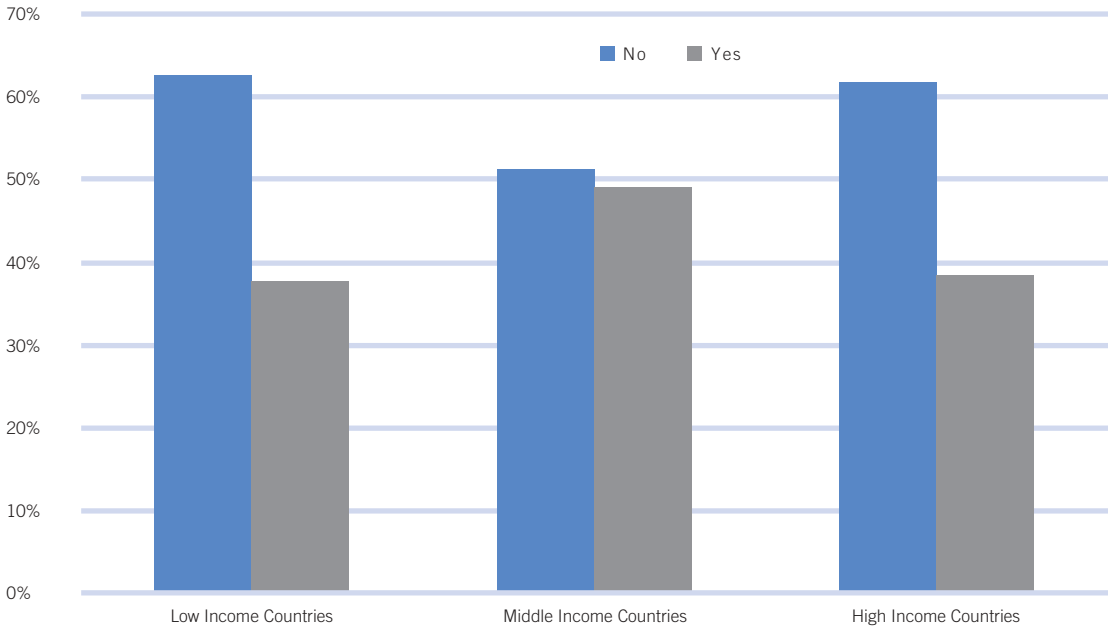
Japan (10.0%). Greece led the EU with a confidence rate of 55.6%. In transition economies, female confidence rates ranged from 21.7% in Hungary to 47.3% in Poland. Finally, among high-income countries, the highest confidence rates were found in Australia, Canada and the United States.

Fear of Failure

Respondents were asked whether fear of failure would prevent them from starting a business. Regardless of per capita income, a strong negative and significant correlation exists between fear of failure and a woman's likelihood of starting a new business. This indicates that the subjective assessment of the likelihood of failure is a crucial factor in the decision to start a new venture. Figure 11 shows the distribution of responses by women for each of the 3 groups of countries.

In low and high-income countries, about 62% of women respondents claimed not to have been deterred from starting a business by the possibility of failing. Answers were more equally distributed in middle-income countries where only 51% of women responded negatively. Once again, results confirm the general pattern observed with other variables and suggest that women in middle-income countries, on average, tend to be more skeptical of starting a new business as a viable income producing activity.

Figure 11. Fear of Failure among Women by Country Income Group (GDP per capita)





Women's Early-Stage Businesses



Growth Potential

Studies comparing the performance of male and female owned firms show that businesses headed by women tend to be smaller than those headed by men. Normally, the smaller size is perceived as a problem and it is assumed that, if they could, women would want to expand their businesses as much as men. This perception has important consequences for female entrepreneurship, as women may have a harder time in obtaining external financing and, in general, credibility as business owners and managers.[10] However, evidence is beginning to accumulate that men and women have different preferences with respect to start-up size which, in turn, depend on different managerial styles. First, women forge relatively strong ties, while men forge relatively weak ties. Second, women form relatively egalitarian coalitions, while men forge relatively hierarchical coalitions. The hierarchical structure of male organizations allows them to create organizations that effectively monitor large numbers of people and that permit the rapid dispersal of information. The stronger ties of female organizations, on the other hand, reduce the need for monitoring and for systems of explicit incentives.[11] This analysis suggests that male and female entrepreneurs will differ in the value attached to start-up size and to business expansion. The previous analysis is confirmed by GEM results describing initial team size and growth expectations for women's businesses.

