

Profiling Caribbean Women Entrepreneurs:

Business Environment, Sectoral Constraints
and Programming Lessons



 **infoDev**
Growing Innovation

Copyright

The report “Profiling Caribbean Women Entrepreneurs: Business Environment, Sectoral Constraints and Programming Lessons” is available at <http://www.infodev.org/EPIC>.

© 2015 international Bank for Reconstruction and Development/The World Bank

Mailing Address: MSN i9-900

1818 H St. NW, Washington D.C., 20433 USA Telephone: (+1) 202- 458-4070

Website: www.infoDev.org

Email: info@infodev.org

Twitter: @infoDev

Facebook: /infoDevWBG

This work is a product of the staff of The World Bank with external contributions. Note that The World Bank does not necessarily own each component of the content included in the work. The World Bank therefore does not warrant that the use of the content contained in the work will not infringe on the rights of third parties. The risk of claims resulting from such infringement rests solely with you.

The findings, interpretations, and conclusions expressed in this work do not necessarily reflect the views of The World Bank, its Board of Executive Directors, or the governments they represent. The World Bank does not guarantee the accuracy of the data included in this work. The boundaries, colors, denominations, and other information shown on any map in this work do not imply any judgment on the part of The World Bank concerning the legal status of any territory or the endorsement or acceptance of such boundaries.

Nothing herein shall constitute or be considered to be a limitation upon or waiver of the privileges and immunities of The World Bank, all of which are specifically reserved

Rights and Permissions



This work is available under the Creative Commons Attribution 3.0 Unported license (CC BY 3.0) <http://creativecommons.org/licenses/by/3.0>. Under the Creative Commons Attribution license, you are free to copy, distribute, transmit, and adapt this work, including for commercial purposes, under the following conditions:

Attribution—Please cite the work as follows: *infoDev. 2015. Profiling Caribbean Women Entrepreneurs: Business Environment, Sectoral Constraints and Programming Lessons*. Washington, DC: The World Bank. Website: <http://www.infodev.org/EPIC>. License: Creative Commons Attribution CC BY 3.0

Translations—If you create a translation of this work, please add the following disclaimer along with the attribution.

This translation was not created by The World Bank and should not be considered an official World Bank translation. The World Bank shall not be liable for any content or error in this translation.

All queries on rights and licenses should be addressed to *infoDev*, The World Bank, MSN: I9-900, 1818 H Street NW, Washington, DC 20433, USA; email: info@infodev.org.

Cover: [Nadia Jabour designing new jewelry pieces created from indigenous natural materials and combined with precious stones and metals, 2015](#). (Photo credit: Designs by Nadia/Island Mix, St. Lucia)

JUNE 2015

Profiling Caribbean Women Entrepreneurs:

Business Environment, Sectoral Constraints
and Programming Lessons

An *infoDev* publication prepared by:

Jonathan Lashley

Katrine Smith



About *infoDev*, EPIC and WINC

infoDev, a global multi-donor trust fund program at the World Bank Group's Trade and Competitiveness (T&C) Global Practice, focuses on catalyzing the entry and growth of new firms and innovative private sector solutions. It further seeks to expand the knowledge frontier related to how development partners can best advance entrepreneurship. *InfoDev* therefore works with governments, the private sector and a diverse set of other development partners to test and scale cutting-edge entrepreneurship programs.

InfoDev supports growth entrepreneurs by seeding and scaling the work of innovative business enablers that in turn provide technical assistance and finance to entrepreneurs. By increasing growth entrepreneurs' access to the knowledge, capital and markets required to grow their businesses, business enablers democratize the opportunity for innovative growth entrepreneurs to realize their potential.

infoDev is currently implementing the 'Entrepreneurship Program for Innovation in the Caribbean' (EPIC), a seven-year program funded by the Government of Canada's Department of Foreign Affairs, Trade and Development (CAD 20 million), designed to strengthen an enabling ecosystem to foster high-growth and sustainable enterprises throughout the Caribbean. The Program has several key components, including Mobile Innovation, Climate Technologies, Women-led Entrepreneurship, Business Enablers' Support, and Access to Finance. More information about EPIC can be found at www.infodev.org/EPIC.

Within the framework of EPIC, the 'Women Innovators Network in the Caribbean' (WINC) aims to establish a support system for growth-oriented women entrepreneurs in the region. Specifically, it seeks to provide them with methods, tools, and access to appropriate expertise in order to innovate within their businesses, improve their competitiveness, and grow.

Acknowledgments

This report was commissioned by *infoDev* and prepared by Dr. Jonathan Lashley and Katrine Smith.

The lead authors of the report are Jonathan Lashley and Katrine Smith, with critical contributions provided by Loren Nadres. The authors also acknowledge earlier contributions from Jill Sawers, Sophia Muradyan, Angela Bekkers, Ellen Olafsen, Leonardo Iacovone, and Joanna Edghill.

The report draws on information gleaned from previous research into women entrepreneurs in the Caribbean.

Table of Contents

Acknowledgments	ii
Abbreviations and Acronyms	7
Executive Summary	8
Introduction: Rationale, Concepts, and Research Approach	8
The Caribbean Business Environment: Doing Business, ICTs and Innovation, and Business Services	9
Women Entrepreneurs in the Caribbean Environment: Self-Employment Levels, Sectors, and Innovation	12
Constraints to Women-Owned Businesses in the Caribbean	14
Programming Lessons to Support Women Businesses in the Caribbean	14
Chapter 1: Introduction	16
Background	16
Concepts, Definitions, and Operationalization	17
Overview of Research Approach	18
Structure of the Rest of the Manuscript	18
Chapter 2: The Caribbean Business Environment	20
Introduction	20
Doing Business Ranking and Indicators in the Caribbean	21
Access to ICTs and Support for Innovation	26
Gender, Norms, and Financial Inclusion in the Caribbean	29
The Utility of Business Support Services in the Caribbean	34
Chapter Summary	37
Chapter 3: Women Entrepreneurs in the Caribbean: Self-Employment Levels, Sectors, and Innovation	38
Introduction	38
Women in the Labor Market in the Caribbean: Employment and Self-Employment Estimates	39
Characterization of Women-Owned Businesses in the Caribbean	43
Growth, Innovation and Technology in Women-Owned Businesses in the Caribbean ...	47
Chapter Summary	50

Chapter 4: Constraints to Women-Owned Businesses in the Caribbean	54
Introduction	54
Constraints to Women-Owned Business in the Caribbean	54
Chapter Summary	58
Chapter 5: Lessons for Supporting Women Entrepreneurs in the Caribbean	60
Main Findings and Lessons for Program Development	60
Refining Programming: WINC’s Hybrid and Incubation “Lite” Approach	66
Conclusion	67
Appendix 1: Estimation Procedures and Background Data for Female Self-Employment in the Caribbean	68
Data Requirements and Sources for Estimation of Number of Female-Owned Businesses	68
Identification of Missing Variables and Calculation of Estimates	70
Methodology for Calculation of Estimates from Data for Proxy Country	72
Actual and Estimated Labor Market Information for Females in the Caribbean	73
Appendix 2: Sectoral Distribution of Caribbean Enterprises	76
References	78

List of Boxes, Figures and Tables

Boxes

Box 1: Experience of Valrie Grant, GeoTechVision Enterprises	64
------------------------------------------------------------------------	----

Figures

Figure 1: Females in Self-employment in the Caribbean— Estimation Results (Percentage)	12
Figure 2: Top 10 Sectors: Sectoral Distribution of Ownership by Gender (Percentage)	13
Figure 3: Females in Self-Employment in the Caribbean— Estimation Results (Percentage)	43
Figure 4: Top 10 Sectors: Sectoral Distribution of Ownership by Gender (Percentage)	45
Figure 5: Female-Owned Business by Country, by Level of Technology/Knowledge Intensity (Percentage)	49
Figure 6: Biggest Obstacles Affecting the Business (Percentage)	56
Figure 7: Major/Very Severe Obstacles to Business Development by Ownership (Percentage)	57
Figure 8: Biggest Obstacles to Business Development by Sector Category (Percentage)	57
Figure 9: Innovative and Growing Female Enterprises per Country by Share of Regional Female Enterprises (Percentage)	62

Tables

Table 1: Components of Registering Business and Getting Credit— Caribbean and Global Averages	10
Table 2: Components of Protecting Minority Investors— Caribbean and Global Averages	10
Table 3: Components of Enforcing Contracts—Caribbean and Global Averages	10
Table 4: Components of Resolving Insolvency—Caribbean and Global Averages	11
Table 5: Technology and Knowledge Intensiveness Classifications by Employment Levels and Growth (2006 to 2009)	13
Table 6: Technology and Knowledge Intensiveness (TKI) Classifications	17
Table 7: Profile of EPIC Caribbean Countries (2013)	21
Table 8: Ranking of Doing Business 2015 Indicators for Countries Covered by EPIC (except Montserrat)	22

Table 9: Components of Registering Property and Getting Credit by Country	23
Table 10: Components of Protecting Minority Investors by Country	24
Table 11: Components of Enforcing Contracts by Country	24
Table 12: Components of Resolving Insolvency by Country	25
Table 13: ICT Development Index, Access, and Use Sub-Indices for Caribbean Countries, 2013	27
Table 14: ICT Price Basket, and Costs of Fixed and Mobile Broadband Services in the Caribbean (2013)	28
Table 15: Global Innovation Index for Select EPIC Countries, 2013	29
Table 16: Innovation Strengths and Weaknesses for Global Innovation Index 2013 in Select Caribbean Countries	30
Table 17: Firms Competing with Unregistered/Informal Firms by Gender of Ownership (Percentage)	31
Table 18: Estimated Female Self-Employment in the Caribbean (Percentage of Total Employment)	40
Table 19: Estimated Female Self-Employment in the Caribbean (Numbers)	41
Table 20: Size Distribution of Firms for Various Countries by Gender of Owner (Percentage)	41
Table 21: Size Distribution of Female-Owned Firms for Various Countries (Percentage)	42
Table 22: Number of Female-Owned Businesses by Employee Range for the Caribbean (Estimates)	42
Table 23: Legal Status of Firm for Businesses with Female Participation in Ownership	44
Table 24: Legal Status of Firm for Businesses with Female Participation in Ownership by Largest Owners Percentage Share	44
Table 25: Sectoral Distribution of Self-Employed Females in Barbados and Jamaica (Percentage)	45
Table 28: Current Employment Statistics by Legal Status of Company	46
Table 29: Innovation and Technology Indicators for Female-Owned Businesses	48
Table 30: Technology and Knowledge-Intensiveness Classifications by Employment Levels and Growth (2006 to 2009)	48
Table 31: Estimates of Female-Owned Enterprises by Technology and Knowledge Intensiveness Classifications	49
Table 32: Innovation and Technology Indicators for Female-Owned Businesses: Estimated Distribution (Numbers)	50
Table 37: Reason for Not Applying for a Loan by Ownership	58
Table 38: Main Reasons for Not Applying for New Loans or New Lines of Credit for Females (Percentage)	58

Appendix Tables

Table A-1: Variables and Sources for Most Recent Year Available.	69
Table A-2: Country-Specific Data Sources for Variables by Country and Year.	70
Table A-3: Missing Variables by Country	71
Table A-4: Missing Data Countries, Proxy Countries, and Rationale for Proxy Country Selection	72
Table A-5: GDP per Capita (Constant \$) (2011) by Country to Assess Level of Development	72
Table A-6: Example of Calculating Estimated Percentage Distributions	73
Table A-7: Actual and Estimated Labor Market Data for the Caribbean (Numbers)	74
Table A-8: Actual and Estimated Labor Market Data for the Caribbean (Percentage)	75
Table A-9: Sectoral Distribution of Full Sample, Enterprises with Females Involved in Ownership and Sole Female Owners (Percentage)	76
Table A-9: Sectoral Distribution of Full Sample, Enterprises with Females Involved in Ownership and Sole Female Owners (Percentage) <i>(continued)</i>	77

Abbreviations and Acronyms

CARICOM	Caribbean Community
CDB	Caribbean Development Bank
CEDAW	Convention on the Elimination of all Forms of Discrimination against Women
DFATD	Department of Foreign Affairs, Trade and Development (Canada)
EPIC	Entrepreneurship Program for Innovation in the Caribbean
ES	Enterprise Surveys
GBA	Global Banking Alliance (for Women)
GDP	Gross domestic product
GEM	Global Entrepreneurship Monitor
GO	Growth-oriented (women entrepreneurs)
GyB	“Grow your Business”
ICT	Information and communication technology
IDB	Inter-American Development Bank
IFC	International Finance Corporation
IMF	International Monetary Fund
LAC	Latin America and the Caribbean
MIF	Multilateral Investment Fund
MSME	Micro, small, and medium-sized enterprise
OECD	Organisation for Economic Cooperation and Development
SME	Small and medium-sized enterprise
TKI	Technology and knowledge intensiveness
WB	The World Bank
WBG	The World Bank Group
WINC	Women Innovators Network in the Caribbean

Executive Summary

Introduction: Rationale, Concepts, and Research Approach

This report seeks to redress the current paucity of information on growth-oriented women entrepreneurs in the Caribbean region by drawing on various data sources to estimate their numbers and sectoral focus. At the same time, it develops an understanding of the main issues facing women in their businesses and their future growth potential.

Three main concepts are used throughout the report: entrepreneurship, innovation, and growth-orientation. Entrepreneurship is used in its widest sense in relation to the support environment and the process of starting and running businesses. Innovation is considered the launching of new or improved products, services, processes, or business models to drive differentiation and/or efficiency for enhanced competitiveness. Growth orientation relates to individual drive, ambition, and potential to grow a business, while growth potential relates to the potential of the sector to grow.

Information on entrepreneurial activities is available at a global level. For example, the World Bank's Doing Business and Enterprise Surveys and the Global Entrepreneurship Monitor (GEM). However, information for the Caribbean region in general, and gender specifically, is lacking. The World Bank's Enterprise Surveys cover most countries in the Caribbean. Information on enterprises with *females in ownership*¹ is also available. Again,

¹ The Enterprise Surveys request information on whether there are any females in ownership. It does not ask about males in ownership. Therefore, while reviewing the data, one cannot discern if the business is wholly female owned nor the percentage of ownership.

In the Latin America and Caribbean region, little is known of high-growth entrepreneurs and even less is known about women whose companies achieve high growth: Who are they? How do they succeed in reaching this level of growth? What motivates them? What are their biggest challenges and ambitions? What do they need to keep their business growing?

(IDB, 2014:3)

this data has not been used enough to unearth issues facing female entrepreneurs in the region.

The Women Innovators Network in the Caribbean (WINC) required this information to target the region's growth-oriented and innovative women entrepreneurs in technology-oriented and technology-enabled businesses.² Therefore, WINC sought answers to the following questions:

- **Market size**
 - What is the representation of self-employed women in the labor market? Specifically, how many high-potential growth-oriented women entrepreneurs exist across the Caribbean?

² The following conceptualizations were utilized in relation to the target group: **growth-oriented (GO)**—presence of drive, ambition, and potential to scale and be future market leaders; **innovative**—ability to launch new or improve existing products/services, processes, or business models to drive differentiation and/or efficiency for sustained competitiveness; **technology-enabled**—reliance on technological processes to develop, deliver, and/or market a product or service; or **technology-oriented (technology/knowledge-intensive)**—using and/or offering products or services classified as medium to high technology/knowledge-intensive.



Photo: infoDev/World Bank Group

- **Profile**

- What is the profile of women entrepreneurs in the Caribbean? For example, what sectors are they in? Are they innovative, technology-enabled or technology-oriented? Do they pursue high-growth ventures versus subsistence ventures? If so, in what proportions?

- **Barriers to doing business for women entrepreneurs**

- What, if any, are the significant barriers that prevent or discourage women from starting, operating, and growing their businesses in the Caribbean?

- **Adequacy of business support**

- Are there adequate business-support services, including incubation support, for growth-oriented and potential growth-oriented women entrepreneurs in the Caribbean? What services are already available to them, and do these satisfy their needs? If not, why not, and what are the gaps? Do the needs of Caribbean women entrepreneurs differ from those of men? If so, how? And what does this indicate about the women entrepreneurs themselves? What are women entrepreneur needs in relation to access to finance? What are their needs in relation to technical and vocational training?

The WINC assessment adopted a mixed research methodology to address these issues for its own programs and to contribute to the knowledge in the region. It used previously published research, secondary data on the labor market, general business environment, and enterprise-level data from the World Bank's Enterprise Surveys; and primary data from WINC's community of women entrepreneurs and key stakeholders.

The Caribbean Business Environment: Doing Business, ICTs and Innovation, and Business Services

While there is a great deal of heterogeneity in the Caribbean countries covered by EPIC/WINC³ as relates to human, physical, and economic characteristics, the research indicates that a largely common colonial history has, for the most part, resulted in broadly similar institutional structures and socio-cultural conditions.

Notwithstanding, analysis of the most recent World Bank Doing Business (DB) rankings⁴ highlight the considerable variations that exist in their respective internal business environments: the highest-ranked is Jamaica (with an overall rank of 58) and the lowest-ranked is Suriname (with an overall rank of 162). The region's average overall Ease of Doing Business rank is below the median global rank (106 and 94 respectively). This suggests that the Caribbean, as a region, is underperforming.

However, 12 of EPIC's countries show improved DB Distance to Frontier (DTF) scores compared to DB 2014 results,⁵ which indicates that they are moving towards global regulatory best practice.

³ EPIC covers the following CARICOM countries: Antigua and Barbuda, The Bahamas, Barbados, Belize, Dominica, Grenada, Guyana, Jamaica, Montserrat, St. Lucia, St. Kitts and Nevis, St. Vincent and the Grenadines, Suriname, and Trinidad and Tobago. (Haiti is the focus of other Canada-funded programs, and so is not covered by EPIC.)

⁴ The only EPIC country not covered by the DB surveys is Montserrat.

⁵ For the first time, the DB2015 Ease of Doing Business ranking is based on the Distance to Frontier score rather than on percentile rank. The Distance to Frontier scores benchmark economies with respect to a measure of regulatory best practice, showing the gap between each economy's performance and the best performance on each indicator. Notwithstanding, the ranking based on Distance to Frontier score (DB2015) is highly correlated with that based on percentile rank (DB2014).

TABLE 1: Components of Registering Business and Getting Credit—Caribbean and Global Averages

Economy	Registering Property			Getting Credit			
	Procedures (number)	Time (days)	Cost (% of property value)	Strength of legal rights index (0-10)	Depth of credit information index (0-6)	Public registry coverage (% of adults)	Private bureau coverage (% of adults)
Regional Average	7	64	9.3	5	1	9.3	9.3
Global Average	6	50	5.9	5	4	5.9	5.9

Source: Doing Business global survey data (World Bank 2014b).

TABLE 2: Components of Protecting Minority Investors—Caribbean and Global Averages

Economy	Protecting Minority Investors								
	Extent of disclosure index (0-10)	Extent of director liability index (0-10)	Ease of shareholder suits index (0-10)	Extent of conflict of interest regulation index (0-10)	Extent of shareholder rights index (0-10.5)	Strength of governance structure index (0-10.5)	Extent of corporate transparency index (0-9)	Extent of shareholder governance index (0-10)	Strength of minority investor protection index (0-10)
Regional Average	3	6	7	6	5	3	3	4	5
Global Average	5	5	6	5	7	4	4	5	5

Source: Doing Business global survey data (World Bank 2014b).

The only country that stayed the same in the region is Barbados.

A detailed review of the DB data indicates a number of regulatory topics that significantly lower the region's overall rank and are examined further. They are:

- Registering property: average rank 145
- Getting credit: average rank 127
- Protecting minority investors: average rank 114
- Paying taxes: average rank 99
- Enforcing contracts: average rank 134
- Resolving insolvency: average rank 113.

To register property, table 1 shows that the region on average has one more procedure and takes 14 days longer than the global average. In addition, as a percentage of property value, the cost of registering property for a business is almost 65 percent higher than the global average. Getting credit is even more constraining. Although legal rights protection is the same as the global average, the region performs poorly in terms of depth of credit information, and public registry and private bureau coverage. Jamaica and Trinidad and Tobago are the only countries with any private bureau coverage. This lack of information serves to increase the perceived risk of lending and therefore increases constraints to accessing finance for both males and females.

With regard to protection of minority investors, table 2 shows that the region's regulations on conflict of interest is, for the most part, better than the global average; but the region underperforms in terms of shareholders' rights in corporate governance.

With respect to enforcing contracts, table 3 shows that although the cost of enforcing contracts in the region is below the global average, the average number of days involved is 166 more than the global average, and involves 44 procedures as opposed to 38 at the global level.

For several resolving insolvency indicators, the region is the same as or similar to the global average: time, outcome, recovery rate, commencement of proceedings index, and creditor participation index, as shown in table 4. The region is however below the global average in terms of cost as percentage of the estate (almost 10 percent more expensive) as well as with three

TABLE 3: Components of Enforcing Contracts—Caribbean and Global Averages

Economy	Enforcing Contracts		
	Time (days)	Cost (% of claim)	Procedures (number)
Regional Average	791	30.5	44
Global Average	625	33.7	38

Source: Doing Business global survey data (World Bank 2014b).

TABLE 4: Components of Resolving Insolvency—Caribbean and Global Averages

Economy	Resolving Insolvency								
	Time (years)	Cost (% of estate)	Outcome (0 as piecemeal sale and 1 as going concern)	Recovery rate (cents on the dollar)	Commencement of proceedings index (0-3)	Management of debtor's assets index (0-6)	Reorganization proceedings index (0-3)	Creditor participation index (0-4)	Strength of insolvency framework index (0-16)
Regional Average	3	17.7	0	40.8	2	2	0	2	8
Global Average	3	16.3	0	40.1	2	4	1	2	9

Source: Doing Business global survey data (World Bank 2014b).
 Note: np = no practice.

indices (management of debtors' assets, reorganization proceedings, and strength of insolvency framework).

When using DB indicators to track changes in business regulations, only six of EPIC's countries implemented reforms in 2013/14; and not all actually made it easier to do business. Among economies worldwide, Trinidad and Tobago has improved the most across three or more areas measured by Doing Business in 2013/14: starting a business, getting credit, and resolving insolvency.

The ICT Development Index (IDI), developed by the International Telecommunication Union (ITU), monitors access to and use of information and communication technologies (ICTs), so that these can be compared across countries. Not all EPIC countries are listed in ITU's most recent report, which shows considerable differences in the IDI across the region. Barbados has the highest rank (35 of the 166 countries analyzed) and Guyana the lowest (111) (ITU, 2014). Both Antigua and Barbuda and St. Lucia show sharp increases in wireless-broadband penetration over the period. In contrast, wireless broadband was still not available in Dominica, Guyana, and St. Vincent and the Grenadines at the end of 2013.

The ICT Price Basket (IPB) 2013, an overall measure, also shows significant variation across the region: Trinidad and Tobago has the lowest IPB, at 0.8 (which places it 24 among 166 countries analyzed), while Belize has the highest IPB, at 8.8 (127). There are differences across the region in terms of price and affordability of fixed and mobile broadband services.

As per the State of Broadband report (Broadband Commission, 2014), ten EPIC countries now have national broadband plans in place; two are in planning (Dominica and St. Lucia); and one does not have any (Suriname). Montserrat was not covered.

ICTs can be a tool for business growth, as well as a business opportunity in terms of software and hardware development. However, innovation is a more formless concept. Lederman et al. (2014) notes that innovation, as measured by the introduction of new products, is low in the Caribbean. Here, firms are 50 percent less likely to introduce new products than firms in middle income countries in Eastern Europe and Central Asia. This sub-par performance is reflected in the Global Innovation Index (GII), which includes *innovation inputs* (elements that enable innovative activities, such as institutions, human capital and research, infrastructure, market sophistication, and business sophistication) as well as *innovation outputs* (knowledge and technology outputs and creative outputs) (Cornell University, INSEAD, and WIPO, 2013). Of the five EPIC countries examined, Barbados has the highest GII score and rank (40.48, 47 of 142 countries), and Belize the lowest (29.98, 102 of 142).

The GII shows that R&D is a significant weakness in all countries in the region. As such, insufficient investment in innovation is believed to: "... contribute to large productivity gaps of MSMEs and constrains the private sector in responding to market opportunities that can unlock technology-driven projects." (CDB, 2012:35).

"While there are efforts across the region to support business development, another key finding of this assessment exercise is that the generic technical assistance, training, advocacy, and finance do not appear to match the entrepreneurs' requirements."

Rather than providing comprehensive incubation services, regional efforts in this area are mostly provision of office space. In addition, there is a lack of finance products beyond debt finance, such as venture capital or angel investing.

Women Entrepreneurs in the Caribbean Environment: Self-Employment Levels, Sectors, and Innovation

While profiling women entrepreneurs in the region, the report estimated the number of self-employed females in the region. The estimation method employed, as shown in appendix 1, resulted in the following approximations from an estimated 1.2 million employed females:

- In terms of levels, there are approximately 228,000 self-employed females, of whom 204,000 had no employees, 21,000 had one to four employees, and 3,000 had five or more employees.
- In terms of shares, 13 percent of employed females are self-employed, with 11 percent having no employees and 2 percent having one or more employees.
- In relation to total employment, self-employed females comprise 8 percent of total employment, while self-employed females with employees account for 1 percent of total employment.
- Self-employed females with five or more employees account for only 1 percent of self-employed females.

Figure 1 outlines the proportions in relation to total (male and female) employment in the region.

These approximations are in line with what is seen in the wider Latin America and Caribbean region,

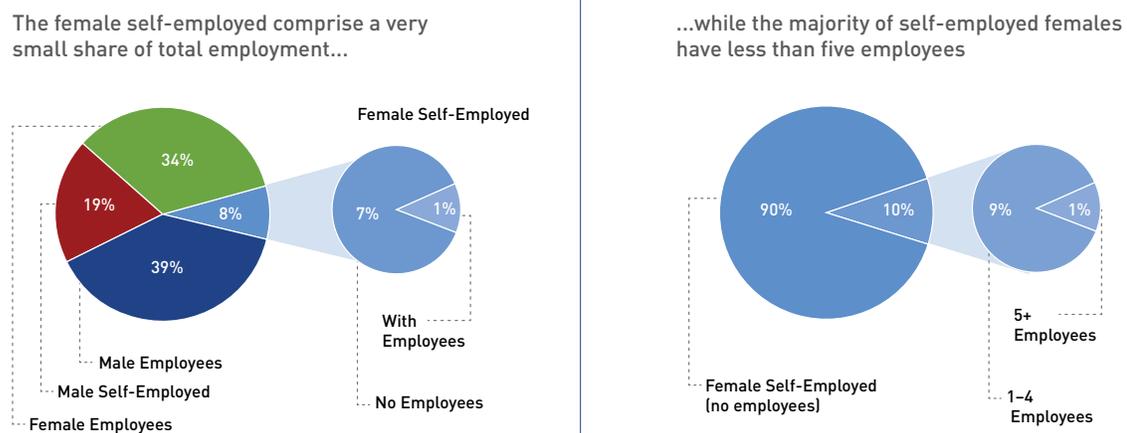
as noted by the Global Entrepreneurship Monitor (GEM):

“... of all the regions, women entrepreneurs in Latin America and the Caribbean are the most likely to operate without employees. Most run consumer-oriented businesses, and they rarely sell outside of their national borders. Given that these economies are all in the middle stage of economic development and experiencing high economic growth, it may be concerning that many of the businesses women run show characteristics indicating lower potential outcomes and, thus, limited economic impact.” (Kelley et al., 2013:39)

While countries in the Caribbean are not experiencing high economic growth at this time, this characterization is still of concern, given that the number of women entrepreneurs is significantly lower than men entrepreneurs.

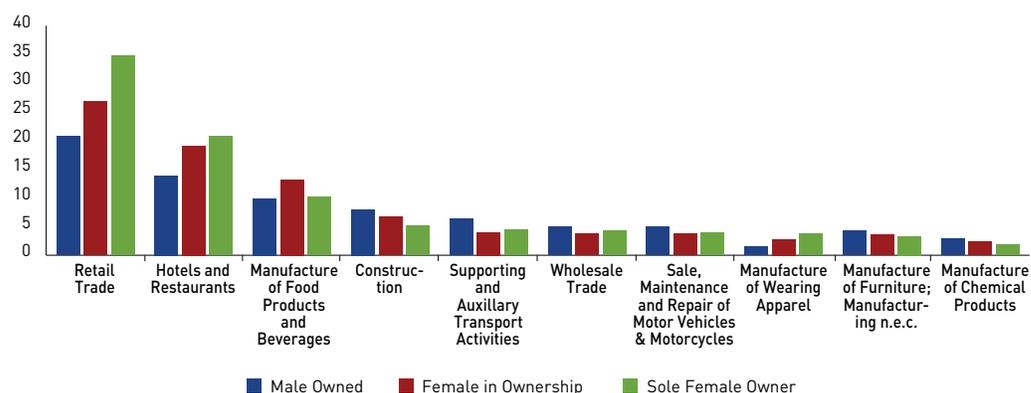
An interesting finding from the Enterprise Surveys was that the profiles of female-owned businesses only demonstrate limited differences from male-owned businesses in most instances. The most salient difference relates to sector of operations: the top three sectors (retail, hotel and restaurants, and food and beverage manufacturing) accounted for 59 percent of businesses with some female ownership, 66 percent of businesses with female sole proprietors, and only 45 percent of wholly male-owned businesses (see figure 2). Expectedly, any innovation in these sectors would mostly be process-type innovations; growth potential is limited given the domestic focus and seemingly saturated markets.

FIGURE 1: Females in Self-employment in the Caribbean—Estimation Results (Percentage)



Source: Authors' calculations (see Appendix 1).

FIGURE 2: Top 10 Sectors: Sectoral Distribution of Ownership by Gender (Percentage)



Source: Enterprise Survey (2010).

In looking specifically at **growth and technology/knowledge intensiveness**, table 5 below indicates that the majority of female businesses from the Enterprise Surveys were located in low technology and less knowledge-intensive sectors (87 percent of female enterprises), sectors which are experiencing the lowest levels of growth. Median growth was 2.4 percent in these sectors, with women’s business not experiencing any growth.

As the table also demonstrates, overall, growth is more prevalent in high technology- and knowledge-intensive sectors, and in medium to low technology/knowledge-intensive financial services, both experiencing approximately 9 percent growth in employment over the period 2006 to 2009. However, these sectors only account for 7.7 percent of female businesses, estimated at approximately 200 businesses in the region with nearly 90 percent of female businesses in low TKI sectors.

Overall, the analysis indicated that fewer females entered self-employment, and when they did, were more likely to not employ anyone, and if they did, employed less persons than male-owned businesses. The report proposes that this lesser participation in self-employment is due to socio-cultural factors which have implications in relation to accessing finance and property, and the skills required to operate in growing and innovative sectors. To explore these issues, the assessment reviewed some background literature as well as survey data from the Enterprise Surveys and from WINC applicants to explore the main constraints to business development for women entrepreneurs in the Caribbean region.

TABLE 5: Technology and Knowledge Intensiveness Classifications by Employment Levels and Growth (2006 to 2009)

Classification	Male Companies (number)	Female Companies (number)	Current Level of Employment (median)	Growth (%) (2006 to 2009)		
				Overall	Male	Female
High TKI (e.g., precision instruments)	81	54	12	9.1	100	4.8
Medium-High TKI (e.g., chemical products)	102	48	22	5.5	8.5	0.0
Medium-Low TKI (e.g., rubber and plastics)	53	17	16	8.9	8.7	10.0
Low TKI (e.g., wholesale and retail)	976	800	15	2.4	3.8	0.0
Total	1212	918	16	4.0	5.3	0.0

Source for calculations: Enterprise Survey (2010).

Constraints to Women-Owned Businesses in the Caribbean

The report indicates that the main constraints for women entrepreneurs relate to socio-cultural factors, costs, and lack of appropriate skills in the labor force.

According to the Enterprise Surveys, cost issues relate specifically to the cost of finance, high collateral requirements, electricity and taxes. Inadequate skills relate to a lack of technical skills for those in technology/knowledge-intensive sectors. From previous research in the region, these constraints exist (and persist) through deeply-seated socio-cultural issues which result in segmentation in education and in the labor market.

The report identifies priority barriers and constraints that require addressing. These include:

- Access to financing
- Appropriate and relevant training and counselling (business advisory services) and other forms of capacity-building support (for example, business coaching and mentoring)
- Access to relevant and timely business-related information (for example, regulations, trade missions, obtaining technical support, etc.)
- Access to networks (for example, women entrepreneurs, business associations)
- Access to technology and equipment.

Programming Lessons to Support Women Businesses in the Caribbean

The recommendations for future donor interventions to emerge from the report are aimed at promoting development of women-owned businesses by specifically identifying target beneficiaries, target sectors and geographical priorities, and services most needed by women entrepreneurs.

The report recommends that programs adopt an inclusive approach and embrace both growth-oriented, innovative women entrepreneurs who are running technology-oriented and enabled businesses as well as those demonstrating solid promise and potential in these areas. It is also imperative that programs seek specifically to expand women's involvement in sectors that are technology or knowledge-intensive and growing in the region.

WINC and future donor programs will be well positioned to assist women entrepreneurs in the region to overcome the main constraints impacting their businesses through a comprehensive yet tailored package of services. Such support will include: access to appropriate financing; relevant business-related training and peer learning sessions; business coaching and mentoring support; developing a regional business network for women entrepreneurs; access to business-related and market information; and strengthening innovation in women-owned firms.



Photo: Katrine Smith: infoDev

Women entrepreneurs participating in WINC's regional Grow Your Business workshop, Jamaica, 2013

Executive Summary: Key Points

- Information on enterprise development in the Caribbean is often only based on one or two of the larger Caribbean states, mostly due to the absence of key information about other smaller Caribbean states.
- Globally, research on women entrepreneurs is in its early stages, with a severe lack of analysis in the Caribbean.
- The current effort sought to fill the research gaps on women entrepreneurs in the Caribbean by establishing their level of participation in self-employment and profiling those in sectors with growth potential in key technological and knowledge-intensive sectors.
- The research indicated that the proportion of women in self-employment is low in relation to overall self-employment and that their participation in technology and knowledge-intensive sectors is subsequently also low. The estimation procedure revealed that females in self-employment accounted only for 8 percent of the entire labor force, comprising 7 percent with no employees and 1 percent with employees. Of the female self-employed, 9 percent had between one and four employees and 1 percent had five or more employees. The remaining 90 percent did not have employees.
- While some of the results from the World Bank's Enterprise Surveys indicated that businesses with five or more employees demonstrated similar characteristics between the sexes, a stark difference was seen in relation to sector; the sectoral distribution of women-owned enterprises is dominated by services: the two largest sectors (retail trade and hotels and restaurants) accounted for 46 percent of all businesses with female ownership, as compared to 34 percent of businesses with full male ownership.
- The main barriers and constraints to women-owned entrepreneurs were identified as:
 - Lack of access to financing
 - Lack of appropriate and relevant training and counselling (business advisory services) and other forms of capacity-building support (for example, business coaching and mentoring)
 - Lack of access to relevant and timely business-related information (for example, regulations, trade missions, obtaining technical support, etc.)
 - Lack of access to networks (for example, of women entrepreneurs, business associations)
 - Lack of access to technology and equipment.
- Three main priorities were identified to address gender segregation in the labor market, which are a direct effect of socio-cultural factors. These are:
 - Expand women's involvement in sectors with growth potential, both as employees and owners
 - Increase acceptance of self-employment as a viable career option
 - Improve access to developmental resources to promote greater involvement in self-employment in growth-oriented sectors.
- Program development in this area should seek to provide for: access to appropriate financing; relevant business-related training and peer learning sessions, business coaching and mentoring support; developing a regional business network for women entrepreneurs; access to business-related and market information; and strengthening innovation in women-owned firms.

Chapter 1: Introduction

Background

Entrepreneurship as a construct, with innovation as a strongly related concept, has been in academic vocabulary for some time. As theory has advanced, leading to a significant body of applied research, classical literature in the area was inherently focused on the masculine (Bruni, Gherardi and Poggio, 2004). Indeed, it is only relatively recently that the issue of gender has been explicitly incorporated into the discourse on entrepreneurship, with an increase in research in the area of gender and entrepreneurship (Lashley, 2012).

Information now exists on entrepreneurial activities at a global level through, for example, the World Bank's Doing Business and Enterprise Surveys and the Global Entrepreneurship Monitor (GEM). However, information for the Caribbean region as a whole, and on gender specifically, is lacking. Although the World Bank's Enterprise Surveys cover most countries in the Caribbean and information is available on enterprises with *females in ownership*,⁶ there is limited use of this data to unearth issues facing female entrepreneurs in the region. The current text seeks to address this issue to some degree.

Unlike the World Bank Enterprise Surveys, the GEM surveys present limited coverage of the region; country reports are available only for Barbados, Jamaica, and Trinidad and Tobago, three of the more developed countries in the region. The GEM 2012 Women's Report does provide information at a global level on women in business, but with only Barbados and Trinidad and Tobago included, is not representative of the region as a whole.

⁶ The Enterprise Surveys request information on whether there are any females in ownership, and does not ask the equivalent for males in ownership. Therefore, while reviewing the data, one cannot say if the business is wholly-female owned, or the percentage of ownership.

In the Latin America and Caribbean region, little is known of high-growth entrepreneurs and even less is known about women whose companies achieve high growth: Who are they? How do they succeed in reaching this level of growth? What motivates them? What are their biggest challenges and ambitions? What do they need to keep their business growing?

(IDB, 2014:3)

The same is true of the recent Inter-American Development Bank's (IDB) WEGrow publication on women entrepreneurs in Latin America and the Caribbean,⁷ which includes only Jamaica from the Caribbean (IDB, 2014). The IDB (2014:3) underlines the need for a specific study of women entrepreneurs in the Caribbean region. It notes:

"In the Latin America and Caribbean region, little is known of high-growth entrepreneurs and even less is known about women whose companies achieve high growth: Who are they? How do they succeed in reaching this level of growth? What motivates them? What are their biggest challenges and ambitions? What do they need to keep their business growing?"

Given that this WEGrow report covers only one Caribbean country, there is a need for additional research, specifically on the Caribbean, to address these important questions.

Apart from just the issue of gender, the Caribbean is under-researched when it comes to studies on entrepreneurship and innovation. It is often

⁷ See <http://www.fomin.org/home/knowledge.aspx?idPublication=104467>



Photo: infoDev/World Bank Group

grouped with larger Latin American countries under the moniker of Latin America and the Caribbean (LAC), with only one or two Caribbean nations included in the analysis. Notwithstanding, in the recent World Bank publication, *Latin American Entrepreneurs: Many Firms but Little Innovation* (Lederman et al., 2014), nine of the fifteen Caribbean countries were included in the analysis, albeit with limited attention paid to gender.

In seeking to redress this imbalance, the following text draws on a number of data sources to better understand the region’s women entrepreneurs, as central figures, but also the general process and environment that supports them.⁸ The report therefore estimates the volume of women entre-

⁸ The analysis is undertaken with a conceptualization of entrepreneurship as a process, with the entrepreneur as a central figure, drawn from the original works of Wennekers and Thurik (1999) and Shane and Venkataraman (2000), and synthesized in Lashley (2008).

preneurs in the region, their sectoral focus, and issues related to innovation and growth. It then examines main factors constraining them in their business, and their future growth potential.

Concepts, Definitions, and Operationalization

There are three main concepts utilized throughout the text: entrepreneurship, innovation, and growth-orientation.

Entrepreneurship, in the first instance, is used in its widest sense in relation to the support environment and the process of starting and running business in general, while innovation is considered the launching of new or improved products, services, processes, or business models to drive differentiation and/or efficiency for enhanced competitiveness. Growth-orientation is a construct based at the individual level and relates to the

TABLE 6: Technology and Knowledge Intensiveness (TKI) Classifications

Classification	Sector
High TKI	Publishing, printing, and reproduction of recorded media; computer and related activities; post and telecommunications; manufacture of medical, precision and optical instruments, watches and clocks; manufacture of radio, television and communication equipment and apparatus.
Medium-High TKI	Manufacture of machinery and equipment n.e.c.; air transport; other business activities; manufacture of chemicals and chemical products; manufacture of coke, refined petroleum products and nuclear fuel; water transport; manufacture of motor vehicles, trailers and semi-trailers; manufacture of other transport equipment; manufacture of electrical machinery and apparatus n.e.c.; manufacture of other non-metallic mineral products.
Medium-Low TKI	Manufacture of fabricated metal products, except machinery and equipment; manufacture of basic metals; manufacture of rubber and plastics products; construction.
Low TKI	Manufacture of furniture; manufacturing n.e.c; land transport; transport via pipelines; manufacture of wearing apparel dressing and dyeing of fur; manufacture of paper and paper products; tanning and dressing of leather manufacture of luggage, handbags saddlery, harness, and footwear; wholesale trade and commission trade, except of motor vehicles and motorcycles; manufacture of food products and beverages; retail trade, except of motor vehicles and motorcycles; repair of personal and household goods; manufacture of tobacco products; manufacture of textiles; manufacture of wood and of products of wood and cork, except furniture, manufacture of articles of straw etc.; hotels and restaurants; sale, maintenance, and repair of motor vehicles and motorcycles, retail sale of automotive fuel; supporting and auxiliary transport activities, activities of travel agencies.

Categorization of manufacturing sectors by level of technology available from: <http://www.oecd.org/sti/ind/48350231.pdf>

Categorization of services by knowledge intensiveness available from: http://epp.eurostat.ec.europa.eu/cache/ITY_SDDS/Annexes/hrst_st_esms_an9.pdf

Construction not included in OECD or Eurostat Classification; included here under medium to low technology.

drive, ambition and potential to grow a business, while growth potential relates to the potential of the sector to grow.

Given the difficulties attached to measuring these concepts at the individual level, the report utilizes self-employment as an indicator of being an entrepreneur. Innovation is categorized at the sectoral level based on classification systems used by the OECD and Eurostat. While innovation is possible in all sectors, the research focused on those with the highest probability of innovation, and hence growth; namely sectors considered higher in technology or knowledge intensiveness, which provide greater potential for product or process innovation. Table 6 outlines these classifications of sectors present in the Caribbean as gleaned from Enterprise Survey data.

Throughout the analysis, technology and knowledge intensiveness is abbreviated as TKI, with sectors classified as high, medium-high, medium-low, and low TKI. In relation to growth, the research was more concerned with general sectoral growth to discern participation of women in growth sectors. This is because while growth orientation is a personal trait individual firm growth in any sector is possible. These growth sectors are identified from their level of TKI.

The World Bank's Enterprise Survey data for the region was also utilized to identify growth in employment from 2006 to 2009. As innovation and growth can be correlated, enterprises in high and medium-high TKI sectors play a central part in the analysis.

Overview of Research Approach

Given a lack of information on women entrepreneurs in the Caribbean, and the environment in which they operate, this assessment has sought to address the following issues:

- **Market size:** What is the representation of self-employed women in the labor market? Specifically, how many high-potential growth-oriented women entrepreneurs exist across the Caribbean?
- **Profile:** What is the profile of women entrepreneurs in the Caribbean? For example what sectors are they in? Are they innovative, technology-enabled or technology-oriented? Do they pursue high-growth ventures versus subsistence ventures? If so, in what proportions?

- **Barriers to doing business for women entrepreneurs:** What, if any, are the significant barriers that prevent or discourage women from starting, operating, and growing their businesses in the Caribbean?
- **Adequacy of business support:** Are there adequate business-support services, including incubation support, for growth-oriented and potential growth-oriented women entrepreneurs in the Caribbean? What services are already available to them, and do these satisfy their needs? If not, why not, and what are the gaps? Do the needs of Caribbean women entrepreneurs differ from those of men? If so, how? And what does this indicate about the women entrepreneurs themselves? What are women entrepreneur needs in relation to access to finance? What are their needs in relation to technical and vocational training?

The assessment adopted a mixed research methodology to address these issues. This included: previously published research in the area; secondary data on the labor market, the general business environment, and enterprise-level data from the World Bank's Enterprise Surveys; and primary data from WINC's community of women entrepreneurs and key stakeholders in the region.

Structure of the Rest of the Manuscript

The research issues identified above provide the general structure of the text, prefaced by a review of the main components of the general business environment in the Caribbean in chapter 2. This chapter includes information gleaned from Doing Business surveys conducted in the region and previous research in the area and analysis of gender-related issues where relevant. Chapter 3, drawing on country-specific labor market information and the Enterprise Surveys, provides estimates of representation of women in self-employment in the region (size, sectoral distribution, etc.) and approximations of enterprises characterized by technology and knowledge intensiveness (TKI). Chapter 4 identifies the main barriers affecting women-owned businesses in the region, drawing again on data from the Enterprise Surveys. Chapter 5 provides some lessons for future program development for women entrepreneurs in the Caribbean.



Photo credit: Finola Prescott

Women entrepreneurs participating in WINC's regional Grow Your Business workshop in St. Lucia, 2014

Chapter 2:

The Caribbean Business Environment

It is proposed here that even in economies with relatively better rules, there is gender imbalance, with the assumption that women face more complex challenges than men in the formal economy, especially in the developing world (IDB, 2014). The IDB (2014:6) notes that these gendered challenges in Latin America and the Caribbean (LAC) relate to: “...a lack of policies and programs to support and encourage entrepreneurial activity, excessive norms and regulations, and restricted access to credit.”

The IDB’s study, while gender-focused, included Jamaica from the Caribbean. There is thus a need to better understand the business environment in the region, on the whole and in relation to gender. This chapter seeks to address this by providing a regional perspective on the business environment through a review of the World Bank’s Doing Business rankings, as well as other rankings related to ICT and innovation. It also highlights the role of socio-cultural norms in the region, and the utility of the business support services developed to address constraints to doing business.

Introduction

The 14 Caribbean countries⁹ covered by EPIC/ WINC are highly diverse in terms of population size, landmass, wealth, economic structure, and natural resources. However, there is commonality in their colonial history, and hence broadly similar institutional structures and socio-cultural conditions.

⁹ Country abbreviations used throughout the document are as follows: ANT (Antigua and Barbuda); BAH (The Bahamas); BAR (Barbados); BEL (Belize); DOM (Dominica); GRE (Grenada); GUY (Guyana); JAM (Jamaica); SKN (St. Kitts and Nevis); SLU (St. Lucia); SVG (St. Vincent and the Grenadines); SUR (Suriname); TNT (Trinidad and Tobago); MNT (Montserrat).

*“Governments play a crucial role in supporting a dynamic ecosystem for firms...Without good rules that are **evenly enforced**, entrepreneurs have a harder time starting and growing the small and medium-sized firms that are the engines of growth and job creation for most economies around the world.”*

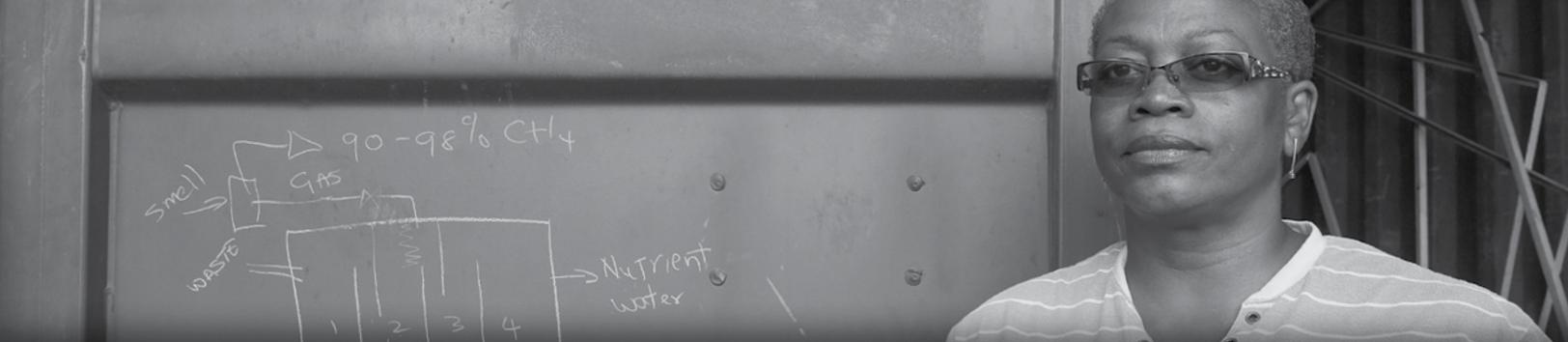
(World Bank, 2013b:v)
(emphasis added by authors)

As table 7 shows, Montserrat¹⁰ is smallest in terms of population and land mass, while Jamaica is largest in terms of population and Guyana in land-mass. In GDP per capita terms, Guyana is the least wealthy at \$3,750 and The Bahamas the wealthiest at nearly \$22,300 (World Bank, 2015; CIA, 2014). Growth in GDP terms is also varied across the region, ranging from -1.4 percent in Dominica to nearly 5 percent in Guyana.

Given this diversity across Caribbean countries, it would be erroneous to profile the region based on information from two or three countries.¹¹ The current report seeks to redress this through data-mining of labor market data and primary data from purposive sample surveys, interviews, and focus groups. The following sections highlight factors considered most impactful on business environments in which Caribbean women entrepreneurs are situated, and which they must negotiate to establish, grow, and expand their enterprises.

¹⁰ Montserrat is the only dependent territory covered by EPIC. In addition, it is the only EPIC country for which Doing Business and Enterprise Surveys have not been undertaken; hence, the majority of the analysis is focused on the 13 other EPIC countries in the region.

¹¹ The reason for such concentration in much of the existing research is the lack of data on key indicators for many countries in the region.



Susan Thomas, a clean tech entrepreneur from Trinidad, supported by the Caribbean Climate Innovation Center.

Photo: infoDev/World Bank Group

TABLE 7: Profile of EPIC Caribbean Countries (2013)

Country Code	Population	Population Density (persons per km ²)	Female Share of Population (%)	GDP per capita (current US\$)	GDP per capita growth (annual %)	Land Area (km ²)	Agricultural Land (% of land area) ^a
ANT	89,985	204	52.2	13,342.08	-1.09	440	20.5
BAH	377,374	38	51.1	22,312.08	-0.78	10,010	1.4
BAR	284,644	662	50.1	14,917.15	-0.49	430	32.6
BEL	331,900	15	50.0	4,893.93	-0.87	22810	7.0
DOM	72,003	96	...	7,175.63	-1.35	750	34.7
GRE	105,897	311	49.9	7,890.51	2.02	340	32.4
GUY	799,613	4	49.2	3,739.47	4.66	196,850	8.5
JAM	2,715,000	251	50.8	5,289.97	1.01	10,830	41.5
SKN	54,191	208	...	14,132.80	3.04	260	23.1
SLU	182,273	299	50.9	7,328.37	-1.20	610	17.4
SVG	109,373	280	49.5	6,485.68	1.66	390	25.6
SUR	539,276	3	49.9	9,825.74	1.98	156,000	0.5
TNT	1,341,151	261	50.6	18,372.90	1.32	5130	10.5
MNT	5,215	51	50.0	8,500.00 ^b	3.50 ^c	102	20.0

Source: World Development Indicators (World Bank 2015); Montserrat data from The World Factbook (CIA 2014).

Note: No data available.

^a Data available for 2012; ^b PPP estimate for 2006; ^c Real GDP growth estimate for 2008

The specific areas highlighted include: ease of doing business; access to, use, and cost of ICTs; promotion of innovation; availability of finance; and business development and incubation support.

Doing Business Ranking and Indicators in the Caribbean

The World Bank's Doing Business (DB) surveys explore domestic laws and regulations as well as administrative requirements that enhance or constrain business activity. This provides a comprehensive view of country business environments.

A fundamental question asked in the most recent Doing Business 2015 report¹² is: "What do entrepreneurs need to pursue a great idea?" (World Bank, 2014b). It answers this as follows: "The right business regulations enable good ideas to take root, leading to the creation of jobs and to better lives. But where business regulations make it difficult to start and operate a business, good ideas may never see the light of day and important opportunities may be missed. Budding entrepreneurs, daunted by burdensome regulations, may opt out of doing business altogether or, if they have the resources, take their ideas elsewhere." (p.13)

This concurs with the 2013 edition of this report (World Bank, 2013b), which noted various studies confirming that "a good business regulatory

¹² See <http://www.doingbusiness.org/reports/global-reports/doing-business-2015>.

TABLE 8: Ranking of Doing Business 2015 Indicators for Countries Covered by EPIC (except Montserrat)

Economy	Ease of Doing Business Rank	At Start Up	In Getting A Location			In Getting Financing		In Daily Operations		When Things Go Wrong	
		Starting a Business	Dealing with Construction Permits	Getting Electricity	Registering Property	Getting Credit	Protecting Minority Investors	Paying Taxes	Trading Across Borders	Enforcing Contracts	Resolving Insolvency
ANT	89	102	30	17	141	151	35	159	89	76	114
BAH	97	95	92	50	179	131	141	31	63	125	60
BAR	106	94	147	118	144	116	177	92	38	160	26
BEL	118	148	69	54	120	160	169	61	91	170	71
DOM	97	63	43	53	149	131	87	94	88	148	121
GRE	126	80	40	77	128	131	141	106	51	144	189
GUY	123	99	38	155	103	165	135	115	82	71	150
JAM	58	20	26	111	126	12	71	147	115	117	59
SKN	121	87	16	10	170	151	87	137	67	116	189
SLU	100	72	39	23	132	151	141	69	122	145	100
SVG	103	80	35	8	155	151	71	93	45	101	189
SUR	162	181	79	69	178	171	171	71	106	184	130
TNT	79	71	113	21	159	36	62	113	76	180	66
Average for EPIC countries	106	92	59	59	145	127	114	99	79	134	113

Source: Doing Business global survey data (World Bank 2014b).

environment, as measured by aggregate (DB) scores, matters for economic growth, higher productivity, and innovation;” (p.38) and that, by contrast, “cumbersome, poorly functioning regulatory business environments undermine entrepreneurship and the economic performance of firms and economies.” (p.30). It is likely that the overall ease of doing business, or lack thereof, may well impact the numbers of women entrepreneurs in each EPIC country as well as the attractiveness of being self-employed.

The overall Ease of Doing Business rankings of the EPIC countries in the DB 2015 assessment¹³ are given in table 8. The scores, which rank the Caribbean countries in relation to 189 countries worldwide, highlight the considerable variation which exists in their respective internal business environments: the highest-ranking is Jamaica (with an overall rank of 58), the lowest-ranking is Suriname (with an overall rank of 162). The region’s average overall rank is below the median global rank (106 and 94 respectively), suggesting that the Caribbean is underperforming as a block.

¹³ Montserrat is not included in these Doing Business reports.

Twelve of EPIC’s countries show improved DB Distance to Frontier (DTF) scores compared to DB 2014 results,¹⁴ which indicates that they are moving towards global regulatory best practice. The only country which remained the same in the region is Barbados.

These DB rankings are composites of 10 regulatory topics which, although given equal weight, affect businesses at different points in their life cycle. In turn, these 10 topics comprise varying numbers of indicators (with more than 300 data points for each economy aggregated in total). Table 8 presents the 2015 DB ranking for each of the 10 regulatory topics for the 13 EPIC countries covered. From these, it can be seen that Antigua and Barbuda has the most positive ranking in the region for *Protecting minority investors*; The Bahamas for *Paying taxes*; Barbados for *Trading across borders* and *Resolving insolvency*; Guyana for *Registering*

¹⁴ For the first time, the DB2015 Ease of Doing Business ranking is based on distance to frontier score rather than on percentile rank. The distance to frontier scores benchmark economies with respect to a measure of regulatory best practice, showing the gap between each economy’s performance and the best performance on each indicator. Notwithstanding, the ranking based on the distance to frontier score (DB2015) is highly correlated with that based on the percentile rank (DB2014).

property and Enforcing contracts; Jamaica for Starting a business and Getting credit; St. Kitts and Nevis for Dealing with construction permits; and St. Vincent and the Grenadines for Getting electricity.

A detailed review of the DB survey data indicates a number of regulatory topics that significantly lower the region's overall Ease of Doing Business rank:

- Registering property—average rank of 145
- Getting credit—average rank of 127
- Protecting minority investors—average rank of 114
- Paying taxes—average rank of 99
- Enforcing contracts—average rank of 134
- Resolving insolvency—average rank of 113.

These ranks are all above the global median ranking of 94. The following tables probe the components of the five worst-performing of these indicators: *Registering property* and *Getting credit* (table 9); *Protecting minority investors* (table 10); *Enforcing contracts* (table 11); and *Resolving insolvency* (table 12).