Initial team size is measured as the number of people owning and managing the business at the time of the GEM survey. Table 1 shows that, except

Table 1. Initial Team Size of Women's Early-Stage Businesses*

Number of Owners*		1	2 to 4	5 or more
GDP per capita	**Low**	Argentina (47.1%) Brazil (50.0%) Croatia (63.6%) Hungary (56.8%) South Africa (43.5%) Uganda (56.3%)	Ecuador (55.8%) Jordan (50.7%) Peru (47.9%) Poland (74.2%)	
	Middle	Greece (63.2%) Portugal (71.4%)	Hong Kong (60.0%) Israel (54.5%) New Zealand (57.1%) Singapore (57.1%) Slovenia (45.5%) Spain (61.8%)	
	High	Belgium (67.6%) Denmark (55.0%) Finland (57.1%) France (53.6%) Germany (49.1%) *Ireland (45.2%)* Japan (60.0%) Netherlands (53.1%) UK (54.1%) USA (58.6%)	Australia (52.2%) Canada (47.7%) Iceland (45.6%) Norway (43.3%) *Ireland (45.2%)*	Italy (45.8%) Sweden (51.6%)

* Italics indicate that the percentages of women's early-stage businesses in that country is maximized in two team size groups.

for Italy and Sweden, the number of people expected to share a business' ownership with a women tends to be less than five.

The number of additional jobs that a business expects to create is an indicator of the growth intent of its founders. Figure 12 shows that, regardless of per capita income, the vast majority of women involved in a new business or in a start-up expects to create no jobs or between 1 and 5 jobs within a 5 year period. Very few women businesses are expected to provide more than 25 jobs within 5 years, specifically, about 1% in both low and middle-income countries and 1.6% in high-income countries. The discrepancy between the number of businesses that will create no additional jobs and the number of businesses that will create up to 5 jobs is widest in high-income countries. This is probably due to the differences in the types of businesses created. Finally, the fact that many of these businesses are expected to create no additional jobs suggests that many of them are cases of self-employment or income replacement.

Innovativeness

In order to assess the degree of vitality possessed by women's early stage businesses, GEM respondents were asked to evaluate the novelty of their businesses by assessing the intensity of their competition and their innovativeness.

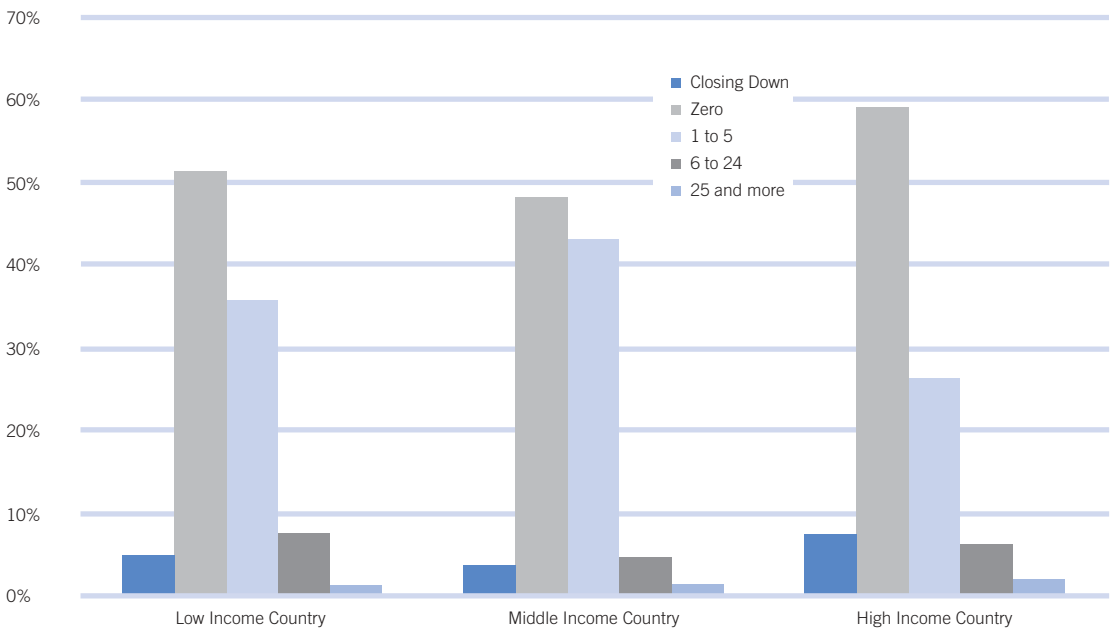
When asked whether the technology they adopted was available one year prior to when the survey was conducted, at least 70% of the respondents in almost every country (except Greece) answered yes. The proportion of positive answers reached 100% in Hong Kong, Italy, Finland and Portugal, whereas in Greece the percentage of positive answers was about 58%. Such results could suggest a lack of innovativeness, but also reflect the degree of development of a country. In fact, the innovativeness of women's early-stage entrepreneurship is negatively correlated, although not strongly, to per capita income.