Highlighting regional standings for *Registering property* and *Getting credit*, table 9 shows that

the region on average has one more procedure and takes 14 days longer than the global average to register property. In addition, as a percentage of property value, the cost of registering property is over 60 percent higher than the global average. However, getting credit appears even more constraining. Although legal rights protections is the same as the global average, the region performs extremely poorly in terms of depth of credit information and public registry and private bureau coverage. Jamaica and Trinidad and Tobago are the only countries with any private bureau coverage. This lack of information only increases the perceived risk of lending and increases difficulties in accessing finance.

When it comes to protection of minority investors, table 10 shows that the region's regulations regarding conflict of interest is, for the most part, better than the global average. However, the region underperforms in terms of shareholder rights in corporate governance.

With respect to enforcing contracts, table 11 shows while the cost for enforcing contracts in the region is below the global average, the average number of days involved is 166 more than the global average, and involves 44 procedures as opposed to 38 at the global level.

TABLE 9: Components of Registering Property and Getting Credit by Country

Economy	Registering Property			Getting Credit			
	Procedures (number)	Time (days)	Cost (% of property value)	Strength of legal rights index (0-10)	Depth of credit information index (0-6)	Public registry coverage (% of adults)	Private bureau coverage (% of adults)
ANT	7	25	10.8	5	0	0	0
BAH	7	122	12.1	6	0	0	0
BAR	6	118	5.6	7	0	0	0
BEL	8	59	4.8	4	0	0	0
DOM	5	42	13.3	6	0	0	0
GRE	8	32	7.4	6	0	0	0
GUY	6	75	4.6	3	0	0	0
JAM	6	36	9.5	10	6	0	10.1
SKN	6	82	13.3	5	0	0	0
SLU	9	17	7.6	5	0	0	0
SVG	7	38	11.8	5	0	0	0
SUR	6	106	13.7	2	0	0	0
TNT	9	77	7	7	6	0	67.4
Regional Average	7	64	9.3	5	1	9.3	9.3
Global Average	6	50	5.9	5	4	5.9	5.9

Source: Doing Business global survey data (World Bank 2014b).

TABLE 10: Components of Protecting Minority Investors by Country

Economy	Protecting Minority Investors								
	Extent of disclosure index (0-10)	Extent of director liability index (0-10)	Ease of shareholder suits index (0-10)	Extent of conflict of interest regulation index (0-10)	Extent of shareholder rights index (0-10.5)	Strength of governance structure index (0-10.5)	Extent of corporate transparency index (0-9)	Extent of shareholder governance index (0-10)	Strength of minority investor protection index (0-10)
ANT	4	8	8	6.7	8	5	4.5	5.8	6.3
BAH	2	5	8	5	4.5	3.5	3	3.7	4.3
BAR	2	1	7	3.3	4.5	1.5	2.5	2.8	3.1
BEL	3	4	6	4.3	6	0	2.5	2.8	3.6
DOM	4	8	8	6.7	6	6	0	4	5.3
GRE	4	8	8	6.7	4.5	0	1.5	2	4.3
GUY	5	5	6	5.3	6	3	1.5	3.5	4.4
JAM	4	8	5	5.7	5	5	7	5.7	5.7
SKN	4	8	8	6.7	4	4.5	3.5	4	5.3
SLU	4	8	8	6.7	3	1.5	1.5	2	4.3
SVG	4	8	8	6.7	4.5	5	4.5	4.7	5.7
SUR	1	0	6	2.3	7.5	3	3	4.5	3.4
TNT	4	9	8	7	7.5	6	0	4.5	5.8
Regional Average	3	6	7	6	5	3	3	4	5
Global Average	5	5	6	5	7	4	4	5	5

Source: Doing Business global survey data (World Bank 2014b).

TABLE 11: Components of Enforcing Contracts by Country

Economy	Enforcing Contracts		
	Time (days)	Cost (% of claim)	Procedures (number)
ANT	351	22.7	44
BAH	427	28.9	49
BAR	1340	19.7	38
BEL	892	27.5	51
DOM	681	36	46
GRE	688	32.6	46
GUY	581	25.2	36
JAM	655	45.6	35
SKN	578	20.5	46
SLU	635	37.3	46
SVG	394	30.3	44
SUR	1715	37.1	44
TNT	1340	33.5	42
Regional Average	791	30.5	44
Global Average	625	33.7	38

Source: Doing Business global survey data (World Bank 2014b).

TABLE 12: Components of Resolving Insolvency by Country

Economy	Resolving Insolvency								
	Time (years)	Cost (% of estate)	Outcome (0 as piecemeal sale and 1 as going concern)	Recovery rate (cents on the dollar)	Commencement of proceedings index (0-3)	Management of debtor's assets index (0-6)	Reorganization proceedings index (0-3)	Credit or participation index (0-4)	Strength of insolvency framework index (0-16)
ANT	3	7	0	36.1	2	2	0	2	6
BAH	3	12	1	63.5	2	3	0	1	6
BAR	1.8	15	1	65.1	2.5	5	2	3	12.5
BEL	2	22.5	1	54.2	2	1	0	3	6
DOM	4	10	0	28.3	2	2	0	3	7
GRE	np	np	np	np	2	2	0	2	np
GUY	3	28.5	0	18.1	2	2	0	2	6
JAM	1.1	18	1	64.2	2	2	0	2	6
SKN	np	np	np	np	1	0	0	0	np
SLU	2	9	0	42.9	2	2	0	2	6
SVG	np	np	np	np	2	2	0	2	np
SUR	5	30	0	8.5	2.5	4	1	2	9.5
TNT	2.5	25	0	27.1	2.5	4.5	1	3	11
Regional Average	3	17.7	0	40.8	2	2	0	2	8
Global Average	3	16.3	0	40.1	2	4	1	2	9

Source: Doing Business global survey data (World Bank 2014b).
 Note: np = no practice

The region is the same as or similar to the global average for several resolving insolvency indicators: time, outcome, recovery rate, commencement of proceedings index, and creditor participation index, as shown in table 12. The region is however below the global average in terms of cost involved as percentage of the estate (almost 10 percent more expensive). It also has lower scores on three indices (management of debtors' assets, reorganization proceedings, and strength of insolvency framework).

Using its indicators to track changes in business regulations globally, DB 2015 again finds many more reforms reducing the complexity and cost of regulatory processes (145) than reforms strengthening legal institutions (85). Among economies worldwide, Trinidad and Tobago is highlighted as having improved the most across three or more areas measured by Doing Business in 2013/14—starting a business, getting credit, and resolving insolvency (World Bank, 2014b).

Only six EPIC countries implemented reforms in 2013/14; and not all actually made it easier to do

business. The positive and negative reforms are detailed below:

- Starting a business
 - **Jamaica:** Made easier by consolidating forms, but also more time-consuming as a result of delays in implementation of the electronic interface with different agencies (in balance, positive).
 - **Suriname:** Made easier by introducing an online system to obtain trade licenses (positive).
 - **Trinidad and Tobago:** Made easier by introducing online systems for employer registration and tax registration (positive).
- Dealing with construction permits
 - **The Bahamas:** Made more costly by increasing building permit fees (negative).
 - **St. Kitts and Nevis:** Made more costly by increasing building permit fees (negative).
- Getting electricity
 - **Jamaica:** Made less expensive by reducing cost of external connection works (positive).

- Getting credit
 - **Jamaica:** Improved access to credit by establishing credit bureaus and by adopting a new secured transactions law that implements a functional approach to secured transactions, broadens the range of assets that can be used as collateral, allows a general description of assets granted as collateral, and establishes a modern, notice-based collateral registry (positive).
 - **Trinidad and Tobago:** Improved access to credit by adopting the Bankruptcy and Insolvency Act, which establishes clear grounds for relief from a stay of enforcement actions by secured creditors during reorganization procedures as well as a time limit for the stay (positive).
- Paying taxes
 - **Jamaica:** Made more costly for companies by introducing a new minimum business tax (negative).
 - **St. Kitts and Nevis:** Made less costly for companies by reducing the corporate income tax rate (positive).
- Trading across borders
 - **St. Lucia:** Made easier by implementing the ASYCUDA World electronic system for submission of export and import documents and by reducing number of export documents required (positive).
- Enforcing contracts
 - **The Bahamas:** Introduced new rules of civil procedure focused on streamlining and simplifying court proceedings and ensuring less costly resolution of disputes (positive).
- Resolving insolvency
 - **Trinidad and Tobago:** Made easier by introducing a formal mechanism for rehabilitation, establishing a public office responsible for general administration of insolvency proceedings, and clarifying rules on appointment of trustees (positive).

The results of the most recent DB surveys reveal constraints in the region related to legal and regulatory frameworks that impact registering property, enforcing contracts, and resolving insolvency. These are factors that can subsequently affect the ability to access credit, which is critical if investment in innovation to enhance output, productivity, and overall growth must take place.

Looking further at innovation specifically, the following section reviews the current situation

in the region with respect to access to and use of information and communication technologies (ICTs) and support for innovation.

Access to ICTs and Support for Innovation

Information and Communication Technologies

While the World Bank's Doing Business 2015 report explores regulations and administrative requirements that promote or constrain business activity, also of interest to EPIC are the issues of access to and utilization of ICTs. The International Telecommunication Union (ITU), the United Nations specialized agency for ICTs, has developed the ICT Development Index (IDI) which combines 11 indicators to monitor and compare developments in ICTs across countries. While not all EPIC countries are listed in the ITU's most recent report, there are considerable differences in IDI across the region, with Barbados having the highest rank (35 of 166 countries analyzed) and Guyana the lowest (111), as indicated in table 13. Within the ITU's designated "Americas" region, Barbados is ranked 3 (after the U.S. and Canada), and St. Kitts and Nevis is ranked 5. Trinidad and Tobago is considered one of the four most dynamic countries overall (its IDI ranking increased by three places over the 12-month period covered).

Comparing the two sub-indices, the *Use sub-index* exhibits the most significant disparities between countries. Nonetheless, it is this sub-index that registered on average the strongest increase from 2012 to 2013, driven most strongly by an increase in wireless-broadband subscriptions. From the ITU's most recent global dataset, Antigua and Barbuda is classified as a "dynamic" country in terms of the significant change noted in its *Use sub-index* (the ranking for this increased by seven places).

From 2012 to 2013, Antigua and Barbuda increased wireless-broadband penetration from 23 to 49 percent, and St. Lucia from 19 to 33 percent. By contrast to "the majority of countries in the Americas region making remarkable progress in extending their wireless-broadband networks, services were still not available in (...) Dominica, Guyana, and St. Vincent and the Grenadines (as at end 2013." (ITU, 2014) The report also notes relatively high fixed-broadband penetration in St. Kitts and Nevis, and Barbados (>20 percent penetration by end 2013); and that Dominica, Grenada, and

TABLE 13: ICT Development Index, Access, and Use Sub-Indices for Caribbean Countries, 2013

Economy	ICT Development Index (IDI) 2013		Access Sub-Index Global Rank	Use Sub-Index Global Rank
	Global Rank	Value (0-10)		
ANT	57	5.89	52	61
BAR	35	6.95	26	40
DOM	83	4.72	76	87
GRE	76	4.96	72	99
GUY	111	3.48	115	118
JAM	97	4.26	99	88
SKN	54	6.01	41	58
SLU	79	4.81	78	75
SVG	72	5.17	55	94
SUR	98	4.26	86	102
TNT	67	5.29	66	65

Source: ITU 2014.

Note: The Global Rank is out of 166 countries analyzed for all three indices; the IDI values range from 0 to 10.

St. Vincent and the Grenadines have significantly higher fixed-broadband than wireless-broadband penetration rates.

From the most recent State of Broadband 2014 report, ten of EPIC's countries now have national broadband plans in place; two are in planning (Dominica and St. Lucia); one does not (Suriname); and Montserrat was not covered (Broadband Commission, 2014). As this report concludes, "It is vital that every country prioritizes broadband policy into account to shape its future social and economic development and prosperity." The Bahamas was the earliest to address its broadband environment through a national plan in 2003, and the most recent was Antigua and Barbuda, in 2012.

The ICT Price Basket (IPB) 2013, an overall measure, shows significant variation across the region (ITU, 2014). As evidenced in table 14, Trinidad and Tobago has the lowest IPB, at 0.8 (which places it 24 of 166 countries), whereas Belize has the highest IPB, at 8.8 (which places it 127).

The ITU posits that *fixed broadband* remains the primary means of accessing high-speed, high-capacity and reliable Internet services, hence its continued preference for businesses; and that, on the other hand, micro-entrepreneurs on the move are more likely to favor mobile connections (ITU, 2013). Given the increasing role of mobile broadband in providing access to the Internet, it is important to consider the cost and affordability of fixed broadband as well as mobile broadband services in countries across the Caribbean.

Table 14 gives the prices calculated as a percentage of gross national income per capita (GNI p.c.) as well as purchasing power parity (PPP\$) so as to provide an insight into the relative costs of the service as well as its affordability measured in national currency.

From this, it can be seen that there are differences across the region in price and affordability of both fixed and mobile-broadband services. The *fixed-broadband prices* are by far the lowest in Trinidad and Tobago (0.93 percent of GNI per capita, 12.28PPP\$), and highest in Belize (12.88 percent of GNI per capita, 50.00PPP\$). The *mobile-broadband prices for handset-based services* are lowest in Suriname (1.28 percent of GNI per capita), and for computer-based services in Barbados (1.42 percent of GNI per capita); and, for both, highest in Jamaica (3.44 percent and 5.73 percent of GNI per capita, respectively). In terms of their affordability, *handset-based* and *computer-based services* are considered cheapest in Barbados (14.52PPP\$ in both cases); *handset-based services* are most expensive in Trinidad and Tobago (34.91PPP\$), and *computer-based services* in Antigua and Barbuda (71.65PPP\$).

With regard to the issue of gender and ITC use, the ITU, which has been tracking gender-disaggregated use of ICTs since 2007, observes a gender gap globally in the use of computers, mobile phones and Internet. Gender differences can be observed in activities carried out over the Internet, frequency of Internet use, and location of Internet use (ITU, 2013). For example, 2010 data for The Bahamas show more women than men

TABLE 14: ICT Price Basket, and Costs of Fixed and Mobile Broadband Services in the Caribbean (2013)

Economy	ICT Price Basket (IPB)* 2013	Fixed-broadband prices (1 GB)**				Mobile-broadband prices, postpaid handset-based (500MB)				Mobile-broadband prices, postpaid computer-based (1 GB)			
		Global Rank	% of GNI p.c	US\$	PPP\$	Global Rank ***	% of GNI p.c.	USD	PPP\$	Global Rank ***	% of GNI p.c.	US\$	PPP\$
ANT	2.7	100	5.11	54.94	66.85	88	2.38	25.56	31.09	99	5.47	58.89	71.65
BAH	1.2	58	1.73	29.99	26.37	61	1.44	25	21.98	...	...	...	...
BAR	2.3	82	3.35	42.50	34.28	60	1.42	18	14.52	58	1.42	18.00	14.52
BEL	8.8	125	12.88	50.00	86.01	...	...	...	...	87	3.86	15.00	25.80
DOM	3.9	112	6.73	37.91	50.71	...	...	...	...	...	...	...	...
GRE	3.5	97	4.73	29.39	38.38	...	...	...	...	...	...	...	...
GUY	4.0	114	7.79	23.34	...	...	...	...	...	...	...	...	...
JAM	3.6	104	5.88	25.57	35.84	97	3.44	14.96	20.98	100	5.73	24.94	34.96
SKN	2.1	81	3.27	36.67	45.20	...	...	...	...	...	...	...	...
SLU	4.2	108	6.13	36.20	44.77	...	...	...	...	...	...	...	...
SVG	4.1	109	6.14	33.65	44.61	...	...	...	...	...	...	...	...
SUR	2.5	103	5.38	41.48	70.28	56	1.28	9.85	16.69	71	2.36	18.18	30.80
TNT	0.8	23	0.93	12.28	15.41	82	2.12	27.82	34.91	68	2.12	27.82	34.91

Source: ITU 2014.

Note: GNI p.c. and PPP\$ are based on World Bank data; and United States Dollar (hereafter, US\$) uses the IMF annual rates of exchange.

... No data available

* ICT Price Basket (IPB) reflects end-2013 data for fixed-telephone, mobile-cellular and fixed-broadband sub-baskets expressed as percentage of GNI per capita, 2013; and is examined for 166 countries.

** Fixed-broadband plan represents an entry-level postpaid fixed-broadband plan, with a minimum speed of 256 kbit/s and a monthly usage of 1 GB (minimum). For plans <1GB, the cost per additional byte is added to the monthly subscription price up to 1 GB. The Global Rank is out of the 165 countries analyzed, based on the price of broadband as percentage of GNI p.c.

*** For the mobile-broadband postpaid handset-based and computer-based prices, the Global Rank is out of the 144 countries analyzed.

used the internet, 67.0 percent and 62.3 percent respectively; and 2012 data for Jamaica indicate the same pattern, although with much reduced usage by both, 36.5 percent and 31.0 percent respectively (ITU, 2014b¹⁵). While the Internet was used by both women and men in Jamaica primarily for private purposes rather than for business, there were differences noted in their prevalent internet activities: women spent more time accessing information on health, goods and services, and government, as well as internet banking, while men spent more time on gaming, downloading movies and software, and viewing pornography (Dunn et al., 2011). Additionally, there seems to be a striking gap when it comes to gender equality in ICT-related professions and careers, across developed and developing countries, with the majority of “high-value and high-income jobs in the sector occupied by men...vertical gender segregation, with women strongly represented in lower level ICT occupations.” (ITU, 2012:v) ITU (2012) notes that while about 30 percent of operations technicians in

ICT were female, only 15 percent of managers and 11 percent of strategy and planning professionals were women.

Support for Innovation

ICTs can act as a tool for business growth, as well as a business opportunity in terms of software and hardware development. However, innovation is a more formless concept. According to Cornell University, INSEAD, and WIPO (2013:xi), innovation “...represents a business’ tenacity in evolving and adapting to the changing face of competition and market conditions.” Lederman et al. (2014:2) attempt to operationalize a definition of innovation, suggesting that: “Medium-size and large firms, which are typically run by the most dynamic entrepreneurs, are also more likely to engage in various forms of innovation. They are more likely to export to foreign markets, obtain patents, invest in research and development (R&D), introduce new products, improve production processes, cooperate on innovation with other firms, import new technologies, and export capital to establish affiliates in foreign markets.” Lederman et al. (2014)

¹⁵ ITU/ICT Indicators database: <http://www.itu.int/en/ITU-D/Statistics/Pages/publications/wtid.aspx>

TABLE 15: Global Innovation Index for Select EPIC Countries, 2013

Economy	Global Innovation Index		Innovation Input Sub-Index Global Rank	Innovation Output Sub-Index Global Rank
	Global Rank	Score		
BAR	47	40.48	42	49
BEL	102	29.98	95	102
GUY	78	34.36	94	55
JAM	82	32.89	85	84
TNT	81	33.17	82	87

Source: The Global Innovation Index (Cornell University, INSEAD, and WIPO, 2013)

Note: The Global Rank is out of the 142 countries analyzed for all indices; scores range from 0 to 100.

notes that innovation, as measured by the introduction of new products, was low in Latin America and the Caribbean where firms are 20 percent less likely than firms in middle income countries in Eastern Europe and Central Asia to have introduced a new product; for the Caribbean specifically, this drops to 50 percent less likely.

This sub-par performance noted by Lederman et al. (2014) is confirmed elsewhere. In the context of CARICOM, which is characterized by high production costs, an undiversified export base, and an inability to exploit economies of scale, innovation is vital for businesses to improve their competitiveness through branded and high-value products (Lodge, 2008). More recently, the Caribbean Development Bank (2012) highlighted innovation as one of the pillars of private sector development in the region.

The Global Innovation Index (GII), which ranks economies across the world, is calculated as the simple average of two sub-indices: (i) *Innovation Input sub-index*, which considers elements that enable innovative activities (institutions, human capital and research, infrastructure, market sophistication, and business sophistication), and (ii) *Innovation Output sub-index*, which captures actual evidence of innovation outputs (knowledge and technology outputs and creative outputs). Of the five EPIC countries covered in the most recent GII report, Barbados has the highest GII score (40.48) and rank (47 out of 142 countries), and Belize the lowest (29.98, and 102 in rank) as indicated in table 15. The same pattern is observed in both Innovation Input and Output sub-indices, with Barbados ranking highest and Belize lowest.

Given its high-income status, Barbados' performance in the GII and sub-indices is in keeping with global trends. By contrast, both Trinidad and Tobago and Belize are below par in performances in the context of their GDP per capita data. The innovation strengths and weaknesses for each of

these five countries, as defined for the GII 2013, are detailed in table 16.

The GII shows R&D is a significant weakness in all countries in the region. **Insufficient investment in innovation** contributes "to large productivity gaps of MSMEs and constrains the private sector in responding to market opportunities that can unlock technology-driven projects." (CDB, 2012:35) The factors considered to constrain investment in innovation include: "(a) their inability to recoup research and development **costs**; (b) limited access to protection for **intellectual property** even where systems exist; (c) limited access to **finance** due to asymmetric information associated with financing technological investments; existing financial instruments do not provide incentives for technological shifts by MSMEs; (d) limited access to specialized **skills** needed for researching technology, and risk-taking with new technologies; (e) relatively higher **costs** for hardware and software, connectivity, and adaptation of information and communications technology to new business practices; and (f) absence of mechanisms to facilitate inter-firm **collaboration** that could otherwise promote innovation by speeding-up technology diffusion and avoiding the duplication of research costs." (Caribbean Development Bank, 2012:35)

Gender, Norms, and Financial Inclusion in the Caribbean

The overall business environment described thus far is impacted significantly by laws, regulations and policies, which exist at both national and international levels. Through their common heritage, several EPIC countries have similar laws and legislative processes, although there is variation across the region in business-related laws for coverage as well as dates of enactment and amendment. Analysis of the *Doing Business* overall rankings over time has shown that "...economies performing

TABLE 16: Innovation Strengths and Weaknesses for Global Innovation Index 2013 in Select Caribbean Countries

Country (Rank)	Innovation Inputs		Innovation Outputs	
	Strengths	Weaknesses	Strengths	Weaknesses
BAR (47)	<ol style="list-style-type: none"> <i>Institutions</i>: Political environment <i>Human capital and research</i>: Education, Tertiary education <i>Market sophistication</i>: Investment, Trade and Competition <i>Business sophistication</i>: Knowledge workers, Innovation linkages 	<ol style="list-style-type: none"> <i>Human capital and research</i>: R&D <i>Infrastructure</i>: ICTs, General infrastructure, Ecological sustainability <i>Market sophistication</i>: Investment, Trade and Competition <i>Business sophistication</i>: Innovation linkages 	<ol style="list-style-type: none"> <i>Knowledge and technology outputs</i>: Knowledge creation, Knowledge diffusion 	<ol style="list-style-type: none"> <i>Knowledge and technology outputs</i>: Knowledge creation, Knowledge diffusion <i>Creative outputs</i>: Intangible assets
BEL (102)	<ol style="list-style-type: none"> <i>Institutions</i>: Regulatory environment, Business environment <i>Human capital and research</i>: Education, Tertiary education <i>Business sophistication</i>: Knowledge workers, Knowledge absorption 	<ol style="list-style-type: none"> <i>Human capital and research</i>: R&D <i>Infrastructure</i>: General infrastructure <i>Market sophistication</i>: Investment <i>Business sophistication</i>: Innovation linkages 	<ol style="list-style-type: none"> <i>Knowledge and technology outputs</i>: Knowledge creation, Knowledge impact 	<ol style="list-style-type: none"> <i>Creative outputs</i>: Intangible assets
GUY (78)	<ol style="list-style-type: none"> <i>Market sophistication</i>: Trade and competition <i>Business sophistication</i>: Knowledge workers, Innovation linkages, Knowledge absorption 	<ol style="list-style-type: none"> <i>Human capital and research</i>: R&D <i>Infrastructure</i>: ICTs, General infrastructure, Ecological sustainability <i>Market sophistication</i>: Credit, Investment 	<ol style="list-style-type: none"> <i>Knowledge and technology outputs</i>: Knowledge creation, Knowledge diffusion <i>Creative outputs</i>: Creative goods and services 	<ol style="list-style-type: none"> <i>Knowledge and technology outputs</i>: Knowledge diffusion
JAM (82)	<ol style="list-style-type: none"> <i>Institutions</i>: Political environment, Regulatory environment, Business environment <i>Human capital and research</i>: Education, Tertiary education <i>Infrastructure</i>: General infrastructure <i>Market sophistication</i>: Investment, Trade and competition <i>Business sophistication</i>: Knowledge workers, Knowledge absorption 	<ol style="list-style-type: none"> <i>Human capital and research</i>: R&D <i>Infrastructure</i>: ICTs, General infrastructure <i>Market sophistication</i>: Credit, Investment, <i>Business sophistication</i>: Knowledge workers, Innovation linkages, Knowledge absorption 	<ol style="list-style-type: none"> <i>Knowledge and technology outputs</i>: Knowledge impact <i>Creative outputs</i>: Intangible assets, Online creativity 	<ol style="list-style-type: none"> <i>Knowledge and technology outputs</i>: Knowledge impact
TNT (81)	<ol style="list-style-type: none"> <i>Human capital and research</i>: Tertiary education <i>Infrastructure</i>: General infrastructure <i>Market sophistication</i>: Credit, Investment, Trade and Competition <i>Business sophistication</i>: Knowledge workers 	<ol style="list-style-type: none"> <i>Human capital and research</i>: R&D <i>Infrastructure</i>: Ecological sustainability <i>Market sophistication</i>: Investment <i>Business sophistication</i>: Knowledge workers, Innovation linkages 	<ol style="list-style-type: none"> <i>Knowledge and technology outputs</i>: Knowledge diffusion 	<ol style="list-style-type: none"> <i>Knowledge and technology outputs</i>: Knowledge creation, Knowledge diffusion

Source: The Global Innovation Index [Cornell University, INSEAD, and WIPO, 2013]

Note: For all indices, the global rank is out of 142 countries analyzed; scores range from 0 to 100

well...tend to have smaller informal sectors, meaning that more people have access to the formal market and can benefit from such regulations as social protections and workplace safety regulations...and they are more likely to have gender equality under the law.” (World Bank, 2013b:5)

To get an idea of the relative effect of the informal sector, the 2010 data from the World Bank’s Enterprise Surveys (ES) provides information on the percentage of firms competing with unregistered or informal firms. While the global average is 57 percent, and the Latin American and Caribbean average is 62 percent, the ES data shows a range of experiences in the Caribbean, ranging from a low 11 percent in Dominica to a high 86 percent in Suriname, and a Caribbean average of 60 percent. The breakdown by gender of ownership and country is shown in table 17. The table demonstrates the extensive gender variation across the region in relation to competing with the informal sector. The largest differences where women compete with the informal sector to a greater degree are seen in Barbados and Guyana, while males compete with the informal sector to a greater degree in St. Lucia, The Bahamas, and Trinidad and Tobago.

In general, the informal sector can constrain overall economic performance. However, the link between the law and gender equality is integral. The World Bank’s Women Business and the Law 2014 (World Bank, 2013a), examines legal changes in six indicators over a two-year period ending in April 2013. These include accessing institutions, using property, getting a job, providing incentives to work, building

credit, and going to court. Specifically, the report looks at whether these changes have increased gender parity, been gender neutral, or reduced gender parity. However, as with other global reports, only one of EPIC’s countries is covered in this report, namely Jamaica. According to the report, there is growing evidence of the link between legal gender equality and women’s economic opportunities, their access to finance, entrepreneurial activities, and ownership of firms (World Bank, 2013a). Of particular importance to women entrepreneurs are: *Using property*, as access to and control over property impacts their ability to leverage this asset as collateral to access credit; and *Building credit*, given that good credit histories are required by lenders to approve financing.