Respondents were also asked to estimate the number of their existing competitors. Their assessments are consistent with the GEM findings on innovativeness and indicate that most women entrepreneurs targeted existing markets with known competitors for their businesses.

Table 2 shows that in the vast majority of countries, regardless of per capita income, women's



Figure 12. Expected Additional Job Creation by Women's Early-Stage Businesses within Five Years



early stage businesses have substantial competition. In no country, does the largest concentration of women businesses appear to have no competitors. In some high-income countries, the largest concentration of women's early-stage businesses appears to have some but not many competitors. This may be explained by the fact that a higher percentage of women in high-income countries pursue opportunity entrepreneurship than in low and middle-income countries. Businesses created to pursue opportunities rather than out of necessity tend to be in newer, growing markets and tend to adopt newer technologies. Another possible explanation is that, to some extent, these findings may be biased by the size and scope of the market in which these businesses operate. South Africa and New Zealand appear as outliers in the low and middle-income group respectively.

Financing Profile

An important determinant of the level of female entrepreneurship is the availability of financing. In general, the size and composition of start-up capital shows that female entrepreneurs have a smaller amount of start-up capital, a smaller proportion of equity, and a higher proportion of bank loans.[12] The issue of external financing is particularly relevant for high-income countries, where increasing numbers of women are beginning to start more technological, and therefore more capital intensive,



Table 2. Expected Level of Competition for Women's Early-Stage Businesses

		Many Competitors	Some Competitors	No Competitors
GDP per capita	**Low**	Argentina (56%) Brazil (53%) Croatia (55%) Ecuador (64%) Hungary (70%) Jordan (66%) Peru (48%) Poland (68%) Uganda (58%)	South Africa (36%)	
	Middle	Greece (44%) Hong Kong (80%) Israel (67%) Portugal (47%) Singapore (60%) Slovenia (45%) Spain (70%)	New Zealand (45%)	
	High	Belgium (51%) Canada (43%) Denmark (50%) Finland (57%) France (50%) Germany (53%) Italy (83%) Japan (100%) Sweden (65%)	Australia (54%) Iceland (40%) Ireland (45%) Netherlands (58%) Norway (47%) UK (47%) USA (54%)	

Table 3. Amount of Start-up Capital Used by Women in Early-Stage Businesses*

GDP per capita	Lowest 33% tile	Middle 33% tile	Upper 33% tile
Low	**US$0 to US$3,000**	**US$3,000 to US$19,000**	**More than US$19,000**
	Argentina (39%) Brazil (52%) Ecuador (58%)	Jordan (47%) Peru (45%)	Croatia (88%) Hungary (100%) Poland (69%) South Africa (44%) Uganda (98%)
Middle	**US$0 to US$24,000**	**US$24,000 to US$54,000**	**More than US$54,000**
	Portugal (39%) New Zealand (57%) Singapore (41%)	*Portugal (39%)* Spain (36%)	Greece (43%) Hong Kong (88%) Israel (62%) Slovenia (100%)
High	**US$0 to US$13,000**	**US$13,000 to US$100,000**	**More than US$100,000**
	Belgium (68%) Finland (44%) Norway (51%) UK (47%) USA (48%)	Australia (43%) Canada (48%) France (60%) Germany (56%) Ireland (40%) Italy (48%) Netherlands (36%)	Denmark (60%) Iceland (99%) Japan (100%) Sweden (54%)