The report also notes that “borrowers who build and maintain good credit histories are rewarded with enhanced reputation collateral, giving them the ability to qualify for larger loans and lower interest rates.(p.22). Small borrowers, like female entrepreneurs, may be excluded from public credit registries and private credit bureaus, which only record loans above a certain threshold. If they do not record loans from microfinance institutions (for whom women make up a large proportion of borrowers), good repayment histories of microfinance clients cannot be leveraged. Of the 143 economies assessed for Women Business and the Law 2014, only six did not have public credit registries or private credit bureaus, including Jamaica. The links between the law, regulatory frameworks, and access to credit play a key role in promoting business development, especially for women. However,

TABLE 17: Firms Competing with Unregistered/Informal Firms by Gender of Ownership (Percentage)

Country	Male-Owned Enterprises (%)	Female Participation in Ownership (%)	Total
ANT	78.0	74.1	77.3
BAH	63.8	52.1	56.4
BAR	47.1	60.7	53.1
BEL	63.6	65.0	64.0
DOM	14.0	7.0	11.3
GRE	76.8	69.7	72.5
GUY	53.2	65.6	60.3
JAM	67.2	61.2	65.4
SKN	64.9	61.0	62.2
SLU	27.7	14.3	23.3
SVG	61.8	57.9	59.0
SUR	84.7	89.3	85.5
TNT	72.4	60.9	67.4
Total	61.3	56.8	59.5

Source: Enterprise Surveys 2010.



Cherie Pounder conducting Climate Change Assessment on water resources in St. Kitts, 2014

this is a general finding, not Caribbean specific, as only Jamaica was included in the analysis. There are only two countries in the region with private credit bureau coverage: Jamaica (which covers 10 percent of adults), and Trinidad and Tobago (which covers almost 70 percent of adults) (World Bank, 2014b).

Although it covers only Jamaica and Trinidad and Tobago, the Global Financial Inclusion (Global Findex) database reveals statistically significant gender gaps in three main dimensions of financial inclusion: ownership of formal accounts, use of savings, and credit products at formal financial institutions and by informal means (Demirguc-Kunt and Klapper, 2012; Demirguc-Kunt et al., 2013). The authors point out that these differences are due to “legal regulations as well as customary norms that shape the relationship between men and women and their relative access to resources.” This suggests, given the similar histories and legal frameworks of the EPIC countries, that gender gaps in financial inclusion are not only related to legal regulations, but also *customary norms*.

These “norms” can be considered as a major barrier to women-owned enterprise development, especially as it relates to access to finance. Article 13 of the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW)¹⁶ specifically addresses women’s right to access bank loans, mortgages, and other forms of financial credit. Whereas all EPIC countries apart from Montserrat, are signatories to CEDAW, they vary significantly in

their progress towards meeting their obligations. Most of these countries reported no *legal* restrictions preventing women from having equal access to financial credit as compared to men. However, CEDAW reports described differences in the experience that women and men have in practice. For example:

- **Barbados** (2000:22): Both males and females are entitled to the same rights but some institutions may request the husband’s signature as a guarantor of the loan. An individual’s income determines whether or not one qualifies for a loan.
- **Belize** (2005:45): Women are known to have a better payment record but they still have difficulty accessing credit in the commercial banking institutions, which require traditional collateral. Women also have difficulty getting loans independent of their male partners. Women’s chances of obtaining loans are therefore far better through non-commercial loan facilities than through the commercial banks...Women have still not achieved parity with men with regard to accessing loans from non-commercial institutions...men are reported to get more loans than women because they make more applications and apply for larger loans.
- **Dominica** (2009¹⁷:4): Fewer women than men had access to bank loans in view of the need for collateral, as property was usually in the man’s name.
- **St. Kitts and Nevis** (2002:39-40): More men than women take loans. This may be due to the power and economic structures within the society, as well as traditional beliefs. Some women are not familiar with completing loan applications and submitting required information/data, and if they encounter difficulties, they may be daunted...It would appear that the qualifying requirements for access to loans, mortgages, and other forms of financial credit affect particularly married women differently than they do men as most banks require a husband’s signature for a married woman to gain access.
- **Suriname** (2005:58): “Although formally women and men have equal access to bank loans and mortgages, in practice few women apply for loans. Married women still need their husband’s permission if they want to stand surety for a

¹⁶ These countries’ most recent reports and other documents relating to their CEDAW obligations were accessed through: http://tbinternet.ohchr.org/_layouts/TreatyBodyExternal/Countries.aspx on March 1, 2014.

¹⁷ Dominica information from: <http://daccess-dds-ny.un.org/doc/UNDOC/GEN/N09/241/65/PDF/N0924165.pdf?OpenElement>

third party. A woman without a partner, who applies for a loan, often has difficulty finding someone to be a guarantor. The lack of data on financing applications of women with commercial banks makes a comparison with other credit institutions, such as cooperatives, impossible.”

- **Trinidad and Tobago** (2001:124-126): “To the extent that women may not possess items normally used as collateral nor the skills to develop business plans, women engaged in or entering the production or trade sector experience some difficulty in acquiring financial assistance from financial institutions. Ownership of property often determines clients’ ability to provide collateral to financial institutions.” (The report indicates that there are considerable gender differences in land ownership.)

Further, particular loan programs or financial institutions that were cited as favorable to women were, without exception, micro-loans and/or targeting women considered to be disadvantaged or vulnerable.

At a regional level, according to the Caribbean Development Bank (CDB) (2012:34), “...*financial systems are largely bank-based, with relatively less reliance on capital markets to provide long-term debt and equity. MSMEs are particularly affected by limited access to finance ...as a result, rely on internally-generated resources and/or less secure and higher cost informal sources of finance and therefore are less able to fund productivity-enhancing investments, thereby constraining profitability. Access by MSMEs to financing is a function not only of availability, but also the prevailing economic environment, the regulatory framework, weak balance sheets and lack of adequate financial information.*” The Bank also notes that “*access to finance for women continues to be one of the central barriers to growth, due to limited ownership of requisite collateral to access credit from traditional banking sectors.*” (p.36)

Research into women entrepreneurs’ access to finance in the Caribbean found that “*women’s access to finance is constrained to the informal/semi-informal sector, and mostly involves small amounts which restrict growth. Their graduation to more formal financing sources will be required if expansion and further formalization is to be seen. In order to facilitate this, the specific obstacles faced by women will need to be addressed. The specific obstacles include a lack of collateral, a lack of business skills, and a concentration in low growth, small scale sectors.*” (Lashley, 2009:26)

Additionally, the study also noted “*a level of stasis where clients that commence activity in the informal sphere do not graduate to the formal sphere where greater opportunities for growth and development are available.*” (p.8)

There continues to be a plethora of micro-credit programs in the region, operated by and through a wide range of public and private entities. While these make available short-term credit for working capital, there does not appear to be successful investment capital products to help women expand and grow firms. Of the few measures which have sought to increase the credit available to women entrepreneurs, these have tended to focus on start-ups and/or very early-stage businesses.

The MIF/SCF/IIC/FELEBAN 2011 survey (IDB, 2012) on access to finance noted that a plethora of funds are available. But getting access to them is problematic due to the conservative orientation of commercial institutions and a preference for financing consumer goods and established sectors, rather than take risks on new investment areas. Overall, the main constraints to lending to small businesses include: limited collateral, poor business or management skills (including record-keeping), risk of lending to own-account proprietors, and poorly prepared applications (Lashley, 2009). While these constraints affect all entrepreneurs, the situation is believed to be worse for women due to gender stereotypes and misconceptions that still abound in the Caribbean; These misconceptions include financial institutions perceiving women’s businesses to be insufficiently formal or professional, too “small scale,” and women as lacking entrepreneurial acumen (CDB, 2012). In addition, women may lack self-confidence, which could further discourage them.

General information on the business environment in the region suggests that a major constraint to



Valrie Grant strategizing with staff at GeoTechVision company retreat in Jamaica, 2014

Photo: GeoTechVision, Guyana and Jamaica

women entrepreneurs growing their businesses is access to finance. However, this is not linked only to the legal and regulatory environment. Socio-cultural issues have contributed to segregation of women into certain educational and industrial sectors that constrain access to growth-oriented capital. However, attempts have been made to address these issues by developing various business support services in the region, as discussed below.

The Utility of Business Support Services in the Caribbean

According to Lashley (2009), enterprise development in the Caribbean is fostered in various ways, including: training and technical assistance; microfinance, development grants, and, to a lesser degree, equity finance; and advocacy. These activities are supported by international agencies, regional bodies, and national governments across a range of agendas from poverty alleviation to export development. Nonetheless, Lashley (2009:11) concluded that “the result of the current framework for enterprise development in CARICOM has led to a level of stasis with little graduation from welfare-orientated support to market-led, unsubsidized support, and a high degree of informality. The situation for women is even more pronounced.”

In assessing why business support services have been so ineffective in the Caribbean to date, *infoDev* (2012) points to the mismatch between services demanded and services supplied as the main culprit. Rather than providing short-term training, many small firms and start-ups require more diversified assistance over a much longer period. There is also a failure to simultaneously focus on other key constraints to business start up and growth, including technology support, entrepreneurial know-how, market development,

and high start-up overheads (relative to start-up revenues). Overall, the supply of services has not been tailored to the needs of small firms and start-ups. Key informant interviews with stakeholders from the private and public sectors, the donor community, and entrepreneurs themselves, conducted for the original WINC assessment, echo these earlier findings: that such programs tend to be gender-neutral; focused on new start-ups/subsistence-oriented entrepreneurs; providing a narrow range of services and/or assistance packages sometimes deemed inappropriate or inaccessible by the entrepreneurs themselves (for example, lack of awareness, unsuitable pre-requisites or terms, and low relevance); short-lived; and with little or no continuity.

In addition to generic training and technical assistance, as well as the existence of advocacy organizations on various scales,¹⁸ incubation services were recently introduced. Incubation services are conceptualized by Hackett and Dilts (2004:57) as follows: “...much as a firm is not just an office building, infrastructure and articles of incorporation, the incubator is not simply a shared-space office facility, infrastructure, and mission statement. Rather, the incubator is also a network of individuals and organizations including the incubator manager and staff, incubator advisory board, incubatee companies and employees, local universities and university community members, industry contacts, and professional services providers such as lawyers, accountants, consultants, marketing specialists, venture capitalists, angel investors, and volunteers.”

Given this conceptualization, incubators in the Caribbean can be described as minimalist. While varying types of incubators have existed on individual islands, they have for the most part focused on low-cost office space for new businesses rather than support them through a full incubation package. According to *infoDev*'s analysis of incubators, experience is limited and results mixed, painting a rather pessimistic picture (*infoDev*, 2012). Incubators currently operational in the Caribbean include (promoter in parentheses):

- **Barbados:** Barbados Investment Development Corporation Small Business Center (government)



Teige Azuk La Borde creating a tablescape inspired by Caribbean colours and culture, 2012

¹⁸ There is a range of advocacy organizations for businesses in the region from chambers of commerce and industry which generally represent the corporate sector, to small business and sector-specific organizations such as manufacturing associations and coalitions representing service-oriented firms.

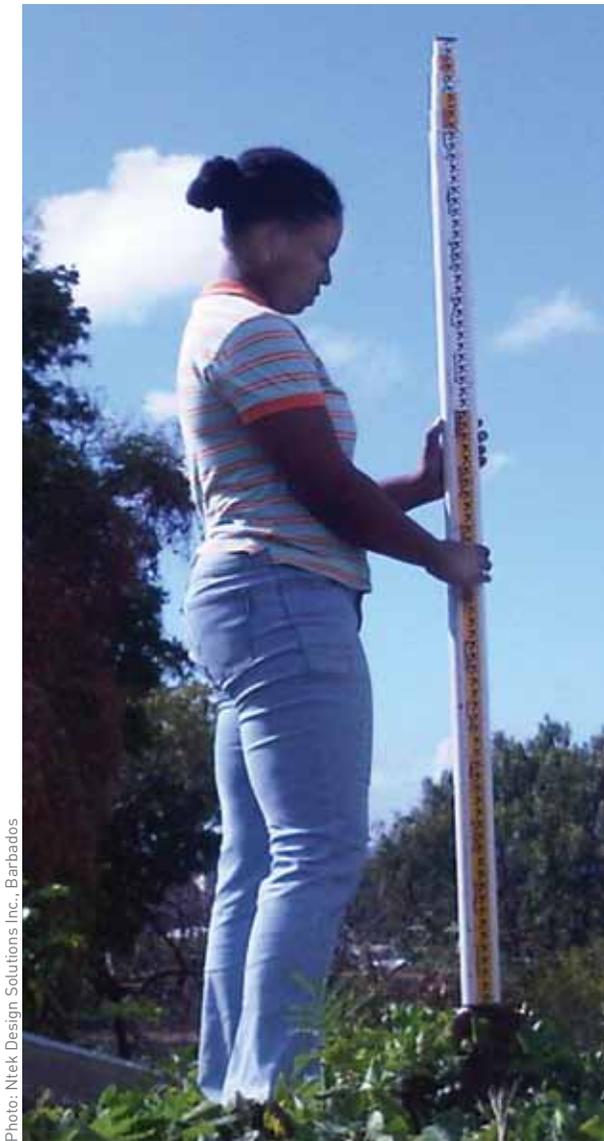


Photo: Ntek Design Solutions Inc., Barbados

Cherie Pounder surveying the installation of water level sensors, 2014

- **Jamaica:** UTECH Technology Innovation Centre (academia); JBDC Incubator and Resource Centre (government); Branson Centre for Entrepreneurship (private sector/donor); UWI Mona Incubator (academia).
- **Trinidad and Tobago:** Tamana In Tech Park (government); Lok Jack Graduate School of Business BIZBOOSTER (academia); National Entrepreneurship Development Company Limited's National Integrated Business Incubation System (government); CARIRI's Centre for Enterprise Development (private/donor).

In addition, the Caribbean Centre of Excellence for Youth Entrepreneurship has established Youth Business Trusts (YBTs) in a number of countries:

Barbados, Antigua and Barbuda, Belize, Dominica, Guyana, Jamaica, St. Lucia, St. Vincent and the Grenadines, and Trinidad and Tobago. Another seven countries are interested in establishing YBTs. To varying degrees, these YBTs provide some incubation services to young entrepreneurs (18-35 years), including mentoring, networking with the private sector and potential angel investors, support to strategy development, and business planning (Compete Caribbean, 2013).

In spite of the shortcomings of existing (traditional) incubators, there is a renewed interest in incubators across the Caribbean, with new incubators being established and others planned for the near future in Antigua and Barbuda, Barbados, Dominica, Grenada, St. Lucia, and Suriname. Additionally, Small Business Development Centers, based on the U.S. model,¹⁹ are being set up in five countries (Barbados, Belize, Dominica, Jamaica, and St. Lucia). The WINC assessment did not find any business development or incubation programs that provided a comprehensive range of services (including information, training, business networks and access to finance) specifically designed for growth-focused, innovative women entrepreneurs.

While studying the Caribbean's business incubation environment, *infoDev* (2012) noted the paucity of venture capital in the region in terms of the amount of venture capital available, preparedness to invest in research, and in some countries, the necessary legal frameworks. Even Trinidad and Tobago, whose venture capital industry is considered well developed compared to other Caribbean countries with the institutions and legal framework in place has not been able to attract much capital.

Additionally, from its research into diaspora investing, *infoDev* (2013b) observed that angel investing is a relatively new concept in the Caribbean. Although focused on diaspora investors and not specific to women entrepreneurs, the study noted that the majority of matches between angel investors and entrepreneurs are made almost entirely through friends and family (86 percent). Indeed, the main challenge cited by accredited diaspora investors was lack of awareness of deals that could generate returns and positive externalities. In cases where deals could be identified, investment was thwarted by factors such as insufficient trust in the

¹⁹ The Small Business Development Center model from the U.S. provides one-on-one support to entrepreneurs, providing tailored services at different levels of business development. For more detailed information see: <http://www.sba.gov/offices/headquarter/osbdc/resources/11409>.

Key Findings

The Caribbean Business Environment

- The 14 Caribbean countries included in the report, although highly diverse in terms of population size, landmass, wealth, economic structure, and natural resources, have broadly similar colonial histories and hence institutional structures, which affect the ease of doing business.
- The highest ranking country in the region in relation to doing business is Jamaica at 58, while the lowest ranking country is Suriname at 162 out of 189 countries.
- The main areas where the region is underperforming relate to: Registering property; Getting credit; Protecting minority investors; Paying taxes; Enforcing contracts; and Resolving insolvency. All these affect access to finance.
- Rankings for ICT and innovation across the region vary considerably. Donor programs should be cognizant of specific local conditions and capabilities as relates to both measures—access to and use of ICT, and support for innovation.
- Access to finance and the presence of generic business development services are also considered constraints to enterprise development in the region, especially in relation to women entrepreneurs. Specifically, business support systems do not appear to match the requirements of constituents, especially women. Access to finance is grounded in socio-cultural issues that segregate women in education and, as a result, in certain sectors connected with the household.

entrepreneur, complicated legal processes, and the quality of the offering.

Angel investor networks and platforms however do exist overseas with a focus on the region, for example: the Caribbean Angel Investment Network,²⁰ one of 30 networks worldwide belonging to Angel Investment Network Ltd., a London-based investment company founded in 2004, and [Homestrings.com](https://homestrings.com),²¹ which connects diaspora investors to projects in their home countries/regions; also UK-based and launched in 2011. As highlighted in *infoDev*'s recent research, most accredited diaspora investors prefer to be connected to local angel investors to mitigate the perceived risks involved. Of interest in this regard is *First Angels Jamaica*, a new Jamaican angel investor network formally launched in April 2015 with 13 investor members and two associate members;²² and *Alpha Angels* (Montego Bay, Jamaica) and *Trident Angels* (Barbados). These are part of a regional angel investor network fostered through the

infoDev/EPIC Caribbean Business Angel Advisory Program.²³

Non-equity investment platforms are also becoming more popular in the Caribbean. For example, *infoDev* (2013b:25) found that “more than a third of all respondents were familiar with Kickstarter, a perks-based crowdfunding site.” Indeed, crowdfunding²⁴ investment holds great promise “in providing a new source of early-stage venture capital primarily to previously underserved businesses and sectors of society.” (*infoDev*, 2013a:26) Further, “by leveraging technology to broaden the base of potential investors, this increased access to finance can serve as an enabling mechanism for new venture formation, job creation, and inclusive economic growth.” (p.26)

²⁰ See <http://www.caribbeaninvestmentnetwork.com>

²¹ See <https://homestrings.com>

²² See <https://www.infodev.org/press-releases/jamaica-launches-first-angel-investor-network-supported-international-partners>

²³ See http://m.jamaicaobserver.com/mobile/business/Angels-to-fund-first-five-companies-shortly-_18679588

²⁴ Crowdfunding is defined here as “...an Internet-enabled way for businesses or other organizations to raise money—typically from about \$1,000 to \$1 million—through donations or investments from multiple individuals.” (*infoDev*, 2013a:14).

Chapter Summary

While there is a great deal of heterogeneity in the Caribbean when it comes to human, physical, and economic characteristics, a largely common colonial history has, for the most part, resulted in broadly similar institutional structures and socio-cultural conditions.

The 13 EPIC countries covered by Doing Business (DB) 2015 rank from 58 (out of 189 countries) for Jamaica to 162 for Suriname. The average ranking for the region of 106, which is below the median global rank (of 94), suggests that the Caribbean as a region is underperforming. What is promising is that nearly all of these EPIC countries show improved DB Distance to Frontier (DTF) scores compared to DB 2014 results, indicating that they are moving towards global regulatory best practice.

From a review of the DB 2015 ranks, the following issues are affecting the region as a whole:

- Registering property—average rank of 145
- Getting credit—average rank of 127
- Protecting minority investors—average rank of 114
- Paying taxes—average rank of 99
- Enforcing contracts—average rank of 134
- Resolving insolvency—average rank of 113



Photo: Samise Villa Ltd., Trinidad and Tobago

Denise Aleong elected Vice Chairman of the Inter American & Caribbean Network of Small Hotels in Ecuador, 2014

While there are some common trends in the DB rankings for the region, there are also some variations. This is also seen with ICT and innovation rankings in the region for the countries where data is available. The results presented in the chapter show that the ICT (IDI) rank in the region ranges from 35 for Barbados to 111 for Guyana, out of 166 countries. The ITU data for 2013 also shows a wide variation in costs for fixed and mobile broadband services. For innovation, the Global Innovation Index, which is available for five countries in the region, shows similar variability. Here, country ranks range from 42 for Barbados to 102 for Belize, with an average rank of 78 out of 142 countries. The wide range in ranks for certain indicators across the region suggests that when operating at the country level, donor program development will need to be cognizant of specific capabilities related to ICT and support for innovation.

Although there are variations in relation to ICT and innovation, some trends emerging from extant research and this WINC assessment were identified. These included access to finance and the business support environment. There are efforts being made across the region to support business development through generic technical assistance, training, advocacy, and finance. But these do not appear to match the requirements of constituents. Rather than provide comprehensive incubation services, regional efforts in this area are mostly the provision of office space. In addition, there is a lack of finance products available beyond debt finance, such as venture capital or angel investing. The region lacks adequate mechanisms such as public registries or private credit bureaus to compile and distribute credit information, which can reduce the perceived risk to lenders and thus increase access to the credit market.

The issue of finance goes deeper than actual availability of products and facilitative mechanisms, as cultural norms segregate women into certain sectors, largely caused by previous segmentation in education. The sectoral segmentation results in women being in small, crowded sectors, characterized by linkages to the household and therefore unattractive to commercial financial institutions. In seeking to establish the extent of this sectoral segmentation, the following chapter provides estimates of women in self-employment in the region, those with and without employees. Utilizing the World Bank's Enterprise Survey data for 2010, it gives a profile of women-owned enterprises in the region in relation to sectoral distribution and technology and knowledge intensiveness.

Chapter 3:

Women Entrepreneurs in the Caribbean:

Self-Employment Levels, Sectors, and Innovation

Providing targeted support to women entrepreneurs is based on the assumption that they exhibit different business characteristics, face different barriers, and have different needs than men in business. A number of studies have sought to address the question as to whether men and women actually do business differently (Mirchandani, 1999; Lashley, 2012; Barriteau, 2002). Mirchandani's (1999) review of previous research demonstrated that men and women did exhibit different entrepreneurial characteristics and practices, and Lashley (2012) noted that, in the Caribbean, women's businesses were in different "female-oriented" sectors (hairdressing, day care, sewing, and catering), were smaller, employed more family members, were more likely to be based in the home, and demonstrated an aversion to risk. These results were not however unique to the region, as extra-regional research also presents similar examples (see Cromie, 1987; Loscocco et al., 1991; Aldrich, 1999; Brush, 1992). Overall, such findings suggest that women entrepreneurs need different types of support, especially women operating in growth-oriented and innovative sectors.

The salient characteristics of the businesses enterprises of growth-oriented and innovative women entrepreneurs need to be identified to effectively serve them. This chapter seeks to estimate the market size as well as characterize women entrepreneurs in the Caribbean. It initially includes the wider pool of the female self-employed before narrowing down to those with growth and innovative potential, as measured at the sectoral level by technology and knowledge intensiveness (TKI).

Introduction

The Executive Summary of the *Global Entrepreneurship Monitor 2012 Women's Report* (Kelley et al., 2013:6) states:

"Despite the efforts of the public and private sectors to improve the entrepreneurial environment, there is still a significant gender gap in entrepreneurship (primarily in terms of quantity and growth), which puts the female population at a disadvantage."

(IDB, 2014)

"In 2012, an estimated 126 million women were starting or running new businesses in 67 economies around the world. In addition, an estimated 98 million were running established businesses. These women are not only creating jobs for themselves and their co-founders, but they also employ others. A projected 48 million female entrepreneurs and 64 million female business owners currently employ one or more people in their businesses. In addition, these women plan to grow their businesses. A predicted 7 million female entrepreneurs and 5 million female established business owners plan to grow their businesses by at least six employees over the next five years."

Of the 224 million female businesses, new and established, these findings suggest that 28.6 percent actually employed one or more persons and that only 5.4 percent plan to grow their businesses by at least six employees over the next five years. If compared to male-owned business, of the estimated 388 million new business in 2011 (Kelley et al., 2013), new female businesses would only account for 32.5 percent. Although the data is for separate years, it appears that females establishing new ventures only account for about one-third of all new ventures. However, the only Caribbean countries in the GEM are Barbados, Jamaica, and Trinidad and Tobago. Jamaica is not included in the 2012 Women's Report.



Fern Elise Foster during a client photo shoot in studio, 2015

Photo credit: STUSH Marketing, Jamaica

There is a lack of research on the types of women-owned businesses in the Caribbean region, and women's participation in the labor market in general. Thus, programs to help women may not take into account idiosyncrasies that may exist from country to country. This chapter estimates the level of female participation in the region's labor market, drawing on procedures detailed in appendix I, while chapter 4 looks at the issues facing them in the running of these businesses.

The estimation is based on information on females in the labor market. It identifies gaps, and addresses these gaps through proxy measures that draw on data for countries with similar characteristics. Female-owned enterprises exhibiting technological or innovative characteristics account for a limited proportion of female-owned enterprises. This assumption draws on previous research in the region and the recent World Bank Latin American and Caribbean Studies publication, *Latin American Entrepreneurs* (Lederman et al., 2014), which is aptly subtitled *Many Firms but Little Innovation*. If the Latin American and Caribbean region can be characterized on the whole as having many firms and little innovation,²⁵ the situation for Caribbean women has to be even more severe, assuming they have a lesser presence in self-employment, and exhibit even less innovative characteristics than their male counterparts due to gender segmentation in the labor and educational markets. Such segmentation has consequences for the sectors to which women have access, and subsequently constrains access to resources such as finance and networks.

Given this approach to the distribution of female businesses, three core variables require estimation: total employment, male employment, and female employment. Female employment can then be further dissected to provide estimates of female self-employment, both with and without

employees. Additionally, the following sections profile self-employed females in the region by size and sector; this is to indicate the numbers in sectors characterized by growth and technological and knowledge-intensiveness (TKI).

A number of data sources were used to arrive at these estimations: the Global Entrepreneurship Monitor (GEM), which provides general information on size distribution of firms globally; country-specific labor market data from recent censuses and poverty assessments; and the World Bank Enterprise Surveys (ES) for 2010, which provide some understanding of women-owned businesses in the region. The ES data however has the following limitations: the surveys do not provide information on enterprises with less than five employees, which is the largest cohort of self-employment according to labor market estimates; and their ownership-related questions do not uncover ownership by gender. This cannot be fully overcome by supplementing with other data.

Women in the Labor Market in the Caribbean: Employment and Self-Employment Estimates

The representation of females in the Caribbean labor market is characterized by relatively lower participation,²⁶ and employment mostly as employees in low-growth, low-status, low-paying sectors (Lashley, 2009). This is believed to be a result of gender stereotyping, which has led to segregation into certain sectors; educationally, sectorally, and occupationally (op cit.). Despite the stereotyping

²⁵ Lederman et al. (2014) characterize innovation as relating to product innovation, patents, research and development, and managerial practices.

²⁶ The data presented in appendix 1 indicate that labor market participation ranges from 35 percent in Guyana to 53 percent in Antigua and Barbuda, averaging 46 percent in the region. This is despite an equal number of males and females in the population, with the average female population in the region at 50.5 percent (World Development Indicators: <http://data.worldbank.org/data-catalog/world-development-indicators>)

of women’s work and the pervasive belief that entrepreneurs are men, women still participate in self-employment (Lashley, 2012).

The results that have emerged from the current estimation process (presented in table 18 and table 19) show that women’s participation in self-employment is distinctly lower than for their male counterparts. Females comprise 30 percent of the total self-employed in the region and only 22 percent of the self-employed who have at least one employee. These results indicate that self-employed females are under-represented in self-employment, and when self-employed, are more likely to operate at the micro-level with no employees.

Examining female self-employment in relation to female employment, table 18 demonstrates that, in addition to being relatively underrepresented in the labor market as a whole, women are significantly underrepresented in self-employment: only 13 percent of female employment is in self-employment as opposed to 21 percent for the entire labor force and 33 percent for males.²⁷ Furthermore, while the cohort of “self-employment with

employees” accounts for 5 percent of all employment, this is only 2 percent of female employment.

The numbers of females in self-employment is estimated at approximately 228,000 for the region, comprising 204,000 with no employees and 24,000 with employees. By contrast, there are approximately 533,000 males in self-employment, 445,000 with no employees, and 88,000 with employees. This puts female to male ratios in self-employment at 0.43, self-employment with no employees at 0.46, and self-employment with employees at 0.27. While females in self-employment with no employees is significantly lower than males with no employees, it is even lower when comparing females and males with employees.