* Italics indicate that the percentage of women's early-stage businesses in that country is maximized in two start-up capital groups.



businesses. Venture capitalists expect a funded venture to grow rapidly in term of sales and profits, so that the venture capital firm can exit within a few years and benefit from the risk taken. Such a strategy may not fit with women's more conservative approach to growth. Some evidence, however, is starting to emerge suggesting that in high-income countries, women-owned businesses are beginning to attract venture capital in some selective industries.[13]

The 2004 GEM Report on Financing shows that entrepreneurs themselves provide 65.8% of the start-up capital for their new ventures.[14] For all the GEM nations combined, the average amount needed to start a business is US$53,673. However, businesses started by men use more capital than those started by women (on average, US$65,010 vs. US$33,201 respectively). A partial explanation for such a difference is that women are more likely than men to start necessity businesses which, in turn, are more likely to be consumer-oriented and less likely to be business services. In fact, the amount needed to start a business is highest in the business services sector (US$76,263) and lowest in the consumer-oriented sector (US$39,594).[15]

For each of the 3 per capita income groups, the amount of capital required to start a new business can also be divided into 3 groups indicating whether the amount for any particular business was low, medium or high relative to the amounts in a specific per capita income group.[16] Accordingly, Table 3 shows in which of 3 start-up capital groups the largest percent of women involved in starting a new business is concentrated for each country. In other words, Table 3 indicates that in Argentina, the largest portion of female new businesses (39%) were started with a relatively low amount of money for a low-income country (no more than US$3,000), whereas in Hungary, also a low-income country, all

Table 4. Percent of Start-up Capital Invested by Women in Own Early-Stage Businesses*

	[0%-10%]	[10%-50%]	[50%-100%]	[100%]
Low		South Africa (31%) Uganda (42%)	Jordan (35%)	Argentina (56%) Brazil (56%) Croatia (68%) Ecuador (66%) Hungary (57%) Peru (33%) Poland (75%)
Middle		*Israel (40%)* Portugal (50%)	Greece (67%) Hong Kong (60%) Spain (48%) *Slovenia (50%)*	*Israel (40%)* New Zealand (55%) Singapore (40%) *Slovenia (50%)*
High	Ireland (39%)	*Italy (38%)* *Japan (50%)* France (58%)		*Italy (38%)* *Japan (50%)* Australia (52%) Belgium (100%) Canada (52%) Denmark (86%) Finland (80%) Germany (42%) Iceland (37%) Netherlands (50%) Norway (40%) Sweden (52%) UK (62%) USA (62%)

* Italics indicate that the percentage of start-up capital invested by women in own early-stage businesses is maximized in two start-up capital groups.



women's businesses were started with a relatively high amount of capital (specifically, at least US$19,000).

It is interesting to compare the cut point values between low and middle levels of required start-up capital between middle and high-income countries. In the middle-income group, having less than US$24,000 qualifies as a low capital start-up. In the high-income category, having less than US$13,000 qualifies as a low capital start-up. This is due to the fact, often, starting a business is less expensive in high-income countries, which tend to have a better physical infrastructure and more advanced capital markets.[17]

Consistent with overall GEM results for both genders, in most of the countries, and regardless of per capita income level, the majority of women entrepreneurs provide all the required start-up capital themselves. Table 4 shows that, in Croatia, for example, 67% of all women entrepreneurs use no external capital to start their business. In Belgium this is true for all the women in our sample and for 86% of them in Denmark. Across all countries, only in Ireland, a high-income country, does the largest portion of women entrepreneurs (almost 40%) provide only up to 10% of their own start-up money and obtain the remaining 90% from external sources.

Implications for Policy Makers

Any government interested in boosting economic prosperity should be interested in promoting the entrepreneurial dynamic of its country. Adult women represent a readily available pool of potential entrepreneurs that countries in various stages of development, with different demographic patterns and different labor force conditions can leverage to improve their economies.