The above estimates provide information on the relative proportions of the self-employed in relation to those with no employees and those with at least one employee. However, the absence of detailed information on size—beyond “at least one employee”—means that there is no ready indication of size distribution.

The World Bank’s Enterprise Surveys only provide information on businesses with five or more employees, and the estimation above only provides estimates for enterprises with (one or more) employees. Thus, to make possible a like-for-like comparison with the Enterprise Survey data, it is necessary to establish the relative proportions of

²⁷ Male Self-employment as a percentage of Male Employment calculated from level data as: $\{(\text{Total Self-Employment minus Female Self-Employment}) \div (\text{Total Employment minus Female Employment})\} \times 100$.

TABLE 18: Estimated Female Self-Employment in the Caribbean (Percentage of Total Employment)

Country	All (%)			Females (%)		
	Self-employment	Self-employment, no employees	Self-employment with employees	Self-employment	Self-employment, no employees	Self-employment with employees
ANT	12.50	8.70	3.80	8.27	5.81	2.47
BAH	13.94	10.51	3.43	9.01	6.99	2.02
BAR	14.28	10.77	3.51	8.15	6.32	1.83
BEL	28.10	20.92	7.18	9.10	6.90	2.20
DOM	32.00	25.70	6.30	8.27	5.81	2.47
GRE	11.95	9.22	2.73	9.80	8.36	1.44
GUY	16.90	12.95	3.95	15.30	13.76	1.54
JAM	39.03	35.99	3.05	33.20	29.56	2.17
SKN	12.10	8.10	4.00	8.60	6.20	2.40
SLU	23.99	17.86	6.13	16.88	12.80	4.08
SVG	18.86	14.45	4.41	15.30	13.76	1.54
SUR	28.10	20.92	7.18	9.10	6.90	2.20
TNT	18.73	14.68	4.05	12.47	10.63	1.84
MNT	19.00	14.56	4.44	15.30	13.76	1.54
Average	20.68	16.10	4.58	12.77	10.54	2.12

Sources: Various. See tables in appendix 1 for detailed outline of data sources and estimation procedures.

enterprises with one to four employees. The Global Entrepreneurship Monitor (GEM) data for 2009 was used to investigate the distribution of enterprise size globally as well as for Latin America and a number of individual countries (including Jamaica), and the Country Assessment of Living Conditions (CALC) data was used for Barbados.

Table 20 displays the main information that emerged.

At the global level, enterprises with one to four employees comprise 44 percent of all enterprises while the next largest group is enterprises with no employees at 38 percent. Enterprises with five or more employees account for 18 percent. This

TABLE 19: Estimated Female Self-Employment in the Caribbean (Numbers)

Country	All (Numbers)				Females (Numbers)		
	Employment	Self-employment	Self-employment, no employees	Self-employment with employees	Self-employment	Self-employment, no employees	Self-employment with employees
ANT	38,481	4,887	3,359	1,528	1,696	1,190	506
BAH	164,120	22,880	17,256	5,622	7,375	5,719	1,656
BAR	106,241	15,167	11,440	3,727	4,285	3,323	962
BEL	126,624	35,581	26,491	9,090	4,678	3,547	1,131
DOM	28,083	8,964	7,207	1,757	1,237	869	369
GREN	35,722	4,270	3,295	975	1,610	1,374	236
GUY	267,176	45,153	34,602	10,550	11,943	10,742	1,201
JAM	1,106,500	431,900	398,200	33,700	149,300	139,100	10,200
SKN	25,289	3,227	2,158	1,069	1,207	865	342
SLU	67,723	16,248	12,097	4,151	5,121	3,883	1,238
SVG	37,646	7,494	5,441	1,659	2,467	2,219	248
SUR	188,499	52,968	39,436	13,532	6,403	4,855	1,548
TT	596,800	111,800	87,600	24,200	30,500	26,000	4,500
MONT	2,434	462	354	108	160	143	16
Total	2,791,338	761,002	648,937	111,669	227,981	203,830	24,153

Source: Various sources. See tables in appendix 1 for detailed outline of data sources and estimation procedures.

TABLE 20: Size Distribution of Firms for Various Countries by Gender of Owner (Percentage)

Country	No Employees			1 to 4 Employees			5+ Employees		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Global	34.8	44.0	38.2	44.3	42.5	43.8	20.9	13.5	18.0
U.S.A.	37.3	44.5	40.2	39.5	39.3	39.5	23.2	16.2	20.3
United Kingdom	45.0	52.3	47.8	35.3	30.5	33.5	19.7	17.2	18.7
Latin America*	41.8	53.5	47.0	45.0	39.2	42.3	13.2	7.3	10.7
Caribbean Countries									
Dominican Republic	43.8	65.2	53.5	43.4	33.2	38.7	12.8	1.6	7.8
Jamaica	48.8	61.0	54.4	41.9	36.0	39.2	9.3	3.0	6.4
Barbados	42.3	67.3	52.5	46.8	24.8	37.9	10.9	7.9	9.6
Caribbean Average	45.0	64.5	53.5	44.0	31.3	38.6	11.0	4.2	7.9

Sources: CALC 2012 (for Barbados, 2010 data); GEM 2009 (for all other countries).

Note: For Barbados and Jamaica, the proportions of firms with no employees to firms with employees do not correspond to those estimated for labor market data. The latter only includes information on main employment status whereas the data presented above also includes persons with businesses that may not be their main economic activity.

*Includes: Peru, Argentina, Brazil, Chile, Colombia, Guatemala, Panama, Venezuela, Ecuador, Uruguay.

situation is however different in the Caribbean countries. Enterprises with no employees account for, on average, 54 percent of all enterprises while those with one to four employees account for 39 percent; and enterprises with five or more employees account for only 8 percent.

This dominance of enterprises with no employees is even more pronounced among female-owned enterprises in the Caribbean, accounting for 64 percent of female enterprises, while female

enterprises with five or more employees only account for 4 percent of female enterprises.

Reviewing the data for female-owned enterprises with employees provides an indication of the percentage of enterprises with one to four employees and those with five or more employees. To estimate the number of enterprises represented in the Enterprise Surveys, the table below highlights the share of enterprises with five or more employees as a percentage of enterprises with at

TABLE 21: Size Distribution of Female-Owned Firms for Various Countries (Percentage)

Country	Female-Owned Enterprises		
	1 to 4 Employees	5+ Employees	5+ Employees Share
Global	42.5	13.5	24.1
U.S.A.	39.3	16.2	29.2
United Kingdom	30.5	17.2	36.1
Latin America	39.2	7.3	15.7
Caribbean Countries			
Dominican Republic	33.2	1.6	4.6
Jamaica	36.0	3.0	7.7
Barbados	24.8	7.9	24.2
Caribbean Average	31.3	4.2	11.8

Sources: CALC 2012 (for Barbados, 2010 data); GEM 2009 (for all other countries).

Note: AT A GLOBAL LEVEL from table 20, 44% of female businesses have no employees, 42.5% have 1–4 employees, and 13.5% have 5 or more employees—summing to 100%. For those with employees (42.5% with 1 to 4 and 13.5% with 5 or more), the enterprises with 5 or more are taken as a percentage of enterprises with at least one employee $(13.5/(42.5+13.5)) \times 100 = 24.1\%$.

TABLE 22: Number of Female-Owned Businesses by Employee Range for the Caribbean (Estimates)

Country	Female-Owned Business		
	With Employees	1 to 4 Employees*	5+ Employees**
ANT	506	445	61
BAH	1,656	1,457	199
BAR	962	847	115
BEL	1,131	995	136
DOM	369	325	44
GREN	236	208	28
GUY	1,201	1,057	144
JAM	10,200	8,976	1,224
SKN	342	301	41
SLU	1,238	1,089	149
SVG	248	218	30
SUR	1,548	1,362	186
TT	4,500	3,960	540
MONT	16	14	2
Total	24,153	21,255	2,899

Source: Authors' calculations; Various data sources as indicated in tables in appendix 1.

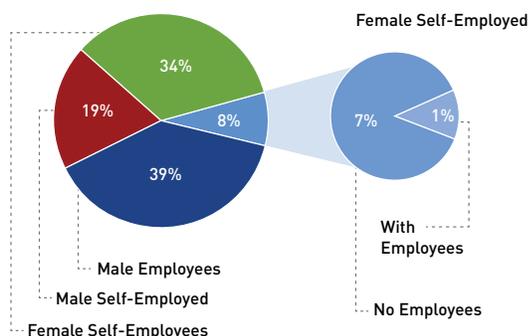
Note: Following the same procedure for male-owned businesses results in the following: 87,516 male self-employed with employees of which 17,503 have five or more employees.

* Estimated as 88 percent of Female-Owned Businesses with Employees.

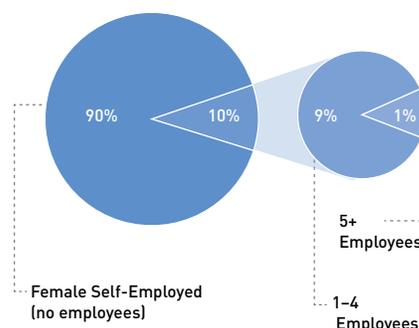
** Estimated as 12 percent of Female-Owned Businesses with Employees.

FIGURE 3: Females in Self-Employment in the Caribbean—Estimation Results (Percentage)

The female self-employed comprise a very small share of total employment...



...while the majority of self-employed females have less than five employees



Source: Authors' calculations (see appendix 1).

least one employee. Globally, for female-owned enterprises with at least one employee, 24 percent have five or more while 76 percent have between 1 and 4. By comparison, the average for the three Caribbean countries included indicates that only 12 percent employ five or more persons.

This 12 percent average can be used as an estimate to calculate the number of enterprises that would match with the type of enterprises included in the Enterprise Survey data for the countries in the region, as shown in table 22. The resulting estimate of approximately 3,000 female-owned enterprises in the Caribbean with five or more employees is used hereafter to estimate the number of these enterprises in the various sectors as well as those that demonstrate specific characteristics of interest from the Enterprise Surveys.

In summarizing these estimation results, figure 3 illustrates that women in the Caribbean are less likely to be self-employed than men (8 percent compared to 19 percent); and when they are self-employed, the vast majority (90 percent) have no employees.

Characterization of Women-Owned Businesses in the Caribbean

Specific firm-level characteristics are explored in this section to supplement the limited information on general characteristics of female entrepreneurs. This is based on data from the Enterprise Surveys (ES), which were conducted in 13 of the 14

countries in the region in 2010 (with the exception of Montserrat).

As mentioned earlier, ES data does not cover the full range of enterprises as it includes only those with five or more employees.

Further, the question in the survey on ownership²⁸ does not elicit information on the extent of female ownership; i.e., whether the female(s) fully owned the business or partly, and if partly how much of the business did they own and whether with female(s) or male(s).

For this exercise, the raw Enterprise Survey data for each country was accessed, with the 13 datasets merged to form a single Caribbean dataset.

Ownership and Legal Status Profile

In all, 2,421 enterprises were surveyed in the Caribbean for the Enterprise Surveys. Of these 1,016 indicated that a female or females were among the owners (42 percent). As table 23 demonstrates, 336 (33 percent) are female sole proprietorships, while 338 (33 percent) are privately held limited liability enterprises.

As previously explained, the role of females in ownership cannot be clearly discerned since the data did not indicate the number of owners or the actual share of ownership by females. The data did however have information on the ownership share of the largest owner. For enterprises with females in ownership, the largest owners had on average a

²⁸ The specific question asked: "Among the owners of the firm, are there any females?"

TABLE 23: Legal Status of Firm for Businesses with Female Participation in Ownership

Legal Status	Frequency (Numbers)	Percentage
Publicly Listed	15	1.48
Privately Held, Limited Liability	338	33.27
Sole Proprietorship	336	33.07
Partnership	131	12.89
Limited Partnership	191	18.80
Other	5	0.49
Total	1,016	100

Source: Enterprise Survey 2010.

TABLE 24: Legal Status of Firm for Businesses with Female Participation in Ownership by Largest Owners Percentage Share

Legal Status	Mean (%)
Publicly Listed	48.4
Privately Held, Limited Liability	60.3
Partnership	49.4
Limited Partnership	51.0
Other	75.0
Total	55.2

Source: Enterprise Survey 2010.

55 percent share in the company, as shown in table 24. However, there is no information on whether this owner was female or the number of other owners or their relative share(s).

Another source was used to provide information on distribution of the number of owners of enterprises, GEM data for 2009. At a global level, 70 percent of enterprises had one owner, and 19 percent had two; therefore cumulatively, 89 percent of enterprises had one or two owners. For Latin American countries, 76 percent had one owner, and 16 percent had two, resulting in the cumulative level being slightly higher, at 92 percent with one or two owners. The averages for Jamaica and the Dominican Republic were 81 percent with one owner and 15 percent with two; the cumulative level was 96 percent. It can therefore be strongly inferred that businesses, on average, will have one or two owners.

This inference would therefore suggest that the majority of firms in the Enterprise Surveys would have one or two owners. The aforementioned 55 percent share of the largest owner could either indicate that the female owners have a 55 percent

share if they were majority shareholders or 45 percent if they were minority shareholders. In either scenario, it would appear that females have significant shares, even if not in the majority, in the firms in the Enterprise Surveys with females in ownership.

Sectoral, Financial, and Employment Profile

The ES data regarding age and market focus reveal limited differences between the three categories of ownership: full male ownership, females involved in ownership, and female sole proprietorships.

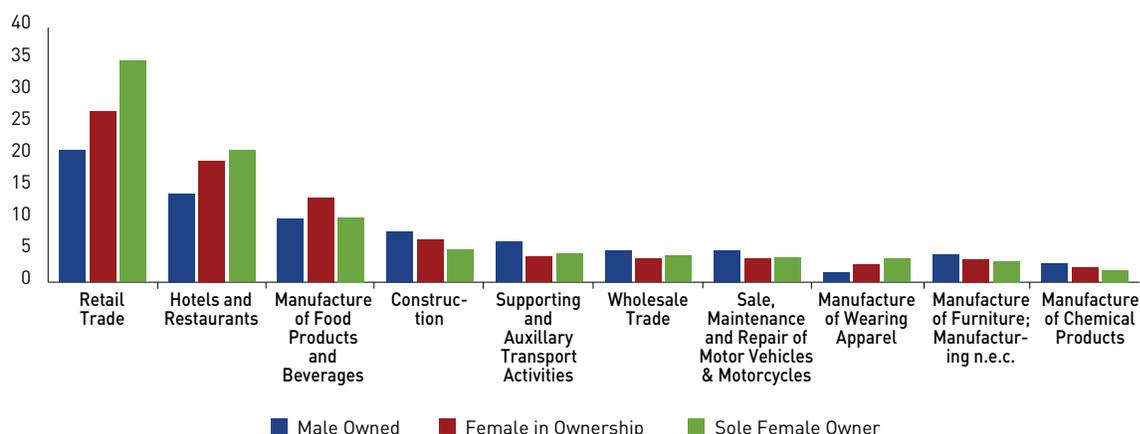
Overall, enterprises in the sample were on average 20 years old and oriented to the domestic market. In all three types of enterprises, product innovation was low, with only 10 percent of sales from new or improved products introduced in the last three years.

As figure 4 shows, sectoral distribution of these firms is dominated by services: the two largest sectors (retail trade and hotels and restaurants) account for 46 percent of all businesses with female ownership, as compared to 34 percent of businesses with full male ownership.

There is however limited data to validate the Enterprise Survey findings with the exception of Barbados and Jamaica. For Barbados, data was available from the Country Assessment of Living Conditions conducted in 2010 (CALC, 2012); and for Jamaica, data was available from a survey of family-owned and women-owned businesses conducted in 2006 (Nicholson and Garvey, 2006). The data for Barbados and Jamaica do appear to validate the Enterprise Survey findings. The CALC data for Barbados indicated that the majority of females were in services (57 percent), while in Jamaica services accounted for 78 percent (Nicholson and Garvey, 2006). The information is presented in separate columns in table 25 due to different sectoral categorizations.

This information on sectors of operation shows that other miscellaneous sectors dominate both in Barbados and Jamaica, while wholesale and retail and accommodation and food services comprise 37.2 percent in Barbados and 40.3 percent in Jamaica; the comparable percentage from the Enterprise Survey data was 46 percent. Apart from agriculture and fisheries in Barbados, and education in Jamaica, each of the other sectors account for less than 5 percent of female businesses. Female representation in technical sectors, such

FIGURE 4: Top 10 Sectors: Sectoral Distribution of Ownership by Gender (Percentage)



Source: Enterprise Survey 2010.

TABLE 25: Sectoral Distribution of Self-Employed Females in Barbados and Jamaica (Percentage)

Barbados		Jamaica	
Sector	Sector Share (%)	Sector	Sector Share (%)
Other	25.0	Other Community/Social/Personal Service Activities	37.1
Wholesale/Retail Trade	22.0	Wholesale/Retail Trade	26.5
Accommodation/Food Services	15.2	Hotels, Restaurants, and Clubs	13.8
Manufacturing	10.4	Education	5.4
Agriculture/Fisheries	6.1	Agriculture, Hunting, Forestry, and Fishing	3.7
Professional/Technical Activities	4.3	Professional Services (Legal, Surveying, Engineering...)	2.5
Financial Services	4.3	Computer and Information Technology*	2.5
Transport	3.0	Health and Social Worker	2.4
Administration	3.0	Repair of motor vehicles/personal/household items	2.3
Health and Social Worker	2.4	Manufacturing	1.8
Information and Communication	1.2	Real Estate Renting and Business Activities	0.7
Education	1.2	Electricity/Gas/Water	0.5
Construction/Mining/Quarrying	1.2	Construction and Installation	0.4
Electricity/Energy/Water	0.6	Transport, Storage, and Communications	0.2
-	-	Media and Communication	0.2
TOTAL	100	TOTAL	100

Source: CALC 2012 (for Barbados, 2010 data); Nicolson and Garvey 2006 (for Jamaica)

* Computer and Information Technology was listed twice in the Jamaica report at 2.3 percent and 0.2 percent

as professional and technical activities and ICT, is marginal.

This is in keeping with global trends; GEM (2012) indicates that on average globally, 50 percent of women's businesses are in the consumer sector.

The ES data shows wide variations in employment levels by legal status of the company.²⁹ As table 28 shows, female businesses overall are only marginally smaller in terms of employees when compared to male-owned businesses. Statistical tests show a significant difference only in terms of employment levels in relation to privately-held limited liability companies and partnerships, where enterprises with female participation in ownership are smaller than their male counterparts. It appears from the data that *although self-employed females' businesses are smaller overall and fewer in number, size differentials are smaller for this cohort with five or more employees.*

General Characteristics of Enterprises

When reviewing the general contrasts between male-owned and female-owned businesses from the Enterprise Surveys, it appears that there are more similarities than differences, as was found with enterprise size.

Interestingly, the Enterprise Surveys suggest that female businesses are not necessity-driven, with only 32 percent founded because of lack



Photo: Belize Centre for Training & Development, Belize

Danalyn Myvett leading Organizational Culture Assessment workshop with teachers, 2014

of employment opportunities (as compared to 37 percent for male businesses). In terms of motivation,³⁰ 70 percent of businesses were based on either modification or new ideas/products; and 30 percent on replication. The respective percentages for male-owned businesses were 68 percent and 32 percent. A 2014 WEGrow study had a similar finding on the initial impetus towards business-creation; only 29 percent of women in LAC were necessity-driven (IDB, 2014). IABD (2014) notes the importance of having more opportunity-driven entrepreneurship as it has a greater impact on the economy, especially as entrepreneurs of this type tend to be more long-term.

For both female and male businesses, the vast majority of sales were domestic sales (94 percent and 93 percent respectively).

²⁹ The data also demonstrates a high level of skewness where the mean is significantly higher than the median. This can provide misleading information as extremely high or low values can misrepresent the average enterprise. Thus, the median is used in the below analysis to provide a more accurate profile of the sample.

³⁰ The actual question in the Enterprise Survey asks: Which best describes the idea that motivated this establishment's business?

TABLE 28: Current Employment Statistics by Legal Status of Company

Legal Status	Male Enterprises			Female Participation in Ownership			Test Statistic
	Median	Number	Maximum	Median	Number	Maximum	
Publicly Listed	235	5	430	150	15	1,500	0.458
Privately Held, Limited Liability Company	34	390	1,100	28	338	1,200	0.028*
Sole Proprietorship	11	600	800	11	336	500	0.381
Partnership	25	169	900	18	131	1,800	0.043*
Limited Partnership	27	172	1,500	22	191	600	0.057
Other	29	2	43	28	2	50	1.000
Total	20	1,338	1,500	18	1,013	1,800	

Source: Enterprise Survey Data 2010; and author calculations.

Note: Due to the skewness of the data, non-parametric tests (independent samples Mann-Whitney U test) were used to establish if there were any significant differences between employment in male-owned enterprises and enterprises with females in ownership.

* indicates a significant difference at the 5 percent level.



Photo: SANDILOU, Grenada and Haiti

Sandra Russo putting the finishing touches on a hand-painted scarf, created as a unique wearable work of art for export, 2015

Amongst the few noteworthy differences, the most significant relates to sector of operation; the top three sectors (retail, hotel and restaurants, and food and beverage manufacturing) account for 59 percent of businesses with females in ownership, and only 45 percent of wholly male-owned businesses. These results are not atypical, as IDB (2014:20) notes: “*Women entrepreneurs, both high and low growth, are disproportionately found in more traditional sectors or sectors associated with their sex.*” IDB (2014) also observes that while men are in non-traditional sectors characterized by innovation, such as software development, women are concentrated in food and beverages, services, manufacturing, and retail.

Probably due to the sectoral distribution of female businesses, the ES data found differences in the types of skills perceived to be lacking in the labor market; 54 percent of female businesses cited soft skills as the most difficult skill to find when filling vacancies, while 54 percent of male businesses cited technical skills. Similarly, the levels of product innovation varied; 24 percent of female businesses had introduced new or significantly improved products in the last three years,³¹ compared to 38 percent of male businesses.

³¹ This information is not used to categorize firms in relation to innovation as enterprise-level data on the actual nature of new or significantly improved products is not known. Instead, sector characteristics related to technology and knowledge-intensiveness are used, as described in the next section.

In light of the sectors in which women-owned businesses are more commonly found, their growth potential may be limited given the domestic focus and seemingly saturated markets.

The ES data also indicates that enterprises with females in ownership were more likely to have the top manager as female (38 percent versus 7 percent for male-owned enterprises), and to have their own website (42 percent versus 33 percent).

Growth, Innovation and Technology in Women-Owned Businesses in the Caribbean

The estimated number and characteristics of self-employed females provide a general overview of the situation in the region. However, growing or innovation-oriented businesses must also be estimated to assist in planning and execution of interventions to support innovative women entrepreneurs.

The following four types of enterprises were considered to estimate numbers in the region:

- Technology-enabled enterprises
- Growing and growth-oriented enterprises and sectors
- Technology-oriented enterprises and sectors
- Innovative enterprises in terms of technology, product, process, or business model.

It should be noted that these broad types of enterprises are not mutually exclusive.

To provide these estimates, ES data provided information on use of technology, such as possessing a website, and licensing of technology. Measures of growth orientation, technological orientation, and innovation potential were derived from the sectors of operation as that was related to technology- and knowledge-intensiveness (TKI), as per OECD and Eurostat classifications (see table 6).

Technology-Enabled Enterprises

The Enterprise Surveys provide some indicators related to the use of technology, explored in this section in conjunction with the size estimates given previously. For the ES data, indicators considered most useful for the estimation of technology-enabled women-owned businesses were:

- Percentage of firms using technology licensed from foreign companies

TABLE 29: Innovation and Technology Indicators for Female-Owned Businesses

Country	Number	Percentage		Estimated Number	
	Female Businesses* (Estimate)	Own Website	Technology Licensed from Foreign Companies	Own Website	Technology Licensed from Foreign Companies
ANT	61	42.9	0	26	0
BAH	199	62.2	24.0	124	48
BAR	115	56.7	12.1	65	14
BEL	136	60.0	33.3	81	45
DOM	44	0	0	0	0
GREN	28	43.9	7.1	12	2
GUY	144	47.4	25.0	68	36
JAM	1,224	46.9	18.4	574	225
SKN	41	37.2	10.5	15	4
SLU	149	22.4	0	33	0
SVG	30	38.7	27.8	12	8
SUR	186	21.4	0	40	0
TT	540	43.0	7.5	232	41
Total	2,899	42.1	15.8	1,283	423

Source: Enterprise Surveys 2010.

* Female Businesses with 5+ Employees.

- Percentage of firms having their own website.

Thus, the number of technology-enabled female enterprises in the region was calculated using the total number of female-owned businesses (from size estimates), the relative proportion of these considered technology-enabled (on the basis of these two ES indicators), and actual number of enterprises in the region. The results are given in table 29, above. From these estimates, of the approximately 3,000 women-owned businesses in the region (not including Montserrat) with five or more employees, there are approximately 1,300 with their own websites, and 400 use technologies from foreign companies. These figures cannot be summed together as companies may demonstrate multiple characteristics. What can however be identified from this data is the amount

of enterprises with neither characteristic. In reviewing the Enterprise Survey data, 50.2 percent of enterprises had neither, which suggests that approximately 49.8 percent or about 1,500 enterprises had at least one. The specific estimates are included in table 29.

These results show that a small proportion of female-owned companies in the Caribbean possess foreign-licensed technology (16 percent), over two-fifths have their own website, and approximately 50 percent have at least one of these characteristics.

Growth, Technology, and Knowledge Intensiveness

Both general and enterprise-specific information was used to provide information on actual growth

TABLE 30: Technology and Knowledge-Intensiveness Classifications by Employment Levels and Growth (2006 to 2009)

Classification	Male Companies (Number)	Female Companies (Number)	Current Level of Employment (Median)	Growth [%] (2006 to 2009)		
				Overall	Male	Female
High TKI	81	54	12	9.1	10.0	4.8
Medium-High TKI	102	48	22	5.5	8.5	0.0
Medium-Low TKI	53	17	16	8.9	8.7	10.0
Low TKI	976	800	15	2.4	3.8	0.0
TOTAL	1,212	919	16	4.0	5.3	0.0

Source for calculations: Enterprise Survey 2010.

TABLE 31: Estimates of Female-Owned Enterprises by Technology and Knowledge Intensiveness Classifications

Classification	Companies (%)		Companies (estimated number)	
	Male* (%)	Female** (%)	Male*	Female**
High TKI	6.7	5.9	1,173	171
Medium-High TKI	8.4	5.2	1,470	151
Medium-Low TKI	4.4	1.8	770	52
Low TKI	80.5	87.0	14,090	2,522
Total	100	100	17,503	2,896

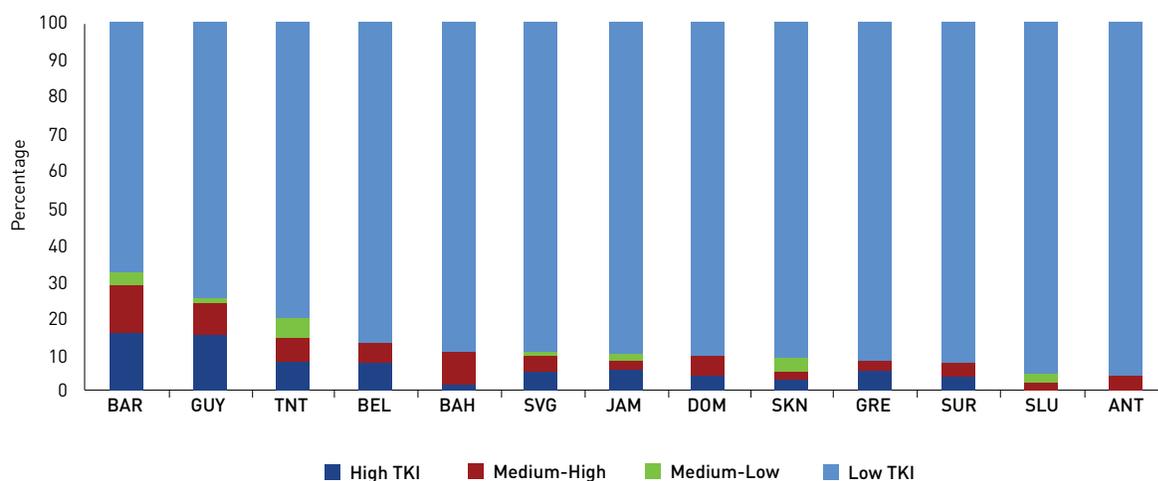
Source for calculations: Enterprise Survey 2010.

Note: percentage may not add to 100 due to rounding off.

* Based on the estimate of 17,503 males in the region with five or more employees.

** Based on the estimate of 2,899 females in the region with five or more employees.

FIGURE 5: Female-Owned Business by Country, by Level of Technology/Knowledge Intensity (Percentage)



Source: Enterprise Surveys 2010.

and growth potential. From the Enterprise Surveys, measure of growth was the change in number of employees from 2006 to 2009. Table 30 highlights growth in employees over this period, using classifications by level of technology and knowledge intensiveness (TKI), as outlined in table 6. This approach was necessary as, at the sectoral level, some sectors had only a few enterprises that would make any analysis at that level insignificant. In addition, enterprises with more than 120 employees were excluded from the sample as this cohort skewed the overall data while representing only 10 percent of the sample.

As table 30 indicates, the majority of female businesses are located in low technology and less knowledge-intensive sectors (87 percent of female enterprises). These sectors are experiencing the lowest levels of growth; median growth was

2.4 percent in these sectors, with women's business not experiencing any growth.

As table 30 shows, overall, growth is more prevalent in high and medium to low TKI sectors, both experiencing approximately 9 percent growth in employment from 2006 to 2009. However, as shown in table 31, these sectors account only for 7.7 percent of female businesses, estimated at approximately 200 businesses in the region. As also indicated in table 31, nearly 90 percent of female businesses in the region are in low TKI sectors. These grew by only 2.4 percent in employment over the period.

The distribution of enterprises by level of TKI at the country level from the ES database is shown in figure 5, with Antigua and Barbuda having the highest proportion of low technology-/knowledge-intensive female enterprises while Barbados has

TABLE 32: Innovation and Technology Indicators for Female-Owned Businesses: Estimated Distribution (Numbers)

Country	Female Businesses* (Estimate)	High TKI	Medium to High TKI	Medium to Low TKI	Low TKI
ANT	61	0	2	0	59
BAH	199	3	18	0	178
BAR	115	17	15	4	78
BEL	136	10	7	0	119
DOM	44	2	2	0	40
GREN	28	1	1	0	26
GUY	144	22	12	2	108
JAM	1,224	67	29	19	1,108
SKN	41	1	1	2	37
SLU	149	0	3	3	143
SVG	30	1	1	0	27
SUR	186	7	7	0	172
TT	540	42	34	30	435
Total	2,897	174	133	60	2,530

Source: Enterprise Surveys 2010.

Note: The total number of enterprises does not add up to 2,899 from previous estimates due to rounding off.

* Female Businesses with 5+ Employees.

the highest proportion of high technology/knowledge-intensive female enterprises.

The estimated number of enterprises by country based on overall estimates and country distributions from the Enterprise Survey data, is shown in table 32, with Jamaica, Trinidad and Tobago, Guyana, and Barbados having the largest number of enterprises with higher levels of technology and knowledge intensiveness.

Summary

The analysis of growth, technology, and innovation indicate that 50 percent of the approximately 3,000 women-owned enterprises in the region with five or more employees are technologically enabled meaning they either have their own website or have licensed technology from a foreign firm; 87 percent are in low technology/low knowledge-intensive sectors experiencing below average growth of 4 percent. Growth in higher technology/knowledge-intensive sectors ranged from 5 percent to 9 percent. The results also demonstrate that females are significantly underrepresented in this section of the labor market. Entrepreneurs with five or more employees account for only 14.2 percent of this cohort.

Chapter Summary

“...Of all the regions, women entrepreneurs in Latin America and the Caribbean are the most likely to operate without employees. Most run consumer-oriented businesses, and they rarely sell outside of their national borders. Given that these economies are all in the middle stage of economic development and experiencing high economic growth, it may be concerning that many of the businesses women run show characteristics indicating lower potential outcomes and, thus, limited economic impact.” (Kelley et al., 2013:39)

While the countries in the Caribbean are not experiencing high economic growth, as shown in table 7, this characterization is still concerning, especially given that the quantum of women entrepreneurs is also significantly lower than men entrepreneurs, as revealed in the above estimation processes.

The first step in the process was an estimate of the number of self-employed in the region. The results indicate that there were approximately 228,000 self-employed females, of which 204,000 had no employees, 21,000 had one to four employees, and 3,000 had five or more employees. In terms of shares, 13 percent of employed females were self-employed, with 11 percent being self-employed with no employees and 2 percent having one or more employees.

The review of the Enterprise Survey data for female-owned enterprises in the Caribbean revealed that they were operating to some degree in growing sectors. In terms of being technology-enabled: approximately 15 percent were utilizing technology licensed from a foreign firm, over 44 percent had their own websites, and nearly 50 percent possessed at least one of these characteristics. Using the estimates calculated previously, this suggests that there are approximately 200 female-owned businesses in higher growth sectors which were characterized by medium to high levels of technology or knowledge intensive-ness; and approximately 1,400 use some form of enabling technology.

The Enterprise Survey results also showed that only 13 percent of female-owned businesses were in medium to high technology/knowledge sectors (as compared to 20 percent of male businesses). Drawing on the previously estimated number of female-owned businesses in the region, this means that there are approximately 400 female-owned businesses in medium to higher technology/knowledge-intensive sectors. In summary, the specific estimates of the number of female-owned enterprises within the target group are as follows:

- In growing medium to high and high technological/knowledge-intensive sectors: 167 enterprises

- Technology enabled:
 - Technology from foreign company: 423 enterprises
 - Own website: 1,283 enterprises
 - 1,443 with at least one enabling technology, and 263 with both.

There are however a number of *caveats*. Firstly, the data from the Enterprise Surveys only relate to enterprises with five or more employees (and this corresponds to approximately 1.3 percent of self-employed females, and 12 percent of self-employed females with employees). At the enterprise level, there is limited data on enterprises with less than five employees. A second *caveat* is that the estimates above cannot be added up to provide a grand total as the groups are not mutually exclusive. For example, growing enterprises may also have a website.

These estimates only relate to the cohort with five or more employees. There are approximately another 21,000 female enterprises in the region with one to four employees. However, there is no information as to the sectoral or growth characteristics of these enterprises at the regional level. The majority in this cohort of smaller-sized enterprises can be assumed to exhibit less technological and knowledge-intensive characteristics than those which are larger. Even



Photo: Patwa Apparel Ltd., Jamaica

Models showcasing Heneka Watkis-Porter's new collection, 2015

Key Findings

Women Entrepreneurs in the Caribbean: Self-Employment Levels, Sectors, and Innovation

Females are represented in the labor market at a much lower level than males. Estimation procedures indicate that:

- Females account for 30 percent of the self-employed in the region, with self-employment only accounting for 13 percent of female employments as opposed to 33 percent for males.
- Self-employment with employees accounts for 5 percent of all employment in the region while it accounts for only 2 percent of female employment.
- While there are approximately 228,000 self-employed females in the region, 204,000 have no employees; this is in contrast to male self-employment where there are 533,000 with 445,000 with no employees.
- For the female self-employed, 90 percent have no employees while 9 percent have between one and four employees and 1 percent have five or more employees.

The sectors in which women operate are dominated by services and are mainly in low technology and knowledge-intensive sectors that experience low growth. Enterprise Surveys indicate that retail trade and hotels and restaurants account for 46 percent of female businesses as compared to 34 percent for men. In addition, when sectors are classified by level of technology and labor intensiveness, it is apparent that women operate in sectors with limited innovative potential, with nearly 90 percent in low technology and knowledge-intensive sectors experiencing no growth in employment from 2006 to 2009. By contrast, male businesses in these sectors experienced growth in employment of nearly 4 percent.

a conservative range of 1 percent to 5 percent exhibiting these characteristics would suggest between 200 and 1,000 enterprises with target characteristics. However, such estimation does not currently have a base from which to draw from, with the exception that in the larger cohort 9 percent of enterprises exhibit all of the required characteristics.

While most profiles of female-owned businesses demonstrate limited differences from the overall sample and male-owned businesses, the most salient difference relates to sector of operation:

the top three sectors (retail, hotel and restaurants, and food and beverage manufacturing) account for 59 percent of businesses with some female ownership, 66 percent of businesses for female sole proprietors, and only 45 percent of wholly male-owned businesses. It would be expected that any innovation in these sectors would mostly be process-type innovations, and that growth potential is limited, given the domestic focus and seemingly saturated markets.



Photo: Bartley's All in Wood, Jamaica

Lacey-Ann Bartley making 'Outta Many One' wood pastry boards from off-cuts from furniture production and repurposed wood, 2014

Constraints to Women-Owned Businesses in the Caribbean

Introduction

From the analysis of data on females in the labor market in chapter 3, the information available indicated that less females entered self-employment, and when they did enter self-employment, were more likely to not employ anyone. If they did, they employed fewer persons than male-owned businesses. It is proposed that this lesser participation in self-employment is due to socio-cultural factors which have implications on access to finance and property, and the skills required to operate in growing and innovative sectors. To explore these issues, this chapter reviews some of the background literature in the area and factors in survey data from the Enterprise Surveys to explore the main constraints to business development for women entrepreneurs in the Caribbean region.

Constraints to Women-Owned Business in the Caribbean

Socio-Cultural Factors

Lashley (2009:33) indicated that the main obstacles to female-owned enterprise development in the Caribbean are social and cultural factors, which are "...critical in restricting women's participation and growth in the small enterprise sector. Socialization in the home and community that women's place is in the reproductive sector is further inculcated in education and in the labor market. Industrial and occupational segregation is seen throughout CARICOM. These factors have led to women's enterprises being located in low growth, low revenue, low status sectors." These sectors include services and professions directly related to what is considered women's work; these are often unattractive to lenders as they are home-based, smaller than men's, and exhibit a high degree of informality (Lashley, 2009). The rationale

The constraints faced by women in enterprise development can be considered both internal and external. "Internal issues relate to self-image and an understanding that they have a limited role to play in the productive sector, both informed from the socialization they receive in the home, the community, and in education."

(Lashley, 2009:19)

for allocating socio-cultural factors as the main obstacle to the development of women-owned businesses is the knock-on effect these have in relation to critical business development factors such as access to finance.

This finding has some support at the global level from the Global Entrepreneurship Monitor 2012 Women's Report (Kelley et al., 2013:7) which states:

"...covert discriminatory practices are sometimes found, particularly in obtaining higher level resources such as equity capital or corporate procurement contracts. These covert practices are subtle, and sometimes not even recognized by entrepreneurs, in that they have to do with status expectations or gendered roles."

In general, being an employee rather than self-employed is preferred across the region for a number of cultural, religious, family, and community-related issues; and so enterprise development becomes the last resort (Walkes, 2008). Women's attempts to participate in self-employment are therefore also constrained by this negative view and low social valuation of entrepreneurship. Lashley (2010) too identified a low valuation of entrepreneurship in



Valrie Grant prepares to launch Ebee RTK Drone on one of its first data capture flights, 2015

Photo: GeoTechVision, Guyana and Jamaica

Barbados: 40 percent of nascent entrepreneurs indicated that society placed little or no value on entrepreneurship versus other options such as employment; and nearly 70 percent agreed that the entrepreneur's role in the economy was not sufficiently recognized. Given such stigmatization of entrepreneurship, there can be considerable pressure from family and the wider community to dissuade women from becoming self-employed.

The constraints faced by women in enterprise development can be considered both internal and external. "Internal issues relate to self-image and an understanding that they have a limited role to play in the productive sector, both informed from the socialization they receive in the home, the community, and in education." (Lashley, 2009:19) On a related note, a lack of self-confidence was noted for the wider LAC region where fear of failure was seen as the main internal challenge during the startup phase, although this decreased over time (IDB, 2014). Drawing on interviews with key informants in the Caribbean, Lashley (2009:14) notes: "...the role of psychology in causing and perpetuating the trends seen in the gender segregation of labor. The current mindset suggests that women can only "handle" certain areas, closely associated with the household and devalued in terms of power...such views prevent true equality, and that this is exacerbated by the fact that such views are held by both men and women."

Other internal issues affecting women's participation in self-employment in the Caribbean include "firstly, women's expected responsibility for the household, which constrains their time and the types of endeavors they can undertake, and secondly, the view that seeking employment outside the home was not considered 'respectable.'" (Lashley, 2009:15)

The issue of socialization also informs the external constraints experienced. "Business development service providers have a negative view of women's businesses, and hence access to resources (training, technical assistance, and finance) is constrained to: the areas where women

are expected to operate; small-scale production; and home-based... Due to these constraints, and support aimed at the social rather than the economic, women have had to rely on more informal support services such as savings clubs, NGOs, and credit unions. Such concentration has led to a perpetuation of the low growth-low status-low pay cycle." (Lashley, 2009:20)

Barriteau (2002), drawing on interviews with business support providers in Barbados, observed that it was their view that women did not represent the "values of an entrepreneurial culture." Lashley (2012) attributes these views to a masculine conception of the entrepreneur, and therefore, women cannot "do" entrepreneurship. This view from service providers is justified by them with reference to the fact that female entrepreneurs were involved in female-oriented work (related to domestic activities such as hairdressing, cooking, child-minding, etc.), small, employed family, and based in the home. All of this led to difficulties in accessing finance and other business support services.

Although discrimination was noted by IDB (2014) as a real experience for high-growth entrepreneurs in LAC, this was mostly seen in the early phases of their business development, with 88 percent of established high-growth women entrepreneurs stating that they currently did not experience being discriminated against. However, at a broader external level, IDB (2014) indicates that a low valuation of entrepreneurship in society and the media is a challenge.

In summarizing research on gender and entrepreneurship, with particular reference to the Caribbean, Lashley (2012:282) notes that: "...research has revealed that the determinants of entrepreneurship (culture, institutions, personal traits, and manifestations of behavior) cause differential access to entrepreneurial resources for men and women... it has shown that this differential access affects the manner in which entrepreneurship is practiced, where significant differences in men's and women's business was seen."

The issue of culture is relevant here as it causes “...differential access as a result of assigned gender roles, which determine what is acceptable for women and men” (Lashley, 2012:276). Since entrepreneurship in the Caribbean is not fully accepted as a career choice (Lashley, 2010), and is conceptualized as essentially masculine, females are doubly disadvantaged. These cultural conceptualizations are reinforced in institutions where the masculine conception of the entrepreneur is uncritically accepted by service providers. If facilitative institutions are considered as a determinant of entrepreneurship, and institutions are considered as a formal expression of culture, the underlying characterization of the entrepreneur as independent, a leader, and a risk taker, that demonstrates a hunger for profit and growth and discards the household as a source of finance and labor, reinforces women’s unequal access to entrepreneurial resources.

Given these socio-cultural issues and the ensuing effect on institutional practices, the following sections review the results of the Enterprise Survey data to highlight operational constraints faced by women entrepreneurs in the region.

Operational Obstacles to Women-Owned Enterprise Development

Overall, despite some differences in the order of obstacles, as indicated in figure 6, the top four issues for both males and females were: Access to Finance, Tax Rates, an Inadequately Trained Workforce, and Electricity. Reviewing these results suggests that costs are the main obstacle to businesses in relation to taxes and electricity costs,

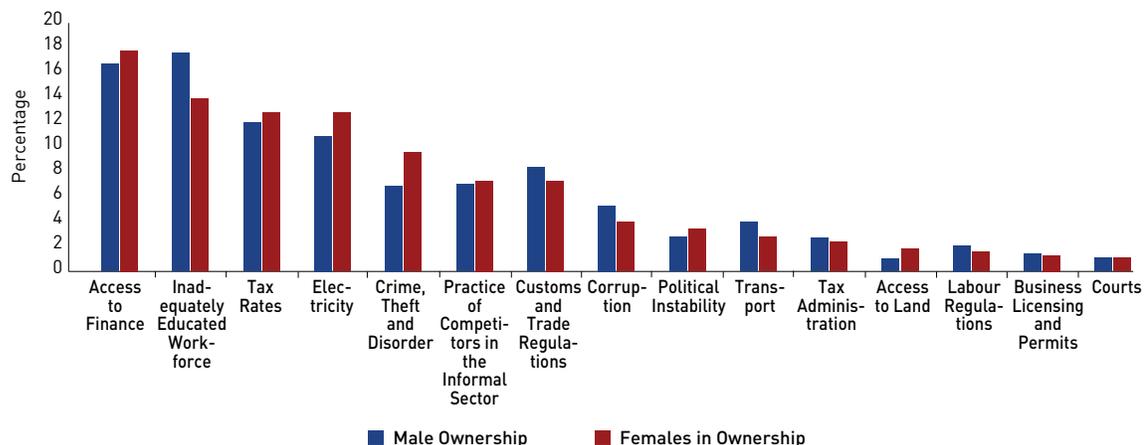
and a major issue in accessing finance being the cost of borrowing (“interest rates not favorable”). However, it appears from the IDB (2014), at the level of LAC, that the issue of access to finance is a temporal and gendered one. While both sexes say that access to finance is the main challenge their businesses face, and at the inception stage both draw on personal finances or support from family and friends, at the expansion phase this barrier is reduced for men but remains for women. The IDB (2014) attributes this to men’s greater access to networks and access to other, non-debt, financing sources such as angel investments and venture capital funds.

Despite nearly half of respondents having credit, and 60 percent of females without credit indicating they did not need credit, the single largest obstacle to business identified by female businesses was access to finance. For male business, it was the second largest obstacle after an inadequately trained workforce, probably due to the greater technical orientation of male-owned businesses.

In addition to identifying the biggest obstacle, respondents also rated the severity of all obstacles. As figure 7 shows, obstacles with high ratings were similar to the biggest obstacles identified, with crime, theft, and disorder also highly rated. As with other indicators, the levels do not vary significantly by gender of ownership.

In reviewing the data in relation to technology and knowledge intensiveness (TKI), as with enterprises in the general sample (that is, both male and female-owned), access to finance was also the biggest obstacle identified for approximately

FIGURE 6: Biggest Obstacles Affecting the Business (Percentage)



Source: Enterprise Survey 2010.

28 percent of female-owned enterprises in three higher TKI sectors (high, medium to high, and medium to low). This was followed by electricity (20 percent), an inadequately educated workforce (14 percent), and tax rates (13 percent). When considered separately, this order is mostly preserved for the low TKI sectors, where the majority of female-owned enterprises are located, while electricity is the main concern for high TKI sectors.

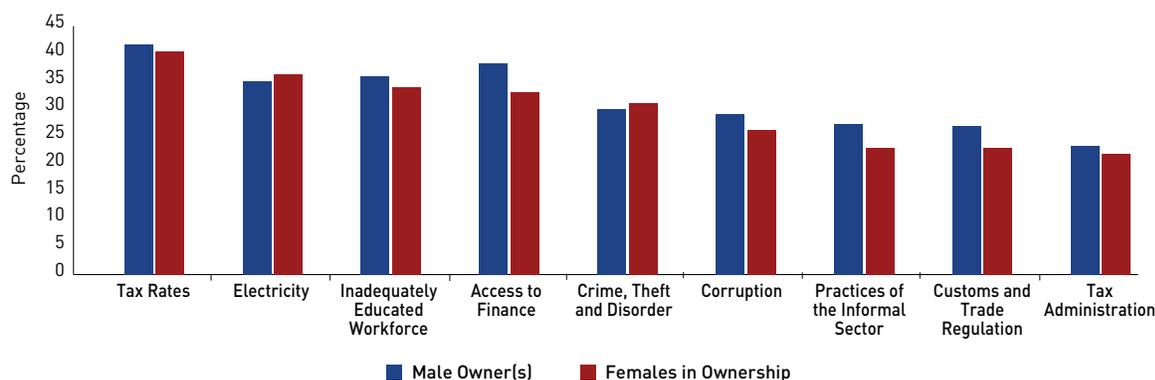
The general characteristics of businesses in the technology/knowledge-intensive and growing sectors have a few differences from the main sample. Indeed, their main obstacles to business development were access to finance (mainly due to interest rate costs and collateral requirements), and inadequate skills in the workforce (mainly technical skills for the more technological enterprises). These results suggest that although females are significantly underrepresented in the

cohort of employers with five or more employees, accounting for only 14 percent of these enterprises, that once present, they experience similar constraints to doing business as men.

With regard to access to finance as a general obstacle to business development from the Enterprise Survey, 33 percent of female businesses rated this as a major to very severe obstacle, 60 percent indicated that they did not need a loan. For those that did require credit, the main reasons given for not applying were unfavorable interest rates and collateral requirements (see table 37). Collateral requirements were twice as important for most technological/knowledge intensive sectors (see table 38).

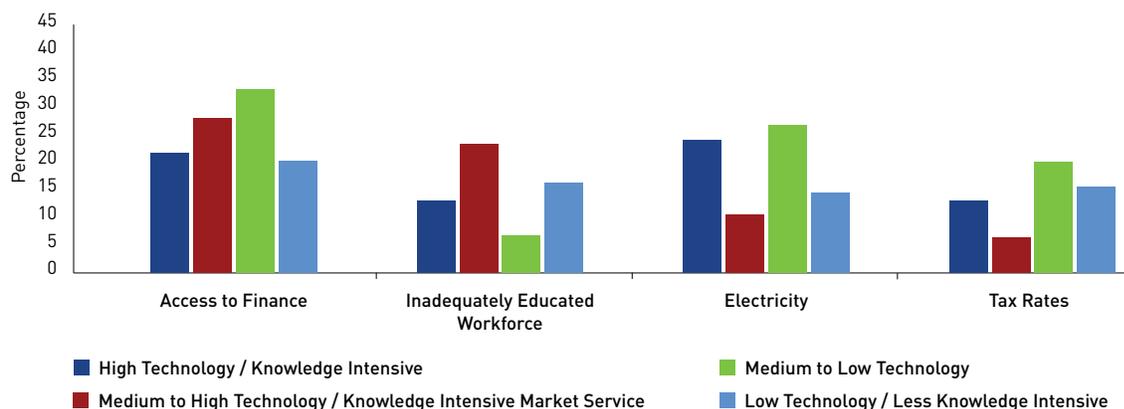
These results in relation to constraints to business is however not unique to the Caribbean region. The IDB's WEGrow publication on women entrepreneurs in Latin America and the Caribbean, which

FIGURE 7: Major/Very Severe Obstacles to Business Development by Ownership (Percentage)



Source: Enterprise Survey 2010.

FIGURE 8: Biggest Obstacles to Business Development by Sector Category (Percentage)



Source: Enterprise Survey 2010.

TABLE 37: Reason for Not Applying for a Loan by Ownership

Response	Male Owner(s)	Females in Ownership
No need for loan	55.0	59.6
Application process too complex	2.4	1.8
Interest rates not favorable	12.2	12.4
Collateral requirements too high	9.2	5.9
Size of loan or maturity are insufficient	1.6	1.3
Do not think it would be approved	4.4	2.8
Other	12.9	12.9
Number of responses	320	304

Source: Enterprise Survey 2010.

TABLE 38: Main Reasons for Not Applying for New Loans or New Lines of Credit for Females^a (Percentage)

Response	High TKI	Medium to High TKI	Medium to Low TKI	Low TKI
No need for a loan	55.3	72.1	61.5	61.3
Application procedures are complex	2.6	2.3	7.7	1.7
Interest rates are not favorable	15.8	7.0	0.0	13.3
Collateral requirements are too high	13.2	9.3	7.7	5.4
Size of loan or maturity are insufficient	2.6	0.0	0.0	1.3
Did not think it would be approved	2.6	0.0	0.0	3.2
Other	7.9	9.3	23.1	13.8

Source: Enterprise Survey 2010.

^a Does not include enterprises with more than 120 employees.

only includes Jamaica from the Caribbean, notes from a survey of women entrepreneurs that lack of finance is the main challenge to starting a business (IDB, 2014). While personal savings and informal funds from family and friends constituted the main source of start-up funds for males and females, there is an absence of funding for expansion for women entrepreneurs because of a lack of access or lack of existence of other sources of finance. This gendered effect is a result of males' access to networks which allows them easier access to funding such as angel investments and venture capital funds. WEGrow also identified other challenges to business development for women such as lack of confidence at start up (fear of failure), balancing personal and professional lives, discrimination in the early phases of business development, lack of access to productive networks, a poor societal view of entrepreneurship, and the general state of the economy in their countries.

However, many constraints faced by female entrepreneurs may be more related to the sectors in which they operate in as opposed to men. The information analyzed above demonstrated that women were more prominent in retail trade, hotel and restaurants, and food and beverage

manufacturing, low-technology, highly-competitive sectors with constrained opportunities for wealth generation and therefore less attractive to finance providers. Such sectoral choice, combined with high levels of competition and lack of access to finance, also limits market focus to domestic markets, which further constrains growth and access to developmental resources.

It is therefore imperative to expand women's involvement in growth-focused sectors with enhanced opportunities to access these developmental resources and expand beyond national borders. It should however be noted that resources are not limited to financial resources, but also includes human resources, physical capital, and social capital resources such as access to networks.

Chapter Summary

In relation to the findings above, the main constraints facing women entrepreneurs in the region relate to **socio-cultural factors, costs, and lack of appropriate skills in the labor force**. The cost issue relates specifically to the cost of finance,

Key Findings

Constraints to Women-Owned Businesses in the Caribbean

The main obstacles to enterprise development for women entrepreneurs in the Caribbean relate to socio-cultural barriers that affect their participation in self-employment and access to finance as well as other constraints such as costs and lack of appropriate skills in the labor force.

- To address gender segmentation in the labor market, there is a need to increase the social acceptance of self-employment, expand females' involvement in sectors with growth potential and improve access to developmental resources.
- To address the growth constraints faced by women entrepreneurs in the Caribbean, there is a need to improve access to: finance; appropriate, demand-led, training and counseling; relevant and timely business information; networks; and technology and equipment.

high collateral requirements, electricity, and taxes. Inadequate skills in the labor force relates to a lack of technical skills for those in technology/knowledge-intensive sectors.

In general, three main priorities can be identified to address gender segregation in the labor market, a direct effect of socio-cultural factors:

- Increase the acceptance of self-employment as a viable career option
- Expand women's involvement in sectors with growth potential, both as employees and owners
- Improve access to developmental resources to promote greater involvement in self-employment in growth-oriented sectors.

However, the constraints in addressing these issues are deeply rooted in socio-cultural issues which are revealed in segmentation in education and in the labor market. Reviewing the information available, these issues are strongly represented in relation to the issue of access to resources. Indeed, improving women's access to financial resources, social capital resources (networks and mentors), and training (human capital building) were all prominent recommended priorities for any program seeking to support growth-oriented women entrepreneurs in the Caribbean.

Overall, the priority barriers and constraints that require addressing include:

- Access to financing
- Appropriate and relevant training and counselling (business advisory services) and other forms of capacity-building support, for example, business coaching and mentoring
- Access to relevant and timely business-related information (for example, regulations, trade missions, obtaining technical support, etc.)
- Access to networks (for example, of women entrepreneurs, business associations)
- Access to technology and equipment.

Combining the information that has emerged from the Enterprise Surveys with the general profile of female entrepreneurs in Barbados and Jamaica as well as from WINC's community across the region, there emerges a pressing need to address the issue of female segregation in self-employment by encouraging greater participation in ownership, greater participation in innovative sectors that provide avenues for wealth generation, and a reversal of the cycle of "home-based" enterprise, low growth, and lack of access to developmental resources.

Chapter 5:

Lessons for Supporting Women Entrepreneurs in the Caribbean

This chapter seeks to highlight the main findings of this assessment and provides lessons for program development for donors seeking to support women entrepreneurs in the Caribbean. Drawing on the findings presented earlier, this chapter discusses approaches that could be used by programs seeking to support the region's growth-oriented business women.

Main Findings and Lessons for Program Development

Limited Presence, Limited Growth, Limited Innovation

The preceding chapters have indicated that self-employment among women in the Caribbean is significantly lower than self-employment among males; self-employed women account for only 8 percent of the employed labor force while self-employed males account for 19 percent. Apart from this, self-employment is also less prevalent among women in the labor force in general with only 13 percent of employed women being self-employed as opposed to 33 percent of men. Women's businesses were also smaller in terms of their numbers of employees; only 2 percent of self-employed women had employees, as compared to the regional average of 5 percent for all self-employed.