Eliminating barriers to competition, reducing regulatory burdens, and providing more efficient services for new and developing firms will benefit all individuals interested in starting a business. The purpose of this report, however, is to discuss policy implications and best practices that specifically influence the involvement of women in entrepreneurial activity and that promote equal entrepreneurial opportunities.

GEM data show that across all countries, regardless of per capita income, the likelihood of starting a new business is significantly higher among women who have strong positive perceptions about their own abilities and their local economic environment. Thinking of themselves as having the necessary skills and knowledge to be firm founders, having a positive attitude toward the existence of opportunities, and not letting the possibility of failure be a deterrent are all subjective perceptions that strongly correlated with the likelihood that a woman will create a new business. These findings place great emphasis on individual awareness and perception processes and point out the importance of the local social norms that inform and mold such perceptions. Regardless of per capita income, some of the most successful policies and programs world wide are those able to increase women's awareness about entrepreneurship and provide them with role models and networking possibilities. In recent years, for example, the UK has made a significant public effort through a proliferation of government programs at both the national and regional level, to boost entrepreneurship. This massive government effort has had significant results and some regions, such as the East Midlands, have done very well in promoting women's entrepreneurship. There is no one single policy, however; some deal directly with issues like access to finance, but many address more subjective concerns like the creation of women's networks and the encouragement of role models. At the national level, programs like the Prince Trust, which provides small-scale finance for young entrepreneurs, have benefited many young women.[18]

This is confirmed further by efforts in the United States, where the Women's Business Ownership Act of 1988 has led to federal seed funding of Women's Business Centers throughout the country. Numbering 105 in 2004, Women's Business Centers provide technical assistance and support to socially and economically disadvantaged women interested in starting their own businesses. Women's Business Centers have proven to be significant sources of nascent entrepreneurship among lower income and minority women with sixty percent of center clients actively managing new ventures.[19] Between 1997 and 2004, the number of privately-held firms that are 51% or more owned by women of color grew by 55%, while all privately-held firms in the United States grew by only 9%.[20]

In addition to universal best practices which address the need for reforming the social entrepreneurial environment, the main policy implication provided by the GEM 2004 Global Report is that, when it comes to entrepreneurship, "one size does not fit all."[21] In order to be effective, many policies with respect to entrepreneurship need to be tailored to a country's specific context and, perhaps, even to that of sub-national regions. This is particularly important for women since they are much more sensitive than men to conditions in their local environment.



Policy Implications for Low-income Countries

Low-income countries should encourage the involvement of women in entrepreneurship. Although much female entrepreneurship in low-income countries is motivated by necessity, starting a new business represents an effective and flexible way for women from all economic groups to emancipate themselves and provide for their



families. With this in mind, areas of importance for policy makers should include literacy, financial assistance, management assistance, and training.

The success obtained by the Grameen Bank case in Bangladesh has obtained world-wide attention and recognition, and similar initiatives have been started in other countries. Among GEM countries, for example, Uganda exhibits a very high TEA and women tend to start businesses young and with a low educational level. The majority of the entrepreneurially active women in Uganda, however, invest a relatively large amount of money in their businesses compared to women in other low-income countries in spite of providing, by themselves, only a low percent of initial capital. These results are an indication of the importance of programs aimed at providing microcredit and other external capital to women in low-income countries,

Policy Implications for Middle-income Countries

Middle-income countries should encourage the involvement of women in entrepreneurship. More than in other groups, women in middle-income countries shy away from starting their own businesses. With this in mind, areas of importance for policy makers should include education about entrepreneurship, especially in elementary and secondary schools. There is a need to instill the fundamental values of the entrepreneurial mindset, as well as the need for the celebration of role models and the encouragement of informal networks among women.