While the results indicate that women are under-represented in self-employment, and that their businesses tend not to provide employment, the preceding chapters also indicated that the sectors in which they operate are focused on services to a greater degree than men's businesses. The top three sectors in which female-owned businesses operate in the Caribbean are retail, hotel and restaurants, and food and beverage manufacturing (together, these accounted for 59 percent

Despite the small numbers of innovative and growth-oriented women entrepreneurs, proactive targeting of this pool would positively impact programming efficiencies and increase the likelihood of programs successfully fostering intra-regional business linkages and strengthen value chains for women entrepreneurs in the Caribbean.

of businesses with some female ownership) (Enterprise Survey, 2010). However, these are considered highly competitive sectors with limited opportunities for wealth generation (and therefore less attractive to finance providers), and their growth potential is expected to be limited. In addition, women-owned businesses are focused on the domestic market (94 percent of sales for female businesses are domestic), with limited innovation (only 24 percent of female businesses had introduced new or significantly improved products in the last three years, versus 38 percent of male businesses) (Enterprise Survey, 2010). Further, any innovation in these sectors would most likely be process-oriented.

When the sectors of operation were classified according to technology and knowledge-intensiveness, the analysis revealed that a majority of women-owned businesses (87 percent) were in low technology and knowledge-intensive sectors as compared to men (80 percent), and that these low TKI, women-owned business, did not experience any growth in employment from 2006 to 2009, while men-owned businesses experienced 4 percent growth in employment over the same period (Enterprise Survey, 2010).

To reiterate these results, relatively few women participate in self-employment; and when they do, they provide limited employment, and are in low

technology and knowledge-intensive sectors. This presents a dilemma for interventions that seek to serve the segment of growth-oriented and innovative women entrepreneurs in the Caribbean.

The implications of these findings for program developers seeking to serve such entrepreneurs is that they will need to proactively seek out program beneficiaries given their limited presence. Despite the small numbers of innovative and growth-oriented women entrepreneurs, **proactive targeting of this pool would positively impact programming efficiencies** and increase likelihood of programs successfully fostering intra-regional business linkages and strengthen value chains for women entrepreneurs in the Caribbean.

Further, the results could also point to the need for interventions to enhance women entrepreneurs participation in growth-oriented and innovative sectors. Future programming should therefore seek to expand women's involvement in technology/knowledge-intensive, growth-focused sectors; and support them with enhanced opportunities to access resources (financial, human, physical capital, and social capital) and expand beyond national borders. This is in keeping with the World Bank's review of support programs globally for growth-oriented women entrepreneurs, which concluded that these must specifically address gender-specific constraints such as social norms, entrepreneurial preferences, and institutional arrangements, changing public discourse, and paying more attention to factors that induce female entrepreneurs to diversify into higher value-added activities. (World Bank, 2014a).

Growth Orientation, Tertiary Education, and the Future Pool of Innovative Women Entrepreneurs

While studies in Barbados and Jamaica indicated that 28 percent and 34 percent respectively of the general population of women entrepreneurs had tertiary education, the recent IDB WEGrow study of high-growth women entrepreneurs revealed that 76 percent had tertiary education (IDB, 2014).

The assumption that future innovative, growth-oriented businesses will be operated by entrepreneurs with tertiary level education gives program developers a marketing focus if seeking to locate emerging entrepreneurs. The prevalence of a tertiary education also provides lessons for the level of sophistication that can be utilized in communicating with the existing and future pool of growth-oriented and innovative women entrepreneurs in the region.

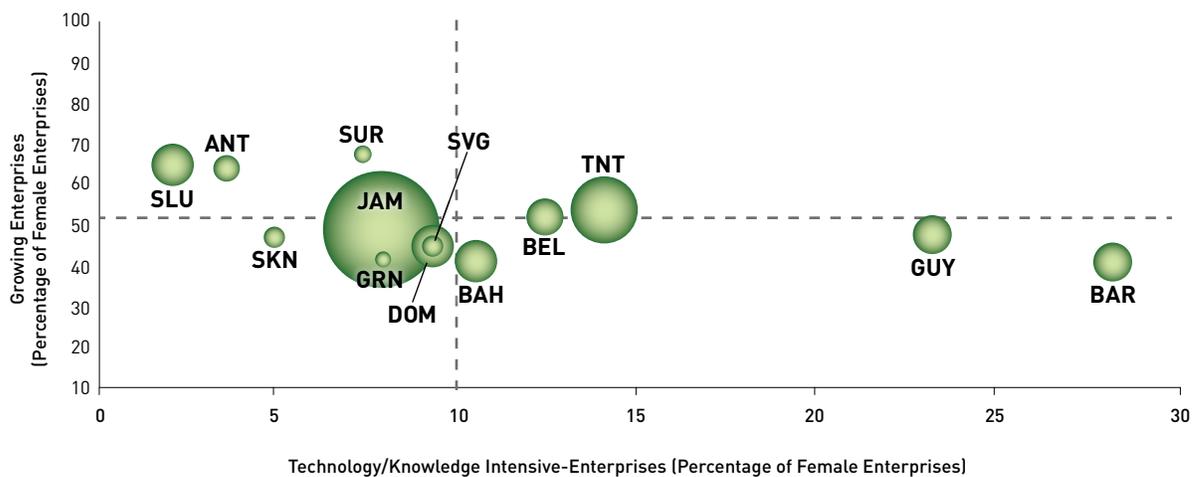
WINC, in its preliminary stage of development, identified that the full spectrum of communication channels, including using social media to develop and maintain a virtual community, would be most useful. Through its Facebook page, WINC has developed an online community spread across the region. Such utilization of social media provides scope for the rapid dissemination of information, stimulating discussions, and fostering a business network for women entrepreneurs. Using a combination of virtual, print, and face-to-face activities (including email, e-newsletters/bulletins, social media, virtual/physical meet-ups, webinars, training workshops/seminars, mentoring, etc.) can most effectively reinforce incipient business connections and permit trust to develop between women entrepreneurs who are spread out geographically and operate in different sectors.

Another finding of interest from WINC's community of women entrepreneurs suggests that local business development agencies and organizations might also be a useful communication channel with this group.

Spatial Distribution of Caribbean Women Entrepreneurs

The Enterprise Survey data enabled identification of the geographical dispersion of growing and technology/knowledge-intensive enterprises. As shown in figure 9, the volume of female entrepreneurs is highly related to population size, as indicated by the size of the spheres, with Jamaica having the highest and Grenada the lowest. While the size of the spheres indicates the population of self-employed females, the figure also indicates by

FIGURE 9: Innovative and Growing Female Enterprises per Country by Share of Regional Female Enterprises (Percentage)



Source: Authors' calculations from Enterprise Surveys (2010) [see appendix 1]

Note: Countries with high share of innovation and growth are towards the top right of this chart, and those with a low share of both are towards the bottom left. The size of the bubble indicates the share of female enterprises in the region, with the larger bubbles indicating greater share of female enterprises in the region.

Dashed lines (---) indicate the mean value for the region.

country the percentage of female enterprises that are growing and technology/knowledge intensive; the figure shows that Barbados has the highest proportion with regards to technology/knowledge intensiveness and Surinam the highest proportion of growing enterprises.

This country-specific information provides a useful indication of where the greatest market shares are for these criteria. The usefulness of this information is that it provides direction for programs targeting different outcomes. For programs interested in developing interventions to serve underperforming economies, the targets would be countries with lower Doing Business and other rankings and residing towards the lower left quadrant of figure 9. In seeking to serve countries with a conducive environment, selection would be based on those countries with higher Doing Business and other rankings and towards the upper right quadrant of the figure. For programs seeking to have the greatest breadth of outreach, the options would reside with countries with the greatest number of women entrepreneurs, as demonstrated by the size of the bubbles in the diagram.

State of Support Services and Constraints to Business Development

As noted earlier, other research shows that there is a lack of quality business support and incubation services in the Caribbean. This was also confirmed by *infoDev's* more recent study on incubation in

the region which concluded that support to women entrepreneurs should be demand-driven and cover needs from pre-incubation services through to post-graduation support (*infoDev*, 2012), noting that it was likely that women would require more pre-incubation support. It was also noted by *infoDev* (2012) that many small firms and start-ups require diversified assistance over a longer period, including access to appropriate finance, entrepreneurial know-how, market access, and technology support. This noted lack of quality business support and incubation services in the Caribbean provides an excellent window of opportunity for future programs to roll out a comprehensive package of support services for women entrepreneurs. Notwithstanding, it is essential that all efforts be made to ensure that interventions avoid the commonly-observed problem of mismatch between the support requested and support provided.

The support required by women entrepreneurs across the region are directly related to the constraints they face in operating and growing their businesses. The findings of the preceding chapters were that the main constraints facing women entrepreneurs in the region were: costs, in particular the cost of finance (non-favorable interest rates), high collateral requirements, and the cost of electricity and taxes; and lack of appropriate skills in the labor force, in particular, lack of technical skills for those in technology and knowledge-intensive sectors. As these challenges

were not found to vary significantly by gender, it is most likely that they are related to the highly congested sectors in which women operate. This provides further support for the need to support women entrepreneurs to diversify from their existing sectors to those considered more growth and technology-oriented. In seeking to address a way forward for programs targeting the development of women entrepreneurs in the region, the following sections look at the issues of: access to finance, business training and support, development of business networks, support for innovation, and the graduation of women entrepreneurs from program support.

Improving Access to Appropriate Financing

“With greater knowledge and access to different types of funding, women entrepreneurs could avail themselves of a more diverse mix of capital to expand their operations, enter new markets, integrate new technologies, and hire key talent to help them improve their companies’ operations and strategies, among other benefits.” (IDB, 2014:35)

A multi-pronged approach should be considered to improve women entrepreneurs’ access to finance in view of the barriers to lending expressed by financial institutions: limited collateral, poor business or management skills (including record-keeping), risk of lending to own-account proprietors, and poorly prepared applications (Lashley, 2009). The approach should be characterized by:

- Offering financial workshops that focus on building financial literacy skills of women entrepreneurs. Due to the complexity of this subject, these workshops should be supported by counselling interventions.
- Working together with institutions such as IFC in supporting financial institutions to develop/strengthen their offering of gender-sensitive financial services. In particular, there is clear need for products which allow women to expand and grow firms (that is, moving them beyond start-up/very early stage of business).

In addition, attention must be given to raising their awareness of (overt and non-overt) gender stereotypes and misconceptions which are still prevalent in the region, whether through targeted workshops or public education campaigns.

- Supporting women entrepreneurs to identify and overcome their own self-limiting beliefs which may prevent them from seeking to access finance (whether from financial institutions or individual angel investors/venture capitalists).

IDB (2014) also provides recommendations to address the challenge of accessing finance for women entrepreneurs, noting that they need more than just funds, but also guidance to enhance the probability of success. It is suggested that feedback from potential investors, especially non-traditional sources such as external equity, is integral, as is the need for innovative, low-risk instruments with public and private sector investments. Networks and incubators will also play an important role in establishing a foundation from which to enable easier access to finance and guidance.

From the findings of other studies on women’s access to finance in the Caribbean, it is highly recommended that a graduated approach be employed—with grant funding to be considered for smaller/early-growth entrepreneurs, followed by subsidized loans (that is, with appropriate interest rates) and eventual graduation to formal mainstream finance. As noted by Lashley (2009:25), this would promote an “understanding of the process of debt acquisition and repayment...assist in the building of capital for collateral, a greater degree of bankability in the eyes of more formal financial institutions, and an enhancement of business skills through practical experience of communicating with finance providers and related bureaucratic conditionalities.” For this to be successful, the study noted that such mechanisms “need be facilitated by the finance providers, as [otherwise] goals, loan size, and capacities are constrained.” (p25) This could be a key area for international donors to explore, using their linkages and leverage across the region to foster an improved environment which allows entrepreneurs to more readily access their own financing.

In parallel, a special window could be considered if a diaspora investment program were initiated for the most developed women-owned businesses in the region. From its recent findings, *infoDev* notes that such businesses could be supported to better understand equity financing and prepare them for investors; and those considered ready then promoted to/within (diaspora) angel investor communities (*infoDev*, 2013b). Additionally, connections should be facilitated to build trust between investors and entrepreneurs (particularly through face-to-face meetings), and support provided to assist potential investors and entrepreneurs alike in navigating the legal processes involved. Further, there is need for diaspora investors to be connected to local angel investors to mitigate (perceived) risks involved.

BOX 1: Experience of Valrie Grant, GeoTechVision Enterprises

Owned and managed by Valrie Grant, GeoTechVision Enterprises was started in 2008 and specializes in innovative spatial technologies and business solutions and operates from the head office in Jamaica with an additional branch in Guyana. The company also provides services through partner relationships established in Trinidad and Toronto, Canada. In addition to being a women entrepreneur, Valrie was a “young entrepreneur” starting her business at age 29.

Valrie states, “Having the right educational background and experience is sometimes not enough. Female business owners have to offer an edge to stand out—female business owners have to work harder. All in all, the competition is tough for a female, and in my business, the advantage is that it builds strength of character as one recognizes that with persistence, you can get your foot in the door, thereafter the work normally recommends itself.”

Valrie reported that access to financing and finding advisors, consultants and mentors to give growth advice would likely be a problem in growing her business in the future.

WINC’s “Grow your Business” (GyB) workshop, held in Jamaica in 2013, was the first women-tailored program Valrie attended. She reported that she needs more skills to operate her business successfully and to grow her business. She felt that it would be more useful to attend training courses that are offered to both men and women, given that business is conducted in an environment that includes both sexes; however, she indicated that there are times that it would be an advantage to take courses with women only.

Source: infoDev 2013c.

Provision of Relevant Business-Related Training, Business Coaching and Mentoring Support

Women entrepreneurs in the region require a comprehensive package of business support services, designed specifically for growth-focused, innovative women entrepreneurs in the region. This must be relevant, practical, and appropriate in terms of the topics, level (which needs to match the entrepreneurs’ differing stages of development), and context (for example, using Caribbean-based case studies). The delivery of such support must also be suited to women entrepreneurs, with flexibility (so that they can balance with their other time demands) and using a mixture of face-to-face and virtual contact.

With regards to *training and peer learning*, discussions with key informants highlighted the need for this to span the functional areas of business management (marketing, accounting, finance, and human resource management) with a view to preparing entrepreneurs for growth. For example, sessions could focus on: exploring how to broaden/grow a customer base, and adapt existing products and identify new products and services for this purpose; developing business linkages; accessing inputs (raw materials, supplies, equipment, expertise); technical and production advice; improving/developing a bigger vision for their businesses.

Access to Support and Strengthening of Business Networks

“...networking is the most important thing for entrepreneurs. Especially in Barbados, information is power and you have to know how to access it.”³²

Access to strong, extensive and diverse business support and networks is becoming increasingly recognized as necessary for entrepreneurial ventures to succeed. Indeed, the density and quality of an entrepreneur’s network can have a substantial impact on his/her ability to acquire information, skills, ideas, technologies, markets, capital, and new opportunities.

Information gleaned from WINC’s community suggests that the widespread use of business support services and membership organizations is largely confined to the entrepreneurs’ country(ies) of operation, with limited reference to regional bodies; and no specific regional networking opportunities for women entrepreneurs. With no business networks in the region for growth-oriented and innovative women entrepreneurs, future programs could play an important facilitative role here. To develop such a network, attention must be given to the fact that networking needs to change as businesses evolve and develop. Thus, the pipeline entrepreneurs will likely have different requirements from business owners with no or few employees, as will business owners of rapidly growing or mature enterprises. Notwithstanding,

³² Interview with Deidre Braithwaite, participant in WINC’s Grow your Business workshop 2013 (infoDev, 2013c).

a key function of a network for women at all stages will be to encourage peer learning through sharing of business experiences, coping strategies, and exchanging information.

For a regional network to be successful, it must have a strong virtual presence but also have face-to-face activities for women entrepreneurs. The latter could take the form of information seminars with guest speakers, "show and tell" sessions, small-group discussions (with some of these possibly as closed-group meetings, so that the women can discuss the complexities of their businesses in a confidential, trust-based environment). Ideally, the more experienced (women) business owners would be willing to foster the development of earlier-stage women entrepreneurs.

To expand the reach of such a network, and therefore its utility to women entrepreneurs, a virtual component could be opened to include their male counterparts. Given the current gender distribution in businesses across the region, it is imperative that women's access be facilitated to existing networks and communities of male-owned businesses and associated stakeholders who may become suppliers, clients/customers, distributors, financiers, advisors, or partners.

A strong business network could also help promote linkages with business associations and other entities (including private sector), whether at national, regional, or international level. In this regard, *infoDev's* global network would be a tremendous asset in linking Caribbean women entrepreneurs virtually with their counterparts elsewhere in the world. Additionally, such a network would be an excellent platform to facilitate engagement of women entrepreneurs with potential investors.

Given the diverse needs of women entrepreneurs, attention must be given to building strategic relations with entities similarly interested in supporting such businesses—including private sector philanthropic/developmental initiatives (for example, the Goldman Sachs 10,000 Women, Cherie Blair Foundation, Nike Foundation, WEConnect, etc.), business organizations (for example, chambers of commerce, incubators); as well as financial institutions (especially those involved in the IDB's *weBanking* initiative and the CDB's project on financial literacy; and ScotiaBank, which is also a member of the Global Banking Alliance). Linkages must also be built with academic institutions, which can offer technical support, as well as being a source of future employees, and government, to change the

innovation ecosystem for women entrepreneurs via policy and regulatory interventions.

Support for Innovation in Women-Owned Firms

Given the strong recommendation to expand women's involvement in technology- and knowledge-intensive sectors, as well as in growth-focused sectors, support will be needed to foster innovation at firm level. This will include facilitating linkages with appropriate organizations such as intellectual property attorneys, universities, and other research organizations, and such international organizations as the World Intellectual Property Organization (WIPO). As noted by the Caribbean Development Bank (2012:35):

"...factors constraining MSMEs' investment in innovation and firm upgrade including: (a) the inability to recoup research and development costs; (b) limited access to protection for intellectual property even where systems exist; (c) limited access to finance due to asymmetric information associated with financing technological investments; existing financial instruments do not provide incentives for technological shifts by MSMEs; (d) limited access to specialized skills needed for researching technology, and risk-taking with new technologies; (e) relatively higher costs for hardware and software, connectivity, and adaptation of information and communications technology to new business practices; and (f) absence of mechanisms to facilitate inter-firm collaboration that could otherwise promote innovation by speeding-up technology diffusion and avoiding the duplication of research costs."

These cost, finance, skill and collaboration issues are especially acute for women entrepreneurs, given the socio-cultural issues noted in previous chapters. In addition, the sectoral profile of women entrepreneurs demonstrates that women are in lower technology and knowledge-intensive sectors, which are characterized by high levels of competition and low levels of growth that are unattractive to traditional finance providers. If women entrepreneurs lack access to regular debt finance, it can be considered that their access to risk-taking capital will be even more constrained. Given these difficulties, and to implement a structural shift in the nature of women-owned businesses, the introduction of alternative financing options and ancillary support would be required; this links to the previous discussion related to the need for the introduction of grant funding at early stages of development to develop the necessary competencies for

innovating and to deal with the requirements of other finance providers as the enterprise grows beyond the need for grant funding.

Graduation of Women Entrepreneurs

If a program of support is to be successful, there should be a natural progression of women entrepreneurs from new entrant/early stage to graduation. The latter should occur when the businesses are considered sufficiently robust to further their own growth and development independently. At that point, they would be considered sustainable in terms of being able to access finance as well as other resources.

As programs such as WINC continue to embrace women entrepreneurs at varying levels of development (as long as they are predisposed towards growth and innovation), they will have an important function in encouraging their formalization and upward progression to more formal levels. Monitoring systems could be developed to track and report on this progress, as well as on the development and growth of enterprises from early stage fragility to sustainability. Such monitoring will not only spur future growth and graduation to more formal levels, it will also free up program resources for new entrepreneurs entering a program.

Refining Programming: WINC's Hybrid and Incubation "Lite" Approach

The findings of this assessment have been informative to WINC, and used as the basis for its programming decisions. The main findings of interest related to:

- The lack of growth-oriented and innovation women entrepreneurs in the region
- The constraints to business development
- The need to strengthen business support services
- The lack of networking opportunities.

While retaining its initial focus on growth-oriented and innovative women entrepreneurs in the region, WINC's programming approach was refined to address the particular idiosyncrasies of the region and its women entrepreneurs. The lessons learnt from this assessment oriented WINC to undertake a "hybrid approach," and to introduce an incubation "lite" approach.



Sharleen Chin (right) with Meiling Esau (designer of the MEILING brand) at The Gallery Berlin during Berlin Fashion Week, 2013

Overall, WINC aims to establish a support system for such women entrepreneurs and to provide them with methods, tools, and access to appropriate expertise so that they can innovate within their businesses, improve their competitiveness, and grow. Employing a so-called "hybrid approach," WINC now focuses in parallel on two types of clients, namely:

- EPIC "enablers" in the mobile and climate sectors—to support these entities by stimulating the pipeline of potential women entrepreneurs for EPIC's Caribbean Climate Innovation Center (CCIC) and Caribbean Mobile Innovation Program (CMIP) as well as to provide targeted support for CCIC and CMIP women entrepreneurs to grow their businesses, and, where relevant, to become more investable.
- Non-sector specific women entrepreneurs—to surface growth-oriented women entrepreneurs regardless of the sector in which they are operating, and to strengthen their capacity for growth.

In direct recognition of the numbers of women outside of the mobile and climate sectors, this dual focus permits WINC to identify high-potential women entrepreneurs in the region, regardless of sector, and strengthen their growth capacity. The latter is to be achieved through WINC's Acceleration Program (incubation "lite"), which is based on *infoDev's* previous experience in Asia during which growth-oriented women entrepreneurs were supported through an intensive process to identify growth targets, and develop and execute a growth plan.

Launching in 2015, WINC's Acceleration Program will provide a comprehensive suite of service

offerings including: facilitated peer-learning sessions, one-on-one coaching/mentoring sessions, technical workshops, self-actualization/personal development sessions, and motivational sessions by successful women entrepreneur role models. It is anticipated that various acceleration programs (APs) will run in parallel throughout the region. Each will seek to enroll up to 12 to 15 growth-oriented women entrepreneurs, competitively selected through an open call. They will be facilitated by *infoDev*-trained and certified facilitators, also competitively selected from across the region.

Seen as a primary entry point into the APs, WINC will continue to support the roll out of GyB workshops by its GyB trainers who, in their certification process, demonstrated knowledge of local business conditions as well as participant-centered training skills. Highly participatory in nature, these GyB workshops are designed to provide women entrepreneurs with an opportunity to reflect on and refine their businesses to include innovative processes and products for accelerated enterprise growth.

Also in keeping with the learnings from this assessment, WINC will continue to focus on fostering networks at the regional and international levels, including through its series of webinars (and possibly, virtual meet-ups) as well as using such channels as Facebook.

The program refinement adopted by WINC demonstrates the importance of having a clear understanding of the characteristics of a particular market, and how flexibility in program development can assist in the development of relevant, context-based interventions.

Conclusion

On the basis of the market size as well as the characteristics of the region's women entrepreneurs, there is a clear window of opportunity for donor support to provide targeted support to women entrepreneurs across the Caribbean. The recommendations to emerge from this assessment apply therefore to all future donor interventions in the Caribbean region which seek to promote economic growth through the development of women-owned businesses. Overall, these include: specifically

identifying target beneficiaries, target sectors, and geographical priorities, as well as providing the services most needed by women entrepreneurs.

Programs should adopt an inclusive approach and embrace both growth-oriented, innovative women entrepreneurs who are running technology-oriented and enabled businesses as well as those that demonstrate solid promise and potential in these areas. Such an inclusive and flexible approach was adopted by WINC based on the findings of this assessment exercise.

It is considered imperative that such programs seek specifically to expand women's involvement in sectors which are technology or knowledge-intensive and growing in the region. Using a demand-driven approach, programs should support women entrepreneurs in these sectors with enhanced access to resources (financial, human, physical capital, and social capital) so that they can expand beyond their national borders. Specific support to women entrepreneurs should be multi-faceted, including access to appropriate financing; relevant business-related training and peer learning sessions, business coaching and mentoring support; developing a regional business network for women entrepreneurs; access to business-related and market information; and strengthening innovation in women-owned firms.

To be most effective and therefore achieve greatest impact in the Caribbean, programs should aim to support and encourage the formalization and upward progression of women-owned businesses through to their graduation from external, subsidized, support. To this end, programs should simultaneously leverage existing relations and build new strategic partnerships with public and private sector entities similarly interested in promoting women entrepreneurs. Additionally, strong linkages should be fostered and maintained within a wider program of activities.

Programs which offer a comprehensive yet tailored package of services, which adopt a more holistic approach to the business environment, will be well positioned to assist such women entrepreneurs in the region to overcome the main constraints currently impacting their businesses and so grow their enterprises substantially.

Appendix 1:

Estimation Procedures and Background Data for Female Self-Employment in the Caribbean

The estimation of the number of women-owned businesses in the target countries was integral to the WINC assessment. To address this need, there were a number of data requirements including:

- Data on women in the labor market to estimate self-employment (first phase estimates)
- Data on innovative women-owned businesses (second phase estimates).

Labor market data on females in the region was used to provide first phase estimates. However, there were several data gaps identified, which necessitated estimation procedures to be employed. The second phase of estimates involved calculation of growth-oriented/innovative businesses based on World Bank Enterprise Surveys data related to use of technology and specific country data on self-employed women.

This appendix outlines the methodology and results for the calculation of estimates of women-owned businesses in the Caribbean. This step in the process is necessary to estimate the sub-group of women-owned businesses which are, or have the potential to be, growth-oriented and innovative, in relation to being either technology-oriented or technology-enabled with a focus on innovative technologies, processes, products, or businesses models.

Data Requirements and Sources for Estimation of Number of Female-Owned Businesses

The following tables outline the main data requirements for the calculation of estimates of female self-employment in the Caribbean. As the target is

female businesses that are growth oriented and/or innovative, the assumption is made that sole proprietors will not be involved in these types of businesses. Therefore, self-employed persons with no employees (also called own account workers) are not of concern to the estimates. The target estimate is therefore **female self-employed with employees** which will be used as a proxy for the number of female-owned businesses in the region. However, the number of employees these businesses employ is not available, nor is the status of these employees, whether part-time or full-time.

The first step in the process was to identify whether the target variable (female self-employed with employees) was available and for what countries. This procedure identified that this data was available for eight of the fourteen countries; the countries for which this data was not available were: The Bahamas, Belize, Dominica, Guyana, Suriname, and Montserrat.

The second element of the process was to identify the data that would be required to develop estimates of the target variable. These variables are detailed in the tables below. To ensure data comparability, the first target sources were World Development Indicators and the IMF World Economic Outlook Databases. For data missing from these data sources, the next target sources were country-specific data sources, specifically censuses of housing and population and labor force surveys. For all remaining missing data, Country Poverty Assessment (CPA) reports provided information on the profile of the labor market in the specific country. The following table details the target variables required to develop estimates of missing data, and data sources at the general level.

As table A-1 indicates, several variables were sourced from country-specific data sources with a



Photo: infoDev/World Bank Group

TABLE A-1: Variables and Sources for Most Recent Year Available

Country	Source
Population, Total	IMF Data for 2011 ^a For St. Lucia: Data from 2010 Census of Housing and Population For Montserrat: Data from Government of Montserrat ^b
Labor Force, Total	World Development Indicators for 2011 ^c For St. Lucia: Labor Force Survey for October 2012 For Montserrat: Estimated from ratios for St. Vincent and the Grenadines
Females in the Labor Force, Total	Country-Specific Data Source (See Table A2)
Females as percentage of Labor Force	Country-Specific Data Source (See Table A2)
Total Employment	Country-Specific Data Source (See Table A2)
Female Employment	Country-Specific Data Source (See Table A2)
Females as percentage of Total Employment	Country-Specific Data Source (See Table A2)
Self-Employment	Country-Specific Data Source (See Table A2) For Bahamas and Guyana (2011) World Development Indicators for 2011 ^c
Self-Employment without Employees	Country-Specific Data Source (See Table A2)
Self-Employment with Employees	Country-Specific Data Source (See Table A2)
Self-Employment (Percentage)	Country-Specific Data Source (See Table A2)
Self-Employment without Employees (Percentage)	Country-Specific Data Source (See Table A2)
Self-Employment with Employees (Percentage)	Country-Specific Data Source (See Table A2)
Female Self-Employment	Country-Specific Data Source (See Table A2)
Female Self-Employment without Employees	Country-Specific Data Source (See Table A2)
Female Self-Employment with Employees	Country-Specific Data Source (See Table A2)
Female Self-Employment (Percentage of Female Employment)	Country-Specific Data Source (See Table A2) For Bahamas (2011) World Development Indicators for 2011 ^c
Female Self-Employment without Employees (Percentage of Female Employment)	Country Specific Data Source (See Table A2)
Female Self-Employment with Employees (Percentage of Female Employment)	Country-Specific Data Source (See Table A2)
Female Self-Employment with Employees (Percentage of Total Employment)	Country-Specific Data Source (See Table A2)
Unemployment, Female (Percentage of Female Labor Force)	Country-Specific Data Source (See Table A2) For 2011 for The Bahamas, Barbados, Guyana and Jamaica from World Development Indicators for 2011 ^c
Self-Employment with Employees as Percentage of Total Self-Employment	Country-Specific Data Source (See Table A2)
Female Self-Employment with Employees as percentage of Total Female Self-Employment	Country-Specific Data Source (See Table A2)

^a <http://www.imf.org/external/pubs/ft/weo/2013/01/weodata/weorept.aspx?sy=2008&ey=2012&scsm=1&ssd=1&sort=country&ds=.&br=1&pr1.x=76&pr1.y=19&c=311%2C313%2C316%2C339%2C321%2C361%2C362%2C364%2C328%2C366%2C336%2C369%2C343&s=LUR%2CLP&grp=0&a=>

^b <http://www.gov.ms/wp-content/uploads/2011/02/Montserrat-At-A-Glance.pdf>

^c http://databank.worldbank.org/data/views/variableSelection/selectvariables.aspx?source=world-development-indicators#s_p

search hierarchy that commenced with the most robust sources as follows:

1. Censuses of Housing and Population conducted within the last three years
2. Labor Force Surveys conducted within the last three years
3. Most Recent Country Poverty Assessments/ Surveys of Living Conditions.

Although this hierarchy was employed, some countries had published more recent data from Labor Force Surveys, and this information was used instead of census data. As shown in the table below, census data was used for Barbados and St. Lucia. Labor force survey data was also used to complement St. Lucia data and for The Bahamas, Belize, Jamaica, and Trinidad and Tobago. For all other countries, country poverty assessment/ surveys of living conditions reports were used, dating from 2007 for Antigua and Barbuda to 2009 for Dominica and Montserrat.

Identification of Missing Variables and Calculation of Estimates

Following the collation of variables from the sources detailed in tables A-1 and A-2, critical data was missing for five countries: The Bahamas, Belize, Dominica, Guyana, Suriname, and Montserrat. The largest number of missing values was seen with Montserrat, 20 of 22 variables, with the lowest number being seen with The Bahamas, 11 of 22. The missing variables by country are shown in the table A-3.

Following the identification of missing variables, procedures were developed to provide estimates for these variables using proxy countries. The countries with missing data and the proxy country used are shown in table A-4 below with an indication of rationale for use of proxy country.

TABLE A-2: Country-Specific Data Sources for Variables by Country and Year

Country	Source	Location
Antigua and Barbuda	Country Poverty Assessment 2007	http://www.caribank.org/uploads/publications-reports/economics-statistics/country-poverty-assessment-reports/AntBarbCPAAAppendices.pdf
The Bahamas	Labor Force Report 2011	http://statistics.bahamas.gov.bs/download/086361700.pdf
Barbados	Census of Housing and Population 2010	http://www.barstats.gov.bb/files/documents/PHC_2010_Census_Volume_1.pdf
Belize	Labor Force Survey September 2012	http://statisticsbelize.org.bz/images/lfs%20summary%20findings%20sept%20%202012%20final.pdf
Dominica	Country Poverty Assessment 2009	http://www.caribank.org/uploads/2012/12/Dominica-CPA-Final-Tech-Statistical-Appendices-Submitted_.pdf
Grenada	Country Poverty Assessment 2008	http://www.caribank.org/uploads/publications-reports/economics-statistics/country-poverty-assessment-reports/Grenada+CPA+-+TechnicalStatisticalAppendicesfinal.pdf
Guyana	-	
Jamaica	Labor Force Survey October 2012	http://stinja.gov.jm/LaborForce/EmployedLaborForceByEmployedStats.aspx
St. Kitts and Nevis	Country Poverty Assessment 2008	http://www.caribank.org/uploads/publications-reports/economics-statistics/country-poverty-assessment-reports/St.Kitts+and+Nevis+CPA+-+Vol.+1+Final+Report.pdf
St. Lucia	Labor Force Survey 2012/Census of Housing and Population 2010	http://204.188.173.139:9090/stats/index.php/databases
St. Vincent and the Grenadines	Labor Market Information System data for 2008 drawn from Country Poverty Assessment 2008	http://www.carilaborstat.org/Reports/EmploymentReport.aspx
Suriname	-	-
Trinidad and Tobago	Labor Force Statistics 2012	http://www.cso.gov.tt/
Montserrat	Survey of Living Conditions 2009	http://www.caribank.org/uploads/2012/12/Montserrat-2009-vol-1_v7.pdf

TABLE A-3: Missing Variables by Country

Variables	The Bahamas	Belize	Dominica	Guyana	Suriname	Montserrat
Labor Force, Total						Missing
Females in the Labor Force, Total			Missing			Missing
Females as percentage of Labor Force			Missing			Missing
Total Employment				Missing	Missing	
Female Employment		Missing	Missing	Missing	Missing	Missing
Females as percentage of Total Employment		Missing	Missing	Missing	Missing	Missing
Self-Employment		Missing		Missing	Missing	Missing
Self-Employment without Employees	Missing	Missing		Missing	Missing	Missing
Self-Employment with Employees	Missing	Missing		Missing	Missing	Missing
Self-Employment (Percentage)					Missing	
Self-Employment without Employees (Percentage)	Missing	Missing		Missing	Missing	Missing
Self-Employment with Employees (Percentage)	Missing	Missing		Missing	Missing	Missing
Female Self-Employment		Missing	Missing	Missing	Missing	Missing
Female Self-Employment without Employees	Missing	Missing	Missing	Missing	Missing	Missing
Female Self-Employment with Employees	Missing	Missing	Missing	Missing	Missing	Missing
Female Self-Employment (Percentage of Female Employment)			Missing	Missing	Missing	Missing
Female Self-Employment without Employees (Percentage of Female Employment)	Missing	Missing	Missing	Missing	Missing	Missing
Female Self-Employment with Employees (Percentage of Female Employment)	Missing	Missing	Missing	Missing	Missing	Missing
Female Self-Employment with Employees (Percentage of Total Employment)	Missing	Missing	Missing	Missing	Missing	Missing
Unemployment, Female (Percentage of Female Labor Force)					Missing	Missing
Self-Employment with Employees as percentage of Total Self-Employment (Percentage)	Missing	Missing		Missing	Missing	Missing
Female Self-Employment with Employees as percentage of Total Female Self-Employment	Missing	Missing	Missing	Missing	Missing	Missing

TABLE A-4: Missing Data Countries, Proxy Countries, and Rationale for Proxy Country Selection

Country	Proxy	Rationale for Proxy Country Selection—Similarities Observed
The Bahamas	Barbados	Level of Development* Size of Labor Force Females as percentage of the Labor Force Self-Employment percentage Female Unemployment Rate Ease of Doing Business Ranking
Belize	St. Lucia	Level of Development* Self-Employment percentage Female Unemployment Rate
Dominica	Antigua and Barbuda	Size of the Labor Force Self-Employment percentage
Guyana	St. Vincent and the Grenadines	Level of Development* Females as percentage of the Labor Force Self-Employment percentage Female Unemployment Rate
Suriname	Belize	Level of Development* Size of the Labor Force Females as percentage of the Labor Force
Montserrat	St. Vincent and the Grenadines	Level of Development* Self-Employment percentage

* Level of Development as a measure in terms of More Developed Country (MDC), Less Developed Country (LDC) based on GDP per capita (constant \$). See also table A-5.

TABLE A-5: GDP per Capita (Constant \$) (2011) by Country to Assess Level of Development

Country	GDP per Capita (constant \$)	Level of Development Categorization
The Bahamas	22,353.85	More Developed Country
Trinidad and Tobago	17,822.60	More Developed Country
Barbados	15,554.35	More Developed Country
Antigua and Barbuda	12,837.75	More Developed Country
St. Kitts and Nevis	12,779.28	More Developed Country
Suriname	7,996.54	Less Developed Country
Grenada	7,431.76	Less Developed Country
St. Lucia	7,267.95	Less Developed Country
Dominica	6,736.62	Less Developed Country
St. Vincent and the Grenadines	6,308.30	Less Developed Country
Jamaica	5,391.44	Less Developed Country
Belize	4,317.91	Less Developed Country
Guyana	3,333.25	Less Developed Country

Methodology for Calculation of Estimates from Data for Proxy Country

Following the tabulation of existing data and the identification of proxy countries, the priority was to calculate level data such as number of females in the labor force, number of female self-employed, etc. However, to calculate these levels, percentage data was required. Where countries had missing percentage data, the ratio for the proxy country was used to further assist in these calculations. In some cases, there were percentage data for aggregate variables such as self-employment, but not for other underlying variables such as self-employed without employees and self-employed with employees. To obtain this data, the ratio for the underlying variables for the proxy country was used and applied to the aggregate variable to calculate the estimate for the underlying variable. An example of this is shown in table A-6.

This process was adopted for all missing variables of this kind. The calculation of these percentages then allowed for the calculation of estimates for

TABLE A-6: Example of Calculating Estimated Percentage Distributions

Variable	Barbados		The Bahamas	
	Available Data	Ratio to Female Self-Employment	Available Data	Estimated Data—Using Barbados Ratio
Female Self-Employment (%)	8.15	1.000	9.01	-
Female Self-Employment without Employees (%)	6.32	0.776	Missing	6.99*
Female Self-Employment with Employees (%)	1.83	0.224	Missing	2.02**

* 9.01×0.776 (Ratio for Barbados).

** 9.01×0.224 (Ratio for Barbados).

level data. However, some idiosyncrasies emerged in the missing data and these are noted below along with the approach used to address the issue.

- **Missing total labor force data for Montserrat:** Used Total Employment Data and applied ratio of Total Employment to Labor Force Total for proxy country to estimate Montserrat Labor Force Total.
- **Belize female employment** estimated based on percentage of females in the labor force as for all countries for which data was available, female employment as a percentage of total employment slightly less or approximately the same as percentage in the labor force
- **Guyana total employment** calculated using total labor force and unemployment rate of 10.7 percent (<http://www.stabroeknews.com/2011/archives/09/09/unemployment-rate-at-10-7-nadir/>). Guyana female employment calculated from females in the labor force and unemployment rate for females of 25.7 percent
- **Suriname employed labor force** estimated from unemployment rate of 9 percent (http://www.theodora.com/wfbcurrent/suriname/suriname_economy.html)
- **Suriname female employment** as percentage of total employment estimated from females as percentage of labor force. This was because for countries with data, female employment as percentage of total employment was either slightly less or the same as percentage of females in the labor force.

The application of these procedures resulted in the calculation of estimates of female self-employment with employees. The actual and estimated calculations are shown in the following subsection.

Actual and Estimated Labor Market Information for Females in the Caribbean

The main indicator of interest for the assessment related to the number of female-owned businesses in the Caribbean. From the actual and estimated data, the estimated number of female-owned businesses was 227,981. Of this, 203,830 had no employees and 24,153 had employees. The distribution by country is in keeping with the population size distribution. The detailed estimates are shown in the tables below in relation to levels and percentages.

As table A-7 and table A-8 demonstrate, female self-employed with employees as a share of total female employment ranges from 1.4 percent in Grenada to 4.1 percent in St. Lucia; overall averaging 2.1 percent. As a percentage of the employed population, this averages 0.97 percent, ranging from 0.45 percent in Guyana to 1.8 percent in St. Lucia.

TABLE A-7: Actual and Estimated Labor Market Data for the Caribbean (Numbers)

Country	All						Females					
	Population	Labor Force	(X) Employment	Self-Employment	Self-Employment, No Employees	Self-Employment with Employees	Labor Force	Employment	Self-Employment	Self-Employment, No Employees	(Y) Self-Employment with Employees	
ANT	88,000	39,943	38,481	4,887	3,359	1,528	21,341	20,496	1,696	1,190	506	
BAH	352,000	190,075	164,120	22,880	17,256	5,622	94,865	81,850	7,375	5,719	1,656	
BAR	278,000	116,207	106,241	15,167	11,440	3,727	57,179	52,578	4,285	3,323	962	
BEL	343,000	151,011	126,624	35,581	26,491	9,090	54,989	51,409	4,678	3,547	1,131	
DOM	71,293	32,630	28,083	8,764	7,207	1,757	17,434	14,958	1,237	8,69	369	
GREN	105,000	47,581	35,722	4,270	3,295	9,75	24,088	16,427	1,610	1,374	236	
GUY	775,000	299,189	267,176	45,153	34,602	10,550	105,075	78,071	11,943	10,742	1,201	
JAM	2,752,000	1,283,900	1,106,500	431,900	398,200	33,700	578,200	470,600	149,300	139,100	10,200	
SKN	57,000	26,779	25,289	3,227	2,158	1,069	14,026	13,249	1,207	865	342	
SLU	172,363	94,606	67,723	16,248	12,097	4,151	44,868	30,346	5,121	3,883	1,238	
SVG	110,000	54,219	37,646	7,494	5,441	1,659	22,289	16,127	2,467	2,219	248	
SUR	546,000	207,142	188,499	52,968	39,436	13,532	77,326	70,362	6,403	4,855	1,548	
TT	1,329,000	698,723	596,800	111,800	87,600	24,200	295,071	244,600	30,500	26,000	4,500	
MONT	4922	3,506	2,434	462	354	108	1,502	1,043	160	143	16	
Total	6,983,578	3,245,512	2,791,338	761,002	648,937	111,669	1,408,252	1,162,116	227,981	203,830	24,153	

TABLE A-8: Actual and Estimated Labor Market Data for the Caribbean (Percentage)

Country	All					Females						
	(1) Self- Employment (%)	Self- Employment, No Employees (%)	(2) Self- Employment with Employees (%)	Ratio of (1) to (2)	Labor Force	(3) Total Employment	(4) Self- Employment	Self- Employment No Employees	(5) Self- Employment with Employees	Ratio of (Y) to (X)*	Unemployment	Ratio of (5) to (4)
ANT	12.50	8.70	3.80	30.40	53.43	53.26	8.27	5.81	2.47	1.31	3.96	29.87
BAH	13.94	10.51	3.43	24.57	48.35	49.87	9.01	6.99	2.02	1.01	13.70	22.45
BAR	14.28	10.77	3.51	24.57	49.20	49.49	8.15	6.32	1.83	0.91	12.50	22.45
BEL	28.10	20.92	7.18	25.55	40.60	40.60	9.10	6.90	2.20	0.89	20.00	24.17
DOM	32.00	25.70	6.30	19.69	53.43	53.26	8.27	5.81	2.47	1.32	17.60	29.87
GREN	11.95	9.22	2.73	22.83	50.60	45.99	9.80	8.36	1.44	0.66	31.80	14.66
GUY	16.90	12.95	3.95	23.37	35.12	29.22	15.30	13.76	1.54	0.45	25.70	10.05
JAM	39.03	35.99	3.05	7.81	45.04	43.25	33.20	29.56	2.17	0.92	17.20	6.54
SKN	12.10	8.10	4.00	33.06	52.38	52.39	8.60	6.20	2.40	1.35	5.54	27.91
SLU	23.99	17.86	6.13	25.55	47.43	44.81	16.88	12.80	4.08	1.83	23.60	24.17
SVG	18.86	14.45	4.41	22.14	41.11	42.84	15.30	13.76	1.54	0.66	26.20	10.05
SUR	28.10	20.92	7.18	25.55	37.33	37.33	9.10	6.90	2.20	0.82	9.01	24.17
TT	18.73	14.68	4.05	21.65	42.23	40.99	12.47	10.63	1.84	0.75	6.60	14.75
MONT	19.00	14.56	4.44	23.37	42.84	42.84	15.30	13.76	1.54	0.66	30.57	10.05
Average	20.68	16.10	4.58	23.58	45.65	44.72	12.77	10.54	2.12	0.97	17.43	19.37

* X and Y from column 4 and column 12 of table A-7.

Appendix 2:

Sectoral Distribution of Caribbean Enterprises

TABLE A-9: Sectoral Distribution of Full Sample, Enterprises with Females Involved in Ownership and Sole Female Owners (Percentage)

ISIC	Description	No Female in Ownership	Sole Female Owner	Female in Ownership
52	Retail trade, except of motor vehicles and motorcycles; repair of personal and household goods	20.67	34.83	26.81
55	Hotels and restaurants	13.86	20.72	19.19
15	Manufacture of food products and beverages	9.89	10.21	13.25
45	Construction	8.01	5.11	6.73
63	Supporting and auxiliary transport activities; activities of travel agencies	6.37	4.50	4.06
51	Wholesale trade and commission trade, except of motor vehicles and motorcycles	5.09	4.20	3.76
50	Sale, maintenance and repair of motor vehicles and motorcycles; retail sale of automotive fuel	5.02	3.90	3.76
18	Manufacture of wearing apparel; dressing and dyeing of fur	1.50	3.60	2.77
36	Manufacture of furniture; manufacturing n.e.c.	4.27	3.30	3.56
24	Manufacture of chemicals and chemical products	2.85	1.80	2.27
22	Publishing, printing, and reproduction of recorded media	3.52	1.50	3.26
26	Manufacture of other non-metallic mineral products	3.00	1.20	1.58
72	Computer and related activities	1.87	1.20	1.58
17	Manufacture of textiles	0.15	0.60	0.30
25	Manufacture of rubber and plastics products	1.12	0.60	0.89
28	Manufacture of fabricated metal products, except machinery and equipment	2.32	0.60	0.69
31	Manufacture of electrical machinery and apparatus n.e.c.	0.75	0.60	0.89
64	Post and telecommunications	1.05	0.30	0.59
60	Land transport; transport via pipelines	2.02	0.30	0.49
19	Tanning and dressing of leather; manufacture of luggage, handbags saddlery, harness and footwear	0.22	0.30	0.30
27	Manufacture of basic metals	0.37	0.30	0.30
62	Air transport	0.30	0.30	0.30
21	Manufacture of paper and paper products	0.90	0.00	0.40
29	Manufacture of machinery and equipment n.e.c.	0.30	0.00	0.30
34	Manufacture of motor vehicles, trailers, and semi-trailers	0.15	0.00	0.30
61	Water transport	0.67	0.00	0.30

Note: Bold entries represent 69 percent of Caribbean enterprises; 83 percent of enterprises with a sole female owner; and 78 percent of enterprises with at least one female owner.



Audrey Brown making backdrop for usage at a Town Hall Meeting for persons to discuss their views on the state of Jamaica, 2015

Photo: Le Bebidas, Jamaica

TABLE A-9: Sectoral Distribution of Full Sample, Enterprises with Females Involved in Ownership and Sole Female Owners (Percentage) (continued)

ISIC	Description	No Female in Ownership	Sole Female Owner	Female in Ownership
32	Manufacture of radio, television and communication equipment, and apparatus	0.07	0.00	0.10
33	Manufacture of medical, precision and optical instruments, watches and clocks	0.37	0.00	0.10
35	Manufacture of other transport equipment	0.60	0.00	0.10
74	Other business activities	0.07	0.00	0.10
16	Manufacture of tobacco products	0.22	0.00	0.00
23	Manufacture of coke, refined petroleum products, and nuclear fuel	0.15	0.00	0.00
37	Recycling	0.22	0.00	0.00
20	Manufacture of wood and of products of wood and cork, except furniture; manufacture of articles of straw and plaiting materials	2.02	0.00	0.99
	TOTAL	100	100	100
	Number	1,335	333	1,016

Source: Enterprise Surveys.

References

- Barriteau, E. 2001. *The Political Economy of Gender in the Twentieth-Century Caribbean*, Palgrave. http://www.untag-smd.ac.id/files/Perpustakaan_Digital_2/POLITICAL%20ECONOMY%20The%20political%20economy%20of%20gender%20in%20the%20twentieth-century%20Caribbean.pdf
- Barriteau, V. E. 2002. "Women Entrepreneurs and Economic Marginality: Rethinking Caribbean Women's Economic Relations." In: *Gendered Realities: Essays in Caribbean Feminist Thought*, ed. Patricia Mohammed. UWI Press: Barbados.
- Broadband Commission. 2013. *The State of Broadband 2013: Universalizing Broadband*. The Broadband Commission (ITU/UNESCO): New York. <http://www.broadbandcommission.org/documents/bb-annualreport2013.pdf>
- Broadband Commission. 2014. *The State of Broadband 2014: Broadband for All*. The Broadband Commission (ITU/UNESCO): New York. <http://www.broadbandcommission.org/documents/reports/bb-annualreport2014.pdf> and <http://www.itu.int/en/ITU-D/Statistics/Pages/stat/default.aspx>
- Bruni, A., Gherardi, S. and Poggio, B. 2004. "Doing Gender, Doing Entrepreneurship: An Ethnographic Account of Intertwined Practices." *Gender, Work and Organisation* 11:4.
- Brush, C. 1992. "Research on women business owners: past trends, a new perspective, and future directions." *Entrepreneurship Theory and Practice* 16:4.
- CALC (Country Assessment of Living Conditions). 2012. *Barbados Country Assessment of Living Conditions*. Caribbean Development Bank/Government of Barbados: Barbados.
- CDB (Caribbean Development Bank). 2012. *Draft Private Sector Strategy*. http://www.caribank.org/uploads/2012/05/SDF8_2_NM_6_CDB_DraftPrivateSectorStrategy.pdf
- CIA (Central Intelligence Agency). 2014. *The World Factbook*. <https://www.cia.gov/library/publications/the-world-factbook/geos/mh.html>
- Compete Caribbean. 2013. Interviews conducted with stakeholders to explore the Caribbean Entrepreneurial Ecosystem. Shared by Inter-American Development Bank/Compete Caribbean Knowledge Management team, February 2013. Christ Church, Barbados.
- Cornell University, INSEAD, and WIPO. 2013. *The Global Innovation Index 2013: The Local Dynamics of Innovation*. Geneva, Ithaca, and Fontainebleau. <http://www.globalinnovationindex.org>
- Cromie, S. 1987. "Motivations of aspiring male and female entrepreneurs." *Journal of Occupational Behaviour* 8.
- Demircug-Kunt, A. and Klapper, L. 2012. *Measuring Financial Inclusion: The Global Findex Database*. The World Bank's Finance and Private Sector Development Team, Development Research Group.
- Demircug-Kunt, A., Klapper, L. and Singer, D. 2013. *Financial Inclusion and Legal Discrimination Against Women: Evidence from Developing Countries*. The World Bank's Finance and Private Sector Development Team, Development Research Group.
- Dunn, H., Williams, R., Thomas, M. and Brown, A. 2011. *Caribbean Broadband and ICT Indicators Survey: Jamaica Report*. Telecommunications Policy and Management (TPM) Program, Mona School of Business, University of the West Indies: Jamaica.
- GEM (Global Entrepreneurship Monitor). 2012. <http://www.gemconsortium.org/docs/download/2645>
- Hackett, S. M. and Dilts, D. M. 2004. "A systematic review of business incubation research." *Journal of Technology Transfer* 29:55-82.
- infoDev. 2012. *Caribbean Incubation Needs Assessment and Feasibility Study for the Entrepreneurship Program for Innovation in the Caribbean*. infoDev, Finance and Private Sector Development Department, The World Bank: Washington, D.C.



Shirley Lindo, a Jamaican clean energy entrepreneur, supported by the Caribbean Climate Innovation Center

Photo: infoDev/World Bank Group

_____. 2013a. *Crowdfunding's Potential for the Developing World*. infoDev, Finance and Private Sector Development Department, The World Bank: Washington, D.C.

_____. 2013b. *Diaspora Investing—The Business and Investment Interests of the Caribbean Diaspora*. infoDev, Finance and Private Sector Development Department, The World Bank: Washington, D.C. License: Creative Commons Attribution CC BY 3.0.

_____. 2013c. *Grow your Business Workshops: Training-of-Trainers (ToT) and Women Entrepreneurs, Barbados & Jamaica—Final Report and Case Studies*. (Internal) infoDev, Finance and Private Sector Development Department, The World Bank: Washington, D.C.

IDB (Inter-American Development Bank). 2012. *Banks and SMEs: Raising the Game. Fourth Regional Survey in Latin America and the Caribbean 2011*. Conducted by IDB Group's MIF, the beyondBanking program of the department of Corporate and Structured Financing (SCF), and the Inter-American Investment Corporation (IIC), along with the Latin American Banking Federation (FELABAN). <http://www10.iadb.org/intal/intalcdi/PE/2012/10199en.pdf>

_____. 2014. *WEGrow: Unlocking the Growth Potential of Women Entrepreneurs in Latin America and the Caribbean*. Inter-American Development Bank: Washington, D.C.

ITU (International Telecommunication Union). 2012. *A bright future in ICTs. Opportunities for a new generation of women*. http://girlsiniect.org/sites/default/files/pages/itu_bright_future_for_women_in_ict-english.pdf

_____. 2013. *Measuring the Information Society 2013*. International Telecommunication Union: Geneva.

_____. 2014. *Measuring the Information Society 2014*. International Telecommunication Union: Geneva. http://www.itu.int/en/ITU-D/Statistics/Documents/publications/mis2014/MIS2014_without_Annex_4.pdf

_____. 2014b. ITU World Telecommunication/ICT Indicators Database: <http://www.itu.int/en/ITU-D/Statistics/Pages/stat/default.aspx>

Kelley, D. J., Brush, C. G., Greene, P. G., Litovsky, Y. and Global Entrepreneurship Research Association (GERA) (2013). *Global Entrepreneurship Monitor 2012 Women's Report*.

Lashley, J. 2008. *Entrepreneurship and Economic Growth: A Development Stage Approach*, SALISES Working Paper Series No.2/2008. Barbados: SALISES, University of the West Indies.

_____. 2009. *Scoping Studies of Gender and Enterprise Development in the Caribbean: Volumes I and II*. Prepared for the Department for International Development Caribbean (DFIDC), March 2009. Barbados.

_____. 2010. "Nascent Female Entrepreneurs in Barbados: Attitudes and Intentions." *Social and Economic Studies* 59(3):59-95.

_____. 2012. "Economics, Entrepreneurship and Gender: Integrating the "Others" into Enterprise Development Strategies." In: Barriteau, V. E. (Ed.). 2012. *Love and Power: Caribbean Discourses on Gender* (pp. 258-285). University of the West Indies Press: Kingston, Jamaica.

Lederman, D., Messina, J., Pienknagura, S. and Rigolini. 2014. *Latin American Entrepreneurs: Many Firms but Little Innovation*. The World Bank: Washington, D.C.

Lodge, J. 2008. *CARIFORUM EPA Negotiations: An Initial Reflection*. Caribbean Regional Negotiating Machinery: Barbados.

Mirchandani, K. 1999. "Feminist Insight on Gendered Work: New Directions in Research on Women and Entrepreneurship." *Gender, Work and Organisation* 6:4.

Nicholson, L. and Garvey, M. 2006. *Survey of Family-Owned and Women-Owned Businesses*. Mona School of Business: Jamaica.

Schumpeter, J. 1934. *The Theory of Economic Development*. Harvard University Press: Massachusetts.

Shane, S. and Venkataraman, S. 2000. "The Promise of Entrepreneurship as a Field of Research." *Academy of Management Review* 25:(1):217-226.

UWI (University of the West Indies). 2013. *UWI Annual Report 2011/2012: Vice Chancellor's Report to Council*. University of the West Indies, Mona Campus: Jamaica. <http://www.uwi.edu/main/documents/annualreports/Vice%20Chancellor's%20Report%20to%20Council%202011%20-%202012.pdf>

Wennekers, S. and Thurik, R. 1999. "Linking Entrepreneurship and Economic Growth." *Small Business Economics* 13.

World Bank. 2013a. *Women, Business and the Law 2014: Removing restrictions to enhance gender equality (Key findings)*. The World Bank: Washington, D.C.

Nadaline Cummings Barbados sorting e-waste at processing facility, Codrington Hill in Barbados, 2014

Photo: Caribbean E-Waste Management Inc.