A successful initiative in this area is the Center for Jewish-Arab Economic Development (CJAED). CJAED is an Israeli non-governmental organization that aims at closing the gaps between the Jewish and Arab sectors in Israel, thereby building the foundation for sustainable economic development and peace. CJAED has been very active in promoting women's entrepreneurship particularly in rural areas. During its years of operation some hundreds of women from various regions and ethnic backgrounds have been trained and helped to create their own businesses. A very special recent initiative of the program's founders is group entrepreneurship, in which a team of several women establishes a small business with shared ownership and responsibilities. Several of such group initiatives have been already established by Arab women in Galillee, Beduin women living in Negev, and, more recently, Arab and Jewish business women living in the Jaffa-Ramle-Lod region.

In New Zealand, female entrepreneurs interviewed by GEM researchers spoke very favorably about government sponsored programs created in order to provide information, training and networking opportunities. Lack of external financing was also identified as a main problem for women owned businesses, but many referred to the Maori Women's Welfare League, which provides financial cooperative support to Maori women involved in starting new enterprises, as a very positive example. Similarly, in Slovenia, the "Program for Promoting Women in Business," an initiative led by the Slovenian Small Business Development Centre has been successful in creating a stimulating environment for the entrepreneurial education of women. The goal of the program is to encourage women-owned and women-operated enterprises, unemployed young women, and women with lower education, single mothers and elderly women.

Policy Implications for High-income Countries

High-income countries need to sustain innovation rates and should encourage the involvement of women in entrepreneurship, especially when faced with an aging labor force. With this in mind, areas of importance for policy makers include the need to strengthen technology transfers, make early stage funding available, and to promote entrepreneurial education at the college and post-graduate level.

High-income countries need to promote entrepreneurship education among women and encourage more of them to pursue technical degrees. Finland, for example, is characterized by a very high education level. More than 50% of women have a higher-level education and have, on average, a higher education level than men, except at the

doctoral level, where men are still the majority. Finnish women, however, tend to have high education in areas in which entrepreneurial opportunities are dominated by government involvement. As a result, 55% of Finnish women involved in starting a new business have only some secondary education. This has a clear impact on the type of entrepreneurial activity observed in the country where men dominate technical fields, trade, craft and industrial programs, and where women are predominant in the service sector.

In Iceland, the Project Audur was created to increase women's participation in creating and growing their own businesses. Its goal was to produce measurable results in the form of an increase in the number and growth of companies owned by women. At the end of the three year program (January 2003), the participating women had already created 51 new companies and 217 new jobs. The program emphasized the creation of awareness about leadership and entrepreneurship among women from a very early age with initiative such as "Girls' Day at Work" and received the "best-practice award" from the EU. The GEM project was instrumental in the creation of the Audur program.

Finally, in many high-income countries, governments face the challenge of developing policy that will support continued and increasing participation of women in the labor force while also encouraging the innovation and economic development that entrepreneurship engenders. Policies that reduce the barriers to women in the dependent-labor market will, more than likely, benefit both female workers and the overall economy. However, if not carefully considered, these policies may also reduce a woman's incentive toward entrepreneurship. For example, if childcare were a guaranteed employment benefit, many women might choose to stay in the traditional employment sector rather than start their own businesses. As government policy is created to assist women in the workplace, incentives should be aligned to create equal benefits for women in the dependent labor force as well as those who choose to start new independent businesses.



Concluding Remarks

Great opportunities exist for governments at all levels to tap into the under utilized potential of women. Across the world, women from a variety of backgrounds are showing increasing interest in expressing their entrepreneurial spirit. And yet, many women hesitate to transform their business ideas into action. Although many reasons exist for such hesitation, this report has shown the lack of confidence and role models to be among the most important causes of the relatively low involvement of women in entrepreneurship compared to men. No matter how generous, support policies by themselves, although important especially in poorer countries, are not sufficient to increase women's involvement in entrepreneurship. Mentoring and network support are at least as crucial in boosting women's attitudes with respect to leadership and new venture creation.



The policy suggestions outlined earlier constitute a first step in the development of a comprehensive and rigorous framework to understand what causes differences in the levels of entrepreneurial response between men and women and what factors should be leveraged to increase women's involvement in the creation of new businesses. This is important at the individual level and for whole countries as well. When women fail to develop their full economic potential, the whole economy suffers. A better understanding of the potential contribution of women to the entrepreneurial landscape will allow the design of more satisfactory programs aimed at increasing their involvement in the market place. In addition to providing valuable knowledge about the entrepreneurial process, understanding and supporting the entrepreneurial behavior of women will have positive repercussions on a country's well-being and social equity.

Appendix - The GEM Project

Traditional analyses of economic growth tend to focus on the role played by established firms and often neglect the innovations and competition that small start-ups contribute to the overall economy. GEM takes a more comprehensive approach and considers the economic contribution of all businesses within a country. Specifically, GEM considers economic growth to be the result of two parallel sets of interrelated activities. Namely, those associated with established firms, and those associated directly to newly created firms and the related entrepreneurial process.

Established firms, especially large ones, influence economic growth primarily through the development of new establishments and the creation of job opportunities. Their ability to contribute to economic growth is influenced by general business conditions, such as the development of financial markets, the existence of physical infrastructure, and the reliability of legal institutions. New firms and the related entrepreneurial process contribute to economic growth primarily by introducing innovation in markets and production processes and by increasing competition. In addition to the general business conditions mentioned above, their ability to contribute to economic growth is influenced by factors such as cultural and social norms and by government policies and programs that pertain specifically to the entrepreneurial business environment. These conditions determine a country's capacity to encourage start-ups and, combined with the skills and motivations of those who wish to go into business for themselves, determine the level and quality of its entrepreneurial activity. By considering the complementary nature of different groups of firms, GEM links a nation's economic growth to the interplay of established and new firms, and allows a clearer understanding of why entrepreneurship is vital to the whole economy.

Since its inception in 1999, one of GEM's major activities has been the creation of a large data set and the construction of harmonized measures of entrepreneurial activity. Four types of data collection form the basis of the GEM assessment. First, representative samples ranging in size from 1,000 to 27,000 of randomly selected adults are surveyed in each country in order to provide a harmonized measure of the prevalence of early-stage entrepreneurial activity. Second, each GEM national team performs up to 50 face-to-face interviews with experts in their country, chosen to represent a set of critical entrepreneurial framework features such as government policies, cultural and social norms, and education and training. Third, these same experts are asked to complete a standardized questionnaire in order to obtain a precise measure of their judgments about their country as a suitable context for entrepreneurial activity. Fourth, standardized national data are extracted and harmonized from international data sources such as the World Bank, the International Monetary Fund, and the United Nations.



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Contacts

For more information on this report, contact:

Maria Minniti
Babson College
minniti@babson.edu
www.babson.edu/entrep

Pia Arenius
HEC – Lausanne
pia.arenius@unil.ch
www.hec.unil.ch

Nan Langowitz
Center for Women's Leadership
Babson College
langowitz@babson.edu
www.babson.edu/cwl

For more information on the Global Entrepreneurship Monitor visit the website at www.gemconsortium.org or contact:

William D. Bygrave
Babson College
bygrave@babson.edu
www.babson.edu/entrep

Paula Fitzsimons
National Coordinator: GEM Ireland
paulafitzsimons@eircom.net

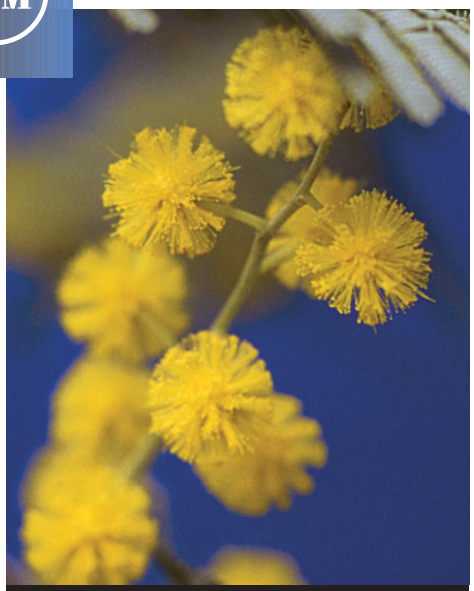
Mick Hancock
University of Southern Denmark
mha@sam.sdu.dk
www.sdu.dk

Michael Hay
London Business School
mhay@london.edu
www.london.edu

Adolph Hanich
Australian Graduate School of Entrepreneurship
ahanich@swin.edu.au



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